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18 SEP 1939
TROPICAL DISEASE

CITY OF DUNDEE

REPORT

OF THE

MEDICAL OFFICER OF HEALTH

FOR THE

YEAR ENDING 31ST DECEMBER, 1938

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Public Health Department,
Dundee, September, 1939.

The Lord Provost, Magistrates and
Town Councillors of the City of Dundee.

Mesdames and Gentlemen,

I have the honour to submit the Annual Report of the Public Health Department for the year 1938.

The opportunity is taken to thank all my colleagues in the Department and all members of the staff for their loyal co-operation and assistance throughout the year.

I am,

Your obedient Servant.

W. R. Burgess.

Medical Officer of Health.

Summary of Vital Statistics.

The following is a summary of the principal statistics for the years 1936, 1937 and 1938 :—

	1936.	1937.	1938.
Population	178,692	177,711	177,960
Number of Deaths (corrected)	2,526	2,672	2,441
Death-rate per 1,000 Population (corrected) ...	14.1	15·0	13·7
Deaths of Infants under 1 year	256	272	242
Infantile Death-rate per 1,000 Births ...	81	87	77
Marriage-rate per 1,000 Population	8·2	8·6	7·9
Number of Births registered (corrected) ...	3,171	3,125	3,124
Birth-rate per 1,000 Population	17.7	17·6	17·6
Illegitimate Birth-rate per 100 Births ...	6.7	5·9	6·0
Number of Deaths from Pulmonary Tuberculosis	107	102	111
Death-rate per 1,000 from Pulmonary Tuberculosis	·60	·57	·62
Death-rate from all forms of Tuberculosis ...	·82	·82	·82
Death-rate from the Principal Epidemic Diseases	·57	1·06	·66
Deaths from Enteric Fever	0	0	3

Annual Report—1938

For reasons known to everyone, conditions in the country generally were very unsettled during the year 1938, and the public health services shared in the general disturbance. The additional work imposed on this Department by reason of air raid precautions made it very difficult to maintain efficiency, and it was not possible to proceed with new activities at the rate one would have liked. Nevertheless by working extra time in the evenings and on Sundays, the staff succeeded in maintaining and to some extent developing the health services. So far as one can judge by figures, the year was a healthy one for the City of Dundee—much more healthy than the immediately preceding years.

The general death-rate was 13.7 per 1,000 population, compared with 15.0 in 1937, and 14.1 in 1936. The Registrar-General estimated a slight increase in population from 177,711 in 1937 to 177,960 at the middle of 1938. The actual number of deaths allocated to Dundee was 2,441, compared to 2,672 in 1937. All ages, except the 5 to 10 years age group, shared in the decline, and except in April, May and October there was a fall every month compared with the corresponding months in the previous year.

While there was a decline in the number of deaths from whooping cough, influenza and pneumonia, which in 1937 bulked largely in the list of causes of death, there was an increase in the number of deaths due to measles, from one in 1937 to 71 in 1938. The epidemic of this disease was at its height in the spring months of the year and was responsible for the high general death-rates during April and May. The general death-rate for the whole of Scotland was 12.6 per 1,000, and for the large burghs 12.8 per 1,000.

The infantile death-rate was 77 per 1,000 births compared with 87 in 1937 and 81 in 1936. The rate for the whole of Scotland was 70, and for the large burghs taken together 77 per 1,000 births. The decline in the Dundee figure for 1938 over that of 1937 was due to the fact that in the latter year there was an outbreak of

whooping cough which caused 24 deaths among infants of less than one year. In 1938 there were only 3 such deaths. There was also a fall in the infant deaths due to pneumonia from 72 in 1937 to 56 in 1938. On the other hand, measles accounted for 17 infant deaths last year, while not a single death was certified as due to this cause in 1937. Infantile mortality was below the average for the City in Wards 5, 7, 8, 10 and 11, and above the average in Wards 1, 2, 3, 4, 6, 9 and 12. The neo-natal death-rate was 39 per 1,000. This is just over half the infantile death-rate.

There were 317 deaths certified as due to malignant disease, giving a rate of 17.81 per 1,000 population. In 1937 the figures were 307 and 17.28.

The death-rate from all forms of tuberculosis was .82 per 1,000 population—exactly the same rate which prevailed in both 1937 and 1936. The pulmonary tuberculosis death-rate was .62 per 1,000 compared with .57 per 1,000 in 1937. There was, however, a decline in the number of deaths and in the death-rate from the non-pulmonary forms of tuberculosis.

The maternal mortality rate was 5.8 per 1,000 registered births, compared with 5.12 in 1937. The actual number of maternal deaths was 18, 10 of which were certified as being due to sepsis.

The death-rate from the principal epidemic diseases was .66 per 1,000 population, compared with 1.06 in 1937, and .57 in 1936. Measles accounted for 71 of the deaths certified last year as due to epidemic disease.

The birth-rate during 1938 was 17.6 per 1,000 population, the same figure as for 1937.

Medical Services.

Reference was made in my last annual report to the coming into operation on 4th April, 1938, of the National Health Insurance (Juvenile Contributors and Young Persons) Act, 1937, which entitles boys and girls insurably employed under the age of 16 to medical benefit in the same way as other insured persons. This Act partially fills one of the gaps in the medical services, but many other developments are necessary before these services can be said to be complete. The recognition of periodic medical inspection as an important preventive measure is slow in developing, but the proportion of the population which for various reasons is subjected

to routine medical inspection is undoubtedly growing. The school medical services illustrate its application in the most organised form, and it is one of the main objects in the ante-natal, infant and pre-school medical service. Contacts of infectious disease, particularly of tuberculosis, are important subjects for regular medical supervision, but the general medical practitioner finds it very difficult to pay special attention to such contacts because the public outlook is still not sufficiently developed in its appreciation of the importance of the medical examination of presumably healthy persons. Other sections of the population, such as young industrial workers and persons taking out life insurance policies may have revealed to them the presence of disease conditions, the existence of which they were unaware, because of the absence of subjective symptoms. Speaking purely from the standpoint of the public health official, one feels inclined to welcome the Military Training Act, passed this year, because it will ensure a thorough overhaul of every young man in his twenty-first year. No doubt during their period of training, any minor defects discovered in these young men will be rectified, and it is hoped that the medical personnel of the examining boards will advise examinees who are rejected on account of physical unfitness as to the steps they should take to obtain medical advice. The Local Government Superannuation (Scotland) Act, 1937, which came into operation in May of this year has resulted in an increasing number of persons employed or hoping to be employed in the local government service having to be medically examined. These examinations are carried out by medical officers of this Department in a very careful fashion, and advice is given to those showing defects regarding the steps they should take to have the defects seen to while there is still a chance of the appropriate remedy meeting with success.

In the following notes, each service for which this Department is responsible is dealt with separately.

Maternity Services.

The new maternity unit at Maryfield Hospital was opened in May, 1938, and the number of births which took place there up to the end of 1938 was 130. There were 56 between January and May, so that the total for the year was 186. This number will be greatly exceeded during 1939—indeed, during the first half of this year there were 180 births. These figures prove the need for the maternity unit. Many of the patients were sent to us from the Maternity Department of the Dundee Royal Infirmary, and I am assured by the Medical Superintendent that he is glad to know

that when demands for his accommodation exceed that available, he can transfer patients to Maryfield Hospital.

Dr R. C. Buist, who for many years had charge of the maternity work at Maryfield Hospital, died in February of this year. He had given devoted service to the Institution and will be greatly missed. Dr Buist was succeeded by Mr A. E. Chisholm, F.R.C.S., who was appointed under revised conditions, and who took up duty on 1st March, 1939.

The administration of the Maternity Services (Scotland) Act, 1937, was commented upon in some detail in last year's annual report and in various special reports. Progress has been slow for many reasons, not the least of which is the unsettled state of the country. The Corporation have, however, agreed as to the arrangements which they propose to make in terms of Section 1 of the Act, and these are now awaiting approval by the Department of Health for Scotland.

Several midwives in private practice in the City have intimated their intention to retire in terms of Section 4 of the Maternity Services (Scotland) Act, 1937.

The facilities for the ante-natal care in Dundee are improving. Apart from the clinics held at the Dundee Royal Infirmary and the ante-natal clinic held once weekly at the principal child welfare centre, the clinic at Ancrum Road child welfare centre is now in charge of an obstetrician — Mr A. E. Chisholm. At Maryfield Hospital, ante-natal clinics are held on three mornings each week. There pregnant women may attend on their own initiative or on the advice of their own doctors or midwives. These services are being taken advantage of, and the number of women in Dundee who do not receive any ante-natal supervision must be very small. The service is perhaps not yet as well organised as we hope that it will be when the Maternity Services (Scotland) Act is in full operation, but there is no doubt that the provision of the facilities has gone a long way towards the creation of the demand.

Infant Welfare.

Infant Welfare work has been carried on as usual throughout the year. On the whole, the clinic system so far as premises are concerned is satisfactory except in the northern district. Plans, however, have been completed for a new clinic at King's Cross Hospital and it is hoped that it will be nearing completion by the time the next annual report is due.

At the moment there is under consideration the provision of milk at reduced rates to infants, children under five years of age, and to expectant and nursing mothers. This has been made possible by the Scottish Milk Marketing Board undertaking to supply local authorities with milk at reduced prices for this purpose. Such a scheme has a very important bearing on the health of infants and children, and it is hoped that it will be in operation at an early date. The Public Health Committee have considered the matter and have asked for further information from the City Chamberlain and the Medical Officer of Health.

Pre School and School Services.

A very full account of the work done under this heading is contained in the excellent report by Dr. Cuthbert, Depute Medical Officer of Health, Pre-school and School Medical Services, included in this volume. The form of his report is very much improved on previous years, and follows the lines recommended by the Department of Health for Scotland in their efforts to introduce a uniform system of reporting throughout Scotland. Uniformity in reporting is desirable for purposes of comparison and also to enable progress to be more accurately measured. Unfortunately the report year for school medical services is the school year and not the calendar year, and the period covered by Dr. Cuthbert is the year ended 31st July, 1939. As stated in last year's annual report, the system of records has been altered and a general description of the new system is given by Dr. Cuthbert. It is unnecessary to enlarge on Dr. Cuthbert's report, but the attention of the Corporation is directed to the many suggestions contained in it. Comments are made regarding the provision of meals, the need for the extension of the dental services, the provision of an audiometer, and the appointment of a speech therapist. It is also pointed out that during the next school year, it will be necessary to hold an additional weekly session of the refraction clinic. The increasing demands on Fairmuir Special School are also referred to as is also the need for additional nursery schools and nursery classes for pre-school children.

Orthoptic Clinic.

The Orthoptic Training Centre was opened at the Public Health Institute on 17th April of this year, when Miss Catherine Kinnear took up duty as orthoptic trainer. Miss Kinnear will be very busy as a large number of children have been awaiting her attention for a considerable time.

Tuberculosis Services.

As a result of the joint report on sanatorium services issued by the Tuberculosis Medical Officer and myself, the Corporation decided in March of the present year to instruct the City Architect to submit plans for new pavilions at Ashludie Sanatorium to accommodate 60 patients, along with the necessary offices. Negotiations are proceeding with the County Council of Angus with a view to accommodation being provided at Ashludie for certain cases from the County in exchange for provision being made at Noranside Sanatorium for patients from Dundee. It is felt that the facilities available at Ashludie for operative and plaster work might be sufficient to meet the needs of both the City and the County, and thus effect a certain economy in both areas.

Dr Hunter in his report, included in this volume, makes a plea for the appointment of a medical superintendent. There is no doubt that an enlarged Ashludie will require a whole-time resident medical superintendent, and the extensions should provide for the erection of a house for such an official.

Additional sanatorium accommodation is urgently necessary. The waiting list is steadily growing and the waiting time is getting longer as time goes on. The need for the early recognition of the presence of tuberculosis is emphasised by all authorities, but in Dundee, even when an early diagnosis has been established, a patient may have to wait a considerable time before sanatorium treatment can be provided for him.

Notification has been received by the Corporation that Ashludie Sanatorium will be used for the treatment of casualties should an emergency occur. It is proposed to alter the existing buildings to enable a larger number of patients being treated and to erect huts. No information has yet been received as to where the tuberculosis patients are to be treated.

No comments are necessary regarding the work of the Tuberculosis Dispensary in the Public Health Institute. Details are contained in Dr Hunter's section of this report. It will be noted that 184 contacts were examined, and that of these 4 were found to be suffering from pulmonary tuberculosis and 57 were suspected. This preventive measure requires to be more generally applied, but it is very difficult to persuade contacts to submit regularly to routine medical inspection. In 1937, 251 contacts were examined.

Tuberculosis is now being considered as a factor in overcrowding, and houses are being allotted in the Linlathen scheme to tuberculosis families recommended by the Tuberculosis Medical Officer.

Venereal disease work is carried out mainly in a special section of the Public Health Institute. The accommodation there is quite sufficient, and beds are always available in King's Cross Hospital and Maryfield Hospital for those patients requiring indoor treatment. Venereal Diseases Services.

Dr Keay, the Special Medical Officer, Venereal Diseases Scheme, is continuing his investigation into the value of the routine Wassermann test in pregnant women as a means of control of congenital syphilis. His report, which forms part of this book, describes his experience in this connection during the year, and the information which he gives certainly suggests that the routine procedure is not only desirable but necessary. The percentage of positive Wassermanns in ante-natal cases is very high, but a single positive Wassermann is not accepted as indicating the presence of disease and the need for treatment. As time goes on one will naturally expect the percentage of reactors to fall considerably.

A marked change in the treatment of gonorrhœa has been brought about by the use of chemo-therapy, and Dr Keay includes in his report some interesting comments on the success which has attended the employment of a particular preparation. He records that the use of this remedy resulted in bacteriological cure within a week of 90% of the cases and that no complications arose in patients so treated from the outset. As a consequence, there has been a marked fall in the total attendance figures for gonnorrhœal infections. If further experience confirms these results, one must conclude that tremendous progress has been made. At the same time we must keep in mind the possible danger that these new drugs may be abused if they are available to unskilled persons. They are valuable when used with knowledge, but otherwise they are dangerous.

Included in this volume is a very excellent report by Dr A. Allan Bell, Medical Superintendent, Dundee Mental Hospital. It is so informative that it is quite unnecessary for me to make any comment except to direct the attention of members of the Corporation to the many constructive suggestions made by Dr Bell. He relates not only what has been done during the year under review in the interests of both patients and staff, but makes numerous suggestions as to what still requires to be done at Dundee Mental Hospital. His comments on the need for a trained psychiatric social worker and for an outdoor psychiatric clinic for the treat- Mental Health Services.

ment of so-called border-line cases and for the early diagnosis of conditions of a more severe nature are particularly important.

Dr Bell's report provides sufficient evidence that the patients under his charge at the Hospital are in safe hands.

King's Cross Hospital.

The plans for the extensions and alterations at King's Cross Hospital have recently been approved, and the working drawings are now in course of preparation. The time taken to put into operation a decision of the Corporation which involves building is rather long. The Town Council agreed in December, 1936, to extend the Hospital, and probably a considerable time will elapse before the work is completed. King's Cross Hospital must be considered as out-of-date so long as it does not possess cubicle wards, and I hope that a special effort will be made to get on with the extensions as quickly as possible. Any one who is actively engaged in the work can appreciate the difficulties of running an infectious diseases hospital which is not very modern. Such difficulties have been aggravated in recent years because of the need to make provision for puerperal fever, puerperal pyrexia, measles, whooping cough, dysentery, etc. In the old days the cubicle pavilion was not such an important matter as only a narrow range of diseases was dealt with in fever hospitals. The limited accommodation for staff causes further embarrassment and is another reason for the matter being considered as one of special urgency. It was thought when I commented on the situation in the annual report for 1937 that it would be possible to record in the annual report for 1938 that the work was in progress. Unfortunately that is not possible, and I can only express the hope that next year it will be possible to say that very definite progress has been made.

During the spring of the year there were fairly extensive outbreaks of measles and german measles. Since then the Hospital has been very quiet so far as numbers are concerned, but the usual variety of cases has had to be isolated under conditions which as explained in the preceding paragraph are very difficult owing to the lack of cubicle accommodation.

Miss Clark, Matron of the Hospital since 1909, retired in January of this year after thirty years' excellent service. She was succeeded by Miss Amelia Bruce, who was Assistant Matron for some time.

Details of the work done are contained in a separate section of this report.

The north block containing the maternity unit and the children's section was opened in May of this year, and has been fully occupied ever since. Maryfield Hospital.

The work on the remaining sections of the nurses' home is well advanced, and the new ante-natal unit is also in course of construction. The working drawings are being prepared for the operating theatre and for the extensive alterations which have to be carried out in the main buildings.

Perhaps the most urgent requirement for the Hospital is the provision of an X-ray installation. This must, however, be preceded by the appointment of a radiologist, who will advise as to the installation and take charge of it when in operation. Two X-Ray units will be necessary—one, a fixed unit in what is to be the X-Ray room, and a portable unit for use in the wards.

The year's work is commented on by Dr Macdonald in his section of this report.

Since 1936 seven general practitioners in the City have rendered domiciliary medical attention to the sick poor in their capacity as part time officers of my Department. I have previously commented in these reports on the volume of work falling to these doctors and a new peak of attendances was reached this year when the number rose from 10,351 (1937) to 11,243. At their meeting in August the Public Assistance Committee decided not to take action in the matter of increasing the panel of out-door medical officers. In my view, additional doctors are urgently required. Medical Attendance on Sick Poor.

In July Dr T. F. Black was appointed to fill the vacancy created by the resignation of Dr G. I. Henderson, and in December Dr R. Scott Stewart succeeded Dr D. S. Anderson, who also resigned. These two doctors had been on the staff roughly a year, and I understand had found their duties much more onerous than they anticipated.

In addition to domiciliary work, out-door practitioners in rotation take spells of duty daily at the Public Assistance Department where applicants for assistance are examined. 2,771 applications for medical relief were made by 2,410 men and 361 women on behalf of themselves and their families. 2,284 applicants had wives, and dependent on the total there were 7,591 children.

Each day the resident doctors at Maryfield Hospital visit and prescribe for ailing inmates at the East House, and in the mornings and evenings a nurse is detailed to apply dressings and give out medicines. Dr Macdonald reports that over the year 122 male and 86 female inmates required removal to Maryfield Hospital for the treatment of illnesses discovered by the visiting doctors.

Care of Aged and Infirm.

The Public Assistance Department and the Public Health Department are working in close contact with one another. They have many interests in common, but there is a clear understanding as to their respective functions.

One very important function shared by the two Departments is the institutional care of old and infirm persons who are unable to look after themselves and who cannot make private arrangements. These old and infirm people are housed in the wards of Maryfield Hospital (Public Health Department) and in the Infirm Wards of the East House (Public Assistance Department). The distribution is so arranged that cases likely to give least trouble are sent to the Infirm Wards while helpless and incontinent patients and those showing serious symptoms are accommodated in Maryfield Hospital. There is a continual movement of old people from one institution to the other, the direction of transfer depending on the accommodation available and the progress of the particular patient.

While good use is being made of the accommodation available for old people in both Maryfield Hospital and the East House, it is doubtful if the accommodation so used is the right sort for them. Many of the beds occupied by old people in Maryfield Hospital could be used with advantage for the treatment of patients suffering from conditions which could be cured, thereby enabling them to return to their homes and to work. The care of old people is a problem which is increasing in magnitude, and it is one which now calls for the sympathetic and active attention of the authorities concerned. The steadily altering age distribution of the population is largely responsible for the aggravation of this problem, a larger proportion of the population reaching the higher age periods when they become more or less helpless owing to age alone or, it may be, to chronic incurable disease. Whatever the cause, they require to be looked after and will require to be looked after as long as they live in a way which is not possible in the ordinary working-class home. In my view they should all be considered as sick people,

and should have immediately available nursing and also medical skill.

The following table shows the admissions to Maryfield Hospital of patients over 65 years of age each year since the Institution was taken over by the Public Health Department :—

	Male	Female	Total
Year to 15th May, 1931, ...	195	197	392
Do. 1932, ...	188	194	382
Do. 1933, ...	160	235	395
Do. 1934, ...	190	212	402
Do. 1935, ...	211	259	470
Do. 1936, ...	247	275	522
Do. 1937, ...	255	322	577
Do. 1938, ...	283	366	649

It will be noted from these figures that the yearly number of admission of patients over 65 years of age has increased in the period covered in the table by well over 50%. On any one day there may be from 85 to 100 beds, or over 25% of the total available, occupied by patients at ages over 65 years.

In the Infirm Wards at the East House there are always something like 70 men and 75 women.

Certain of the old people in the wards at Maryfield Hospital are there in order to receive the medical or surgical and nursing treatment which they require, and which they can only get in a properly equipped hospital, but many of the patients, although in need of medical and nursing supervision, can obtain it in an institution less well equipped and less costly to run than Maryfield Hospital.

Admission to Maryfield Hospital is open to every member of the community, but admission to the Infirm Wards of the House is only open to persons whose names are on the poor roll. This feature leads to certain difficulties in transferring patients who are very often unwilling to go to the East House because they must become paupers. It is unfortunate that the so-called stigma should be attached to people who are unable to look after themselves because of age alone or it may be by reason of chronic ill-health, and it seems desirable that a social service to cover this section of the population should be provided outwith the Poor Law.

The question affects the community generally. The number of hospital beds available is insufficient for the needs of the City,

and it is a pity that a considerable proportion of the beds in Maryfield Hospital should be permanently occupied by old people instead of by patients who, after treatment, can become useful citizens once more. In any case, a hospital ward is not the appropriate environment for old persons. The atmosphere is not sufficiently restful, and the staff are too much occupied exercising their nursing and medical skill to give sufficient attention to the simpler wants of the old patients.

Although there is not the hospital atmosphere in the Infirm Wards of the East House, I feel that the accommodation there is not suitable for old people, and I doubt very much if these wards can be made suitable by alteration or extension. This question should be gone into very carefully and consideration given to the possiblity of providing *ad hoc* accommodation, possibly on the outskirts of the City where all the inmates of the East House and many of the aged patients in Maryfield Hospital could be housed in an environment suitable to their age where they could end their lives in comfort. Transfer to Maryfield Hospital would occasionally be necessary if some special medical or surgical treatment, only available there, was called for. The kind of accommodation necessary would require to be carefully worked out. It must include provision not only for those who are able to be up and about all day but also for those who are more or less confined to bed. It may take the form of dormitories with appropriate dining and sitting-rooms suitably furnished and all on the ground floor. The grounds must be sufficient to permit of walking exercise, and facilities must be available for recreation, both indoor and outdoor. I understand that Glasgow have given some thought to this question and that Crookston Cottage Homes will in future provide comfortable quarters for a number of the old citizens of that City.

Voluntary organisations have done a great deal to provide for Dundee aged and infirm. Mention might be made of Wellburn Home, Cidhmore, King Street Home and Belmont Castle. Due regard must be given to these activities in working out any official scheme.

Duncarse Children's Home.

An Assistant from my Department, who is medical officer to the Home, submitted the annual report early in the year to the Public Assistance Committee. The health history was most satisfactory. Useful work was done in connection with prophylaxis

against diphtheria, and it is gratifying to record that during the year there did not occur a single case of that disease.

Contrary to expectations the isolation block was not made available during the year.

Bacteriological Laboratory Services.

A summarised report of the work done by Professor Tulloch on behalf of the department is contained in his section of this report, and the detailed total examinations are shown in Table XL.

The services and advice of Professor Tulloch and his staff are at all times available. These have been very much taken advantage of, and I would again record my appreciation of their invaluable assistance and co-operation.

Diabetes and the Supply of Insulin

At 31st December, 1937, there were 69 names on the insulin register in terms of the Public Health (Scotland) Amendment Act, 1925. During 1938 there were 17 new applications, and these were all granted. In the course of the year 2 patients died, 3 patients were removed from the register on becoming entitled to supplies under the National Health Insurance Acts, and 17 ceased getting supplies, so that at the end of 1938 there were 64 names on the insulin register.

The total amount of insulin issued was 810 bottles of 5 c.cs. (100 units), 1,050 bottles of 5 c.cs. (200 units), and 604 bottles of 5 c.cs. (200 units) of protomine insulin (with zinc). The sum of £17 5s 5d was collected from patients towards the cost of the insulin supplied.

Blind Persons' Acts 1920 & 1938

The work in connection with these Acts was again very heavy. From 16th May, 1938, to 15th May, 1939, 34 sessions of the Regional Clinic were held and 243 persons were examined—199 from Dundee, 17 from the County of Angus, 8 from the County of Fife, and 19 from the County of Perth and Kinross. Of the Dundee cases 143 were examined for the first time and 56 were re-examined. 98 Dundee cases were certified blind and 101 were certified not blind. 14 of the Dundee cases were physically unable to attend the clinic and were examined in their own homes. Of the 56 cases re-examined 14 were decertified.

The total number of certified blind persons in Dundee at 1st April, 1939, is shown, in age groups in the following table :—

0—2		3—4		5—15		16—17		18—29		30—39		40—49	
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
—	—	2	1	14	10	1	—	17	18	31	23	35	34

50—69		70		Total		Total
M.	F.	M.	F.	M.	F.	
116	145	77	151	293	382	675

On the same date in the year 1937, the total figure was 630, and in 1938, 647, so that it would appear that " blindness " is on the increase. This is not the case. The increase is probably due to a desire to share in the very favourable scale of domiciliary assistance. To some degree this is borne out by the fact that of 199 cases who presented themselves for examination 101 were certified by the ophthalmic surgeons to be not blind. Another factor to be considered is the number of aged people who are certified for the first time, and thus qualify to receive the allowances under the Blind Persons Acts instead of the smaller allowances paid to the ordinary poor under the Poor Law Acts. Of the 98 persons who were certified blind, 53 were over 65 years. The ages of those over 70 (32 in all) are as follows:—71 years, 4; 72, 2; 73, 6; 74, 2; 75, 3; 76, 1; 77, 1; 78, 2; 79, 2; 80, 4; 82, 2; 83, 1; 89, 1; and 93, 1. In administering these Acts it is becoming quite obvious that many of those certified blind are not the people in whose interests the special legislation was passed. It must be very difficult in such cases for the ophthalmic surgeons to form an opinion. In the course of the year a very strict watch was kept and a number of persons were asked to submit themselves for re-examination. Of these 14 were decertified.

A " blind person " according to the Acts is " a person so blind as to be unable to perform any work for which eyesight is essential." This interpretation is very wide, and notwithstanding the fact that a uniform standard for examination has been set up, it is liable to great abuse and certainly prejudices the interests of the genuine blind, for whom everybody has the utmost sympathy. Although many of the aged are certified on account of defective vision they still, or at least the majority of them, have sufficient eyesight to perform any duties that a person of their age could be reasonably expected to perform. If this practice of certifying aged persons is allowed to continue it will terminate in a travesty of justice. Defective vision in the aged is more or less on the same basis as their physical condition, and if all the aged over 70 years were examined the majority would qualify to be certified as

blind within the meaning of the Acts and the cost to the Local Authority would be tremendous. It is time that the Blind Persons Acts were amended to safeguard local authorities from exploitation, and to my mind this could be done by excluding any person from benefits under the Act who was certified for the first time subsequent to employable years of life (say 65 years). It seems certain that the Acts were never intended to benefit such cases.

Other anomalies, illustrated in the following examples, are liable to occur. A widowed man without encumbrances applied for assistance in the course of the year and he was granted the scaled allowance which brought his total income up to 55/- per week. He applied for the Old Age Pension, but on account of his own income (i.e., without domiciliary assistance) he qualified only for a pension of 4/- per week, and with receiving domiciliary assistance he was disqualified altogether. The result of this action, through changed legislation, is really tantamount to saving money to the Government at the expense of this local authority. Another case of a similar nature was also investigated. The applicant was a Chelsea pensioner and on receipt of domiciliary assistance his pension was reduced. The applicant reported this to me and his allowance was adjusted, but as this was done his pension was further reduced, and by the time this appears in print the Chelsea pension will probably have vanished altogether. Action was taken in respect of these two last mentioned cases but without avail.

At the present time the trained blind persons in the Royal Dundee Institution for the blind do not qualify for the Old Age Pension on account of their wage-earning capacity, but in framing these Acts it would appear that consideration was never given to the methods adopted in finding the money to enable the directors to pay the present rate of wages. It should be distinctly understood that the Dundee Corporation and neighbouring authorities contribute the sum of £80 per annum for every such person, and if this was not done the good work which has been carried on in the Institution for about three-quarters of a century would cease. This one item costs the ratepayers of Dundee over £5,000 per annum or almost a penny rate. The position as it exists also reacts unfavourably on the blind persons concerned, and it certainly does not encourage them in their work at the Institution. A number of these employees have blind wives and earn the standard rate of £2 10s per week. Such persons are disqualified from receiving pensions, whereas a blind married couple who are not working are

entitled to the pension and the Local Authority make up their total income to £2 per week. If the blind couple who do no work have dependent children it is quite conceivable that their total weekly income can exceed that of a blind couple in similar circumstances where the man is engaged in useful work. Such a position should not exist, and could be avoided by allowing the pension to all genuine blind persons and by so doing the directors of the Institution, with the aid of the Local Authority, could then pay wages which would obviate the present unsatisfactory anomalies.

The conditions of the blind have greatly improved during recent years, principally on the initiative of Parliament, but it appears to be ridiculous to compel local authorities to adopt the high standards laid down and allow interested Government departments to ignore them. If the Acts were amended to exclude the certification for the first time at the age of 65, and to grant the pension to genuine blind persons on the same principle as the contributory pensions, this action would place the administration of the work on a more satisfactory basis.

Disciplinary action was taken in connection with two applicants who contravened the conditions upon which assistance is granted. This was considered necessary as a deterrent not only to themselves but to others.

In one case it was found necessary to grant an allowance in excess of the scale, and the Committee agreed that similar cases, or any other cases outwith the ordinary, should be left to my discretion.

There are now 382 persons in receipt of domiciliary assistance. Allowances are also paid in respect of 29 dependent wives and 31 children who previous to the 1938 Act received assistance through the Poor Law Acts.

The question of allowances from invested funds of the Dundee Mission to the Outdoor Blind was raised in the course of the year, and the matter is now in the hands of the City Chamberlain.

On the 12th September, 1938, the Directors of the Royal Dundee Institution for the Blind decided to increase the charge for maintenance of trainees in their hostel from £35 to £41 10s per annum. There is only one Dundee case resident at present. The

directors also agreed to pay their employees full wages for one month and three-quarters of their wages for a further period of five months in the event of sickness.

Housing.

During the last few years State-aided houses erected in Dundee have been devoted entirely to the re-housing of tenants living in properties scheduled as unfit for human habitation. While such a policy has much to commend it, large families residing in small houses which are fit for human habitation require to be considered. In October the Corporation decided to allocate all the houses in course of erection at Linlathen to meet the needs of such families. There will be 540 of 3, 4 and 5 apartment houses available, and it is hoped that by a system of decanting a much greater number of families will be de-crowded. On paper the decanting process can go a long way in the relief of overcrowding, but it remains to be seen how successful it will be in its practical application. A definite policy in the selection of tenants for these new houses has been agreed to by the Corporation whereby priority is to be given to overcrowded families living in one or two-roomed houses and to families suffering from certain forms of tuberculosis. The situation of the new housing scheme is admirable, and people removed to Linlathen from the heart of the City may consider themselves fortunate.

Once again the number of houses (335) erected and made ready for occupation by the Corporation was comparatively small and fell below the annual average for post-war years. Private enterprise contributed 216 houses, while 364 houses reconstructed mainly in accordance with undertakings accepted by the Corporation became available once again during the year. These additions to the housing resources were to some extent offset by 327 unfit houses vacated by their occupants. After consideration of all the factors the Chief Sanitary Inspector sums up by recording a net gain of 292 houses in the City. This figure must not, however, be used as the only measure of the progress made. It must be kept in mind that 551 new houses were provided, 364 were made fit for human habitation, and 327 unfit houses ceased to be occupied. There was therefore considerable improvement in the standard of housing apart from the addition of 292 to the total houses available.

A total of 2,061 houses was dealt with in terms of the Housing Acts. As the result the number of scheduled unfit houses in occu-

pation is raised during the year from 3,194 to 4,662, or in terms of families, 4,738. The rate of house condemnation continued to be greater than the rate of house production. At the moment, however, a large number of houses are under construction, and the adoption of the policy of using timber as a building material leads one to hope that the rate of production may more nearly coincide with the rate of condemnation.

Details of housing progress are contained in the Chief Sanitary Inspector's section of this report.

Food.

The report of the Chief Sanitary Inspector should be consulted for particulars of work done under the various statutes governing food supply. Tables XLIX. to LIII. comprise details of the work of the Superintendent of the Slaughterhouse under the Public Health Meat Regulations (Scotland), 1932.

1938 saw the second complete year during which the Milk (Special Designations) Order (Scotland), 1936, has been in operation. The number of bacteriological examinations of milk shows an increase from last year of 134, the total reaching 382 comprising 45 sold as certified, 34 sold as Tuberculin Tested, 29 sold as Pasteurised, 5 sold as standard and 269 as sweet milk. Only 2 samples of certified milk failed to comply with the regulations, and 6 samples of Tuberculin Tested were unsatisfactory. All the samples of Sterilised milk were sound. The results of the examination of Pasteurised milk leave room for improvement, since 15 out of 29 failed to reach the necessary standard of cleanliness. Although ordinary sweet milk is not included in the regulations, 108 samples of such milk showed too high a bacterial content.

In the earlier part of the year 4 samples of milk were examined for tubercle bacilli.

Port Sanitary Administration.

The sanitary control of shipping arriving in the district is undertaken by a medical officer and a sanitary inspector, who carry out the duties of Port Medical Officer and Port Sanitary Officer respectively. Their work is done mainly under the provisions of the Port Sanitary Regulations (Scotland), 1933.

Certain diseases have been made notifiable internationally, and each week the Ministry of Health issues to the Medical Officer of Health of an approved port such as Dundee, a list of the ports

and seaboards in which there is believed to exist any of these diseases. Customs Officers and Tay Pilots are kept informed regularly of the names of such ports by the Port Medical Officer, and co-operation between these officials is of a most effective nature. The Regulations describe the health duties of local authority and mercantile officers. When a ship approaching this port has on board illness believed to be of an infectious nature, the master is required to inform the Port Medical Officer by wireless or other signal. In this way arrangements can be made to attend promptly to any sick person and to take all necessary precautions to protect the city against imported disease.

Even ships arriving at this port without illness on board must first of all be certified as " healthy " by the Medical Officer if they have come from ports or seaboards included in the weekly list before they may commence their business of loading or unloading. In 1938, official visits to sixteen such ships were made immediately after their arrival, and on occasion the Officers boarded ships in the river.

Shipping companies appreciate this practice since it has for them the double benefit of quickly clearing their vessels from medical control and minimising delay to commerce.

In addition, 102 vessels arriving at Dundee from abroad via other home ports were visited by the Medical Officer, while 725 were examined by the Sanitary Officer.

Seven cases of suspected infectious disease were admitted to hospital during the twelve months under review. Fortunately none of the illnesses was of international importance.

All foreign-going ships are required to carry papers renewable six monthly certifying them to be free from rats. The black rat may carry the germs of plague, a deadly illness in man, and as a world wide effort to limit the spread of the disease it is necessary for these vessels to carry some form of deratisation certificate which is accepted universally as being proof of freedom from the vermin. Only ports such as Dundee that have been approved for the purpose by the International Public Health Office, Paris, may grant such certificates. During the year 33 were issued by this Authority.

Common nuisances or defects aboard ship are usually remedied by the masters after verbal intimation by an official.

Because of the danger of psittacosis there are strict limitations to the importation into the country of birds of the parrot species. Of one parrot and eleven budgerigars dealt with in 1938, four of the latter were ordered to be destroyed.

Port health work is a most interesting part of the Public Health Service, and for fuller details of the activities of the year the reader should refer to Tables XXXVII. to XL, and to the section of this report by the Chief Sanitary Inspector.

Medical Examinations (Superannuation).

During 1938 fully 300 medical examinations for Corporation Departments were undertaken by medical officers of my Department. This represents a tremendous amount of work for which in the past a charge has not yet been made. At the time of writing there has recently come into operation the Local Government Superannuation (Scotland) Act, 1937, and already the number of medical examinations exceeds the average for this period during the past two years. Such services, however, willingly rendered should not in my opinion continue to be given under these circumstances, and it is expected that a scale of fees payable by the responsible departments will shortly be agreed to.

Details of the work done are appended.

Admission into the Superannuation Scheme,	247
Admission into the Grading Scheme,	16
Examination of employees thought to be unfit for further service but not yet at retiring age,	22
Examination of employees on sick leave,	8
Examination of employees to ascertain their fitness for A.R.P. work,	8
	301

Infectious Diseases.

Intimations and notifications were made during the year concerning 7,981 cases of infectious disease. The corresponding number in 1937 was 4,816. The increase is due principally to epidemics of measles and german measles. There were 2,175 and 2,075 cases respectively in 1938 compared with 312 of the former in 1937. Dysentery was responsible for an increase of 278 cases in 1938 and diphtheria for 167 cases, but the other diseases showed either a stationary or reduced incidence. The usual comments on the various diseases are made in the following paragraphs, and complete information is given in the statistical section of this report.

The usual biennial epidemic of measles appeared in the city starting in November, 1937, and finishing in June, 1938. During 1938 the department received information about 2175 cases. Of these 515 received hospital treatment. There were 71 deaths—17 under one year of age, 49 one to five years, and 5 five to ten years of age. Measles.

Intimations were received regarding 2,075 cases. Forty-nine were admitted to hospital principally on account of difficulties in connection with housing arrangements. German Measles.

The number of intimations of this disease in 1938 was 190, as compared with 925 in 1937. During the year 58 cases were removed to hospital. There were 5 deaths—3 under one year and 2 aged between two and five years. Whooping Cough.

There were 644 cases of pneumonia and 13 of influenzal pneumonia notified in 1938 compared with 829 and 168 respectively in 1937. 412 cases (all forms) received hospital treatment. There were 185 deaths certified as being due to various forms of pneumonia. Pneumonia.

The number of cases of this disease fell from 815 in 1937 to 722 in 1938. The incidence was heaviest during the months of September, October and November, when 296 cases were notified—the remainder being spread evenly over the other months. 493 cases were isolated in hospital. There were 7 deaths—3 between one and five years and 2 between five and ten years, and 2 adults. Scarlet Fever.

Particulars concerning artificial immunisation are as follows :—

Age Group	Dick Positive but not immunised	Dick Postive and immunised	Dick Negative	Total
Under 5 years	36	30	86	152
5—15 years, ...	16	29	135	180
Over 15 years, ...	19	12	88	119
Total, ...	71	71	309	451

No cases of smallpox occurred in the City during the year, but information was received concerning three persons who had been in contact with the disease on board ship, and these were visited and kept under observation during the quarantine period. Smallpox and Chickenpox.

The number of cases of chickenpox in 1938 was practically the same as in 1937 — 657 and 663 respectively. All the cases were visited. 16 were removed to hospital — 6 on account of being in various institutions and 10 on account of being complicated with other diseases.

Diphtheria.

The incidence of diphtheria during 1938 was the highest recorded since 1928. Altogether 497 cases were notified, and of these 475 were removed to hospital. There were 13 deaths — 1 under one year, 10 between one and five years, 1 aged six-and-a-half years, and one aged twelve years. The figures for last year were 330 cases. 316 cases were hospitalised and there were 9 deaths.

Most of the fatal hospital cases were admitted in a moribund condition and the prognosis was hopeless from the time of admission. There was usually considerable delay in calling medical aid, and in a few cases there is evidence to suggest that although medical attention was available the specific remedy was not administered in time.

The anti-toxin service continues to be used by the general practitioners. In the course of the year a new type of anti-toxin outfit consisting of a loaded plunger syringe was introduced. The new packing has proved eminently suitable and is very popular with the doctors. During the year 34 doctors made applications in respect of 109 patients, and the amount of diphtheria anti-toxin issued for all purposes amounted to 81,600 units.

The work in connection with the artificial immunisation showed an increase over last year. Altogether 547 persons were dealt with, and of these 298 were Schick negative; 196 were found to be Schick positive, and of these 139 received one injection and 57 received two injections of alum-precipitated toxoid; 22 received such injections (14 one injection and 8 two injections) without previous Schick testing; 31 were Schick tested and received 3 immunising doses of toxoid-anti-toxin floccules. During the year there were 30 persons who failed to have the necessary course completed—14 of these were Schick positive and failed to return for the immunising injections, 6 were Schick positive and failed to return after receiving one immunising dose, 8 were Schick positive and received two immunising doses, and 2 only received 1 dose without previous Schick testing.

There was also an increase in the amount of diphtheria toxoid (alum precipitated) issued during the year. Altogether 41 doctors received 48 doses.

Enteric Fever

Notifications were received concerning 9 cases—3 of typhoid fever and 6 of para typhoid (B) fever. In the previous year there were 8 accepted cases—2 of typhoid fever and 6 of para typhoid (B) fever. Of the 9 cases, 8 received hospital treatement and one died in a general hospital. There were other two deaths—a case notified in 1937 and one a child who lived outwith the city.

Of the 3 typhoid fever cases one was a primary infection and two cases were secondary infections—one of the last mentioned cases having contracted the disease outwith the city. The primary case was originally notified as influenzal pneumonia, and had been under treatment in an institution for about a week previous to death. The source of infection was thought to be drinking water from a deep well which existed at the man's place of employment. This deep well was used for the works supply of domestic water, and it was arranged (1) to discontinue the use of the well for drinking water supplies; (2) substitute the Corporation supply for this purpose; and (3) the workers and staff were prohibited from using the water from the well until this work could be executed. No further cases occurred.

Of the 6 paratyphoid (B) cases 3 were infected outwith the city. In 2 cases the source of infection was not traced and in the other case the eating of periwinkles was a possible source of infection.

Cerebro-Spinal Fever.

During 1938 there were 12 cases notified, and all these received hospital treatment. There were 2 fatal cases—both children under 5 years of age.

Erysipelas.

The incidence of this disease fell from 207 cases in 1937 to 186 in 1938. 82 cases received hospital treatment, and there were no deaths.

Dysentery.

During the year 325 cases of dysentery were notified. In addition 37 cases in which a diagnosis of dysentery was suspected became known to the Department. 173 of the total were accepted either on clinical or bacteriological grounds as bacillary dysentery. In the King's Cross Hospital section of this report the Senior Resident Medical Officer deals with the cases of dysentery treated there.

The increase in the number of cases of dysentery was general throughout the country and was not confined to Dundee. Details of the bacteriological examinations are to be found in the section of the report submitted by Professor W. J. Tulloch.

Puerperal Fever and Puerperal Pyrexia.

There were 19 cases of puerperal fever and 50 of puerperal pyrexia notified during the year, and of these 57 received hospital treatment—18 puerperal fever and 39 puerperal pyrexia. The corresponding figures for 1937 were 22 and 47 respectively. Full details concerning these conditions are given in the Maternity Services and King's Cross Hospital sections of this report.

Ophthalmia Neonatorum.

The number of cases notified to the department in the course of the year was 60, and of these 10 received hospital treatment. It is the practice to submit smears from suspicious cases to the bacteriologist, and during the year 52 were examined. Five were positive, 7 were suggestive, and 40 were negative. In no case was there any impairment of vision.

Other Infectious Diseases.

Information was received concerning two cases of undulant fever, and these were reported to the Department of Health for Scotland. Four cases of malaria were notified, and these were all recurring cases and required no assistance from this department. Two cases of acute poliomyelitis were also notified, and both received hospital treatment.

STATISTICAL SECTION.

LIST OF TABLES AND CHARTS.

TABLE I.

AGE and SEX DISTRIBUTION of POPULATION, 1938.

Population (estimated by Registrar-General), 177,960.

Percentage of Males to total population (Census, 1931) ... 44.9%
,, ,, Females ,, ,, ,, ,, ... 55.1%
Estimated Sex Distribution for 1938—Males 79,904
Females 98,056

Age Groups.	Percentage to total at all ages (Census 1931).		Estimated Age and Sex Distribution for 1938.		
	Males	Females.	Males.	Females.	Both Sexes.
0-5	9.7	7.7	7,751	7,550	15,301
5-10	10.2	8.5	8,150	8,335	16,485
10-15	8.9	7.3	7,111	7,158	14,269
15-25	18.1	17.2	14,463	16,866	31,329
25-35	15.2	15.8	12,145	15,493	27,638
35-45	11.9	13.2	9,509	12,943	22,452
45-55	10.7	11.8	8,550	11,571	20,121
55-65	9.1	9.9	7,271	9,708	16,979
65-75	4.8	6.1	3,835	5,981	9,816
75-85	1.3	2.2	1,039	2,157	3,196
85 and over	.1	.3	80	294	374
All Ages	100.0	100.0	79,904	98,056	177,960

TABLE II.

Estimated Population in various Wards, 1938.

WARD.	Population (Census 1931).	Percentage to total Population (Estimated).	Estimated Population for 1938.
I. ...	16,846	9.6	17,084
II. ...	11,698	6.7	11,923
III. ...	16,499	9.4	16,728
IV. ...	17,428	9.9	17,618
V. ...	24,720	8.2	14,593
VI. ...	17,240	9.8	17,440
VII. ...	22,355	7.7	13,703
VIII. ...	18,975	10.8	19,220
IX. ...	19,092	10.9	19,398
X. and XI.	10,732	6.1	10,855
XII. ...	—	10.9	19,398
Totals	175,585	100.0	177,960

TABLE III.

Return Showing the Causes of Death (Corrected for Transfers) at the Different Age periods during 1938 :—

CAUSE OF DEATH.	ALL AGES. Total.	Males.	Females.	AGE. —1	1—	5—	10—	15—	25—	35—	45—	55—	65—	75—	85 & Over
Typhoid Fever	3	2	1	...	...	...	...	...	1	1	1	...	...	...	...
Measles	71	42	29	17	49	5	...	...	...	...	...	...	...	...	...
Scarlet Fever	7	2	5	...	3	2	...	...	...	1	1	...	...	...	...
Whooping Cough	5	3	2	3	2	...	...	...	...	...	...	...	...	...	...
Diphtheria	13	7	6	1	10	1	1	...	...	...	...	...	...	...	...
Influenza	13	5	8	...	...	...	...	1	...	2	1	2	6	1	...
Cerebro-Spinal Fever	2	1	1	1	1	...	...	...	...	...	...	...	...	...	...
Other Epidemic Diseases	3	...	3	...	2	...	...	...	...	...	1	...	...	...	...
Tuberculosis of Respiratory System	111	72	39	...	1	1	4	21	29	21	15	9	8	2	...
Other Tuberculous Diseases	35	16	19	4	4	5	7	2	6	2	3	...	1	1	...
Cancer, Malignant Disease	317	140	177	...	...	1	1	1	6	13	40	77	121	51	6
Diabetes Mellitus...	32	12	20	...	...	...	...	1	1	2	1	10	12	5	...
Diseases of Nervous System	245	113	132	6	5	1	1	3	9	7	11	40	86	66	10
Diseases of Circulatory System	680	302	378	...	2	...	1	8	14	21	59	100	233	190	52
Bronchitis...	70	42	28	3	...	...	...	...	2	2	6	9	22	21	5
Pneumonia (all forms)	181	102	79	56	19	2	...	8	12	15	16	19	16	17	1
Other Respiratory Diseases	33	16	17	1	1	...	...	...	...	2	6	5	8	8	2
Diarrhoea, etc. (all ages)	22	7	15	11	4	...	...	...	...	1	1	1	1	3	...
Appendicitis	23	16	7	1	...	3	3	5	3	1	4	2	1	...	...
Other Digestive Diseases	73	34	39	2	1	3	...	1	4	9	14	17	11	10	1
Acute and Chronic Nephritis	64	26	38	2	...	...	...	...	6	8	11	12	16	8	1
Other Diseases of Genito-Urinary System ...	37	29	8	...	...	...	...	2	1	2	...	3	20	6	3
Puerperal Sepsis	10	...	10	...	...	...	...	4	2	4	...	...	...	...	...
Other Puerperal Causes	8	...	8	...	...	...	...	...	2	6	...	...	...	...	...
Congenital Debility, Premature Birth, Malformations, etc.	129	76	53	127	1	...	1	...	...	...	...	...	...	...	...
Old Age	76	24	52	...	...	...	...	...	...	...	...	...	10	46	20
Violent Deaths	105	65	40	4	9	8	1	6	7	14	13	16	12	12	3
All other Causes	73	32	41	3	4	3	1	5	4	8	5	13	13	11	3
All Causes	2441	1186	1255	242	118	35	21	68	109	142	209	335	597	458	107

TABLE IV.

Death Rates at various age-periods (from all causes) each year.

1934-1938.

Ages. Periods.	1934 No. of Deaths.	1934 Death Rate.	1935 No. of Deaths.	1935 Death Rate.	1936 No. of Deaths.	1936 Death Rate.	1937 No. of Deaths.	1937 Death Rate.	1938 No. of Deaths.	1938 Death Rate.
All ages	2417	13.6	2346	13.2	2526	14.1	2672	15.0	2441	13.7
0- 5 years	370	24.3	295	19.3	378	24.6	372	24.33	360	23.5
5-10 ,,	29	1.8	31	1.9	36	2.2	29	1.8	35	2.1
10-15 ,,	32	2.3	20	1.4	31	2.2	24	1.7	21	1.5
15-25 ,,	78	2.5	73	2.3	90	2.9	102	3.3	68	2.2
25-35 ,,	91	3.3	97	3.5	92	3.3	108	3.9	109	3.9
35-45 ,,	152	6.8	139	6.2	115	5.1	171	7.6	142	6.3
45-55 ,,	198	9.9	185	9.2	205	10.1	240	11.9	209	10.4
55-65 ,,	403	23.8	374	22.0	389	22.8	387	22	335	19.7
65-75 ,,	548	56.0	531	54.0	583	59.1	600	61.2	597	60.8
75-85	405	127.3	501	156.6	490	152.7	498	156.1	458	143.3
85 and over	111	297.6	100	266.7	117	312.0	141	377.0	107	286.1

TABLE V.

Death Rate (from all causes) each month during the years

1934-1938.

(From Registrar General's monthly returns .

Month.	1934	1935	1936	1937	1938
January ...	15.5	16.4	18.5	25.0	19.2
February ..	14.4	16.0	18.6	20.4	14.8
March ...	13.1	15.5	14.7	17.8	15.2
April... ...	14.9	13.8	14.5	12.8	14.4
May	13.3	13.6	13.7	12.8	14.2
June... ...	13.0	10.7	13.5	13.0	12.9
July	13.1	12.6	11.3	12.9	10.1
August ...	11.7	10.6	12.3	12.3	12.3
September ...	10.9	11.3	11.0	12.1	11.9
October ...	13.5	10.8	12.4	10.6	11.9
November ...	14.3	13.3	14.3	12.9	11.9
December ...	16.1	14.3	15.1	16.5	15.8

TABLE VI.

Death-rate (from all causes) in various Wards each year since 1923.

Year.	Whole City.	WARDS. 1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11	12
1923	14.7	15.0	14.0	14.8	14.0	12.8	16.4	15.0	15.4	14.3	12.1	—
1924	16.4	15.7	16.6	17.2	14.8	13.5	18.6	16.5	17.6	16.6	13.4	—
1925	16.7	17.8	15.3	18.4	15.9	15.3	16.8	15.2	17.6	18.6	12.8	—
1926	14.8	15.7	15.5	16.7	14.0	12.5	14.8	14.5	15.5	14.1	13.2	—
1927	16.9	16.9	17.9	19.4	15.7	15.2	17.6	16.3	16.5	18.0	12.8	—
1928	15.1	16.6	15.2	17.3	13.0	13.9	13.6	14.8	14.0	15.8	11.3	—
1929	16.0	16.1	15.7	17.8	14.2	13.6	14.4	16.1	16.9	16.1	12.9	—
1930	16.0	17.3	14.0	16.2	13.0	15.3	16.4	16.1	16.1	16.3	12.8	—
1931	13.9	12.4	15.6	13.5	14.1	13.2	14.1	12.7	14.2	14.7	11.2	—
1932	13.8	12.7	14.4	12.6	12.9	12.6	15.5	11.7	15.8	14.6	13.1	—
1933	14.5	11.8	13.6	14.7	13.6	13.6	15.1	14.7	14.8	14.7	13.1	—
1934	13.6	12.9	14.3	15.8	13.0	12.1	10.9	12.8	14.6	12.1	14.6	—
1935	13.2	10.1	14.2	13.3	12.3	12.0	11.2	14.2	12.3	14.0	13.2	—
1936	14.1	10.1	14.1	12.0	13.3	14.7	14.1	14.3	14.9	13.4	14.6	14.4
1937	15.0	11.8	15.9	14.2	16.5	16.3	13.2	16.4	13.7	13.4	15.5	15.3
1938	13.7	12.0	12.3	13.6	17.6	16.2	11.3	12.9	12.1	14.1	13.8	14.7

TABLE VII.

Birth-rate in various Wards each year since 1923.

Year.	Whole City.	WARDS. 1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11.	12
1923	24.6	27.7	24.6	26.0	21.8	22.3	27.7	25.8	28.5	24.0	13.6	—
1924	22.6	23.1	21.8	25.5	20.8	21.3	24.7	20.1	26.9	23.7	14.0	—
1925	21.8	23.3	19.9	22.2	21.7	20.2	24.1	22.1	25.0	22.1	14.4	—
1926	21.9	24.7	23.2	26.5	19.6	18.9	25.1	20.3	24.2	23.4	10.9	—
1927	20.4	24.6	20.6	25.0	18.1	18.5	22.4	20.1	22.2	18.9	11.6	—
1928	20.3	25.5	19.4	23.1	18.2	18.3	22.0	20.6	21.9	18.9	15.1	—
1929	20.9	25.3	17.6	25.0	16.7	20.3	22.9	20.0	23.7	21.6	12.9	—
1930	21.1	25.6	18.4	24.2	18.7	21.5	21.6	20.8	21.4	22.0	14.0	—
1931	19.5	21.0	15.4	22.6	18.3	17.2	23.5	15.8	22.5	22.1	15.0	—
1932	18.5	18.3	17.1	23.2	15.5	18.5	23.1	17.2	18.6	18.6	13.2	—
1933	17.5	17.9	16.4	20.2	14.9	17.2	20.0	18.7	17.1	18.2	10.9	—
1934	18.7	14.3	21.2	19.8	13.5	20.2	22.0	21.3	19.9	17.2	10.8	—
1935	17.9	19.1	16.3	20.5	15.3	17.2	18.6	19.7	18.8	18.3	11.8	—
1936	17.7	17.0	15.3	18.3	16.3	20.1	17.0	20.5	19.5	15.6	13.2	19.8
1937	17.6	16.6	16.0	18.3	22.9	16.7	15.3	20.7	17.6	16.1	12.8	18.6
1938	17.6	17.1	13.2	19.3	22.0	18.9	16.7	20.3	15.7	15.5	13.7	19.0

TABLE VIII.

Infantile Death-rate (per 1,000 births) in various Wards each year since 1923.

Year	Whole City.	WARDS. 1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11.	12
1923	98	89	79	121	76	119	121	78	88	92	74	—
1924	120	104	144	137	121	112	133	108	96	136	71	—
1925	126	156	128	162	124	118	119	85	150	122	57	—
1926	103	114	75	110	94	96	100	100	132	93	66	—
1927	138	121	160	127	137	139	175	135	140	130	62	—
1928	102	93	126	82	91	108	96	79	111	127	65	—
1929	102	91	101	116	80	124	80	101	119	87	86	—
1930	113	101	101	117	109	92	135	124	113	135	60	—
1931	92	87	94	86	75	75	113	88	112	116	19	—
1932	72	52	54	65	44	63	100	70	101	89	42	—
1933	98	92	123	101	76	116	121	81	85	88	51	—
1934	74	53	55	94	101	79	60	73	87	72	34	—
1935	68	61	87	73	48	74	62	56	55	82	63	—
1936	81	69	60	81	83	75	94	74	77	82	104	85
1937	87	57	89	85	104	45	112	81	89	87	36	103
1938	77	82	127	78	85	51	79	50	70	86	47	95

TABLE IX.

Death-rate in various Wards each year since 1923 from principal Epidemic Diseases.

Year.	Whole City.	WARDS. 1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11	12
1923	1.17	1.65	.97	1.03	.77	1.00	1.48	1.29	1.75	1.12	.36	—
1924	1.69	1.51	2.42	1.93	1.54	1.48	2.67	1.45	1.59	1.71	.36	—
1925	1.70	1.58	1.60	2.49	1.27	.57	.90	.82	1.21	.37	.27	—
1926	.79	.96	.72	1.24	.79	1.60	1.69	1.82	2.21	1.70	.45	—
1927	1.43	2.16	1.25	2.32	1.45	1.13	1.44	1.19	.93	1.78	.54	—
1928	.65	1.08	.55	.67	.47	.79	.66	.43	.93	.47	.09	—
1929	.38	.35	.40	.57	.37	.36	.46	.11	.48	.38	.09	—
1930	.78	.63	.41	.95	.64	.63	1.03	.39	1.56	.97	.18	—
1931	.84	.89	.76	.48	.75	.56	1.28	.31	1.37	1.46	.47	—
*1932	.68	.47	.68	.42	.69	.68	.98	.45	1.05	.83	.46	—
*1933	1.08	.94	1.26	1.80	1.14	.92	1.15	.93	.52	1.14	1.30	—
*1934	.72	.41	.76	.90	.63	.48	.81	.67	1.04	.88	.65	—
*1935	.40	.23	.50	.60	.28	.40	.34	.31	.26	.51	.28	—
*1936	.57	.41	.42	.54	.51	.61	.80	.22	.83	.72	.64	.46
*1937	1.06	.82	1.51	1.26	1.02	.96	1.03	.66	.94	1.19	1.29	.93
*1938	.66	.59	.84	.36	1.02	.34	.80	.58	.94	.72	.18	.62

*NOTE.—Figures are for 18 Infectious Diseases (excluding Infantile Diarrhœa).

TABLE X.

Pulmonary Tuberculosis Death-rate in various Wards each year since 1923.

Year.	Whole City.	WARDS. 1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11	12
1923	.98	1.24	1.05	1.15	.82	.69	1.08	.89	1.27	.93	.45	—
1924	.85	1.30	.56	.54	.92	.65	1.12	1.00	.95	.88	.45	—
1925	.87	.89	.80	1.12	.74	.80	1.12	.66	.79	1.06	.55	—
1926	.81	.96	.79	.87	.32	.93	.56	.77	.95	1.17	.54	—
1927	.89	1.35	.86	1.10	.57	.96	.77	.76	.78	1.20	.45	—
1928	.80	.74	.47	.98	1.09	1.00	.66	.65	.83	.63	.54	—
1929	.78	.56	.81	.94	.64	.54	.91	.62	1.07	1.08	.55	—
1930	.76	1.05	.73	.70	.48	.90	.46	1.18	.91	.70	.09	—
1931	.73	.55	.68	.79	.69	.64	.81	.98	.79	.68	.28	—
1932	.61	.65	.68	.54	.65	.60	.40	.51	1.36	.52	.09	—
1933	.58	.29	.59	.48	.63	.60	.63	.35	1.10	.52	.46	—
1934	.54	.53	.25	.60	.57	.44	.58	.36	.99	.41	.65	—
1935	.67	.82	.67	.78	.57	.60	.40	.75	.73	.93	—	—
1936	.60	.47	1.00	.60	.34	.48	.69	.80	.41	.51	.37	.72
1937	.57	.59	.42	.48	.80	.41	.46	.65	.63	.46	.55	.72
1938	.62	.70	.67	.60	.91	.41	.85	.36	.52	.62	.46	.62

TABLE XI.

Tuberculosis (all forms) Death-rate in various Wards each year since 1923.

Year.	Whole City.	WARDS. 1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11.	12
1923	1.43	1.65	1.46	1.45	1.29	1.18	1.71	1.34	1.86	1.32	.64	—
1924	1.23	1.51	.80	1.33	1.18	1.04	1.64	1.40	1.48	1.07	.54	—
1925	1.22	1.37	1.12	1.37	1.11	.98	1.41	1.10	1.37	1.38	.82	—
1926	1.12	1.43	1.19	1.15	.53	1.19	.73	1.21	1.26	1.54	.63	—
1927	1.16	1.69	1.02	1.40	.67	1.26	1.05	.87	1.04	1.83	.54	—
1928	1.05	.88	.86	1.22	1.30	1.22	.94	.92	1.04	.89	.63	—
1929	1.05	.77	1.29	1.20	1.02	.76	1.08	1.01	1.28	1.35	.64	—
1930	1.05	1.68	1.14	.76	.70	1.31	.69	1.46	1.18	.92	.28	—
1931	.95	.71	.76	.97	.80	1.01	1.28	1.25	.95	.83	.28	—
1932	.78	1.00	.84	.78	.69	.88	.58	.53	1.47	.57	.09	—
1933	.84	.53	.59	.84	.91	.76	.98	.67	1.57	.67	.65	—
1934	.80	.94	.42	.96	.68	.68	.86	.58	1.46	.67	.65	—
1935	.89	.99	.81	1.19	.68	.68	.69	1.02	.99	1.24	.09	—
1936	.82	.52	1.25	.71	.51	.82	.79	1.02	.73	.72	.64	1.08
1937	.82	.76	.76	.65	1.14	.55	.46	1.10	1.15	.72	.65	.88
1938	.82	.88	1.01	.84	1.19	.48	1.03	.58	.88	.72	.46	.77

TABLE XII.

Certified causes of death at the various ages under 1 year during 1938.

Cause of Death.	Under 1 week	1 and under 2 weeks	2 and under 3 weeks	3 and under 4 weeks	Total under 4 weeks	4 weeks and under 2 mths	2 and under 3 months	3 and under 6 months	6 and under 9 months	9 and under 12 months	Total Deaths under 1 year
Enteric Fever ...	...	...	...	...	...	...	...	...	...	...	...
Typhus Fever ...	...	...	...	...	...	...	...	...	...	...	...
Smallpox	..	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	1	9	7	17
Scarlet Fever ...	...	...	...	...	...	...	...	...	...	...	...
Whooping Cough ...	...	...	...	...	...	...	...	1	...	2	3
Diphtheria	...	...	...	...	...	...	...	1	...	...	1
Infantile Paralysis...	...	...	...	...	...	...	...	...	...	...	...
Cerebro-Spinal Meningitis ...	...	...	...	...	...	...	...	...	...	1	1
Tuberculosis: Lung ...	...	...	...	...	...	...	...	...	...	...	...
Tuberculosis: General ...	...	...	...	...	...	...	...	...	...	...	...
Tuberculosis: Abdominal ...	...	...	...	...	...	...	...	...	...	...	...
Tuberculosis: Brain	...	...	...	...	...	...	...	...	2	2	4
Tuberculosis: Other Forms ...	...	...	...	...	...	...	...	...	...	...	...
Influenza	...	...	...	..	...	...	...	...	...	...	...
Other Infectious Diseases	...	...	...	...	...	...	...	...	...	...	...
Pneumonia (all forms)	2	4	1	3	10	3	8	21	8	6	56
Bronchitis	...	...	...	...	...	1	...	...	1	1	3
Laryngitis	...	...	...	...	...	...	...	...	...	1	1
Other Diseases of Respirat'y System	...	...	...	...	...	...	...	...	...	...	...
Diarrhoea and Enteritis	...	2	...	...	2	...	1	6	2	...	11
Other Diseases of Digestive System	...	...	...	...	...	...	...	1	1	1	3
Meningitis (not T.B.)	...	...	...	...	...	...	...	1	...	...	1
Convulsions ...	2	...	...	...	2	...	...	1	1	...	4
Other Diseases of Nervous System	...	...	1	...	1	...	...	...	...	...	1
Congenital Malformations ...	10	3	2	...	15	3	2	...	...	1	21
Congenital Debility, Icterus, Sclerema, Marasmus ...	12	...	1	1	14	7	4	4	...	...	29
Premature Birth ...	57	4	2	2	65	...	...	...	...	...	65
Injury at Birth ...	4	1	1	...	6	1	...	...	...	...	7
Other Diseases peculiar to Early Infancy	3	2	...	...	5	...	...	...	...	...	5
Suffocation, Ov'rlay'g	1	...	...	...	1	...	2	1	...	...	4
Rickets	...	..	...	...	...	...	...	...	...	...	...
Syphilis	...	...	...	...	...	...	1	...	...	...	1
Violence	...	...	...	...	...	...	...	...	...	...	...
All Other Causes ..	...	...	...	...	...	1	1	...	...	2	4
Totals ...	91	16	8	6	121	16	19	38	24	24	242

TABLE XIII.

Infant Mortality from various groups of causes each year from 1918.

Year.	Congenital	Digestive.	Respiratory.	Infectious Diseases.	All Other Causes.	Total.
Average 1918	53	16	24	20	13	126
1919	60	13	30	8	15	126
1920	53	21	36	10	11	181
1921	58	16	19	13	8	114
1922	50	11	27	10	11	109
1923	46	4	21	13	14	98
1924	54	12	25	12	17	120
1925	53	10	35	16	12	126
1926	58	11	18	4	12	103
1927	50	14	46	17	11	138
1928	45	9	28	9	11	102
1929	48	12	30	7	5	102
1930	55	7	32	13	6	113
1931	42	7	24	12	7	92
1932	32	7	17	9	7	72
1933	48	9	23	12	6	98
1934	37	4	13	10	10	74
1935	39	5	13	4	7	68
1936	40	6	23	7	5	81
1937	37	6	27	11	6	87
1938	41	4	19	8	5	77

TABLE XIV.

Infant Mortality from all causes at various age periods since 1918.

Year	Births.	DEATH RATES. Under 1 Week.	Under 1 Month.	Under 3 Months.	Under 1 Year.
1918	2,902	27	45	65	126
1919	3,466	29	51	78	126
1920	5,047	26	44	72	181
1921	4,450	27	47	67	114
1922	4,227	26	46	66	109
1923	4,199	29	44	61	98
1924	3,865	31	48	68	120
1925	3,694	25	42	65	126
1926	3,724	35	49	65	103
1927	3,517	26	46	70	138
1928	3,501	23	39	54	102
1929	3,486	25	40	55	102
1930	3,506	28	46	65	113
1931	3,431	26	34	51	92
1932	3,276	23	31	41	72
1933	3,099	33	43	59	98
1934	3,310	25	35	45	74
1935	3,195	26	35	46	68
1936	3,171	25	37	57	81
1937	3,125	24	32	46	87
1938	3,124	29	39	50	77

TABLE XV.

Deaths and Death-rates from various groups of causes each year since 1934 (all ages).

DISEASE GROUP.	1934 Pop. 177,230		1935 Pop. 178,157		1936 Pop. 178,692		1937 Pop. 177,711		1938 Pop. 177,960	
	No. of Deaths.	Rate per 1000 Population.	No. of Deaths.	Rate per 1000 Population.	No. of Deaths.	Rate per 1000 Population.	No. of Deaths.	Rate per 1000 Population	No. of Deaths.	Rate per 1000 Population.
Congenital ...	130	·73	127	.71	133	·74	116	·65	129	·72
Digestive ...	118	·67	116	·65	132	·74	107	.60	118	·66
Respiratory ...	302	1·70	290	1·63	358	2·00	393	2.21	284	1·60
Infectious ...	287	1·62	247	1.39	269	1·51	349	1·97	290	1·63
Circulatory ...	517	2·92	612	3.44	618	3·46	650	3·66	680	3.82
Genito-Urinary	83	·47	76	.43	119	·67	113	·64	101	·57
Malignant ...	335	1·89	305	1.71	333	1·86	307	1·73	317	1·78
Nervous ...	334	1·88	272	1·53	289	1·62	315	1·77	245	1·38
Other Causes ...	311	1·75	301	1·69	275	1·54	322	1·81	277	1·56
	2417	13·68	2346	13·17	2526	14·14	2672	15·04	2441	13·72

TABLE XVI.

Number of Illegitimate Births, number of Deaths (under 1 year) of Illegitimate Infants, and Death-rate per 1,000 Illegitimate Births since 1920.

Year.	Illegitimate Births.	Deaths of Illeg. Infants.	Rate per 1000 Illeg. Births.
1920	427	104	244
1921	344	65	189
1922	296	45	152
1923	331	43	130
1924	280	52	186
1925	235	33	140
1926	256	33	129
1927	268	48	179
1928	274	42	158
1929	265	29	109
1930	276	44	159
1931	254	28	110
1932	226	23	102
1933	254	45	177
1934	272	28	103
1935	240	24	100
1936	212	34	160
1937	257	32	125
1938	252	15	60

TABLE XVII.

Five-yearly average annual death-rates per 100,000 population from certain of the Infectious Diseases, 1876-1925, and number of deaths and death-rates per 100,000 each year since 1926.

YEAR.	Smallpox		Scarlet Fever.		Enteric Fever.		Typhus Fever.		Diphtheria.		Measles.		Whooping Cough.	
	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.	No. of Deaths.	Death-rate per 100,000.
1876-1880	—	.1	—	26.5	—	22.3	—	10.4	—	29.1	—	52.7	—	84.4
1881-1885	—	.1	—	14.7	—	14.1	—	5.3	—	40.0	—	33.0	—	86.1
1886-1890	—	0	—	33.0	—	10.5	—	2.8	—	20.0	—	32.7	—	67.3
1891-1895	—	.2	—	5.7	—	17.6	—	4.0	—	19.7	—	51.5	—	64.4
1896-1900	—	0	—	14.5	—	10.4	—	2.5	—	16.1	—	36.5	—	43.9
1901-1905	—	1.5	—	4.1	—	10.8	—	.6	—	12.7	—	42.5	—	55.5
1906-1910	—	.1	—	14.5	—	3.7	—	.7	—	25.9	—	60.8	—	42.1
1911-1915	—	.5	—	10.9	—	3.6	—	.5	—	21.0	—	41.7	—	61.2
1916-1920	—	.1	—	2.7	—	2.8	—	.2	—	18.5	—	33.1	—	15.3
1921-1925	—	—	—	13.3	—	.6	—	—	—	22.8	—	40.5	—	25.7
1926	0	—	28	16.5	1	.6	0	—	66	38.8	1	.6	4	2.4
1927	0	—	9	5.2	0	—	0	—	69	40.0	76	44.1	48	27.8
1928	0	—	0	—	0	—	0	—	30	17.4	16	9.3	36	20.9
1929	0	—	3	1.8	2	1.2	0	—	13	7.8	1	.6	7	4.2
1930	0	—	0	—	1	.6	0	—	13	7.8	65	39.0	29	17.4
1931	0	—	0	—	2	1.1	0	—	17	9.7	14	8.0	44	25.0
1932	0	—	3	1.7	0	—	0	—	17	9.6	48	27.1	10	5.7
1933	0	—	13	7.3	1	.6	0	—	10	5.6	0	—	35	19.8
1934	0	—	11	6.2	2	1.1	0	—	6	3.4	56	31.6	17	.96
1935	0	—	1	.6	0	—	0	—	16	9.0	13	7.3	12	6.7
1936	0	—	5	2.8	0	—	0	—	7	3.9	38	21.3	9	5.0
1937	0	—	5	2.8	0	—	0	—	9	5.1	1	.6	51	28.7
1938	0	—	7	3.9	3	1.7	0	—	13	7.3	71	39.9	5	2.8

TABLE XVIII.

Five-yearly average annual Case Mortality (per cent.) from certain Infectious Diseases 1891-1925, and No. of Cases notified and intimated, No. of Deaths, and Case Mortality each year since 1926.

YEAR.	Smallpox.			Scarlet Fever.			Enteric Fever.			Typhus Fever			Diphtheria.			Measles.			Whooping Cough.		
	Cases.	Deaths.	Case Mortality.	Cases.	Deaths	Case Mortality.	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.	Cases.	Deaths.	Case Mortality.
1891-1895	—	—	3.7	—	—	3.3	—	—	15.1	—	—	9.8	—	—	38.0	—	—	8.7	—	—	70.8
1896-1900	—	—	—	—	—	4.2	—	—	15.2	—	—	22.5	—	—	23.2	—	—	8.4	—	—	47.9
1901-1905	—	—	5.4	—	—	2.3	—	—	16.6	—	—	14.0	—	—	16.2	—	—	10.2	—	—	38.8
1906-1910	—	—	1.5	—	—	3.0	—	—	11.3	—	—	12.1	—	—	17.3	—	—	10.4	—	—	17.6
1911-1915	—	—	5.3	—	—	2.5	—	—	9.9	—	—	13.3	—	—	11.1	—	—	11.0	—	—	13.2
1916-1920	—	—	6.7	—	—	1.4	—	—	11.2	—	—	26.7	—	—	11.0	—	—	5.7	—	—	5.2
1921-1925	—	—	—	—	—	2.4	—	—	7.3	—	—	—	—	—	9.8	—	—	6.3	—	—	8.9
1926	0	0	—	1275	28	2.2	25	1	4.0	0	0	—	786	66	8.4	77	1	1.3	149	4	2.7
1927	152	0	—	414	9	2.2	9	0	—	0	0	—	1023	69	6.7	2032	76	3.7	924	48	5.2
1928	5	0	—	208	0	—	3	0	—	0	0	—	623	30	4.8	1062	16	1.5	829	36	4.3
1929	0	0	—	822	3	.4	17	2	11.8	0	0	—	437	13	3.0	72	1	1.4	208	7	3.4
1930	0	0	—	302	0	—	15	1	6.7	0	0	—	403	13	3.2	2605	65	2.5	673	29	4.3
1931	0	0	—	246	0	—	18	2	11.1	0	0	—	395	17	4.3	383	14	3.7	840	44	5.2
1932	0	0	—	605	3	.5	5	0	—	0	0	—	372	17	4.6	2005	48	2.4	239	10	4.2
1933	0	0	—	1901	13	.7	29	1	3.4	0	0	—	368	10	2.7	564	0	—	893	35	3.9
1934	0	0	—	1188	11	.9	34	2	5.9	2	0	—	343	6	1.7	2149	56	2.6	499	17	3.4
1935	0	0	—	845	1	.1	5	0	—	0	0	—	459	16	3.5	216	13	6.0	486	12	2.5
1936	0	0	—	362	5	1.4	5	0	—	0	0	—	320	7	2.2	1862	38	2.0	302	9	3.0
1937	0	0	—	815	5	.6	10	0	—	0	0	—	330	9	2.7	312	1	.3	925	51	5.5
1938	0	0	—	722	7	1.0	9	3	33.3	0	0	—	497	13	2.6	2175	71	3.3	190	5	2.6

TABLE XIX.

MALIGNANT DISEASES.

Number of Deaths during each year since 1921 :—

Year.	Males.	Females.	Total.
1921	113	176	289
1922	104	168	272
1923	115	146	261
1924	103	167	270
1925	114	173	287
1926	111	154	265
1927	111	165	276
1928	138	200	338
1929	101	179	280
1930	136	176	312
1931	122	154	276
1932	130	163	293
1933	142	179	321
1934	132	203	335
1935	126	179	305
1936	134	199	333
1937	129	178	307
1938	140	177	317

TABLE XX.

Death-rate per 10,000 population, from Malignant Diseases, each year since 1921, sexes given separately and together.

Year.	Males.	Females.	Total.
1921	15.13	18.80	17.17
1922	13.62	17.55	15.81
1923	15.17	15.36	15.27
1924	13.55	17.52	15.76
1925	15.16	18.37	16.95
1926	14.70	16.29	15.55
1927	14.50	17.21	16.01
1928	18.05	20.89	19.63
1929	13.61	19.27	16.76
1930	18.40	19.01	18.74
1931	15.44	15 88	15.68
1932	16.37	16.73	16.57
1933	17.85	18 34	18.12
1934	16.59	20.79	18.90
1935	15.75	18.23	17.12
1936	16.70	20.21	18.63
1937	16.17	18.18	17.28
1938	17.52	18 05	17.81

TABLE

Age and Sex Distribution of Deaths from Malignant

AGE GROUPS.		BUCCAL CAVITY						PHARYNX, OESOPHAGUS, STOMACH, LIVER and ANNEXA						PERITONEUM, INTESTINES and RECTUM				
		Fauces	Jaw	Larnyx	Mouth	Nose	Tongue	Gall Bladder	Liver	Oesophagus	Pancreas	Pharynx	Stomach	Bowel	Caecum	Colon	Intestine	Rectum
Under 20	M	..	..	..	...	..	...	..	..	..	..	...	..	..	..	..	...	..
	F	..	..	..	..	..	...	..	..	..	..	..	..	..	..	..	...	..
20–25	M	..	..	..	..	..	...	..	..	..	..	...	..	..	..	..	...	1
	F	..	..	..	..	..	...	..	..	..	..	...	..	..	..	..	...	..
25–35	M	..	..	..	..	..	...	..	1	...	..	...	1	..	..	..	...	..
	F	..	..	...	...	..	...	..	..	..	..	...	1	..	..	..	...	1
35–45	M	..	..	..	...	..	...	..	1	..	1	...	2	..	..	..	...	..
	F	...	...	...	..	..	...	..	1	..	..	...	...	..	..	..	...	..
45–55	M	..	1	..	...	..	...	...	..	2	2	...	8	..	...	2	...	...
	F	...	...	...	...	...	...	..	...	2	..	1	4	..	1	...	...	...
55–65	M	...	3	1	...	..	4	..	1	2	3	1	15	...	...	4	...	2
	F	..	..	...	...	...	...	...	2	...	1	...	7	...	1	2	1	1
65–75	M	2	1	2	2	...	1	..	1	5	3	2	13	1	...	6	1	1
	F	...	1	..	...	1	...	1	...	1	..	...	21	...	1	11	...	5
75 and up	M	1	...	..	1	..	...	..	1	2	1	...	1	..	1	3	1	1
	F	..	..	..	...	..	...	..	...	1	...	...	15	1	...	10	...	2
Totals		3	6	3	3	1	5	1	8	15	11	4	88	2	4	38	3	14

XXI.

Diseases during 1938, showing parts of the body affected.

FEMALE GENITAL ORGANS					SKIN		OTHER OR UNSPECIFIED ORGANS											
Cervix	Ovary	Uterus	Vagina	BREAST	Face	Perineum	Abdomen	Bladder	Brain	Kidney	Lung	Mediastinum	Prostate	Spine	Other Parts	Not Specified	TOTALS	
..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	2	2
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0	
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0	
..	..	..	..	..	..	..	1	..	..	..	..	..	...	..	..	..	3	6
..	...	1	..	..	..	..	..	..	..	..	..	..	...	...	..	..	3	
..	..	..	..	..	..	..	..	..	...	..	2	..	..	1	..	..	7	13
..	...	1	...	3	..	..	..	...	..	..	..	1	..	..	..	..	6	
..	..	..	..	...	..	..	..	1	...	...	4	..	..	1	..	..	21	40
...	1	..	..	6	..	...	..	..	1	1	1	..	...	..	1	...	19	
..	..	..	..	...	..	...	..	..	...	1	1	..	..	..	1	...	39	77
3	...	10	..	6	1	...	1	..	...	..	..	...	..	..	2	..	38	
..	..	..	..	..	..	...	...	..	...	..	1	...	7	...	1	...	50	121
3	..	6	...	11	1	1	2	..	...	1	1	..	..	..	3	...	71	
..	..	..	.	..	2	..	..	..	..	..	..	...	2	...	..	...	17	57
...	...	2	1	2	...	..	...	..	...	..	2	..	..	..	4	...	40	
6	1	20	1	28	4	1	4	1	1	4	12	1	9	2	13	0	317	

TABLE XXII.

Five-yearly average annual Death-rates per 100,000 population 1881-1925, and, number of Deaths and Death-rates per 100,000 each year since 1926, from the Respiratory Diseases (including Bronchitis, Pneumonia (all forms), Pleurisy, Asthma, Laryngitis, etc.).

Year	Total Deaths	Death-rate per 100,000
1881-1885	—	482.3
1886-1890	—	463.2
1891-1895	—	473.2
1896-1900	—	419.8
1901-1905	—	387.1
1906-1910	—	345.6
1911-1915	—	329.5
1916-1920	—	327.3
1921-1925	—	278.6
1926	401	235.8
1927	592	343.3
1928	471	273.5
1929	607	363.2
1930	522	313.5
1931	429	243.7
1932	390	220.5
1933	403	227.5
1934	302	170.4
1935	290	162.8
1936	358	200.4
1937	393	221.1
1938	284	159.6

TABLE XXIII.

Five-yearly average annual Death-rates per 100,000 population 1881-1925, and, number of Deaths and Death-rates per 100,000 each year since 1926 from Diabetes Mellitus.

Year	Total Deaths	Death-Rate per 100,000
1881-1885	—	1.8
1886-1890	—	.5
1891-1895	—	2.0
1896-1900	—	2.4
1901-1905	—	5.5
1906-1910	—	5.9
1911-1915	—	8.5
1916-1920	—	5.5
1921-1925	—	6.9
1926	11	6.5
1927	19	11.0
1928	15	8.7
1929	20	12.0
1930	13	7.8
1931	24	13.6
1932	19	10.7
1933	18	10.2
1934	21	11.8
1935	23	12.9
1936	22	12.3
1937	27	15.2
1938	32	18.0

TABLE XXIV.

INFLUENZA.

Deaths in which Influenza was given as a cause each month January 1929—December 1938.

MONTH.	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
January ...	6	2	0	1	67	0	5	3	77	5
February ...	55	1	4	6	31	0	5	2	23	0
March ...	4	3	20	7	3	1	3	2	5	0
April ...	1	1	3	11	1	0	0	0	0	0
May ...	0	0	2	3	2	0	2	2	1	3
June ...	1	1	1	0	1	0	1	1	1	0
July	2	1	0	0	0	2	0	0	0	0
August ...	0	0	0	2	2	1	0	0	0	1
September ...	0	1	2	0	1	0	0	0	1	0
October ...	0	1	0	0	1	0	0	2	2	1
November ...	2	1	1	2	0	1	1	1	1	3
December ...	1	2	3	2	4	8	1	1	2	0
Totals ...	72	16	44	24	112	13	18	14	113	13

TABLE XXV.

Deaths in which Influenza appears as a cause in death certificate 1929-1938 classified in age periods.

AGE PERIODS.	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Under 1 year	6	0	1	1	3	1	0	1	4	0
1- 5 years	3	0	0	0	4	0	0	0	2	0
5-15 ,,	2	1	0	1	1	0	0	1	1	0
15-25 ,,	2	0	0	0	2	1	1	0	4	1
25-45 ,,	12	1	5	4	21	2	2	2	22	2
45-65 ,,	14	6	17	6	30	4	4	3	35	3
65 and upwards	33	8	21	12	51	5	11	7	45	7
Totals	72	16	44	24	112	13	18	14	113	13

During 1938, 1 death was certified as due to Influenza alone, while in 12 cases it was associated with :—

Bronchitis	3
Pneumonia	4
Other Respiratory Disease	1
Other causes	4

TABLE XXVI.

INFECTIOUS DISEASES.—Number of Cases of each disease notified and reported in Dundee during the Year 1938. Also number removed and number not removed to Hospital.

DISEASE	At all ages	At Ages—Years							Cases removed to Hospital	Cases not removed to Hospital
		Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards		
Cerebro-Spinal Fever	12	1	4	6	1	...	...	...	12	...
*Chickenpox ...	657	7	106	541	3	...	...	...	16	641
Continued Fever (Undulant) ...	2	...	...	...	1	...	...	1	1	1
Diphtheria ...	497	24	173	230	37	25	8	...	475	22
Dysentery ...	325	27	156	82	9	31	12	8	264	61
Erysipelas ...	186	1	10	9	6	54	81	25	82	104
Malaria ...	4	...	...	...	1	2	...	1	...	4
*Measles	2175	128	768	1272	5	2	...	...	515	1660
Ophthalmia Neonatorum ...	60	60	...	...	...	...	...	...	10	50
Pneumonia, Acute Influenzal	13	...	...	2	2	5	3	1	7	6
Pneumonia, Acute Primary	644	125	209	120	40	65	65	20	405	239
Poliomyelitis Acute ...	2	1	...	1	...	...	...	...	2	...
Puerperal Fever	19	...	...	...	9	10	...	...	18	1
Puerperal Pyrexia	50	...	...	...	20	30	...	...	39	11
Scarlet Fever ...	722	12	247	363	41	50	9	...	493	229
Tuberculosis, Pulmonary ...	229	...	6	48	51	83	32	9	189	40
Tuberculosis, Non-Pulmonary	110	5	14	57	20	10	2	2	77	33
Typhoid Fever ...	3	...	1	...	...	2	...	...	2	1
Para-Typhoid B	6	...	1	2	1	2	...	...	6	...
*Whooping Cough	190	25	96	69	...	...	...	...	58	132
*German Measles	2075	14	164	1861	29	7	...	...	49	2026
Totals ...	7981	430	1955	4663	276	378	212	67	2720	5261

*Not notifiable in Dundee during 1938.

Tuberculosis—cases notified in a previous year and removed to Hospital for the first time during 1938—

Pulmonary, 28 ; Non-Pulmonary, 8 ; Total, 36.

TABLE XXVII.

Monthly Notifications and Intimations of Infectious Disease,

Dundee, 1938.

DISEASE	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Totals
Cerebro-Spinal Fever	...	...	2	5	3	...	...	1	...	...	...	1	12
*Chickenpox	117	69	101	61	53	66	8	6	16	24	69	67	657
Diphtheria	53	49	44	44	45	38	21	37	38	45	45	38	497
Dysentery	19	20	40	28	33	27	50	31	36	26	10	5	325
Erysipelas	20	11	14	10	16	14	12	9	12	16	27	25	186
Malaria	...	...	...	...	2	...	...	1	...	1	...	...	4
*Measles	147	142	608	755	336	139	20	7	14	2	2	3	2175
*German Measles	856	598	521	75	11	5	1	0	2	1	4	1	2075
Ophthalmia Neonatorum ...	5	8	5	3	7	6	2	3	6	5	6	4	60
Pneumonia, Influenzal ...	4	...	...	1	...	...	...	1	2	1	2	2	13
Pneumonia, Acute Primary ...	111	58	64	43	46	31	29	32	40	40	90	60	644
Puerperal Fever	2	...	1	1	1	2	1	1	4	3	...	3	19
Puerperal Pyrexia	12	3	3	2	6	7	4	4	3	2	2	2	50
Scarlet Fever	76	52	43	49	30	53	35	39	85	111	100	49	722
Tuberculosis, Pulmonary ...	27	23	18	17	19	19	10	19	15	17	20	25	229
Tuberculosis, Non-Pulmonary	13	9	13	9	10	14	4	7	7	7	12	5	110
Typhoid Fever	2	...	...	1	...	...	...	...	...	...	...	...	3
Para-Typhoid B.	...	...	...	...	...	1	...	1	2	...	2	...	6
*Whooping Cough	10	4	9	18	39	28	2	7	12	5	24	32	190
Undulant Fever	...	...	...	...	1	...	...	...	...	...	...	1	2
Ac. Anterior Poliomyelitis ...	...	...	...	...	...	...	...	1	...	...	1	...	2
Totals	1474	1046	1486	1122	658	450	199	207	294	306	416	323	7981

* Not notifiable in Dundee during 1938.

TABLE XXVIII.

TUBERCULOSIS.—Notifications and Deaths, with corresponding rates per 1,000 population at various age-periods each year since 1923.

Year.		PULMONARY TUBERCULOSIS.												NON-PULMONARY TUBERCULOSIS.											
		0-5.		5-15.		15-25.		25-45.		45-65.		65 & over.		0-5.		5-15.		15-25.		25-45.		45-65.		65 & over.	
		No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.
1923	Notifications	20	1.34	50	1.56	72	2.23	97	2.07	60	1.74	10	.95	50	3.35	70	2.19	52	1.61	27	.55	12	.34	5	.47
	Deaths	6	.40	11	.34	45	1.39	64	1.36	35	1.01	6	.57	35	2.34	16	.50	13	.40	6	.12	5	.14	3	.28
1924	Notifications	14	.93	48	1.50	73	2.25	101	2.15	51	1.47	8	.76	50	3.34	37	1.15	26	.80	20	.43	7	.20	2	.19
	Deaths	1	.06	8	.25	44	1.36	55	1.17	33	.96	5	.47	28	1.87	14	.44	9	.28	6	.13	7	.20	1	.09
1925	Notifications	8	.54	49	1.55	72	2.25	100	2.15	42	1.23	9	.88	36	2.44	32	1.01	27	.84	17	.37	5	.15	4	.39
	Deaths	4	.27	6	.19	39	1.22	57	1.23	36	1.05	6	.58	18	1.22	9	.28	15	.47	10	.22	4	.12	3	.29
1926	Notifications	3	.20	67	2.10	72	2.24	107	2.29	53	1.55	6	.58	37	2.49	41	1.29	22	.68	13	.28	7	.20	3	.29
	Deaths	0	—	4	.13	34	1.06	60	1.29	35	1.02	5	.48	20	1.35	12	.38	8	.26	7	.15	3	.09	2	.19
1927	Notifications	7	.47	80	2.48	76	2.35	80	1.69	40	1.15	5	.48	38	2.53	28	.87	13	.40	23	.49	6	.17	4	.38
	Deaths	3	.20	6	.19	45	1.38	70	1.48	26	.75	3	.29	21	1.40	5	.15	6	.18	8	.17	3	.09	4	.38
1928	Notifications	11	.73	82	2.54	62	1.90	109	2.31	47	1.35	7	.67	30	2.00	49	1.52	20	.61	20	.42	8	.23	4	.38
	Deaths	3	.20	5	.16	34	1.04	59	1.25	33	.95	4	.38	15	1.00	12	.37	7	.21	4	.08	2	.06	2	.19
1929	Notifications	5	.34	63	2.01	65	2.06	88	1.92	33	.98	6	.59	30	2.06	23	.74	19	.60	14	.31	4	.12	0	—
	Deaths	3	.21	3	.10	27	.85	64	1.40	27	.80	6	.59	18	1.24	5	.16	10	.32	9	.20	3	.09	0	—
1930	Notifications	7	.48	80	2.57	59	1.87	81	1.77	36	1.04	5	.49	35	2.41	31	.99	17	.54	15	.33	5	.15	2	.20
	Deaths	1	.07	3	.10	30	.95	54	1.18	33	.98	5	.49	22	1.52	5	.16	9	.29	7	.15	4	.12	2	.20
1931	Notifications	5	.33	65	2.14	62	2.00	85	1.72	25	.68	3	.23	21	1.39	28	.92	19	.61	16	.32	2	.05	1	.08
	Deaths	0	—	0	—	29	.94	66	1.33	29	.79	4	.30	12	.79	7	.23	8	.26	8	.16	4	.11	0	—
1932	Notifications	4	.26	55	1.80	46	1.48	80	1.61	37	1.00	7	.53	29	1.91	49	1.60	30	.96	17	.34	4	.11	0	—
	Deaths	2	.13	5	.16	28	.90	46	.92	24	.65	2	.15	11	.72	7	.23	5	.16	6	.12	1	.03	1	.08
1933	Notifications	7	.46	69	2.25	56	1.80	90	1.80	30	.81	3	.23	29	1.90	26	.85	18	.58	13	.26	2	.05	0	—
	Deaths	1	.07	7	.23	22	.71	41	.82	27	.73	4	.30	21	1.38	8	.26	7	.22	7	.14	3	.08	0	—
934	Notifications	8	.53	59	1.93	53	1.70	84	1.68	38	1.03	4	.30	22	1.44	40	1.31	15	.48	18	.36	5	.14	3	.23
	Deaths	1	.07	4	.13	23	.74	43	.86	22	.60	2	.15	13	.85	11	.36	12	.38	7	.14	2	.05	2	15
1935	Notifications	12	.78	72	2.34	56	1.79	85	1.70	34	.92	6	.45	29	1.89	58	1.88	21	.67	11	.22	9	.24	1	.07
	Deaths	2	.13	2	.06	24	.77	54	1.08	27	.72	10	.75	12	.78	14	.45	6	.19	3	.06	3	.08	1	.07
1936	Notifications	9	.59	50	1.61	65	2.06	80	1.59	25	.67	3	.22	31	2.02	33	1.07	20	.64	19	.37	4	.11	2	.15
	Deaths	2	.13	4	.13	24	.76	48	.95	25	.67	4	.30	13	.85	10	.32	7	.22	4	.08	3	.08	2	.15
1937	Notifications	6	.39	66	2.15	47	1.50	85	1.70	20	.54	6	.45	23	1.51	59	1.92	26	.83	26	.52	2	.05	3	.22
	Deaths	0	—	2	.07	33	1.05	46	.92	16	.43	5	.37	8	.52	8	.26	10	.32	14	.28	2	.05	1	.07
1938	Notifications	6	.39	48	1.56	51	1.62	83	1.66	32	.86	9	.67	19	1.24	57	1.85	20	.64	10	.20	2	.05	2	.15
	Deaths	1	.07	5	.16	21	.67	50	1.00	24	.65	10	.75	8	.52	12	.39	2	.06	6	.12	5	.13	2	.15

TABLE XXIX.

TUBERCULOSIS.—Notifications and Deaths, with corresponding rates per 1,000 population, for each year since 1913 (since notification became compulsory).

YEAR.	Estimated Population.	NOTIFICATIONS AND CASE RATES. Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.		Tuberculosis (all forms).		DEATHS AND DEATH-RATES. Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.		Tuberculosis (all forms).	
		No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000
1913	164,975	400	2.42	Non-Pulmonary Tuberculosis				191	1.16	128	.77	319	1.93
1914	176,584	590	3.34	Notifiable in March, 1914.				249	1.41	126	.71	375	2.12
1915	177,300	485	2.73	377	2.12	862	4.86	275	1.55	113	.64	388	2.19
1916	181,437	522	2.87	213	1.17	735	4.05	259	1.42	95	.52	354	1.95
1917	181,773	432	2.37	171	.94	603	3.31	218	1.20	140	.77	358	1.97
1918	181,777	393	2.16	201	1.11	594	3.26	256	1.40	90	.49	346	1.90
1919	185,388	442	2.38	137	.73	579	3.12	165	.89	83	.44	248	1.33
1920	184,084	423	2.29	132	.71	555	3.01	183	.99	69	.38	252	1.37
1921	168,217	375	2.23	99	.58	474	2.81	168	.99	59	.35	227	1.34
1922	172,061	401	2.33	162	.94	563	3.27	168	.98	67	.39	235	1.37
1923	170,901	309	1.80	216	1.26	525	3.07	167	.98	78	.45	245	1.43
1924	171,295	295	1.72	142	.83	437	2.55	146	.85	65	.38	211	1.23
1925	169,361	280	1.65	121	.72	401	2.37	148	.87	59	.35	207	1.22
1926	170,060	308	1.81	123	.72	431	2.53	138	.81	52	.31	190	1.12
1927	172,444	288	1.67	112	.65	400	2.32	153	.89	47	.27	200	1.16
1928	172,214	318	1.85	131	.76	449	2.61	138	.80	42	.25	180	1.05
1929	167,109	260	1.56	90	.54	350	2.09	130	.78	45	.27	175	1.05
1930	166,495	267	1.60	105	.63	372	2.23	126	.76	49	.29	175	1.05
1931	176,006	245	1.39	87	.49	332	1.89	128	.73	39	.22	167	.95
1932	176,833	229	1.30	129	.73	358	2.02	107	.61	31	.18	138	.78
1933	177,177	255	1.44	88	.50	343	1.94	102	.58	46	.26	148	.84
1934	177,230	246	1.39	103	.58	349	1.97	95	.54	47	.26	142	.80
1935	178,157	265	1.49	129	.72	394	2.21	119	.67	39	.22	158	.89
1936	178,692	231	1.29	108	.60	339	1.89	107	.60	39	.22	146	.82
1937	177,711	230	1.29	139	.78	369	2.07	102	.57	43	.25	145	.82
1938	177,960	229	1.29	110	.62	339	1.91	111	.62	35	.20	146	.82

TABLE XXX

TUBERCULOSIS.—Notifications and Deaths with corresponding rates per 1,000 population in various wards, 1938.

WARD.	NOTIFICATIONS AND CASE RATES.						DEATHS AND DEATH - RATES.					
	Pulmonary Tuberculosis.	Per 1000.	Non-Pulmonary Tuberculosis.	Per 1000.	Tuberculosis (all forms).	Per 1000.	Pulmonary Tuberculosis	Per 1000.	Non-Pulmonary Tuberculosis.	Per 1000.	Tuberculosis (all forms).	Per 1000
I.	25	1.46	10	.59	35	2.05	12	.70	3	.18	15	.88
II.	14	1.17	12	1.01	26	2.18	8	.67	4	.34	12	1.01
III.	22	1.31	13	.78	35	2.09	10	.60	4	.24	14	.84
IV.	29	1.65	14	.79	43	2.44	16	.91	5	.28	21	1·19
V.	12	.82	7	.48	19	1.30	6	.41	1	.07	7	.48
VI.	25	1.43	5	.29	30	1.72	15	.86	3	.17	18	1.03
VII.	18	1.31	7	.51	25	1.82	5	.36	3	.22	8	.58
VIII.	27	1.40	19	.99	46	2.39	10	.52	7	.26	17	.88
IX.	26	1.34	6	.31	32	1.65	12	.62	2	.10	14	.72
X. and XI. ...	4	.37	4	.37	8	.74	5	.46	—	—	5	.46
XII.	27	1.39	13	.67	40	2.06	12	.62	3	.15	15	.77
No fixed abode	—	—	—	—	—	—	—	—	—	—	—	—
Totals ...	229	1.29	110	.62	339	1.91	111	.62	35	.22	146	.82

TABLE XXXI.

PULMONARY TUBERCULOSIS—Notifications and Deaths with corresponding rates per 1,000 population for each sex each year since 1915.

Year.	NOTIFICATIONS.				DEATHS.			
	Males.		Females.		Males.		Females.	
	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000
1915	216	2.75	269	2.72	106	1.35	169	1.71
1916	227	2.83	295	2.92	99	1.23	160	1.58
1917	181	2.25	251	2.48	100	1.24	118	1.16
1918	198	2.46	195	1.92	117	1.45	139	1.37
1919	238	2.90	204	1.97	90	1.09	75	.72
1920	223	2.74	200	1.95	95	1.16	88	.85
1921	197	2.64	178	1.90	81	1.08	87	.92
1922	170	2.23	231	2.41	75	.98	93	.97
1923	149	1.97	160	1.68	73	.96	94	.98
1924	135	1.78	160	1.68	75	.98	71	.74
1925	125	1.66	155	1.65	61	.81	87	.93
1926	135	1.79	173	1.83	67	.89	71	.75
1927	147	1.92	141	1.47	76	.99	77	.80
1928	159	2.08	159	1.66	67	.88	71	.74
1929	126	1.70	134	1.44	61	.82	69	.74
1930	131	1.77	136	1.47	64	.87	62	.67
1931	121	1.53	124	1.28	58	.73	70	.72
1932	112	1.41	117	1.20	55	.69	52	.53
1933	143	1.80	112	1.15	52	.65	50	.51
1934	124	1.56	122	1.25	46	.58	49	.50
1935	132	1.65	133	1.35	65	.81	54	.55
1936	124	1.55	107	1.09	47	.58	60	.61
1937	112	1.40	118	1.21	47	.59	55	.56
1938	128	1.60	101	1.03	72	.90	39	.40

TABLE XXXII.

Pulmonary Tuberculosis—Deaths in Institutions each year since 1929.

	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Total Deaths from Pulmon. T.B. -	130	126	128	107	102	105	119	107	102	111
No. of Deaths from Pulmon. T.B. in Institutions	70	64	71	58	49	61	66	60	46	63
Percentage of Total Deaths from Pul. T. B. dying in Institutions	53.8	50.8	55.5	54.2	48.0	58.1	55.5	56.1	45.1	56.8

TABLE XXXIII.

MATERNAL MORTALITY.

Certified causes of deaths of women from diseases and accidents connected with pregnancy and child-birth during 1938.

Accidents of pregnancy	2
Puerperal hæmorrhage	3
Puerperal septicæmia, including post-abortive sepsis ..	10
Toxæmias of pregnancy, albuminuria, convulsions ...	1
Other puerperal diseases	2
	18

TABLE XXXIV.

Maternal Mortality Rates—number of deaths per 1,000 registered births each year, 1929-1938.

1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
6.88	4.28	5.25	4.58	7.74	5.44	5.63	6.94	5.12	5.8

TABLE XXXV.

Number of births per 1,000 population, illegitimate births per 100 registered births, and marriages per 1,000 population, each year since 1914.

Year.	Birth-rate.	Illegitimate-rate.	Marriage-rate.
1914	25.2	9.1	8.3
1915	22.1	8.0	9.5
1916	20.5	8.0	7.1
1917	15.6	11.2	7.0
1918	16.0	10.6	7.5
1919	18.7	11.1	10.6
1920	27.4	8.5	11.4
1921	26.5	7.7	10.0
1922	24.6	7.0	8.8
1923	24.6	7.9	8.8
1924	22.6	7.2	7.6
1925	21.8	6.4	7.6
1926	21.9	6.9	7.7
1927	20.4	7.6	7.4
1928	20.3	7.8	7.8
1929	20.9	7.6	7.7
1930	21.1	7.9	8.1
1931	19.5	7.4	7.2
1932	18.5	6.9	7.3
1933	17.5	8.2	7.9
1934	18.7	8.2	8.7
1935	17.9	7.5	8.9
1936	17.7	6.7	8.2
1937	17.6	5.9	8.6
1938	17.6	6.0	7.9

TABLE XXXVI.

VACCINATION—1921–1937.

Year	Total Births (excluding Transcripts received)	Successfully Vaccinated		Insusceptible to Vaccination		Died before Vaccination		Conscientious Objections		Postponement or unaccounted for	
		No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.
1921	4509	1191	26·4	27	·6	379	8·4	2682	59·5	230	5·1
1922	4288	1193	27·8	12	·3	323	7·5	2556	59·6	204	4·8
1923	4275	1240	29·0	11	·2	284	6.6	2567	60·1	173	4·1
1924	3921	1077	27·5	16	4	352	9·0	2271	57·9	205	5·2
1925	3750	978	26·1	17	·4	306	8·2	2270	60·5	179	4·8
1926	3822	1087	28·4	25	·7	309	8·1	2252	58·9	149	3·9
1927	3591	1228	34·2	49	1·4	307	8.5	1933	53·8	74	2.1
1928	3585	1198	33.4	43	1.2	253	7.1	2037	56.8	54	1.5
1929	3598	1118	31.1	63	1.7	240	6.7	2124	59.0	53	1.5
1930	3625	1111	30.6	32	.9	260	7.2	2186	60.3	36	1.0
1931	3531	972	27.5	64	1.8	188	5.3	2247	63·7	60	1.7
1932	3411	904	26.5	47	1.4	171	5.0	2236	65.5	53	1.6
1933	3245	836	25.7	28	.9	204	6.3	2135	65.8	42	1.3
1934	3466	853	24.6	34	1.0	163	4.7	2377	68.6	39	1.1
1935	3375	809	24.0	24	.7	182	5.4	2311	68.5	49	1.5
1936	3400	838	24.6	19	.6	190	5.6	2320	68.2	33	1.0
1937	3365	789	23.4	14	.4	171	5.1	2358	70.1	33	1.0

TABLE XXXVII

Port Sanitation.

DETAILS OF VESSELS ENTERING THE PORT DURING 1938.

	No. of Arrivals.	Tonnage.	No. Inspected by Medical Officer.	No. Inspected by Sanitary Inspector.	No Reported Defective.	No of Orders Issued.
From Foreign—						
Steamers .	371	679,887	117	371	132	10
Motor Ships ...	29	41,281	5	29	5	...
Coastwise	851	299,237	...	391	36	...
	1,251	1.020,405	122	791	173	10

33 re-visits by Port Medical Officer.

TABLE XXXVIII.

Port Sanitation.

Principal Foreign Places from which ships arrived and notes of cargoes.

PORT OR COUNTRY.	No.	CARGOES
India (Calcutta, Chittagong, Colombo, etc.)	102	Jute, Gunnies, Linseed, Desiccated Cocoanut and Oil Cake.
Hamburg	35	Sugar, Potatoes, Farina Phosphates, Fancy Goods, Peas, Beans.
Rotterdam ...	54	Sugar, Milk, Cheese, Fruit, Vegetables, Moss Litter, Steel Plates and Tubing.
Antwerp, Ghent and Dunkirk	29	Vegetables, Iron, and Steel.
Sweden	22	Paper, Paper Pulp, Box Boarding.
U.S.A. and Canada	23	Flour, Sugar, Pitch, Ochre, Tinned Fruit and Meat, Cheese, Wire.
Baltic Ports, ...	54	Timber, and Flax.
Norway	24	Paper and Paper Pulp.
North Africa	16	Esparto Grass, Phosphates, Oil Cake and Sugar.
West Indies, etc.	9	Sugar and Oil.
Soviet Russia	14	Timber and Flax.
Other European Ports	18	Timber, Cork, Pyrites, Phosphates Oilcake, Grain and Vegetables.

TABLE XXXIX.

Port Sanitation.

Details of Action taken:—

Total Number of verbal intimations		373
Total Number of rat notices issued		27
Total Number of visits to ships		1051
Total Number of ships from infected or suspected ports		122
Do.	(Direct)	16
Do.	(Indirect)	106
Nuisances and defects attended to:—243		
Forecastles cleaned out		39
Messrooms cleaned		22
Galleys and store-rooms cleaned		25
Accumulation of food refuse		14
Choked or defective W.C.'s		19
Dirty W.C.'s		13
Discharge of foul water on quay		37
Ventilators obstructed		49
Excessive smoke emission		14
Defective Ports		0
Leaking deck plates		2
Rat refuges destroyed		11
		243

In addition the following work was carried out while the vessels were in Port:—

Fresh water tanks cleaned out	60
Forecastles washed or painted	47
Bathroom or wash places painted	33
Galleys washed or painted	11
W.C.'s painted	23

TABLE XL.

BACTERIOLOGICAL LABORATORY.

Examinations carried out on behalf of the Department of Bacteriology, University of St. Andrews, Medical School, Dundee.

	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Wassermann Tests.. ..	4107	4177	4588	4419	4053	4179	4462	4367	4562	5363	8055
Microscopical and other examinations under V.D. Scheme for—											
Syphilis	31	36	109	51	56	49	33	36	44	52	25
Gonorrhœa	2933	3301	3019	2779	3714	3725	4266	4687	3955	4406	4794
Swabs for diphtheria	1898	1500	1197	962	823	857	894	1156	1077	982	1355
Widal tests for enteric fever ..	106	228	206	212	150	228	262	164	146	136	252
Sputum examinations	310	302	261	291	300	329	339	360	315	321	237
Examination of fæces, blood cultures, etc., for—											
Enteric fever	26	131	100	214	63	240	321	128	125	160	394
Dysentery	11	37	70	50	112	78	165	149	278	221	640
Infantile Diarrhœa ..	7	—	—	—	—	—	—	—	—	—	—
Puerperal Fever ...	—	90	166	180	210	180	236	162	184	243	244
Milk examinations	75	74	105	†1220	†481	78	84	δ179	121	213	389
Food Poisoning—											
No. of outbreaks ..	(2)	(1)	(2)	(0)	(0)	(2)	(7)	(15)	(9)	(9)	(7)
No. of examinations	27	14	11	0	0	2	7	25	12	43	70
Cerebro spinal meningitis ..	16	13	24	12	15	25	34	41	64	76	102
Other examinations	35	19	105	303	367	417	631	629	643	545	805
Totals ..	9582	9922	9960	10693	10350	10387	11737	12058	11524	12761	17363

†Includes 1130 and 370 respectively for T.B. and for Epizootic Abortion of cattle, in collaboration with the Empire Marketing Board and the Departmentof Health for Scotland.
δ Includes 102 specimens of Milk examined in collaboration with the Scottish Milk Marketing Board.

TABLE XLI.

DISINFECTION. 1938.

The table submitted below details the year's work in regard to disinfection.

Month	Bed Ticks	Beds	Mattresses	Bed Covers	Blankets	Sheets	Bolster Ticks	Bolster Cases	Pillow Ticks	Pillow Cases	Bed Panes	Aprons	H'dkerchiefs	Table Cloths	Towels	Wearing Apparel	Miscellaneous Articles	Total No. of Articles	No. of Homes from which articles were removed
January ...	...	...	16	211	251	190	...	33	20	155	...	...	18	...	9	895	422	2220	235
February ...	1	..	16	201	179	171	...	23	19	116	2	1	10	...	6	872	445	2062	230
March ...	...	...	62	188	195	158	...	28	39	108	...	...	4	...	8	852	441	2083	239
April ...	1	...	6	232	164	171	...	27	7	114	...	...	3	...	3	997	491	2216	292
May ...	...	...	6	104	177	166	...	8	1	100	...	...	2	...	4	803	339	1710	240
June ...	1	..	20	213	144	129	...	...	17	127	...	3	4	...	9	439	155	1261	165
July ...	45	...	31	197	245	109	...	...	6	87	...	...	1	...	7	320	175	1223	131
August ...	187	...	14	264	438	132	3	15	17	98	...	1	8	...	11	442	142	1672	128
September ...	1	...	9	237	167	151	...	18	6	145	...	...	13	...	6	454	181	1388	149
October ...	...	...	48	306	244	214	...	...	14	211	...	..	13	3	33	510	185	1779	163
November ...	1	...	19	310	307	250	...	50	17	183	...	...	16	1	23	825	316	2318	239
December ...	1	..	25	260	160	127	2	28	18	10[illegible]	...	...	9	...	4	597	214	1547	174
Totals	238	..	272	2723	2671	1968	5	230	181	1546	2	5	101	4	123	7906	3504	21479	2385

The following figures relate to the articles disinfected and the houses concerned each year since 1927 :—

	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Articles	22,721	16,642	20,976	19,994	15,892	20,265	28,714	20,484	16,730	14,637	20,054	21,479
Houses concerned	1,709	1,276	1,718	1,748	1,477	1,981	2,515	2,167	1,574	1,834	2,131	2,385

TABLE XLII.

FACTORIES, WORKSHOPS AND WORKPLACES.

YEAR 1938.

1. Inspection of Factories, Workshops and Workplaces, including Inspections made by Sanitary Inspectors.

PREMISES	Inspections	NUMBER OF Written Notices	Occupiers Prosecuted
Factories with Mechanical Power	645	0	0
Factories without Mechanical Power	1203	1	0
Other Premises (other than outworkers' premises)	361	0	0
	2,209	1	0

2. Defects found in Factories, Workshops and Workplaces

PARTICULARS	NUMBER OF DEFECTS Found	Remedied	Referred to H.M. Inspector	No. of Offences in respect to which Prosecutions were Instituted
Nuisances under the Public Health Acts†—				
Want of cleanliness	135	135	...	...
Want of ventilation	...	...	...	...
Overcrowding	...	...	...	...
Want of drainage of floors ...	...	...	...	...
Other nuisances	...	...	...	...
Sanitary accommodation—				
Insufficient	4	4	...	...
Unsuitable or defective ...	18	14	...	...
Not separate for sexes ...	4	4	...	...
Offences under the Factory and Workshop Acts—				
Illegal occupation of underground bakehouse (S. 101)	...	...	...	...
Other offences ... ... excluding offences relating to outwork and offences under the Sections mentioned in the Schedule to the Scottish Board of Health (Factories and Workshops Transfer of Powers) Order, 1921)	...	...	...	...
Total	161	157	...	...

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

TABLE XLIII.

DUNDEE INFANT HOSPITAL.

Year to 31st December, 1938.

In Hospital, 1st January, 1938		34
Admitted, 1938		159
		193
DISCHARGED—		
Relieved	123	
Unrelieved	2	
Taken home	5	
Transferred to Dundee Royal Infirmary	2	
,, Ashludie Sanatorium ...	1	
,, Barnhill Sanatorium, Perth	1	
,, King's Cross Hospital—		
Diphtheria ...	10	
Measles ...	9	
Vaginitis ...	1	
Sent Home—Chickenpox ...	1	
	—	155
		38
DIED—		
Broncho Pneumonia	4	
Marasmus	2	
(2 admitted moribund)	—	6
In Hospital, 31st December, 1938 ...		32
Death Rate ... 3.7 per cent.		
THE CASES TREATED WERE—		
Marasmus	103	
Debility	20	
Rickets	4	
Cerebral Diplegia	1	
Meningocele	1	
Mentally Defective	1	
Abdominal Tuberculosis ...	2	
Tuberculous Adenitis	1	
Broncho-Pneumonia	14	
Pyloric Stenosis	2	
Gastro-Enteritis	10	
	—	159
Total Patient Days	10,770	
Highest Daily Number	35	
Lowest Daily Number	0	
Average	29.5	

Hospital closed for 4 days owing to outbreak of Measles.

TABLE XLIV.

VENEREAL DISEASES SCHEME, 1931 to 1938.

Patients suffering from Venereal Diseases, attending the V.D. Centre, who :—

	Left before completing a course of treatment.						Left after completing a course of treatment but before final tests as to cure..						Were transferred to other Centres.						Were discharged from Centre after completion of treatment.						Were remaining on treatment at end of year.						Totals of all cases attending throughout the year.		
	Sexes.		Males.		Females.		Both Sexes.		Males.		Females.		Both Sexes.		Males.		Females.		Both Sexes.		Males.		Females.		Both Sexes.		Males.		Females.				
Year	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	No.	Per Cent.	Both Sexes.	Males.	Females.
1931	145	8	53	5	92	12	108	6	57	5	51	7	138	7	95	8	43	6	406	21	305	27	101	14	777	41	427	37	350	47	1853	1114	739
1932	158	8	56	5	102	11	155	8	58	5	97	10	118	6	62	6	56	6	423	21	307	27	116	12	850	42	422	39	428	46	2012	1083	929
1933	124	7	59	6	65	7	150	9	61	6	89	10	129	7	79	8	50	5	405	22	240	25	165	19	714	40	367	38	347	38	1821	944	877
1934	315	19	156	16	159	22	103	6	56	5	47	6	82	4	63	6	19	2	247	18	219	22	28	4	690	40	358	40	332	47	1696	983	713
1935	301	16	116	10	185	24	79	4	50	4	29	4	133	7	103	9	30	4	309	16	270	23	39	5	757	40	438	38	319	43	1910	1159	751
1936	183	9	89	7	91	13	74	4	62	5	12	2	141	7	123	10	18	2	366	18	324	26	42	6	924	46	443	35	481	65	2000	1258	742
1937 &	275	12	102	8	173	17	76	3	50	4	26	3	134	6	105	8	29	3	387	17	336	27	51	5	1092	48	468	37	624	61	2267	1251	1016
1938	329	12	91	7	238	17	59	2	29	2	30	2	161	6	98	7	63	4	455	17	315	24	140	10	1180	45	474	37	706	51	2647	1264	1383

TABLE XLV.

Number of New Cases attending the V.D. Treatment Centre each year since 1927.

Disease.	1927. M.	1927. F.	1928. M.	1928. F.	1929. M.	1929. F.	1930. M.	1930. F.	1931. M.	1931. F.	1932. M.	1932. F.	1933. M.	1933. F.	1934. M.	1934. F.	1935*. M.	1935*. F.	1936*. M.	1936*. F.	1937*. M.	1937*. F.	1938*. M.	1938*. F.
Syphillis... ...	102	140	92	133	127	151	189	209	137	138	116	164	104	131	103	99	117	95	126	104	153	202	172	373
Gonorrhoea ...	243	65	247	53	291	95	335	64	288	106	283	205	225	163	292	115	384	144	376	185	312	177	314	148
Mixed infections	19	16	16	21	20	37	36	43	26	24	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other V.D. ...	56	—	66	1	65	—	69	—	49	—	47	—	55	—	81	—	79	—	101	—	115	—	56	—
Not Suffering from V.D.	91	70	157	104	165	124	124	118	223	177	178	117	138	155	140	152	186	131	207	114	217	131	247	195
Totals ...	511	291	578	312	668	407	773	434	723	445	624	486	522	449	616	366	766	370	810	403	797	510	789	716
Totals (both sexes)	802		890		1,075		1,207		1,168		1,110		971		982		1,136		1,213		1,307		1,505	

*These figures apply to new cases only and do not include cases removed from the register during any previous year who returned during the year under report for treatment or observation of the same infection.

TABLE XLVI.

Number of Attendances at V.D. Treatment Centre each year since 1927.

	1927 M.	1927 F.	1928 M.	1928 F.	1929 M.	1929 F.	1930 M.	1930 F.	1931 M.	1931 F.	1932 M.	1932 F.	1933 M.	1933 F.	1934 M.	1934 F.	1935 M.	1935 F.	1936 M.	1936 F.	1937 M.	1937 F.	1938 M.	1938 F.
ilis	2,574	6,056	2,665	5,137	4,081	5,281	6,477	6,506	7,109	5,085	5,589	6,493	5,304	6,018	4,538	4,339	4,254	4,999	4,742	5,610	5,813	6,425	6,655	10,576
rrhoea ...	10,782	5,502	9,541	5,330	11,717	5,639	18,243	5,751	17,877	5,944	18,072	7,729	16,740	7,568	16,853	7,847	21,246	9,848	24,724	8,525	22,953	8,568	18,539	9,038
d Infections	674	2,273	942	1,726	1,263	2,309	2,226	2,805	1,566	1,327	—	—	—	—	—	—	—	—	—	—	—	—	—	—
r V.D. ..	453	—	422	6	331	—	565	—	569	..	778	—	682	—	549	—	792	—	1,130	—	1,823	—	843	—
Suffering from D.	317	441	426	580	517	857	406	956	1,049	911	854	949	746	757	467	748	430	1,079	541	728	477	758	369	599
otals	14,800	14,272	13,996	12,779	17,909	14,086	27,917	16,018	28,170	13,267	25,293	15,171	23,472	14,343	22,407	12,934	26,722	15,926	31,037	14,863	31,966	15,751	26,406	20,213
s (both sexes	29,072		26,775		31,995		43,935		41,437		40,464		37,815		35,341		42,648		46,000		46,817		46,619	

TABLE XLVII.

Doses of Arseno-Benzol Compounds Issued.

	Treatment Centre.	Other Institutions.	Medical Practitioners.	Total.
1919 ...	1,958	13	141	2,112
1920 ...	6,362	18	472	6,852
1921 ...	6,280	239	358	6,877
1922 ...	5,135	239	239	5,613
1923 ...	5,224	198	123	5,545
1924 ...	3,887	275	504	4,666
1925 ...	2,836	341	398	3,575
1926 ...	2,286	264	423	2,973
1927 ...	2,826	18	272	3,116
1928 ...	2,997	154	253	3,404
1929 ...	3,673	235	342	4,250
1930 ...	6,884	380	388	7, 52
1931 ...	3,362	113	327	3,802
1932 ...	3,582	126	182	3,890
1933 ...	3,594	118	216	3,928
1934 ...	2,170	660	112	2,942
1935 ...	2,874	532	321	3,727
1936 ...	4,110	262	296	4,668
1937 ...	5,858	486	345	6,689
1938 ...	9,316	612	348	10,276

TABLE XLVIII.

LABORATORY WORK—The following examinations were carried out under the V.D. scheme each year since 1926 :—

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Wassermann Tests	3,660	3,619	4,107	4,177	4,588	4,419	4,053	4,179	4,462	4,367	4,562	5,363	8,055
Microscopical and other Examinations	1,898	2,259	2,954	3,337	3,128	2,830	3,770	3,774	4,299	4,687	3,999	4,458	4,819
	5,558	5,888	7,071	7,514	7,716	7,249	7,823	7,953	8,761	9,054	8,561	9,821	12,874

TABLE XLIX.

Unsound Food. All Seized at the Public Slaughter-Houses.

Number of Seizures, Weight (in lbs.) of Meat Seized, and Reasons for Seizure.

FOR YEAR ENDING 31ST DECEMBER, 1938.

DISEASE	BEEF		VEAL		MUTTON		PORK		TOTAL	
	Number	Weight	Number	Weight	Number	Weight	Number	Weight	Number	Weight
(a) Tuberculosis	2,922	196,992	1	...	...	...	106	4,007	3,029	200,999
(b) Other Diseases :—										
Abscesses, Tumours, and Cysts ...	392	457	1	38	45	107	91	252	529	854
Actinomycosis	194	466	...	...	1	27	...	...	195	493
Asphyxiation	1	592	...	...	...	...	...	...	1	592
Blackleg	1	216	...	...	...	...	...	...	1	216
Decomposition	5	2,189	...	...	15	225	...	...	20	2,414
Dropsical Conditions	12	3,228	4	245	55	1,127	5	350	76	4,950
Fevered Conditions	41	8,051	6	20	107	1,955	19	497	173	10,523
Fractures and Bruises	77	4,081	1	12	42	321	21	674	141	5,088
Inflammation of Abdominal Organs ...	237	3,248	...	...	114	315	12	124	363	3,687
Jaundice	...	...	...	...	1	100	...	...	1	100
Pneumonia	40	328	1	...	36	461	13	...	90	789
Rheumatism	3	173	2	73	34	168	18	206	57	620
Septic Conditions	9	4,874	7	314	21	1,223	5	314	42	6,725
Swine Erysipelas	...	...	...	...	...	...	3	352	3	352
Uraemia	...	...	...	...	1	38	...	...	1	38
Wasted Conditions	3	955	...	...	4	50	...	...	7	1,005
Totals	3,937	225,850	23	702	476	6,117	293	6,776	4,729	239,445

TABLE L.

Shews the number of the different kinds of Animals Slaughtered at the Public Slaughter-houses each month during 1938, also the number of their carcases found to be Diseased or Unsound, and the weight of each class seized and destroyed.

Month	Animals Slaughtered				Numbers of their Carcases Diseased or Unsound				Weight (in lbs.) condemned from Carcases of Animals Slaughtered on the Premises				
1938	Cattle	Calves	Sheep	Pigs	Cattle	Calves	Sheep	Pigs	Beef	Veal	Mutton	Pork	Total
January ...	1,178	15	1,947	429	395	3	103	22	17,204	146	459	359	18,168
February ...	1,132	12	1,833	425	390	1	65	22	18,347	62	207	843	19,459
March ...	1,237	16	2,013	449	432	3	99	23	21,959	47	392	230	22,628
April ...	1,175	6	1,883	354	360	2	62	33	12,326	51	610	333	13,320
May ...	1,253	5	1,996	353	389	..	39	30	15 471		294	787	16.552
June ...	1,179	11	2,096	275	365	4	41	12	17,659	62	238	378	18,337
July ...	1.083	9	1.916	209	272	..	92	31	14,097	...	287	744	15,128
August ...	1.304	27	2,464	269	410	4	79	34	21,625	123	206	303	22,257
September ...	1,241	9	2,378	292	399	1	76	20	19,273	38	413	372	20,096
October ...	1,277	13	2,350	416	403	1	55	28	10,993		362	679	12,034
November ...	1,331	21	2,451	523	422	2	114	27	22,708	87	312	462	23.569
December ...	1.432	16	2,471	540	401	1	102	25	21,001	66	405	642	22,114
Totals ...	14,822	160	25,798	4,534	4,638	22	927	307	212,663	682	4,185	6,132	223,662

TABLE LI.

Shews the number of the different kinds of Carcases, dressed and undressed, brought to the Slaughter-houses, each month during 1938, with the number found to be diseased or unsound, and the weight of each class seized and destroyed on that account.

MONTH	Carcases brought in				Numbers of them Diseased or Unsound				Weight (in lbs.) Seized and Condemned from Carcases brought in				
1938	Cattle	Calves	Sheep	Pigs	Cattle	Calves	Sheep	Pigs	Beef	Veal	Mutton	Pork	Total
January	222	...	378	60	2	...	29	1	286	...	532	...	818
February ...	219	2	393	43	12	...	12	2	1,754	...	155	456	2,365
March	236	1	347	58	3	1	15	...	741	...	192	...	933
April	284	1	605	79	7	1	8	1	1,548	20	101	83	1,752
May	240	...	490	59	2	...	5	...	545	...	59	...	604
June	227	...	383	69	3	...	2	1	1,168	...	80	105	1,353
July	264	1	559	70	3	...	6	...	1,634	...	204	...	1,838
August	266	3	488	44	1	...	7	...	...	...	128	...	128
September ...	242	1	336	53	4	...	4	...	1,785	...	13	...	1,798
October	188	...	210	52	2	...	4	2	752	...	111	...	863
November ...	223	...	241	61	4	...	4	...	2,705	...	93	...	2,798
December ...	272	...	305	94	3	...	14	...	269	...	264	...	533
Totals ...	2,883	9	4,735	742	46	2	110	7	13,187	20	1,932	644	15,783
Table L.	14,822	160	25,798	4,534	4,638	22	927	307	212,663	682	4,185	6,132	223,662
Total of Tables L. and LI.	17,705	169	30,533	5,276	4,684	24	1,037	314	225,850	702	6,117	6,776	239 445

TABLE LII.

The following is a synopsis of the organs seized and condemned in addition to the foregoing at the Slaughter-houses for the full year :—

CATTLE ORGANS		SHEEP ORGANS		PIGS' ORGANS	
Cows' Udders ...	1,547	Livers	36	Udders	20
Livers	2,167	Plucks	307	Plucks	129
Lungs	2,813	Kidneys ...	608	Kidneys	166
Hearts	843	Lungs	534	Livers	86
Kidneys ...	2,312			Lungs	26
Heads	1,118	Total ...	1,485		
Tongues ...	1,183			Total ...	427
Skirts	2,277				
Total ...	14,260				

TINNED AND FROZEN MEAT SEIZED FOR DECOMPOSITION.

Frozen Meat ...	1,092 lbs.
Frozen Ox Kidneys	4 ,,
Total	1,096 lbs.

The number of Carcases wholly or partially condemned for Tuberculosis during each year for the last five years were as follows :—

YEAR	Bulls	Bullocks	Heifers	Cows	Calves	Sheep	Pigs	Total
1934	309	1,281	17	831	1	...	125	2,567
1935	287	1,520	21	985	1	...	107	2,921
1936	332	1,722	35	1,161	2	...	121	3,373
1937	243	1,862	27	1,138	1	...	94	3,365
1938	195	1,728	30	969	1	...	106	3,029

Statement shewing number of Animals Slaughtered, Wholly Condemned, Partially Condemned, and Weight (in lbs.) of Meat Condemned during the year 1938 :—

Class of Animal.	NUMBER OF ANIMALS.			Weight (in lbs.) of Condemned Meat.
	Slaughtered.	Wholly Condemned.	Partially Condemned.	
Cattle ...	14,982	205	4,455	213,345
Sheep ...	25,798	48	879	4,185
Pigs ...	4,534	28	279	6,132

TABLE. LIII.

The totals for the years 1922 to 1937 were:—

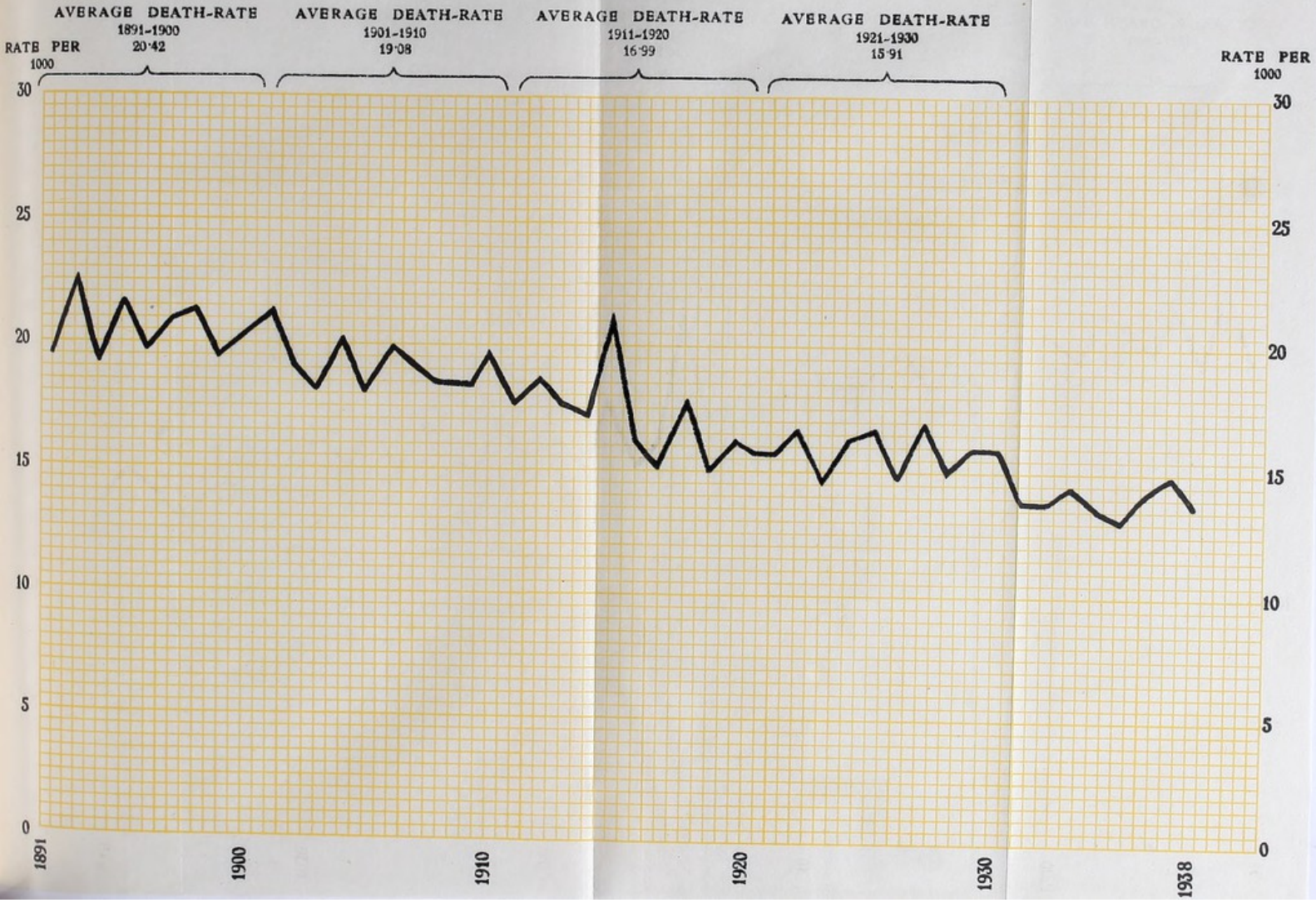
Year.	Carcases Examined.				Numbers Diseased or Unsound.				Weight (in lbs.) of Meat Seized and Condemned.				
	Cattle.	Calves.	Sheep.	Pigs.	Cattle.	Calves.	Sheep.	Pigs.	Beef.	Veal.	Mutton.	Pork.	Total.
1922	18,825	207	31,139	4,199	879	38	350	120	188,971	1,762	13,537	6,974	211,244
1923	18,756	138	26,286	3,570	958	33	318	113	219,803	2,022	12,319	8,362	242,506
1924	18,276	184	25,691	4,037	1,382	18	485	242	209,771	714	13,219	9,875	233,579
1925	18,139	198	25,831	3,669	1,561	11	344	141	165,533	578	8,321	5,449	179,881
1926	17,469	145	28,416	2,586	3,161	22	523	127	203,663	1,043	8,491	5,605	218,802
1927	18,224	147	33,983	3,058	3,263	28	778	182	184,577	949	8,191	3,943	197,660
1928	19,328	126	31,697	4,171	2,801	19	1,262	298	163,617	1,115	6,920	6,741	178,393
1929	18,244	126	31,971	3,443	3,482	29	1,682	179	160,319	639	7,099	3,404	171,461
1930	18,689	88	31,590	2,996	3,653	19	1,133	299	170,738	328	9,144	4,510	184,720
1931	18,255	90	31,915	3,640	3,831	10	1,321	229	194,921	311	8,541	5,396	209,169
1932	15,847	134	36,484	4,158	4,723	14	2,522	253	205,963	447	6,033	4,383	216,826
1933	15,394	116	34,754	4,189	5,031	19	2,468	312	215,788	408	3,824	5,686	225,706
1934	16,016	201	33,285	4,870	4,391	22	2,369	320	250,083	898	4,982	5,556	261,519
1935	17,770	207	33,444	5,490	4,431	20	1,748	387	274,981	725	5,313	6,340	287,359
1936	18,782	156	33,143	5,440	4,826	34	1,700	464	273,404	766	7,015	6,263	287,448
1937	18,468	196	30,593	5,237	5,181	33	1,558	393	266,881	977	7,739	7,724	283,321

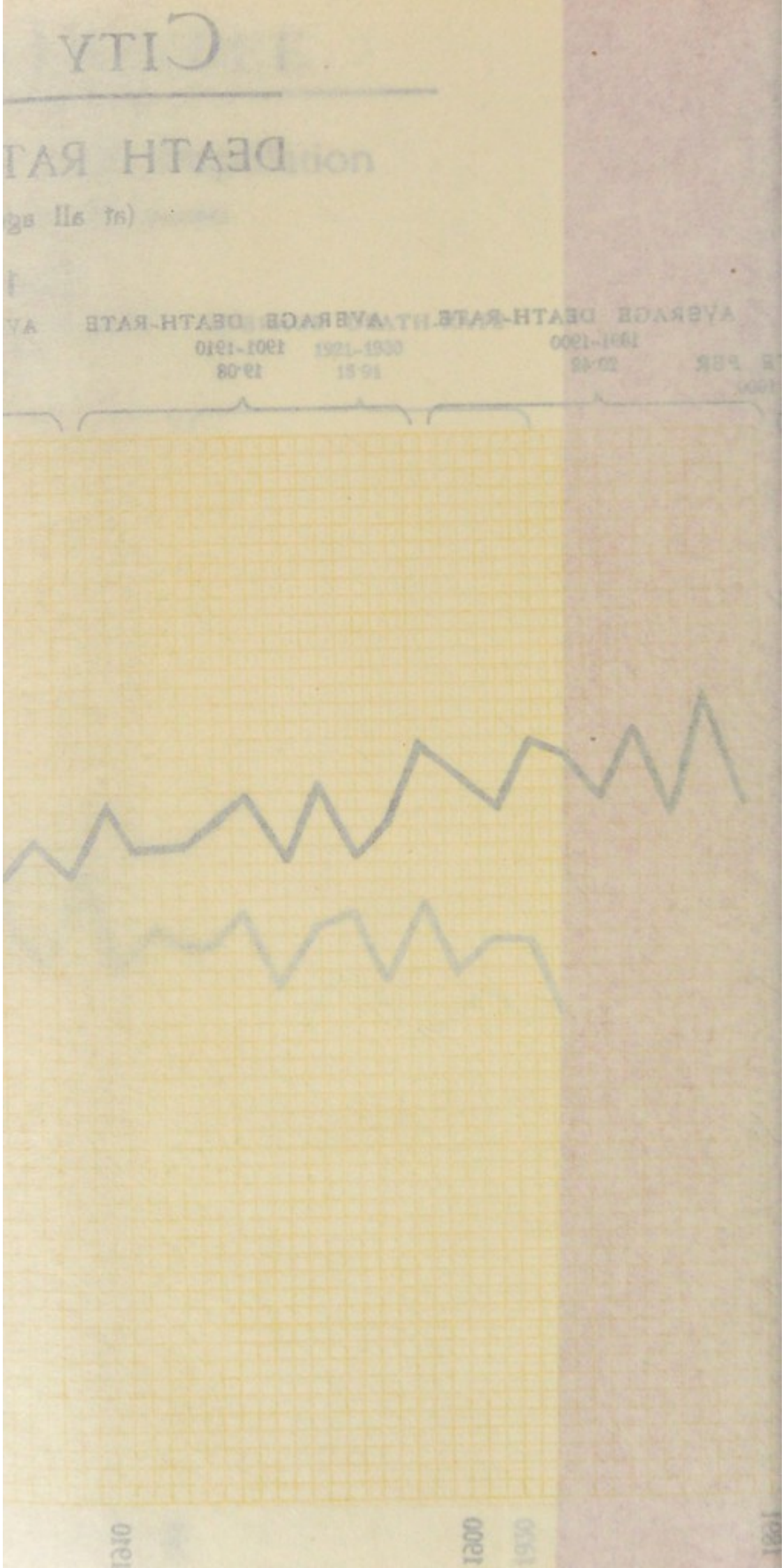
CITY OF DUNDEE

DEATH RATE per 1000 Population

(at all ages and from all causes)

1891-1938



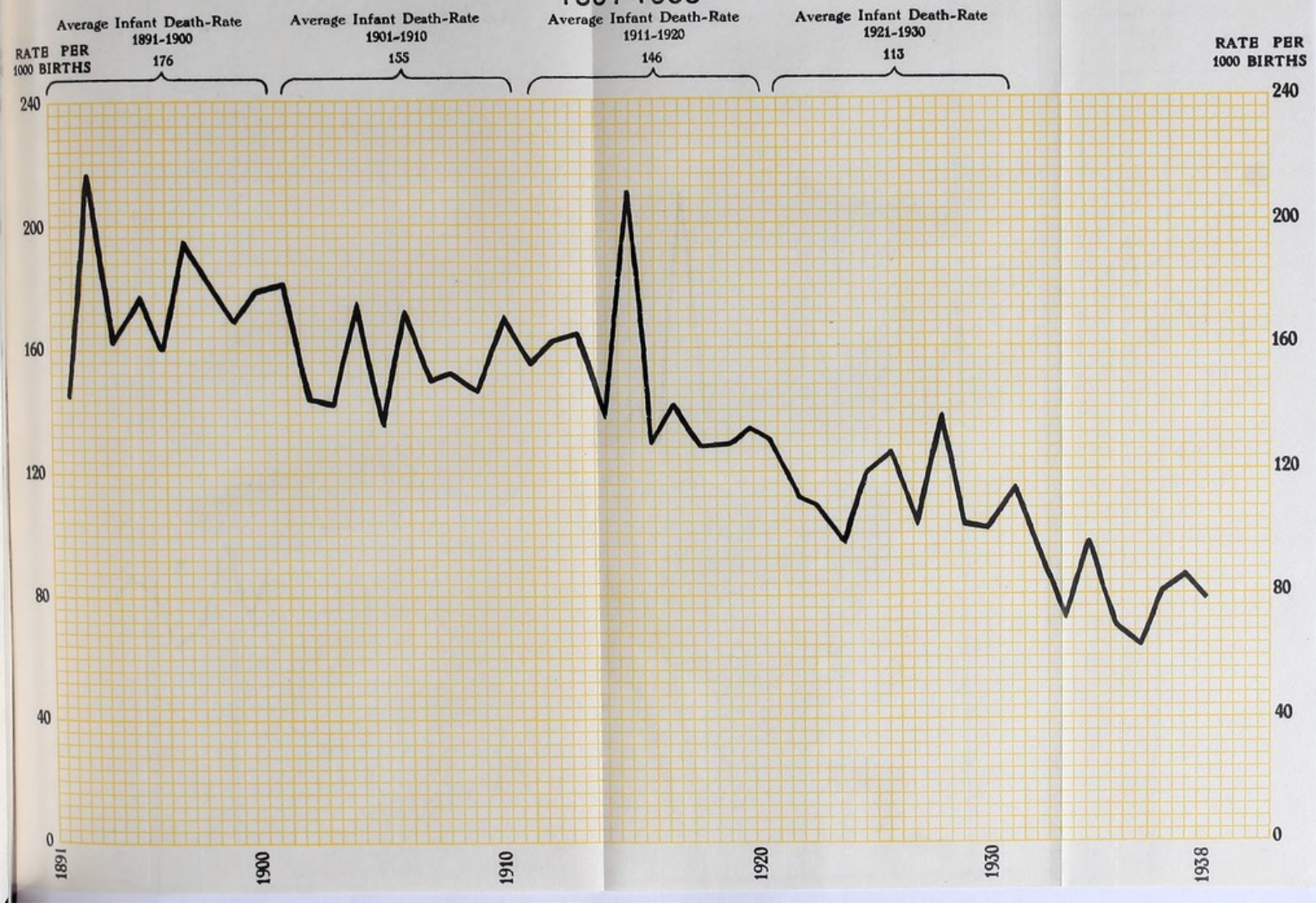


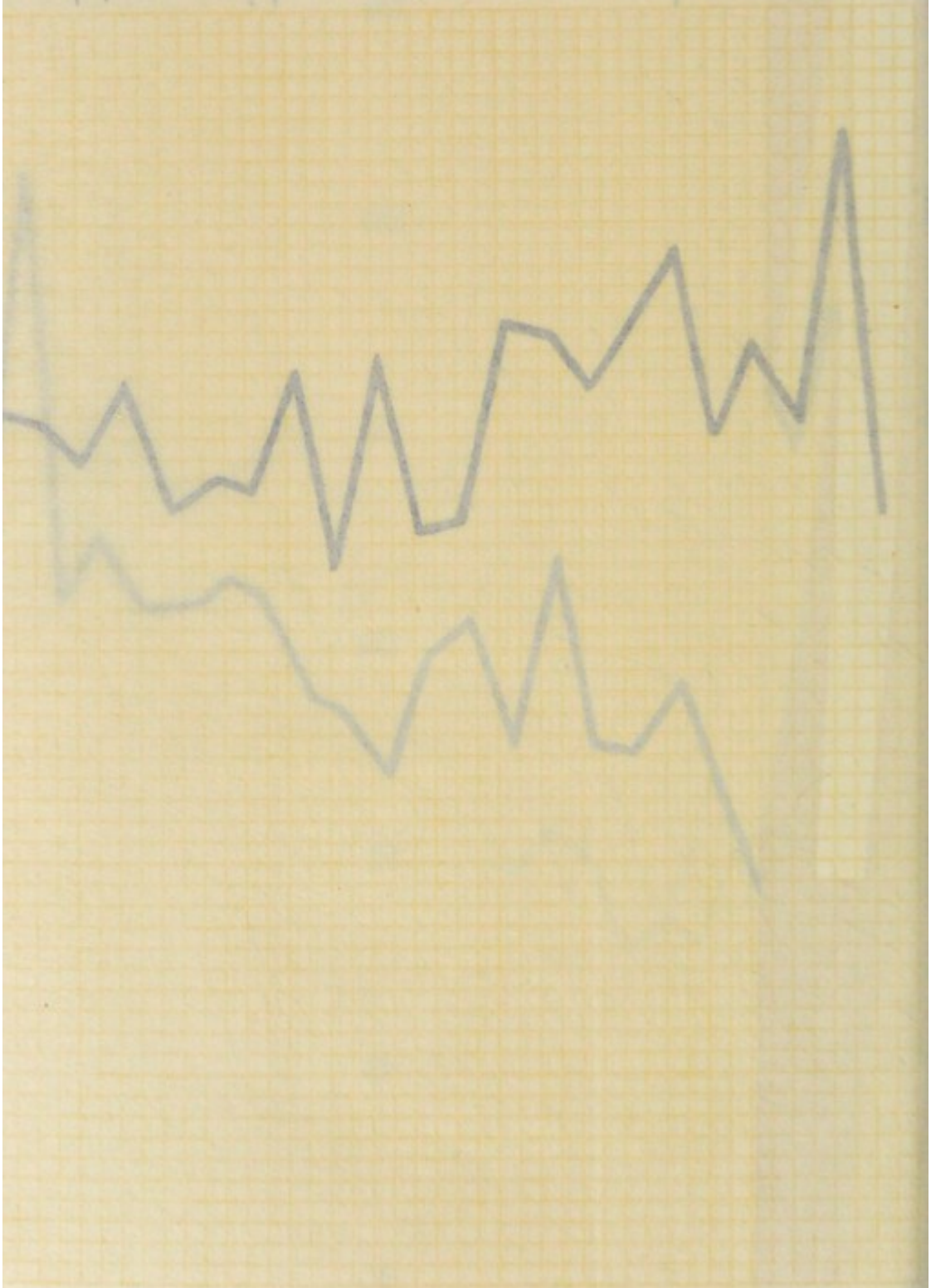
CITY OF DUNDEE

INFANT MORTALITY

INFANT DEATHS (under 1 Year) PER 1000 BIRTHS

1891-1938



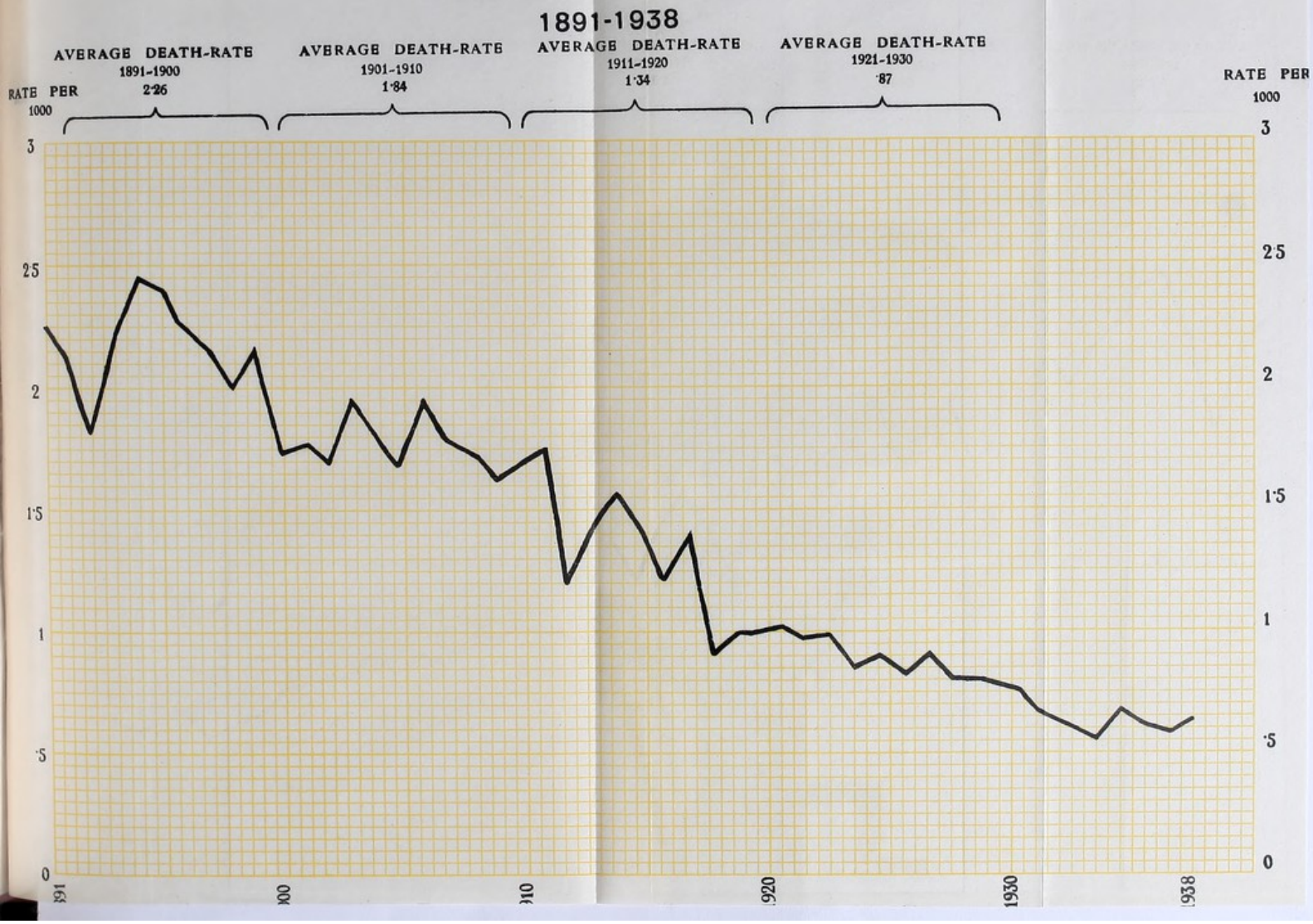


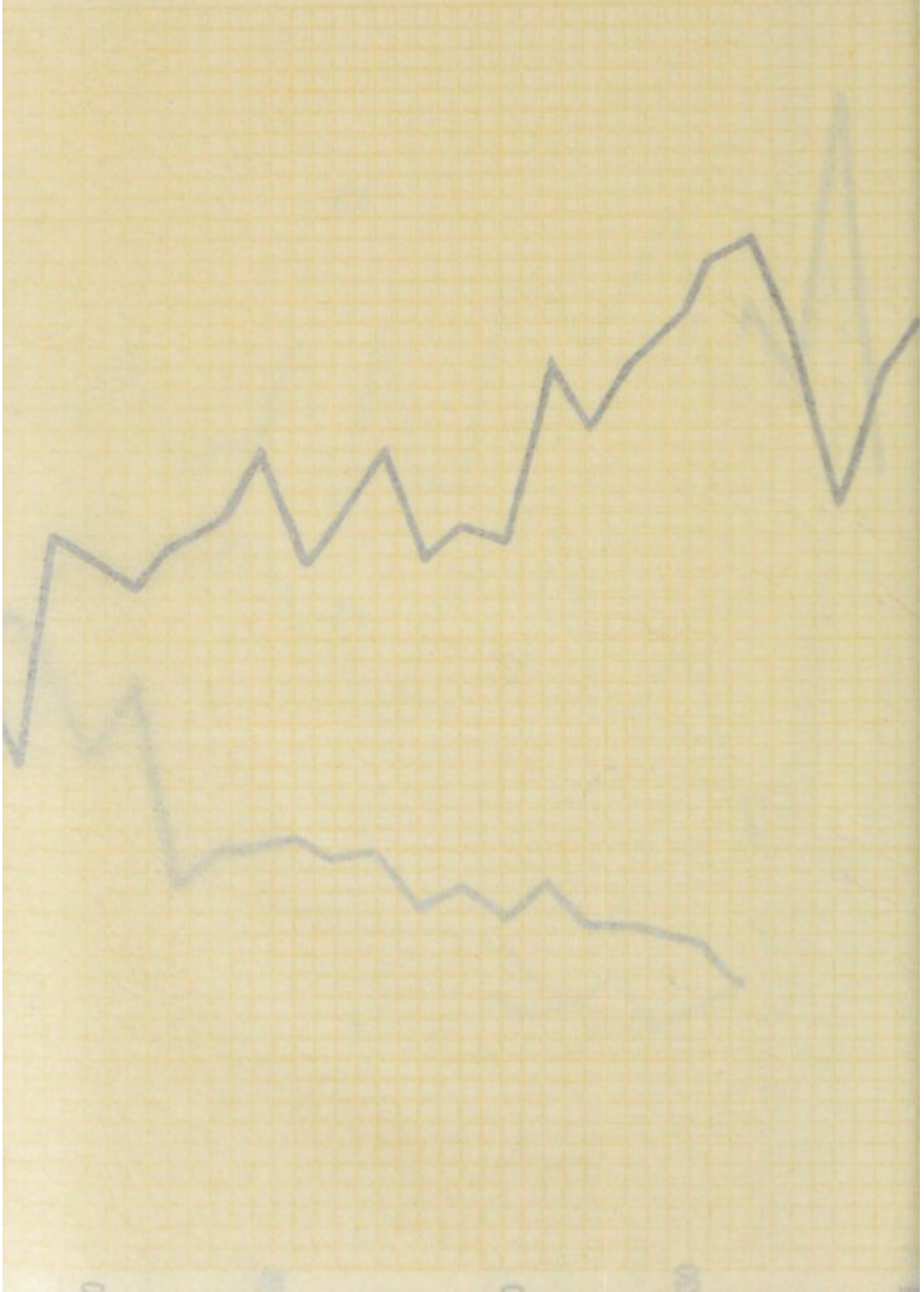
CITY OF DUNDEE

PULMONARY TUBERCULOSIS

DEATH RATE per 1000 Population

1891-1938

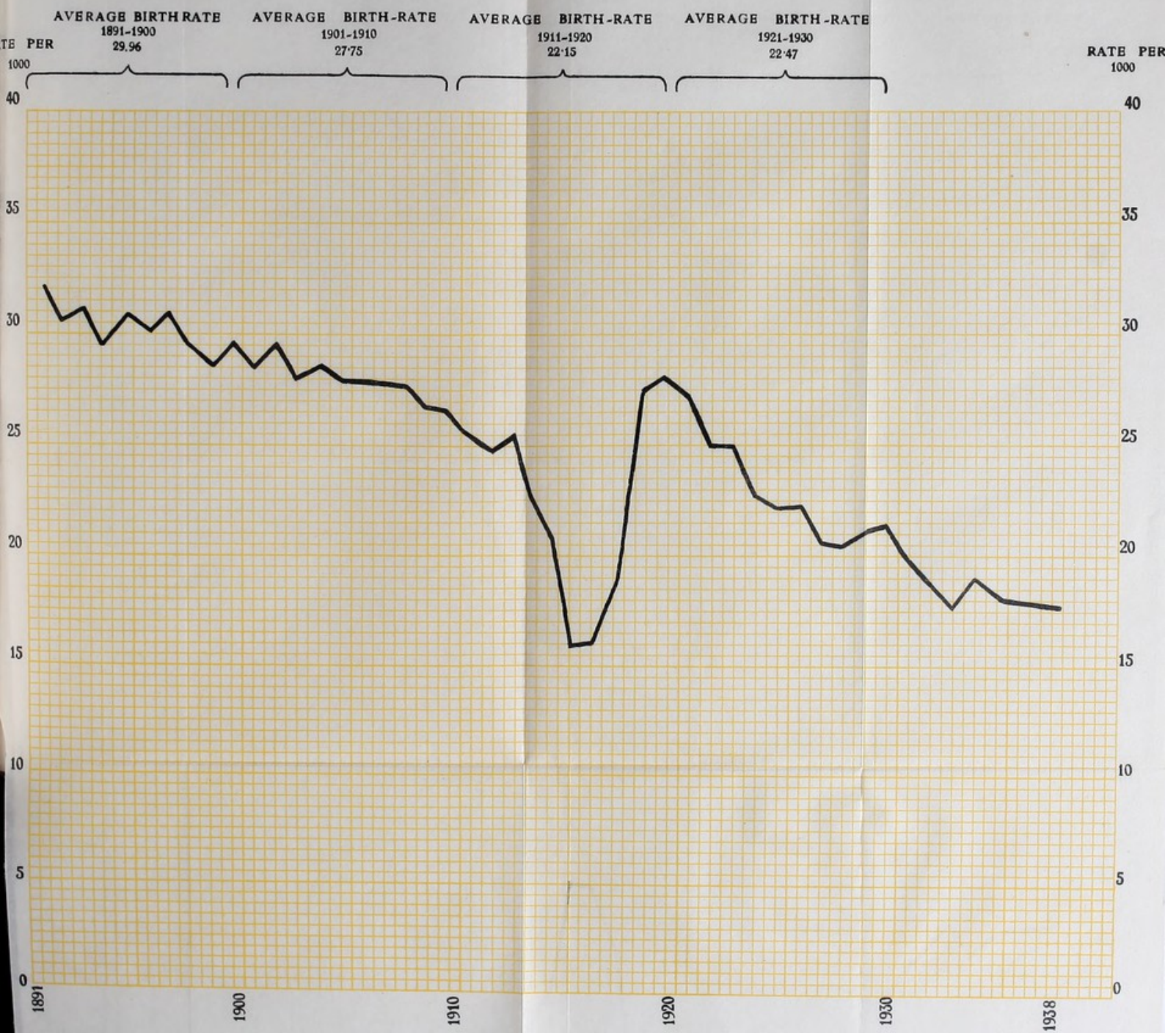


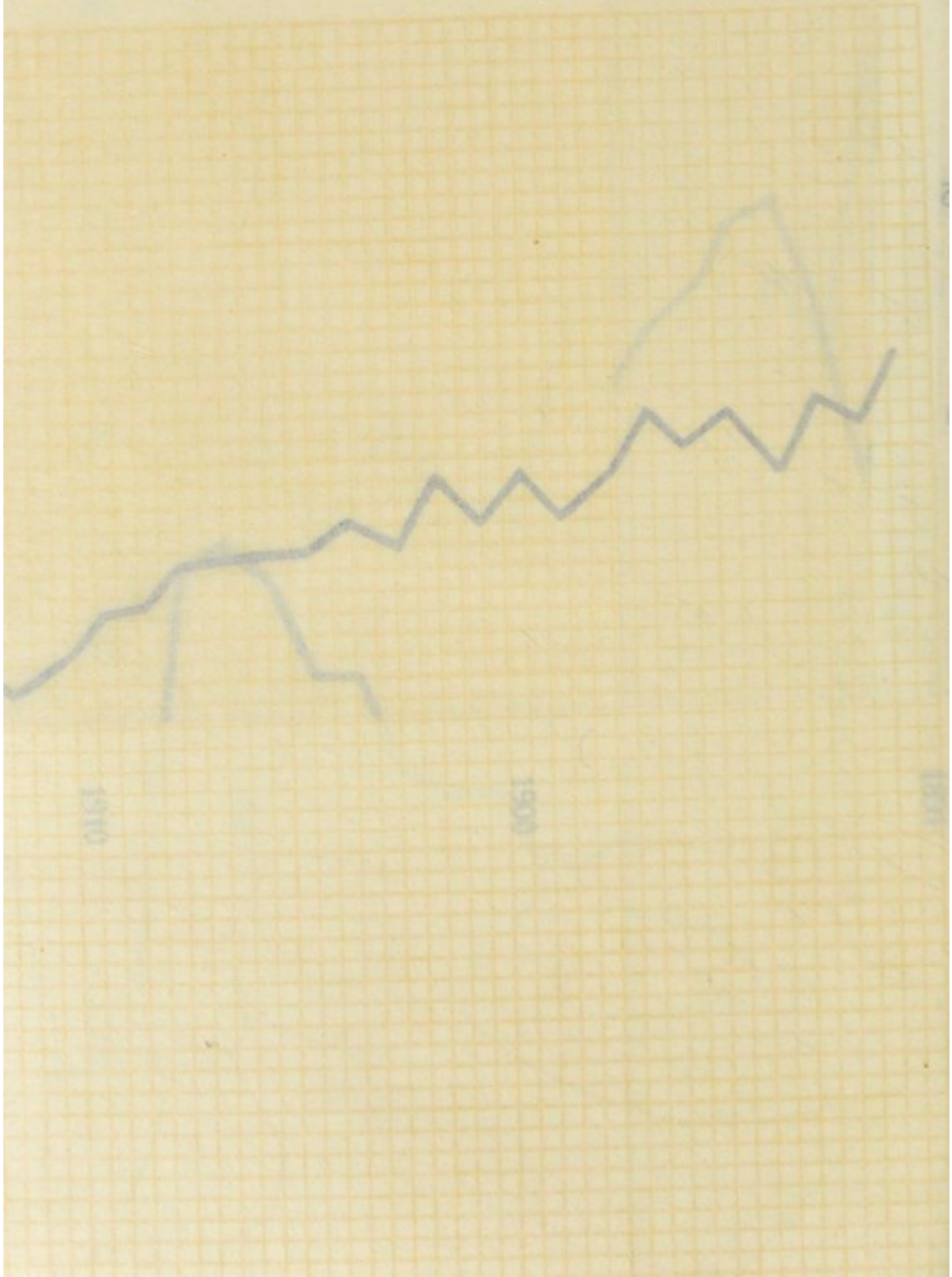


CITY OF DUNDEE

BIRTH RATE per 1000 Population

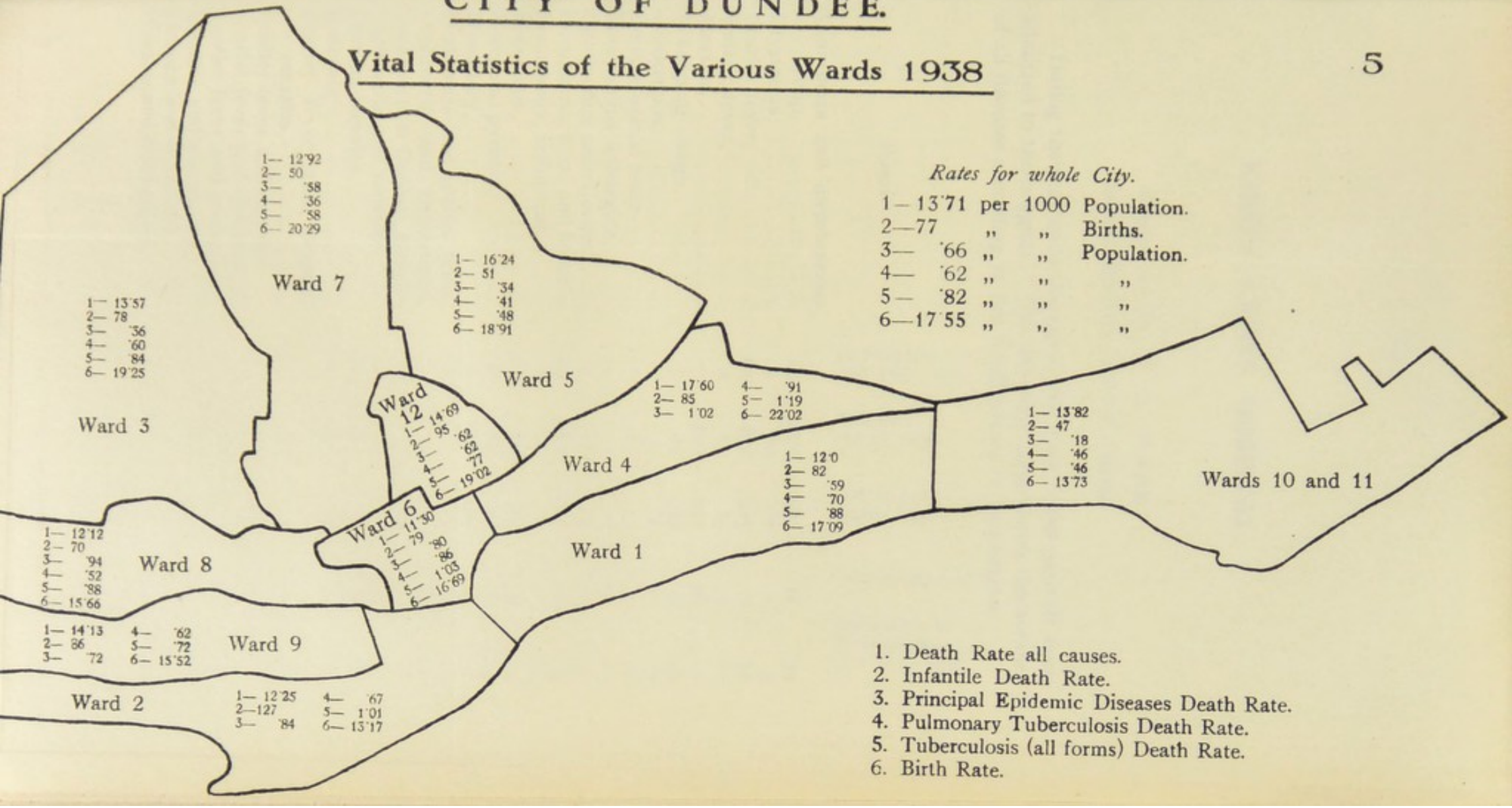
1891-1938





CITY OF DUNDEE.

Vital Statistics of the Various Wards 1938



KING'S CROSS HOSPITAL.

Report by Dr. W. B. CLARK,
Senior Resident Medical Officer.

During the year under consideration, 1938, 2,389 patients were admitted to the hospital. The following table shows the number of all diseases according to the Notifications or Intimations.

Disease	In Hospital 31st Dec., 1937	Admitted during 1938	Discharged during 1938	Died during 1938	Remaining in Hospital on 31st Dec., 1938
Diphtheria and membranous croup,	23	471	441	18	35
Erysipelas,	2	80	78	1	3
Scarlet fever,	64	493	509	6	42
Enteric fever,	2	15	13	4	—
Measles,	—	390	351	38	1
Whooping cough,	3	44	37	3	7
Chickenpox,	—	9	6	—	3
Cerebro-spinal fever,	—	13	3	9	1
Encephalitis lethargica,	—	—	—	—	—
Ophthalmia neonatorum,	1	11	12	—	—
Pneumonia, lobar and broncho	29	180	188	12	9
Pneumonia, influenzal,	1	—	1	—	—
Bronchitis,	11	80	81	3	7
Puerperal pyrexia,	6	76	69	8	5
Dysentery,	1	262	259	3	1
Diphtheria and scarlet fever,	1	1	2	—	—
Diphtheria and chickenpox,	—	1	1	—	—
Diphtheria & German measles	—	3	3	—	—
Diphtheria and measles,	—	1	1	—	—
German measles,	11	61	70	2	—
Enteritis,	—	34	33	1	—
Scarlet fever and German measles,	—	2	2	—	—
Scarlet fever and measles,	—	1	1	—	—
Scarlet fever and chickenpox,	—	2	1	—	1
Scarlet fever and pneumonia,	—	1	—	—	1
Measles and pneumonia,	—	126	106	20	—
Measles and dysentery,	—	2	2	—	—
Measles and chickenpox,	—	1	1	—	—

Measles and enteritis, ...	—	4	4	—	—
Measles and whooping cough,	—	3	3	—	—
Dysentery and pneumonia, ...	—	1	1	—	—
Dysentery and chickenpox, ...	—	2	2	—	—
Whooping cough and pneumonia, ...	1	8	5	2	2
Pemphigus neonatorum, ...	—	2	2	—	—
Undulant fever, ...	—	1	1	—	—
Vulvo-vaginitis, ...	—	1	1	—	—
Anterior poliomyelitis, ...	—	1	1	—	—
Pyrexia unknown origin, ...	—	5	4	1	—
Chickenpox and pneumonia,	—	1	—	—	1
Healthy baby, ...	1	—	1	—	—
Totals, ...	157	2,389	2,296	131	119

Average duration of stay of patients, ...	20.1	days
Average daily number of patients, ...	133.63	
Highest daily number of patients, ...	195	May 6
Lowest daily number of patients, ...	74	Aug. 17
Number of patient days, ...	48,775	

There were 131 deaths, giving a hospital case mortality of 5·4%.

Scarlet Fever.

Of the 521 cases notified as scarlet fever or scarlet fever and an intercurrent disease discharged during the year, the diagnosis was confirmed in 464 cases. Amongst the 57 cases erroneously diagnosed, the following conditions were noted :—

Tonsillitis, ...	14	
Cirrhosis of Liver, ...	1	Died
Pneumonia, ...	1	Died
Chickenpox, ...	1	
Streptococcal septicæmia, ...	1	
German measles, ...	9	
Diphtheria, ...	2	
No disease, ...	11	
Dyspeptic Rash, ...	7	
Enteritis, ...	1	
Coryza, ...	2	
Toxic rash, ...	2	
Measles, ...	5	

To the 464 cases in which the diagnosis was confirmed must be added 26 cases of scarlet fever notified or intimated as follows :—

Diphtheria, ...	15	2 died; 5 had double infection
Erysipelas, ...	1	
Dysentery, ...	1	
Measles, ...	7	1 died
German measles, ...	3	2 had double infection

Thus the total becomes 490.

Intercurrent infection occurred in 79, viz. :—

Diphtheria,	6
Measles,	9
German measles,	28
Chickenpox,	32
Vulvo-vaginitis,	2
Enteritis,	1
Dysentery,	1

There were 5 deaths, giving a case mortality of 1.02%. The causes of death were as follows :—

1. Aged 9 years—Septic type, complicated by toxic myocarditis,
2. Aged 41 years—Hæmorrhagic type, complicated by septicæmia.
3. Aged 3½ years—Septic type, complicated by toxic myocarditis.
4. Aged 5 years—Septic type, complicated by toxic myocarditis.
5. Aged 2 years—Toxic type, complicated by bronco-pneumonia.

The following are the complications which were noted :—

Cervical Adenitis,	68 cases	10.5%
Simple Rhinitis,	95 cases	20.0%
Purulent Rhinitis,	26 cases	5.3%
Coccal Tonsillitis,	16 cases	3.2%
Arthralgia,	16 cases	3.2%
Albuminuria,	10 cases	2.1%
Nephritis,	2 cases	.4%
Otitis media and otorrhœa,	50 cases	10.2%
Mastoiditis,	4 cases	.8%
Cervical gland abscess,	5 cases	1.0%

Tonsils and adenoids were removed in 2 cases. Mastoidectomy was performed in 4 cases. Relapse occurred in 3 cases (.6%). Return cases numbered 14 (2.9%).

Antitoxic serum was administered in 76 cases (15.5%), the average dose being 9,000 units.

Chemotherapy with Sulphonamide was prescribed in all cases except the very mild types. The only toxic action exhibited by the drug was the development of a rash occurring in 14 cases (3%). This rash was urticarial or morbilliform in character. Over 14 years of age the general principle of dosage with the oral preparation was 6 grams daily for 3 days, and thereafter reduced to 3 grams daily for a further 7 days. Under 14 years of age, these dosages were reduced by half. The outstanding success of chemotherapy was regularly noted in the treatment of erysipelas, where the drug appears to have a specific action.

Administration of the drug confers a temporary immunity to scarlet fever in susceptible cases, and so the injection of antitoxic serum in prophylactic doses is avoided. Also, the therapeutic action of antitoxic serum is enhanced by chemotherapy.

The simplex type of case numbered 427, toxic cases numbered 39 (1 died), septic cases numbered 16 (3 died), hæmorrhagic case 1 (died), and surgical type of case numbered 7.

Diphtheria.

The diagnosis was confirmed in 254 of the 466 notified as suffering from diphtheria or diphtheria with an intercurrent infection and discharged during the year. The cases not confirmed as diphtheria included :—

Acute follicular tonsillitis,	117	
Simple laryngitis,	27	
No disease,	16	
Simple Rhinitis,	11	
Scarlet fever,	10	2 Died
Pneumonia,	7	2 Died
Bronchitis,	6	
Measles,	3	
Measles, laryngitis, pneumonia,	3	2 Died
Measles, pneumonia,	1	
German measles,	3	
Streptococcal Septicæmia,	1	Died
Otitis media,	1	
Dysentery,	1	
Impetigo,	1	
Coryza,	1	
Debility,	1	
Pulmonary embolism,	1	Died
Chickenpox,	1	

To the 254 cases in which the diagnosis was confirmed must be added 13 cases of diphtheria notified as follows :—

Scarlet fever,	8	5 had double infection
Measles,	4	2 had double infection
Dysentery,	1	

Thus the total becomes 267.

The number of deaths occurring in the accepted cases was 10, making the case mortality 3.7%.

Fatal Cases.

Of the 10 deaths, 7 occurred in patients who came under treatment on or after the fourth day of disease. In no case was the Gravis strain of organism recovered. Tracheotomy was performed in one case. The fatal cases were given an average of 54,000 units antitoxin, and part of that dose was given intravenously when practicable (3 cases).

Particulars of fatal cases:—

	Infection	Age	Number of Days Ill. On Admission	At Death
1.	Faucial, laryngeal,	1 4/12	4	5
2.	Laryngeal,	3½	3	5
3.	Faucial,	3	4	8
4.	Faucial,	4	4	8
5.	Faucial, pharyngeal,	12	4	15
6.	Laryngeal (tracheotomy performed),	3	5	7
7.	Faucial,	3	2	10
8.	Faucial,	3½	3	8
9.	Faucial,	2	5	7
10.	Faucial,	4½	5	15

Types.

	No. of Cases.	No. of Deaths
Faucial,	210	6
Nasal,	37	—
Laryngeal,	9	2
Faucial, laryngeal,	8	1
Laryngeal, nasal,	1	—
Faucial, laryngeal, nasal,	1	—
Faucial, pharyngeal, nasal,	1	1

Antitoxin Administered.

1,000— 6,000 units	81 cases or 30.4%
6,000—10,000 units	60 cases or 22.6%
10,000—20,000 units	67 cases or 25.0%
20,000—30,000 units	24 cases or 9.0%
30,000—50,000 units	29 cases or 10.8%
Over 50,000 units	6 cases or 2.2%

The operation for removal of tonsils and adenoids was performed for two cases with persistent positive swabs.

Post-Partum and Post-Abortum Infection.

The diagnosis of post-partum or post-abortum infection was confirmed in 60 of the 77 patients so notified, discharged during the year. The corrected diagnosis in the remaining 17 cases was :—

Mastitis,	2	
Mammary Abscess,	1	
Subinvolution uteri,	4	
Constipation,	1	
Thrombophlebitis,	1	
Pulmonary embolism,	2	
Pneumonia,	1	Died
Incomplete Abortion,	4	
No Disease,	1	

Eight of the accepted cases died, making the total case mortality 13.3%.

Source of Infection.

Classified according to place of confinement or abortion :—

In patient's home in Dundee,	16 cases
In patient's home outwith Dundee,	12 cases
In institutions in Dundee,	26 cases
In institutions outwith Dundee,	6 cases

Post-Partum Infection.

There were 50 cases, of whom 6 died. The age of mother :—

Age in years	15—19	20—29	30—39	40+	Total
Recovered,	2	33	8	1	44
Died,	—	3	2	1	6
					50

Hospital death-rate, 12%.

Number of Confinements.

1st Confinement,	22 cases	(2 died)	or 44%
2nd—4th Confinement,	23 cases	(4 died)	or 46%
5th or more Confinement,	5 cases		or 10%
	50 cases		

In six cases the mother was unmarried (none died).

Stay in Hospital.

The average stay in hospital of those who recovered was 27.6 days. The longest was 66 and the shortest 7 days. Of those who

died the average duration in hospital was 19 days, the longest 50 and the shortest 2 days.

Nature of Confinement.

Normal confinement,	36	3 Died
Instrumental delivery,	5	
Retained products of conception,	4	2 Died
Abnormal presentation,	3	
Post-partum hæmorrhage,	1	
B.B.A.,	1	
	50	

Damage to Soft Parts.

In 14 cases (28%) there was some degree of damage to the birth canal, cervical laceration occuring along with perineal damage in 6 of these cases.

Clinical Types of Infection.

Group 1.—In which the infective process was localised in the uterus and/or external genitalia.

There were 44 of these cases, and 42 recovered (case mortality 4.6%).

The results of bacteriological investigation of uterine cultures were as follows :—

Hæmolytic streptococci,	4
Hæmolytic streptococci and other organisms	2
Non-hæmolytic streptococci,	3
Non-hæmolytic streptococci and other organisms,	5
B. coli, staphylococci,	29
No growth,	2

Urinary infection was present in 4 of these cases. Thrombophlebitis developed in 4 cases of whom 1 died. Mastitis was present in 3 cases. Mammary abscess developed in 7 cases, 6 of which was incised under local anæsthesia and 1 under general anæsthesia. Puerperal psychosis developed in 1 case. Pneumonia was present in 1 case on admission (died).

Particulars of the two fatal cases :—

1. Age 31 years. Para. 3. Admitted on the 6th day of the puerperium and the 3rd day of her illness from her own home out-

with Dundee, where the placenta, being adherent, was manually removed. Uterine infection with B. Coli and pneumonia were present on admission. Death occurred 6 days after admission from pneumonia.

2. Age 22 years. Para. 1. Admitted on the 4th day of the puerperium (3rd day of illness) from another institution in Dundee. Laceration of the cervix, uterine infection with B. Coli, and retained membranes were present on admission. Pelvic thrombophlebitis developed. Death occurred 50 days after admission from recurring pulmonary emboli.

Group 2.—In which the infection spread through or beyond the uterus to the appendages, cellular tissues or peritoneum, but remained non-septicæmic.

There was one case in this group, who died. Bacteriological investigation of the uterine culture provided no growth.

Particulars of fatal case :—

Age 24 years. Para. 2. Admitted on the 5th day of the puerperium (3rd day of illness) from her own home in Dundee. Complete perineal laceration and severe vaginal and cervical lacerations were present on admission, and signs of acute generalised peritonitis were observed. Uterine curettage under a general anæsthesia was performed, but further operative treatment was not practicable because of patient's condition. Death occurred six days after admission.

Group 3.—In which the blood stream became infected. There were 4 cases in this group and 3 died. Bacteriological findings in the blood culture :—

Hæmolytic streptococci, ...	2	1 Died
Non-hæmolytic streptococci, ...	1	Died
No growth, ...	1	Died

Particulars of the three fatal cases :—

1. Age 40 years. Para. 4. Admitted on the 19th day of the puerperium from her own home in Dundee. Hæmolytic streptococci were recovered in pure culture from the uterus and blood. Death occurred 6 days after admission.

2. Age 22 years. Para. 1. Admitted on the 15th day of the puerperium (11th day of illness) from another institution in Dundee. Non-hæmolytic strpetococci were recovered from the uterus and the blood in pure culture. Two blood transfusions were given; lung abscess developed and death occurred 45 days after admission.

3. Age 30 years. Para 4. Admitted on the 7th day of the puerperium (4th day of illness) from her own home in Dundee. Septic thrombo-phlebitis of both legs and arms were present on admission and generalised jaundice. Death occurred 2 days after admission.

Summary of the Bacteriological Findings in the Three Groups.

Hæmolytic streptococci,	6
Hæmolytic streptococci and other organisms,	2
Non-hæmolytic streptococci,	4
Non-hæmolytic streptococci and other organisms,	5
B. Coli, staphylococci, etc.,	29
No growth,	4
	50

Post-Abortum Infection.

Of the 15 cases admitted with this diagnosis, 10 were confirmed. Of the 5 cases, 4 were incomplete abortion, and the other no disease. Of the accepted cases 2 died, both as the result of septicæmic infection. In those who recovered the infective process was localised in the uterus.

The results of bacteriological investigation of uterine cultures were as follows:—

Hæmolytic streptococci,	2
Non-hæmolytic streptococci,	1
B. Coli,	5

In the two fatal cases the results of the bacteriological investigations were as follows:—

Hæmolytic streptococci,	1
Non-hæmoylytic streptococci,	1

Particulars of the two fatal cases:—

1. Age 19 years. Para. 1. Admitted from another institution in Dundee. Signs of generalised peritonitis were present on admission and laparotomy were performed. Non-hæmolytic streptococci were present in the blood culture, uterine culture, and culture from the peritoneal fluid. Death occurred 5 days after admission.

2. Age 42 years. Para. 5. Admitted from another institution in Dundee. Hæmolytic strpetococci in the blood culture, toxic hepatitis and generalised jaundice were present, and death occurred 6 days after admission.

Summary of the bacteriological findings in the three groups :—

Hæmolytic streptococci,	3
Non-hæmolytic streptococci,	2
B. Coli,	5
	10

Measles.

The expected biannual epidemic of measles occurred in the first half of the year, the peak of the admission wave occurring in April. The diagnosis was confirmed in 481 cases out of 527 intimated as measles or measles with an intercurrent disease.

To this total must be added 43 cases notified as :—

Scarlet fever,	5	
Diphtheria,	7	2 Died
German measles,	14	1 Died
Dysentery,	6	1 Died
Pneumonia,	8	3 Died
Bronchitis,	3	

Thus the total becomes 524 cases. .

Among the 46 cases erroneously diagnosed as measles were found the following conditions :—

German measles,	6	
No disease,	3	
Tonsillitis	1	
Cellulitis leg,	1	
Pneumonia,	12	3 Died
Bronchitis,	8	
Scarlet fever,	7	1 Died
Diphtheria,	1	
Rhinitis,	1	
Dyspeptic Rash,	6	

There were 62 deaths in the series, so that the case mortality was 11.8%. Broncho-pneumonia occurred as a complication in 94% of the fatal cases. Cancrum oris was present in one fatal case. Mastoiditis occurred as a complication in 9 cases, and these required operation. Tracheotomy was performed in 2 cases with post-measles-laryngitis, and both died.

German Measles.

Of the 76 cases intimated as German measles or German measles with an intercurrent infection and discharged during the year, the diagnosis was confirmed in 60. To this total must be added 19 cases notified as :—

Pneumonia,	2
Scarlet fever,	9
Diphtheria,	1
Measles,	7

Thus the total becomes 79.

The fatal case in the series was a case of tuberculous meningitis with German measles.

Among the 16 cases erroneously diagnosed were found the following conditions :—

Pneumonia,	2
Measles,	13
Scarlet fever,	1

Dysentery.

Of the 265 cases intimated as dysentery or dysentery with an intercurrent infection, the diagnosis was confirmed in 135 discharged during the year. To this total must be added 6 cases notified as follows :—

Enteritis,	4
Enteric fever,	1
Whooping cough,	1

Thus the total becomes 141 cases.

Bacteriological examination of the stool was made in all cases and, when necessary, serological examination. This showed the following types of bacillary infection :—

Clinical types,	96
Flexner types,	42
Sonne III. types,	1
Newcastle Types,	2

The Flexner infections were proved to be with Flexner (unclassified), Flexner V, Flexner X, Flexner Y, Flexner W, and various combinations of Flexner V, X, W, Y, Z.

There were no deaths in the series.

The majority of the cases were mild, and only 2 were given serum. The average stay in hospital was 9.9 days.

The following conditions were found in the 130 cases not accepted :—

Non-specific enteritis,	71	
Measles,	5	1 Died
Bronchitis,	1	
Chickenpox,	1	
Enteric fever (paratyphoid b.)	1	
Diverticulitis, peritonitis,	1	Died
Encephalitis,	1	Died
Tabes mesenterica,	1	
No disease,	48	

Enteric Fever.

Of the 17 cases notified as enteric fever and discharged during the year, the diagnosis was accepted in 10. To this must be added 1 case (notified as dysentery), bringing the total to 11 confirmed cases.

Three deaths occurred in the series.

The types of infection were as follows :—

B. typhosus,	5	2 Died
B. paratyphosus beta,	6	1 Died

Of the cases recovered, 2 were transferred during their convalescence to a county isolation hospital. The remaining 6 cases were not discharged from hospital until three consecutive negative cultures from the stool and urine were obtained at weekly intervals.

In the fatal cases from B. Typhosus infection the complications were :—

Hæmorrhage from the bowel.

Broncho-pneumonia.

In the fatal case due to B. Paratyphosus infection the complication was hæmorrhage from the bowel. Blood transfusion was given in this case.

The average stay in hospital of those who recovered was 45.1 days. The longest stay was 78 days, and the shortest stay was 23 days. The average stay in hospital of those who died was 24.6 days, the longest stay was 36 days and the shortest stay 7 days.

The following conditions were found in the 7 cases not accepted :—

Dysentery,	1	
Bronchitis,	1	
Tuberculous meningitis,	1	Died
Hæmolytic streptococcal septicæmia,	1	
No disease,	3	

Surgery.

Removal of tonsils and adenoids,	6
Mastoidectomy,	13
Abdominal laparotomy and drainage,	3
Dilation and curettage,	3
Appendicectomy,	1
Manual removal of placenta under general anæsthesia,	1
Tracheotomy,	4
Blood transfusion,	3
Mammary abscess under general anæsthesia,	1
	35

TUBERCULOSIS

Report by Dr J. H. HUNTER,
Chief Tuberculosis Medical Officer.

During the year 1938, the routine work of the Tuberculosis Section proceeded on the same lines as in previous years. Again I desire to acknowledge the very valuable assistance rendered by all members of the staffs of this Section of the Public Health Institute and Ashludie Sanatorium, the medical officers and staffs of the various Public Health Services, the health visitors, the Public Assistance Committee and the Unemployment Assistance Board, the Royal Infirmary and other Institutions interested in the work whose co-operation has greatly assisted the furtherance of our work.

For the past few years the accommodation at Ashludie Sanatorium has given rise to considerable anxiety, and it has to be recorded that the waiting period for admission has steadily increased. Now the situation created by this shortage of beds has become a matter of the greatest urgency. The waiting period has been over four months, and it can be readily understood that in that time the chance of recovery in many cases is lost. Under existing circumstances the waiting period will tend to lengthen, as a prolonged treatment becomes necessary for those patients whose condition has deteriorated while awaiting admission to the Sanatorium.

To alleviate this situation rapidly, a temporary measure is suggested. The frontage of the existing verandahs could be glazed so that in an emergency patients could be accommodated there under all weather conditions, leaving the wards free for the accommodation of more serious cases, until such time as further permanent beds are provided. This alteration could be completed within two months of the commencement of work and would cost approximately £700.

Since the extension at Ashludie Sanatorium was opened in 1932 there have been eight Senior Resident Medical Officers, and I

consider that the appointment of a Medical Superintendent should be seriously considered. With the frequent changes of the Senior Resident Medical Officers there is no continuity of treatment, and in this disease, where the treatment may continue over a period of years, this is to be greatly deplored, not only from the surgical and medical point of view but from the psychological aspect—of the greatest importance in tuberculosis.

The creation of the appointment of a Medical Superintendent with salary and emoluments commensurate with the responsibilities of the position and provision of means for investigation and research, would be inducement for a man, specially qualified in tuberculosis, to give a long period of service.

I would suggest also for consideration the appointment of a visiting surgeon who would attend at regular intervals, as an alternative to the present system of calling on the surgeon as required.

I greatly appreciate the work done for children in Sidlaw Sanatorium, and tender my thanks to the Medical Officer, Matron and Staff for their valuable co-operation.

In the year 1938, 339 cases of tuberculosis were notified, 229 cases of pulmonary tuberculosis and 110 cases of non-pulmonary tuberculosis. Of these :—

110 cases were discovered at the Tuberculosis Section.

50 cases were notified by private practitioners.

15 cases were notified from Maryfield Hospital.

125 notifications came from Royal Infirmary.

1 notification came from Convalescent Home, Barnhill.

8 notifications came from Medical Officers outside the City.

30 cases came under the notice of the Department through the Registrar after death had taken place.

Pulmonary Tuberculosis.

During the year, 229 cases of pulmonary tuberculosis were notified. The age and sex of these were as follows :—

Age.		Males.	Females.	Total.
Under 1 year	...	—	—	—
1– 5 years	...	6	—	6
5–15 ,,	...	29	19	48
15–25 ,,	...	21	30	51
25–45 ,,	...	47	36	83
45–65 ,,	...	20	12	32
65 years and upwards	...	6	3	9
	...	129	100	229

The following are the particulars as regards housing:—

No. of Rooms		No. of Cases.	Total No. of Inmates.	No. of Inmates per Room
1	...	23	91	3.95
2	...	95	433	2.27
3	...	54	245	1.51
4 and upwards		17	88	1.29

In 40 cases home conditions were not procured.

Non-Pulmonary Tuberculosis.

During the year 110 cases of non-pulmonary tuberculosis were notified. The age and sex of these were as follows:—

Age.		Males.	Females.	Total.
Under 1 year	...	—	5	5
1– 5 years	...	9	5	14
5–15 ,,	...	32	25	57
15–25 ,,	...	13	7	20
25–45 ,,	...	4	6	10
45–65 ,,	...	—	2	2
65 years and upwards	...	1	1	2
		59	51	110

The sites of the disease were as follows:—

	Under 1 year.		1–5 years.		5–15 years.		15–25 years.		25–45 years.		45–65 years.		65 years & upwards.		Total	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Meninges	0	4	2	0	6	5	1	0	0	0	0	0	0	0	9	9
Abdomen	0	0	4	2	18	9	4	2	1	0	0	1	0	0	27	14
Glands	0	1	2	0	1	5	0	2	0	2	0	1	0	0	3	11
Bones and Joints	0	0	1	1	7	5	5	2	2	1	0	0	1	0	16	9
Spine	0	0	0	0	0	1	1	0	0	1	0	0	0	1	1	3
Other Forms	0	0	0	2	0	0	2	1	1	2	0	0	0	0	3	5
Totals	0	5	9	5	32	25	13	7	4	6	0	2	1	1	59	51

The following are the particulars as regards the housing of the non-pulmonary cases :—

No. of Rooms.		No. of Cases.	Total No. of Inmates.	No. of Inmates per Room.
1	...	8	32	4.00
2	...	43	218	2.52
3	...	28	155	1 84
4 and upwards		7	47	1.67

In 26 cases the home conditions were not procured.

Tuberculosis Clinic.

During the year, 442 cases were enrolled as compared with 482 in the year 1937. Of these 62 were found to be suffering from distinct phthisis (35 males and 27 females) ; in 347 cases no definite evidence of tuberculosis was found and 33 were found to be suffering from other forms of tuberculosis.

There were 184 contacts examined; 4 were found to be suffering from pulmonary tuberculosis; 57 were suspicious and are being kept under observation, and the remaining 123 were found to be negative.

Of the 62 cases of definite phthisis, 32 were previously notified and 30 were notified from the clinic for the first time.

The age and sex of these were as follows :—

Age.		Males.	Females.	Total.
Under 1 year	...	—	—	—
1– 5 years	...	2	—	2
5–15 ,,	...	9	7	16
15–25 ,,	...	8	10	18
25–45 ,,	..	14	8	22
45–65 ,,	..	2	2	4
65 years and upwards		—	—	—
		35	27	62

The attendances at the Tuberculosis Section were as follows :—

	Insured.	Non-Insured.	Total.
January	511	263	774
February	522	210	732
March	561	192	753
April	548	141	689
May	602	256	8 8
June	583	181	764
July	410	117	527
August	499	110	609
September	482	216	698
October	593	204	797
November . ..	585	230	815
December . .	509	209	718
	6405	2329	8734

Artificial Sunlight.

During 1938 170 patients attended the artificial sunlight clinic. Of these 87 were males and 83 were females.

	Males.	Females.	Total
No of Attendances	3,916	2,931	6,847

No of Sessions—293.

Laboratory Work.

During the year, 440 specimens of sputum were examined with the following results :—

	Positive.	Negative.
176 for general practitioners ..	30	146
264 for clinic patients	33	231

X-Ray Department.

During 1938 572 radiograms and 751 screen examinations were carried out. Of the 572 radiograms :—

483 were for the Tuberculosis Section.
5 were for the V.D. Section.
84 were for Maryfield Hospital.

572

Chest	Other Parts	Total
557	15	572

Artificial Pneumothorax

During the year there were 195 attendances at the artificial pneumothorax clinic. Of these 109 were males and 86 were females.

Sidlaw Sanatorium.

During the year there were altogether 18 cases from the City recommended for treatment in this Institution. Of these 9 were males and 9 were females. There were 34 cases discharged (14 males and 20 females). Average stay in the Institution—305 days.

The following table shows the result of treatment in these cases :—

Improved	No Improvement
26	8

J. H. HUNTER, M.B., D.P.H.
Chief Tuberculosis Officer.

ASHLUDIE SANATORIUM.

Report by Dr. D. G. McINTOSH

During the year 1938 154 patients were admitted and 158 discharged. This latter figure includes 33 who died.

Admissions	Male	Female	Children under 12	Total
Tuberculosis of Lungs and Pleura	53	53	1	107
Non-pulmonary tuberculosis	14	12	2	28
Non-tuberculous	7	10	2	19
Discharges	59	63	3	125
Deaths	19	11	3	33

Number of beds occupied on 31st December, 1938	114
Highest daily number of patients	129
Lowest daily number of patients	114
Average daily number of patients	123
Average residence of those discharged	279 days
Average residence of those who died	233 days

Age and Sex Distribution of Admissions

Age	Pulmonary		Glandular		Bone and Joint		Other Forms		Non-Tuberculous		Total
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
0—5,	1	—	1	—	—	—	—	—	2	—	4
5—15,	3	3	2	—	1	3	—	—	—	1	13
15—25,	13	20	—	2	8	5	2	1	2	2	55
25—35,	19	17	—	1	2	—	—	—	2	3	44
35—45,	13	10	—	—	—	—	—	—	2	1	26
45—60,	6	2	—	—	—	—	—	—	—	3	11
Over 60,	—	—	—	—	—	—	—	—	1	—	1

Condition on Discharge.

	Male	Female	Children	Total
Quiescent, ...	1	—	—	1
Much Improved, ...	25	24	2	51
Improved, ...	11	15	1	27
Unimproved, ...	14	11	—	25
Worse, ...	3	6	—	9
Died, ...	19	11	3	33
Non-tuberculous, ...	5	7	—	12

Causes of death are detailed under discharges.

Admissions—Pulmonary.

Patients suffering from tuberculous disease of the lungs and pleura comprised the greatest number of admissions. One of the most striking features of the epidemiology of tuberculosis of the lungs is the high incidence among young adults, partcularly those of the female sex. One can only repeat the opinion of tuberculosis workers in all parts of the world that prompt diagnosis and treatment is essential if good results are to be obtained. The insidious nature of the invasion period of the disease and failure to seek medical advice frequently result in a delay of many months before treatment is instituted. There is the additional problem in Dundee to-day that even when a diagnosis has been established a patient may have to wait weeks or months before admission to the Sanatorium.

Of the 107 patients suffering from tuberculosis of the lungs and pleura 16 were readmissions to the Sanatorium while 91 represented new cases. Of the 91 new cases 22 were suitable for active treatment such as artificial pneumothorax, gold intravenously or phrenic evulsion. 43 were unsuitable for such treatment on account of the extent or type of the disease, while 26 did not require active treatment. Of the 16 old cases, 4 were suitable for active treatment, 10 were unsuitable, and 2 did not require active treatment. 3 cases of pulmonary tuberculosis had each in addition a non-pulmonary lesion. 13 cases of pleurisy with effusion were admitted.

Non-Pulmonary.

28 cases of non-pulmonary tuberculosis were admitted. The details of these cases are as follows. Three not included here have been given under pulmonary tuberculosis. Of the 28 cases 19 were bone and joint tuberculosis as follows :—

Spinal caries,	4
Knee,	3
Ankle,	3
Ribs,	2
Sacroiliac Joint,	1
Hip,	1
Spine and Hip,	1
Right Forearm and Wrist,	1
Spine and Arm,	1
Arm,	1
Ankle and Wrist,	1

Six cases were glandular as follows :—

Cervical glands,	2
Abdominal glands,	1
Mediastinal glands,	2
Axillary glands,	1

Of the remaining 3, 2 were cases of tuberculosis of the kidneys and one a case of tuberculous synovitis.

At the end of the year non-pulmonary cases under treatment were 26 cases of knee and joint tuberculosis, of which 9 were spinal and 8 were cases of knee joint disease, 2 cases of glandular tuberculosis, 2 cases of tuberculosis of the kidney, and 1 case of tuberculous mastitis with abscess.

Non-Tuberculous.

19 cases were found after investigation to be non-tuberculous in nature. The detailed diagnoses of these cases were as follows :—

No disease found,	5
Urethritis,	1
Pyrexia of unknown origin,	2
Tumour of lung,	2
Upper respiratory catarrh,	2
Probable gastric ulcer,	1
Toxæmia following operation for bilateral mastoiditis,	1
Left against advice before investigation complete,	1
Anæmia,	2
Marasmus,	1
Transferred to another hospital for further investigation,	1

In 2 cases of the non-tuberculous admissions death resulted. In each case the child was under two years.

Deaths.

There were 33 deaths during the year. The shortest residence prior to death was 6 days. The following list gives the causes of death :—

Pulmonary tuberculosis,	24	
Marasmus,	1	(Age 1 3/12) non-tuberculous
Toxœmia following bilateral mastoiditis,	1	(Age 10/12) non-tuberculous
Malignant disease of the lung (P.M.),	1	non-tuberculous
Pulmonary tuberculosis and intestinal tuberculosis,	2	
Pulmonary tuberculosis and laryngitis,	2	
Pulmonary tuberculosis and meningitis,	1	
Generalised tuberculosis,	1	

It will be seen that 3 of the deaths occurred in patients suffering from non-tuberculous disease.

Treatment.

In selected cases artificial pneumothorax is one of the most valuable methods of treatment of pulmonary tuberculosis. Artificial pneumothorax was attempted in 21 cases. In 10 good initial collapse of the lung was obtained, but in two of these cases regular refills of air had to be stopped on account of massive pleural effusion, and in a third case re-expansion of the lung occurred at a later date. In 7 cases no space was obtained. In 3 a selective pneumothorax was obtained but abandoned after a short trial. One case of selective artificial pneumothorax was continued. At the end of the year 5 of the cases were still under treatment; of these 4 showed improvement.

Phrenic Evulsion.

This operation was performed in 9 cases during the year either as a single procedure or supplementary to artificial pneumothorax treatment.

Aurotherapy.

Intravenous inoculation of a gold preparation was given to 9 cases during the year. Although the result was not striking, the opinion is expressed that aurotherapy has a definite place in the treatment of selected cases of pulmonary tuberculosis.

Tuberculin.

Tuberculin was administered to 13 cases during the year. Most of those treated were of a chronic nature, and several of them benefited from the treatment.

During the year 2 cases of tuberculous pyothorax were given oleothorax treatment.

Non-Pulmonary.

The majority of the non-pulmonary cases were treated on conservative lines. Tuberculin given either by inunction or injection was used as a supplementary treatment in selected cases. 52 plasters of various types were applied in connection with the non-pulmonary cases during the year.

Operating Theatre.

The following list summarises the work performed during the year in the operating theatre :—

1.	Surgical operations under general anæsthesia,		6
	Rib-resection,	1	
	Nephrectomy,	1	
	Appendicectomy,	1	
	Diagnostic cystoscopy,	3	
2.	Minor operations including artificial pneumothorax refills,		296
3.	Aspirations,		42
4.	Diagnostic explorations,		8
5.	Intravenous pyelography,		5
6.	Lumbar puncture,		4
7.	Barium enemata,		2
8.	Barium meals,		2

X-Rays

695 X-ray films were taken for the year. Frequent use is made of the fluorescent screen for examination.

Training of Nurses.

Three nurses completed the examination for the certificate of the Tuberculosis Association and two passed in Part I. subjects.

DUNDEE MENTAL HOSPITAL.

REPORT by Dr A. ALLAN BELL,
Medical Superintendent.

The number of patients on the Hospital registers was (not including voluntary patients) on 15th May, 1938, 632 (326 men and 306 women), and on 15th May, 1939, 615 (309 men and 306 women).

During the year there were 60 admissions, 38 discharges and 39 deaths. The total number under treatment was 692—354 males and 338 females—and the average daily number 624 (318.2 males and 305.8 females).

The Service Patients, etc., maintained by the Ministry of Pensions as private patients numbered 19 at the beginning and at the end of the year 18.

One voluntary female patient was resident on 15th May, 1938. During the year 2 voluntary patients have been admitted (1 male and 1 female), making on 15th May, 1939, a total of 3 (1 male and 2 female patients).

The rate-aided patients are chargeable as follows:—

	Male	Female	Total
City of Dundee,	287	298	585
Angus,	—	3	3
Other Districts,	4	5	9
	291	306	597

Admissions.

The types of mental disorder among the admissions comprised chiefly:—Manic depressive psychosis—acute mania, 3 cases; schizophrenia, 10 cases; paraphrenia, 5 cases; epileptic psychosis, 5 cases; acute confusional psychosis, 4 cases; senile psychosis, 9 cases; presenile psychosis, 3 cases; involutional melancholia, 7 cases; dementia paralytica, 4 cases; mental deficiency, 10 cases; and paranoia and anxiety neurosis in 1 case each.

At the time of admission their bodily health was good in 43 cases; fair in 17 cases; poor in 1 case; and weak in 1 case.

Discharges.

The cases discharged numbered 38 (26 men and 12 women), of whom 28 were recovered, 9 improved or relieved, and 1 unimproved, the recovery rate being 46.67% of the number admitted and in addition 15% being improved, or in all 61.67% had regained their health more or less completely.

Deaths.

Thirty-nine patients died during the year (19 men and 20 women). The death-rate for the year calculated on the average number resident was 6.25%. The deaths were all due to natural causes, which were verified by post-mortem examination in every case in which the relatives granted permission.

Diseases of the heart and circulation were found to be the cause of death in 15 cases; acute diseases of the lungs in 6 cases; carcinoma in 6 cases; general paralysis of the insane, 4 cases; and arterio sclerosis, epilepsy, cerebral hæmorrhage, streptococcal tonsillitis, post-encephalitic paralysis, acute obstructive peritonitis, tubercular peritonitis and hypertrophied prostate with uræmia in one case each.

Of the patients who died one was from 12 to 20 years of age; one from 20 to 30; five from 30 to 40; ten from 40 to 50; eight from 50 to 60; 9 from 60 to 70; and five from 70 to 80.

General Administration.

The most important event of the year which, in itself, marks an important milestone in the administration of Mental Hospitals, and is of extreme benefit both to the staff and to the patients, was the introduction, early in the year, of the forty-eight hour working week. This wise step, plus the generous increase of two shillings per week to all members of the nursing staff, which puts them in the front rank as far as remuneration is concerned, has gone far to promote an efficient, well conducted and contented staff. The immediate effect was the possibility of making up the extreme shortage of nurses from which we suffered during the previous year, and this has continued until the last few months, when a shortage is again making itself manifest in spite of advertising.

There are still a great many changes in the junior staff, and even amongst those who complete their training and obtain their certificate, a great number leave in order to take up general nursing and seem to get lost to the mental branch. As indicated in my last report the nursing of mentally disordered patients from the psychotherapeutic aspect is an exacting and exhausting procedure far removed from the mere custodial requirements of former years, and it may be that many nurses feel that it is too much of an emotional strain and that the whole atmosphere of a mental hospital with its thick walls, prison-like aspect and isolation is too cramping and restricted, while few opportunities are presented for meeting people and indulging in the social activities which are greatly in demand at the present day. Bearing that aspect in mind and remembering that the care of the staff is as important as the care of the patients to a superintendent, since the latter so much depends upon the willingness and the enthusiasm of the staff, an effort was made last winter to extend the indoor recreations which had been introduced in the previous year, leading to the formation of a recreation club. A club president, secretary and committee were appointed to organise various social activities, and I feel that they must be heartily congratulated for the keen and efficient manner in which they have carried out their appointed tasks. On each Wednesday evening there was either a general night, when everyone could play what he wished from whist to carpet bowls, or there was a whist or domino drive, a badminton match or a darts match, followed in many cases by an hour's dancing. During the summer the club has directed its attention to outdoor games, and Friday evenings are laid aside for mixed games of bowls. The little golf course on the recreation field has been replanned and simplified to suit the members who will be attempting this elusive game for the first time. It is to be hoped that the tennis court, which the committee have recently been good enough to approve, will be available for play before the end of the season, as there seems to be a good deal of enthusiasm amongst the staff for this most valuable form of recreation and exercise.

Owing to the fact that a number of the married attendants, who live outwith the institution, were finding it increasingly difficult to obtain suitable accommodation, it has been decided to erect sixteen timber houses on a site to be selected adjacent to the institution, and this should prove a very great benefit indeed to those affected.

As a number of the junior nurses and also members of the domestic staff require to share rooms, a condition which is not conducive to retaining their services, it appears that the question of erecting a new nurses' home for at least 80 or 90 nurses will seriously require to be considered in the near future. The present Nurses' Home could then be available for the domestic staff, amongst whom at present there is also a considerable shortage, and there appears to be a degree of restlessness which prevents them from continuing in our service.

A request has been made to have classes for physical exercises (keep-fit classes) instituted for the nurses some of whom might be willing to extend their activities to the patients for whom this form of treatment ought to prove beneficial.

During the summer months the hour for returning to the hospital has been extended to 11 p.m. in order to relieve the feeling of excessive restriction. It is recognised by all that there must be some restriction and uniformity in hospital life, with a sacrifice of personal liberty somewhat greater than is demanded in outside life, but a good deal of reliance is being placed on the collective and individual sense of responsibility of the majority of the staff to show by precept and example that the few who wish to take advantage of privileges fall far short from the standard of conduct which is expected. So far this confidence has not been misplaced especially amongst the more permanent members of the staff.

It should be noted that amongst the present staff one Army reservist has already received notice to return for army duty, and that three young attendants will require to go for military training under the new act.

Mental and Physical Treatment.

The general health of the patients has been good throughout the year except for a mild outbreak of influenza during the winter complicated by chest symptoms which taxed the older and more frail patients. There has been no serious occurrence amongst the patients, and no one has given more than ordinary difficulty to the staff in their nursing, while few of the new admissions have been acutely excited.

The medical and nursing staff have again concentrated upon a psychological approach to the patients' problems as reflected in

their numerous and diverse symptoms. The former have conducted individual psychotherapeutic conversations, and have made every effort to discover and record the patients' emotional fixations and personality problems. Their work would be greatly facilitated if the hospital could have the services of a trained psychiatric social worker who would be able to gain detailed information concerning each patient's home life, his school life, his attitude to friends and to his employment, information which cannot be given by the patient's usual visitors, who as a rule are his near relatives. It has been established by such social workers in the field of child guidance, and it is being more and more emphasized in mental hygiene studies that the atmosphere of the home, particularly the harmony existing between parents, is an extremely important factor in ensuring the smooth emotional development of the child upon which depends his whole future outlook upon life. It has been found that a good deal can be done for some of the problem children by tactfully altering the home atmosphere and establishing a more secure emotional background for the child's development. In a similar way it has often appeared to me that the psychological atmosphere in which a person requires to spend most of his time, whether in his home or in his work, has a great deal of influence upon whether he will develop a nervous breakdown or not, and it has always seemed unfortunate that a recovered case should be obliged to return to the same set of circumstances as those which caused his first illness. A psychiatric social worker, with the assistance of an aftercare service, could do a great deal to modify, unostentatiously and unofficially, such a patient's mental environment. In the majority of instances the patient's relatives are only too anxious to help, but, owing to the emotional attachment between them, they may set too high a standard and expect too much from the patient, being acutely aware of many little shortcomings which might otherwise pass unnoticed. Thus they may tend to become somewhat hypercritical, and may produce an unhelpful atmosphere which could be prevented by an elementary knowledge of mental problems and an understanding of psychological processes conveyed by the social worker in a tactful manner. Moreover in a general way it seems that a sense of responsibility for the moral, spiritual and economic welfare of each of our fellow citizens is being awakened in the community so that everyone should have at least a working knowledge of modern psychological teachings in order to make the best use of this desire and may thus prevent or ameliorate, through a better understanding, any tendency to a breakdown amongst his relatives, friends, neighbours or associ-

ates, instead of regarding such an occurrence with indifference and as an act of fate, towards which he has no responsibility. The establishing of an outdoor psychiatric clinic would also provide a valuable means whereby the institution doctors could keep in direct touch with their discharged patients and help them to continue their efforts at readjustment which had been initiated at the hospital. The importance of such a clinic in the mental health services of a community cannot be overemphasised for the treatment of so-called borderline cases and for the early diagnosis of conditions of a more severe nature. If in addition there were available at a general hospital ward accommodation where a number of such cases could be intensively studied and treated, a great deal of mental suffering could be prevented, and many cases would be discharged before actual mental hospital treatment proved necessary.

Again thinking of the mental hospital one often feels that the services of a medical officer for psychotherapeutic purposes alone would be most valuable, as he would be able to concentrate upon the minute study of selected cases, without having the responsibilities of the routine ward administration with its many exacting duties and distractions which usurp so much time and energy and are not conducive to the calm frame of mind in which psychological investigations should be conducted. Unfortunately there are no available rooms suitable for such work in the present hospital, a condition which should be remedied in any new Hospital Admission Unit which might be added, and which is required to facilitate the proper classification of the patients and to allow as many as possible to be discharged without requiring to associate with the more permanent residents and in addition to provide the later forms of electro and hydro-therapy.

OCCUPATIONAL THERAPY.

Although emphasis has been laid on direct psychotherapeutic methods, interest has not been lost in the various indirect methods of assisting the patients to readapt themselves to their surroundings. For example the Occupational Therapy Department under the jurisdiction of Miss Beaton has continued to render extremely valuable services in the treatment of patients, and infinite care and patience is shown in teaching the newcomers the intricacies of the various arts. A special effort is made to try to find out something which is making an instinctive appeal to the patient, an appeal to those unconscious emotional forces which determine so much of

our conduct, that is to say, to discover something which has a high symbolic value to the patient and which will attract the energy to it which might be going into the formation of a delusional system or a hallucinatory episode. It must be pointed out that it is not always what the patient may be good at doing which is of the greatest emotional value to him, but it is what he unconsciously would like to do that we must discover and foster. It is unfortunate that in ordinary life our economic system makes it necessary to concentrate on what one can do best, whether or not it has any great appeal, while things which might give more emotional expression are crowded out of the mind and are not even cultivated as hobbies or recreations.

In order to ensure continuous therapeutic tuition for the male patients, uninterrupted by periods of night duty, it has been decided to engage the attendant in charge as an Assistant Occupational Therapy Instructor without any ward duties distracting him from his main work, for which he shows a considerable aptitude.

The Royal Medico-Psychological Association have recently instituted a special certificate in Occupational Therapy, for holders of their mental nursing certificate, who qualify by attending lectures and practical demonstrations in a number of subjects selected from a large group and subsequently pass an examination in these subjects. It is proposed to comply with the regulations of the Association with regard to this, so that our hospital may become a recognised teaching centre for this valuable certificate.

RECREATIONAL THERAPY.

The value of all forms of recreation is being increasingly recognised as a definite curative agent and not simply an entertainment and pastime. That being so, an effort was made to place all the resources of the Recreational Club at the disposal of a mixed group of patients on several evenings, in which many of the staff voluntarily joined, and so successful were those social evenings that it is hoped to repeat and augment them next winter. In the meantime the patients are being encouraged to play bowls and putting, and it is hoped to interest a number of them in the simplified golf course, while there is no reason to believe that there would be any objection to some of them having the occasional use of the new tennis court. Last summer's Sports Day was greatly enjoyed by all, and during the winter the talkies, the dances and the monthly concerts were very greatly appreciated and were extremely bene-

ficial. This opportunity must be taken to extend our thanks to all those who contributed to make those evenings a success, both amongst the artistes and the visitors who introduce a note of the outside world to our rather restricted horizon.

The general efforts to brighten the wards and the clothing of the patients has been successful, the bright overalls of the women patients especially adding a delightful note of colour. An improvement has been made in the dietary of the patients to add some variety to their meals both at dinner and tea, but we are eagerly awaiting the installation of the fish frier and the Hobart's mixer which the Committee have sanctioned for some time now in order to make still further improvements in this direction.

It should be noted that permission has been sought from the Committee to allow rate-aided patients to enter the hospital on a voluntary basis without certification if they so desire. Previously a patient could only be admitted in that manner if he was able to pay for his board, but although there is nothing in the present Lunacy Acts to sanction it, some other authorities have allowed rate-aided patients to enter voluntarily, and the General Board, instead of censuring such a course, are inclined to encourage it as marking a forward step in the treatment of mental diseases.

PHYSICAL TREATMENT.

Realising that abnormal states are frequently caused by pathological bodily conditions and that one must assume a psychobiological outlook in many cases, the various forms of physical treatment have not been neglected. Epanutin has been employed in addition to Prominal in cases of epilepsy without any marked degree of improvement. Benzedrene has been very disappointing in its results in depressed patients. A beginning has been made in the treatment of Schizophrenia by Triazol, a variey of Cardiazol, whereby the patient is caused to have a profound biological shock in the nature of an epileptic seizure after each injection of the drug. So far no very dramatic recoveries have resulted such as are reported from other hospitals. Although this form of treatment appears to be of a particularly physical nature, one feels that the psychological effect of the somewhat drastic seizure brings the patient nearer to reality once more, and that an increased psychological effort of treatment should accompany any improvement that may become apparent.

Thinking along the lines of biology and biochemistry causes one to remark once more how invaluable a trained technician would be in the laboratory, which is quite well equipped, in order to perform those serological and chemical tests which the medical officers have not the time nor the necessary training to perform. Some hospitals have a junior medical officer as pathologist, but one's experience has shown that many of these give up the work after about a year, just when they are beginning to be familiar with many of the necessary tests which are employed.

SURGICAL TREATMENT.

Thanks must again be extended to Dr Macdonald of Maryfield who has never failed to accept any of our patients suffering from a surgical condition, and several of our patients have benefited from this admirable arrangement during the year.

New Construction and Repairs.

All the hospital tradesmen have been kept fully occupied throughout the year with the routine repair work, replacements, and new work of a constructional nature. The structural alterations to the Matron's quarters, in order to provide a private bathroom, have been completed, the rooms tastefully decorated, and steps are now being taken to instal new furniture so that a completely modernised suite of rooms should be shortly available. It is anticipated that an early start will be made on the alterations, which have been authorised by the Committee, to the medical officers' rooms whereby an extra bedroom will be available for clinical clerks from whom are drawn our potential doctors of the future as they are more familiar with modern psychological problems than their colleagues who have not served in that capacity. It has also been agreed to furnish a large store-room as a sitting-room for the senior assistant matron, while the nurses' and officials' sitting-rooms have to be refurnished in a manner more in harmony with modern ideas, while some of the furniture replaced by these schemes will be available for use in the day-rooms where it is very badly required. Indeed a comprehensive scheme of refurnishing the patients' day-rooms themselves with more modern chairs, tables and other articles will require to be considered in the near future. It has also been agreed to acquire three hundred square yards of linoleum to replace the worn and torn material at present in use in the nurses' home, mess-rooms, corridors and dormitories. The floors throughout the Hospital are beginning to show the result of

excessive wear beyond the repairing powers of the joiners, and it has been decided by the committee to replace two of the day-room floors completely, as a beginning, and it is hoped that this work will be undertaken as soon as possible as these floors are positively dangerous to the more frail patients owing to the risk of falls and consequent fractures.

As indicated in our last report we anticipated that the decision of the committee to instal a system of alarm bells from the various dormitories to a central point from which assistance could be procured in the case of an emergency would by this time have been made effective. As it is, a nurse in charge of about forty or fifty patients by night has absolutely no means of procuring assistance should any of these patients suddenly go into a frenzy, a condition which cannot always be foreseen despite the most careful individual study of the patients' reactions. It should be noted that the Commissioners of the General Board of Control always comment upon this unsatisfactory state of affairs and the risks which are being taken at each of their visits.

A more detailed report as to the requirements of the hospital with regard to telephone communications in order to facilitate the administration and to give rapid instructions in the case of emergencies has been submitted, and it is hoped that the delay in installing them will not be too prolonged.

Various parts of the hospital have been repainted with fairly bright colours, for example, staircases, corridors and bathrooms, while the outside paintwork has included the exterior of the church and of the greenhouses, also the occupational therapy departments, gates, railings and garden frames.

In the laundry one of the old washing machines, which had been repaired many times, and was ultimately considered unsafe, was replaced by a modern machine which is giving every satisfaction. The foundation and new drain for this machine were completed by the hospital tradesmen. It has also been agreed by the committee to instal a steam-press in the laundry, which will dispense with a great deal of ironing, especially when this has all to be done by ordinary flat-irons heated at a coal stove. Steps are being taken to have installed an emergency method of stopping the machinery in compliance with the new factory act.

It is to be regretted that none of the new equipment for the kitchen, which was agreed upon prior to our last report, namely, the frier, the mixer, the press and the steel tables have not yet been installed, thus causing the patients to have less variety in their meals, the staff to work under various handicaps and the retarding of still further improvements until the present decisions have been completed.

AIR RAID PRECAUTIONS.

A considerable amount of thought has been given to the extremely difficult problem of protecting the patients in the case of an air raid whereby the hospital, although not likely to be the target of a concentrated attack, might receive a stray bomb from someone driven away from his proper objective. Fortunately we possess large basement premises extending under the old kitchen which have a brick-arched and concrete roof supported on steel beams, and it was felt that this might make an admirable shelter capable of accommodating all the patients except those confined to bed owing to serious illness. These premises have all been thoroughly cleaned and lime-washed while the drains with which they are provided have been flushed and disinfected. There are four stone stair entrances, each of which could have an air lock, and ample accommodation for first-aid posts and messenger posts, while decontamination centres could easily be made out of the nearby main bathrooms. Temporary lighting has been installed, and the patients are being made familiar with their emergency premises. One side of the basement faces towards the deep quadrangle, and would require to be protected by sandbags while lavatory accommodation will be needed in the nature of Elsan Chemical W.C.'s. Valves have been fitted to the water pipes on both male and female sides of the hospital in order to prevent flooding as the result of damage to these pipes. It is hoped that all the serious bed patients could be crowded into the nearest hospital ward, on either side, which could be rendered gas proof and protected with sandbags after being structurally strengthened. In a similar way the boiler house and electrical department would be protected by sandbags and suitably " blacked-out " in case of a warning. The nuclei of the various essential squads have been formed, namely, the first-aid squads, fire-fighting squads, demolition squads and decontamination squads, and routine practices will be instituted in the near future. The City Firemaster has already demonstrated the action of incendiary bombs, stirrup and trailer pumps to the assembled staff, and is carefully testing and replacing all our present fire extinguishers. Various articles will be needed to meet

the requirements, for example, stretchers, stirrup pumps, battery lamps, sandbags and ladders. It is felt that a storage tank for water might be an additional security, as, being at the end of the city supply, we would be the first to feel the effects of any damage to water mains in the city.

When the Firemaster was at the Institution the opportunity was taken to direct his attention to the spiral fire-escapes which must be considered dangerous and unsafe, and to the lack of a fire-escape in the Nurses' Home, all of which was to be incorporated in a report by his predecessor, and he assured me the report would be executed without the matter requiring to come before the committee again.

Before leaving this part of my report it is necessary to express the invaluable assistance and help which has been rendered by Mr Green, the Visiting Clerk of Works, under whose guidance and supervision all these activities have been carried out and especially those provisions which have been made for the Air Raid precautions.

Changes in Staff.

In October of last year we were fortunate in obtaining the services of Dr Kurt A. Graf, M.D., L.R.C.P.&S.E., who, although a British-born subject, received all his general and medical education in Vienna which, until recently, was considered to be the most progressive centre for the study of Psychiatry, being the cradle of the new Psychology and the origin of the epoch making malaria treatment. In addition to rendering me valuable assistance in the various ward duties, Dr Graf is devoting himself to the necessary study to obtain the Diploma in Psychological Medicine, without which or its equivalent no one should undertake the care and treatment of the mentally disordered.

In February of this year we were also fortunate to have the junior post filled by Dr R. A. B. Rorie, a grandson of the first Superintendent of Westgreen who was exceedingly well known in his day as one of the leading authorities in his speciality. Dr Rorie shows a similar interest and enthusiasm and intends to study in the near future for the degree of M.D.

The position of Senior Assistant Matron was filled by Miss Sneddon who is ably discharging the duties of that newly instituted position.

Miss Cuthill was appointed to the position of Kitchen Superintendent almost a year ago, and has co-operated well in the maintenance of the new dietaries, while at the same time she has spared no effort to make the various entertainments in the institution a success, even to the weekly meetings of the recreation club.

Miss Fleming was appointed to the new post of Laundry Superintendent last July, and has since fully justified our choice by making the best of the old equipment in the laundry although very anxious that the projected new laundry department should be started without loss of time.

We have to record with regret the death of Mr Frederick, one of the hospital firemen for 12 years, after a long and trying illness.

Training of the Staff.

During the winter the customary courses of instruction were given by the medical superintendent and the assistant medical officers, while lectures and demonstrations were given by the assistant matrons. Seven nurses and two attendants successfully gained the certificate of the Royal Medico-psychological Association, making a hundred per cent. pass in the two examinations, while Nurse Jane Donaldson was successful enough to pass "with distinction." Nine nurses and eight attendants passed the preliminary examination, the numbers being larger than usual owing to the additional staff required for the 48 hours week.

Another course of instruction in Air Raid Precautions has just been completed by Dr Hay of the Home Office, which was attended by the tradesmen as well as the nursing staff. The members of the latter were able to go through the gas test in their own gas masks which have just been received at the hospital with those for the patients.

Garden and Grounds.

The garden had a successful crop of vegetables, but owing to the increased amount which goes to the hospital the gardener considers that he will need to incorporate more ground from the adjoining field if the farm manager does not object. A large and varied quantity of flowers were available for decorating the wards, and during most of the year it was possible to have a vase of cut flowers on each table in the dining-hall, the cheering and artistic

effect of which amply compensated for the additional work involved. The committee have been good enough to authorise the erection of a new shed for the drying of onions and the storing of artificial manure. It is hoped to provide additional forcing frames in the autumn and probably next year permission may be sought to erect an additional greenhouse or to extend the present one for the growing of more tomatoes which are much appreciated by the staff. The fruit crop was also heavy, and 3,058 lbs. of jam were made in the kitchen for the use of the patients and staff.

Permission has been granted to appoint an assistant gardener which will liberate the certificated attendant for duty in the wards, and will allow the gardener to concentrate upon having several flower plots about the hospital grounds and to undertake various other schemes of improvement.

Many dead and over-grown trees have been removed from the surrounding woods, which should have been thinned out many years ago, and much undergrowth cleaned, giving a more wholesome and healthy atmosphere to many parts of the grounds. A great deal of work has still to be done before the bushes, shrubs and trees are in the condition which they should attain. Difficulty is always experienced in having the very lengthy hedges round the institution trimmed at the proper time, while the grass cutting is an endless problem during the summer months, as so much scything has to be done owing to the slope of the ground. One is assured that some of the modern motor mowers could tackle all that work in a very short time, saving much labour and time which could be more profitably used. The motor mower which is in our possession seems always to be out of order owing to the fact that it does not possess an automatic stop operated if it touches a stone or branch, and it would require a large alteration to have one fitted.

It should be pointed out that the roads through the hospital grounds are very bad indeed, being rough, broken and full of potholes, so that the question of having them resurfaced should be seriously considered in the near future.

DENTIST'S REPORT

I have pleasure in submitting to you my report of Dental Treatment carried out by me at Westgreen Mental Hospital for year to 31st December, 1938.

I made 49 visits to the institution during the year and carried out the following treatment :—

Extractions—

With local anæsthetic,	325 teeth
with general anæsthetic,	56 teeth

Three general anæsthetics were administered to patients suffering from septic conditions of the mouth contra-indicating the use of local anæsthesia.

Fillings,	12 teeth
Scaling and Cleaning,	273 cases
Gum Treatments,	11 cases
Silver Nitrate Treatment, (To arrest dental caries)	28 teeth treated

Dental advice was given in 17 cases and 28 cases were treated for miscellaneous mouth conditions.

Dentures.

One patient had her denture eased.

The usual routine mouth examination was carried out twice during the year.

The health of the mouths is good.

I again take this opportunity of thanking the Medical Superintendent and his staff for their help during my visits to the institution.

(Signed) FRANK BERRY WHYTE,
L.D.S., St. Ands.

CHAPLAIN'S REPORT

I have the honour to submit my Report for the year 1938-39.

The Sunday afternoon services in church have been held regularly, with very few interruptions due to stormy weather, and the average number attending has been fully maintained. The demeanour of the patients has been very good and manifests interest and appreciation on the part of a good many of them. In particular they join very heartily in the items of praise. In this latter connection, while expressing my thanks to Mr Adams, the organist, for his help, I should like to point out the great difficulty under which he labours owing to the condition of the instrument. Something better and more suitable should be provided. The lighting of the church, too, especially in mid-winter, leaves much to be desired.

The stock of Bibles and Hymnaries needs to be replenished.

The usual weekly visits to the wards, with short services there, have been continued throughout the year.

I wish to acknowledge the very courteous help rendered me at all times by the various members of the staff.

(Signed) J.MACLEAN, Chaplain.

FARM MANAGER'S REPORT

The Dairy Herd.

The herd at Gourdie has not had such a good year as last. Owing to the recurrence of mastitis and some cows proving to be sterile, the milk yield was very low during the latter months of 1938 and first months of 1939. A number of cows had to be disposed of owing to above-mentioned conditions, and 8 animals were purchased at special sale in Ayr in the month of December, 1938. These animals have done quite well and helped to raise the milk yield. During the latter months of the year, with the assistance of Mr Gibson, V.S., we have been sampling the milk of all the cows for mastitis infection. All animals showing signs of infection have been isolated and their milk used for calf-rearing and will be sold as their usefulness for this purpose ends. As may be seen from our quarterly live stock returns the number of young stock has increased, and we are now beginning to get some of our own-bred young stock coming in to milk production.

As mentioned in last year's report, the buildings for young stock are still in need of repairs especially some of the roofs. Also as mentioned last year, the dairy buildings, boiler house, scullery, etc., would require alteration for the efficient handling of the milk and cleaning of utensils.

Sheep.

The half-bred ewe stock has again produced a good crop of lambs, 71 ewes giving 95 lambs.

Crops.

The general crops of the farm were good, but the bad harvest of 1938 made the quality of the grain and hay poorer with a resultant fall in price of grain sold.

The potatoes were quite a good crop, and have nearly all been used in the Corporation Institutions.

(Signed) JAMES B. BOYD, Farm Manager.

PERSONAL.

I wish to express my sincere thanks to the Convener and to the members of the Hospitals Committee for the unfailing interest which they have shown in the institution and for the constant help and support which they have given to me. Furthermore, I would like to express the gratitude of the staff and of the patients for all the privileges which they have granted and improvements which they have instituted.

My thanks must again go to Dr Burgess for the kindly interest which he takes in all the affairs of the hospital and for his never-failing guidance and counsel regarding administrative problems and civic procedure. I consider myself to be particularly fortunate in finding such harmonious relationships established between the Public Health Department and the Mental Hospital. My thanks must also go to the members of the staffs of all the Corporation Departments for their constant help and co-operation.

I must also express my sincere thanks to my medical assistants, to the heads of the various departments of the institution, and to all the members of the Nursing, Clerical, Artisan and Domestic Staffs for their loyal assistance in the administration of the Hospital.

A. ALLAN BELL, M.B., Ch.B., F.R.F.P.&S.G., D.P.M
Medical Superintendent.

MARYFIELD HOSPITAL.

REPORT BY Dr J. B. MACDONALD,

Medical Officer

On January 1, 1938, there were in Hospital 99 men, 135 women, 22 boys, and 36 girls; and there were admitted during the year 1,135 men, 1,387 women, 475 boys and 422 girls, making the total number of patients treated during the year 3,711. Last year's total was 2,970.

The average daily number of patients was 286, and the average duration of stay of patient was 30 days.

The Hospital accommodation is recorded as 328 beds, and the smallest number of patients on any one day was 239 (occurring on 28th July) and the largest 333 (occurring on 2nd December).

An analysis of the discharges for the year shows the following diseases treated, with the number of cases of each :—

Bone and Joint,	43
Circulatory,	288
Ductless Glands,	6
Diseases of Early Infancy,	38
Digestive,	325
Genito-Urinary,	151
General,	163
Infectious,	109
Malignant,	102
Nervous,	261
Senile,	101
Pregnancy and Parturition,	268
Respiratory,	647
Mental,	192
Skin,	304
Pulmonary Tuberculosis,	69
Other Tuberculosis,	21
Injuries,	84

During the year there occurred in Hospital and were reported to the Medical Officer of Health :

34 cases of Pneumonia,
3 of Diphtheria,
21 of Tuberculosis,
2 of Dysentery,
2 of Erysipelas, and
1 of Ophthalmia Neonatorum.

There were 112 patients found by Wassermann test to be suffering from some form of specific disease, and 93 received anti-syphilitic treatment.

The new Maternity Department (Ward 10) opened on 20th May, 1938, and the number of births till the end of December was 130. For the first portion of the year the number of births occurring in Hospital was 56, making a total for the year of 186. This number is likely to be very much exceeded in 1939.

During the year 473 patients died, 33 being under the age of 10, and 263 being over the age of 65.

The problem of the chronic and senile patients keeps calling for consideration. Elderly patients who can be sent home after improvement in Hospital present no difficulty, but there are other patients who have degenerated mentally and physically with advancing years and who need to be looked after for the rest of their lives and who have no one outside willing or able to look after them. Such patients after they have received any benefit that can be done them in Hospital are usually transferred to the Infirm Department of East House. Bed-ridden patients who may only need looking after but have nobody outside prepared to look after them usually remain in Hospital.

Operations performed at Maryfield during the year by Mr F. R. Brown, F.R.C.S., Visiting Surgeon, included :—

6 of Appendicectomy,
5 of Colostomy,
1 of Nephrectomy,
1 of Salpingectomy,
1 of Prostatectomy,
12 for Hernia,

5 for Hæmorrhoids,
5 for Empyema,
1 for Pyloric Stenosis,
1 for Hydrocele,
2 for Cervical Adenitis,
2 for Bunions,
1 for Hare Lip,
1 Excision of Varicose Veins,
4 Incisions of Abscesses,
4 Amputations,
1 Removal of Sequestrum,
2 Applications of Plaster,
1 Application of Splint.

Total, 56

Mr W. G. Campbell, F.R.C.S., who sometimes acted for Mr Brown, performed the following :—

7 of Appendicectomy,
2 of Colostomy,
1 of Salpingectomy,
3 of Laparotomy,
1 of Thyroidectomy,
1 of Gastrectomy,
1 of Peri-arterial Sympathectomy,
3 of Circumcision,
2 on Bladder,
2 for Hernia,
1 for Empyema,
1 for Fracture,
1 Resection of Bowel,
1 Application of Plaster,
1 Removal of Needle from Buttock,
1 Removal of Bunions,
1 Reduction of Fracture,
1 Amputation of Breast,
3 Removals of Sequestrum,
1 Incision of Abscess.

Total, 35

Dr Allister MacGillivray, Visiting Ophthalmic Surgeon, performed the following operations:—

Broad Iridectomies,	4
Preliminary Iridectomies,	2
Discissions,	4
Cataract Extractions,	2
Excision of Sac,	5
Cysts,	5
Entropions,	3
Tenotomy,	3
Granuloma,	2
Evisceration,	1
Enucleations,	5
Total,	36

Mr M. J. Gibson, F.R.C.S., Visiting Aural Surgeon, performed 4 Tonsillectomies; and a Mastoidectomy and Exposure of Lateral Sinus were also performed.

Gynæcological operations included:—

3 of Cæsarean Section,
1 for Ovarian Tumour,
1 Salpingectomy,
1 Colporrhaphy.

Total, 6

Mr John Laburn, L.D.S., Honorary Dental Surgeon, writes as follows:—

"During the year 1938, I visited the Hospital regularly, and also on special occasions when my services were urgently required.

"Many of the patients required radical extractions owing to the presence of pyorrhœa and gingivitis. Others were suffering from mental trouble, and it was found that after removal of badly decayed teeth their general condition was much improved. Some who had chronic rheumatism and neuritis were cured after the oral conditions were treated.

"General anæsthetic was given in 16 cases and 172 teeth extracted.

"Local anæsthetic was used in 203 cases and 257 teeth extracted.

"In practically all cases no complaint was made, and patients were very grateful for the removal of the decayed teeth.

"All admissions requiring dental treatment during the year were reported to me by Dr Macdonald and the Resident Medical Officers, and I carried out the necessary work, receiving every assistance from the Doctors and Staff, whom I take this opportunity of thanking."

At the Preliminary Examinations of the General Nursing Council for Scotland, junior nurses from Maryfield Hospital secured 32 passes out of 46 subjects, and in the Final Examinations our senior nurses had 81 passes out of 93 subjects.

The following list shows the subjects taught during the year and the number of lectures given in each:—

Anatomy and Physiology,	60
Hygiene,	32
Practical, Part 1,	40
Practical, Part 2,	24
Dietetics,	16
Medical,	40
Surgical,	38
Gynæcological,	18
Bacteriological,	8
Venereal,	6
Bandaging,	6
Cooking (Demonstrations),	6
Cooking (Practical),	6

These lectures were given by doctors on the staff and by the Sister Tutor. The nurses in training had also the privilege of being present at operations in the theare and at certain gynæcological examinations.

An adult size Bedford Doll was added to the classroom equipment and has proved very useful, and other additions include articulated bones of upper and lower limb and several charts.

The Visiting Surgical and Medical Staff at present includes :—

Mr Brown, Surgery;
Mr Chisholm, Gynæcology;
Professor Charteris, Medicine;
Dr Emmerson, Anæsthetics;
Mr Gibson, Ear, Nose and Throat;
Dr Hunter, Tuberculosis;
Dr Keay, Special Diseases;
Dr W. L. Kinnear, Diseases of Children;
Mr Laburn, Dental Surgery;
Dr Macdonald, Medicine;
Dr A. MacGillivray, Eyes;
Dr Rankine, Medicine.

During the year there have been four medical officers in residence, working in conjunction with the visiting surgeons and physicians. There have also been two fifth-year medical students in residence, each two appointed for a short period and working under the resident medical officers and accompanying the visiting staff on their rounds. The medical students have set a high standard of conduct and courtesy in the Hospital, and their appointment as clinical clerks continues to be justified by results.

We are still without X-ray apparatus of our own, and during the year patients have been sent for X-ray to Dr George M. Grant, Dr G. H. Milln, and Dr Hunter.

Post-mortem examinations were carried out by Professor Cappell.

Pathological examinations were made for us at the Pathological Department of Dundee Medical School, and Wassermann, Lange, Gonococcal Fixation and other tests were carried out by Professor Tulloch at the Bacteriological Laboratory.

During the year 236 patients were admitted to the Observation or Psychopathic Wards, and of these 50 were transferred for treatment to the Mental Hospital and 18 died. Most of the others were discharged recovered to their homes or transferred to medical wards.

J. B. MACDONALD, M.A., M.B., Ch.B., L.R.C.P.

VENEREAL DISEASES.

Report by Dr D. M. KEAY,
Special Medical Officer, Venereal Diseases Scheme.

Statistics for the year concluded continue to demonstrate that the facilities provided in Dundee for the treatment of venereal diseases continue to be well utilised.

During the year, additional provision was made, in the form of two afternoon clinics, for the treatment of ante-natal patients with their families.

Ample provision is made for the treatment of in-door patients of both sexes at Maryfield Hospital.

An examination of our tables shows a slight increase in the number of new cases of male syphilis and gonorrhoea with a slight fall in the new cases of female gonorrhoea but with a marked increase—85% in female syphilis. This figure can be regarded as due entirely to our scheme for the control of congenital syphilis, and following as it does on a 100% increase for last year, bears further testimony to the value of ante-natal Wassermann reaction in revealing unsuspected familial syphilis.

For the same reason syphilis accounts for the largest percentage of the new cases. The number of new cases of congenital syphilis was 169 compared with 82 last year. Normally gonorrhoea is accepted as being three or four times more prevalent in the community than syphilis and it is probable that a considerable number of cases of gonococcal infections are going about untreated and the figures for those attending the clinic cannot be taken as a true reflex of the actual incidence of the disease. It is a fact to be deplored that many members of the lay public and even some practitioners continue to look lightly on this infection. In consequence, patients are apt to be content with the relief of their symptoms and are never tested for cure. It cannot be emphasised too strongly or too often that gonorrhoea is a dangerous disease and if not treated systematically it may lead to serious disablement and be followed by grave consequences. It may not bring death to the sufferer but it can maim and cripple.

As a result of recent advances in chemo therapy, the subjective phenomena of the disease are only too easily relieved and strict tests for cure were never more important. In the absence of these tests, there may result a large number of gonococcal carriers, capable of spreading the disease and themselves liable to late metastatic complications, e.g., iritis or arthritis.

NEW PATIENTS.—The total number of new cases who reported for examination during the year under review was 1,505, an increase of 198 as compared with the previous year. A further 1,092 patients who had not completed their treatment by 1st January, 1938, continued to attend, and these, together with 50 return cases make a grand total of 2,647 patients dealt with during the year.

An analysis of the new patients gives the following figures for the various diseases. The corresponding figures for 1937 are submitted for purposes of comparison.

	Syphilis		Gonorrhoea		Other V.D.		No V.D.	
	M.	F.	M.	F.	M.	F.	M.	F.
1937, ...	153	202	312	177	115	—	217	131
1938, ...	172	373	314	148	56	—	247	195

1937—Male, ...	797	1938—Male, ...	789
Female, ...	510	Female, ...	716
	1,307		1,505

The following is a detailed list of sources of the new cases reporting :—

	Male	Female
Practitioners, ...	136	74
Dundee Royal Infirmary, ...	16	44
Ante-Natal Clinic, ...	—	148
Child Welfare Centre, ...	—	21
Other Institutions, ...	9	10
Traced by M.O. Female Clinic, through female patients, ...	130	—
Traced by M.O. Male Clinic through male patients, ...	—	12
Card S.D., ...	44	—
Ophthalmic Clinic, ...	11	10
Voluntary, ...	443	397
	789	716

The new cases of syphilis were made up as follows :—

	Male	Female
Sero-negative Primary, ...	2.3%	——
Sero-positive Primary, ...	20.3%	4.8%
Suffering from secondary syphilis, ...	8.7%	38.6%
In the tertiary phase of syphilis, ...	25.4%	20.1%
Cases showing involvement of central nervous system (Tabes Dorsalis and General Paresis included), ...	9.0%	7.3%
Congenital syphilis, ...	34.3%	29.2%

The cases of gonorrhœa were made up as follows :—

	Male	Female
Early stage and without complications, ...	82.0%	35.0%
Well established, ...	18.0%	65.0%

Out-Patients.—The total number of out-patients attendances was 46,619, and are compared with the figures for 1937 in the accompanying table :—

	Syphilis		Gonorrhoea		Other V.D.		No V.D.	
	M.	F.	M.	F.	M.	F.	M.	F.
1937, ...	5,813	6,425	22,953	8,568	1,823	—	477	758
1938, ...	6,655	10,576	18,539	9,038	843	—	369	599

1937—Male, ...	31,066	1938—Male, ...	26,406
Female, ...	15,751	Female, ...	20,213
	46,817		46,619

In-Patients.—The number of cases for whom admission to hospital was necessary was made up as follows :—

	Syphilis		Gonorrhoea		Other V.D.	
	M.	F.	M.	F.	M.	F.
1937, ...	14	20	17	41	3	—
1938, ...	19	30	15	29	1	—

1937—Male, ...	34	1938—Male, ...	35
Female, ...	61	Female, ...	59
	95		94

The following are the number of in-patient days :—

1937—Male, ...	1,208	1938—Male, ...	1,549
Female, ...	2,361	Female, ...	2,172
	3,569		3,721

Arseno-benzol Compounds.

1937—Male, ...	2,953	1938—Male, ...	3,501
Female, ...	2,957	Female ...	6,185
	5,910		9,686

The number of specimens examined by Professor Tulloch and his staff on behalf of the V.D. Scheme is detailed below :—

	1937	1938
Wassermann reactions, ...	2,236	2,940
Special Wassermann reactions, ...	246	181
Gonococcus Complement Fixation Tests, ...	1,145	1,232
Smears, ...	2,415	2,391
Cerebro-Spinal Fluids, ...	50	17
Dark Ground Examinations, ...	52	25
	6,144	6,786

Control of Congenital Syphilis.

The serological examination of all ante-natal patients has now become a routine measure at the ante-natal clinics attached to the Royal Infirmary and those under the control of the Public Health Department.

During the year under review a total of 1997 patients were examined and 320 or 16.5% of them were found to give positive results. These high figures must be regarded as painting a dark picture of the pervasive distribution of syphilis in the female section of the community with the toll of sickness and death that follows in its wake.

Estimates of the incidence of congenital syphilis in the general population differ according to the experience of the investigators. The majority of observers agree however that between 3 and 5% of the whole child population has congenital syphilis. The proportion decreases as it ascends the age scale because the mortality rate is high among infants. On this basis, 2 to 3% is regarded as a conservative figure for congenital syphilis in the general population.

In the light of that information, the positive rate among ante-natal patients in Dundee appears disproportionately high, but it may be accounted for by the fact that their routine testing is a

recently adopted procedure, and it can be stated, with confidence, that the figure will adjust itself at a much lower level in a year or two. Further, a fair number of these patients are themselves victims of congenital syphilis and as potential transmitters of the condition they are of relatively little importance and can be disregarded.

Previous reports have contained an epitome of the principles and view points that form the basis of the method of control and diagnosis of congenital syphilis at this clinic. The discussion can be concluded with a few remarks on treatment. The amount, intensity and duration of therapy which one accepts is obviously dictated by the pathological concept that one has formed of the condition to be treated.

When impregnation takes place and the parasite enters the fertilized ovum, a variety of reactions may occur. If the infection is initiated sufficiently early in fœtal life and is of sufficient intensity the product of conception is destroyed and an abortion takes place. If the infection is delayed or if the reaction is not so severe, the pregnancy may progress fairly well for a time but is exceedingly liable to terminate in the death of the fœtus before the end of the gestation period. With still less degrees of syphilitic reaction, the child may be born alive and die soon after birth or survive for a variable period during which clinical signs of the disease may or may not be manifest. The syphilitic child born alive and surviving must have an enormous syphilitic burden in its tissues and has been likened to a saturated solution of syphilis—"The man with a load of mischief."

Furthermore, in congenital syphilis the spirochaete has been inoculated into a highly suitable medium for its culture—the young, growing, lipoid-rich human tissues and has been cultivated anaerobically for nine months in an ideal incubator.

From a pathological and therefore from a therapeutic viewpoint, any case of congenital syphilis is equivalent to an adult acquiring infection of many years standing. In treating the condition one should remember that one is dealing with a massive infection and a degree of syphilitic saturation that can never be reached with adult resistant tissues.

These points briefly summarise the pathological concept which dominates the course of treatment carried out at this clinic where

the therapy extends over a period of five years, being very intensive during the first three years. To some this may appear an unduly long time but if one has acquired a true knowledge of the pathology of the condition to be dealt with and if one remembers that the minimum weight of syphilitic infection in an adult, i.e., sero-negative primary syphilis requires at least six months intensive therapy, then it cannot be so.

As regards remedial agents, Infant Acetylarsan and Kharsulphan are the two arsenical preparations commonly employed. As intolerance to arsenobenzols is difficult to detect in infants and young children, the weekly weight is taken as an indication of the general health. The dosage in the case of Acetylarsan is regulated by the weight—1 c.c. being the dose for a child weighing 14 lbs. A course of twelve injections is given at weekly intervals. Tolerance to Kharsulphan appears to vary widely but in general the following doses at weekly intervals have proved satisfactory :—

Up to 2 years	.....	0.025 gm.	— 0.05 gm.
2 to 8 years	.....	0.05 gm.	— 0.15 gm.
8 to 12 years	.....	0.15 gm.	— 0.3 gm.

When the child is old enough for intravenous therapy—Arsphenamine is indicated. In marasmic infants, Stovarsol has been found to be of very high value. It is given orally in doses of from 1 to 4 grains once daily according to the age and weight of the child for at least eight consecutive weeks.

In a discussion of the treatment of congenital syphilis it is impossible to overestimate the therapeutic value of thorough medication with iodides, because of the great tendency for fibrous tissue deposits to be laid down in vital organs. The agent of choice in young children is Potassium Iodide but where intravenous medication is possible it should be Collosal Iodine.

Any patient with congenital syphilis treated over the prescribed period of five years remains under observation at least till puberty, with serum tests carried out at intervals not exceeding one year. Tests for cure before discharge are conducted on the same basis as in acquired syphilis and have been described in earlier reports.

Treatment of Gonorrhoea with M. & B. 693.

Since time immemorial investigators have searched for a "short cut cure" for Gonorrhoea. Within an incredibly short

space of time, sulphanilamide swept like a comet across the entire field of medicine. In urology, the drug proved to be of unquestioned value in the treatment of a variety of conditions of which Gonorrhoea was no exception.

Following quickly in the track of sulphanilamide came M. & B. 693, a product that has been in routine use at the clinic for the past six months. There is appended here a brief and somewhat sketchy review of 136 male cases treated during that time. A number of female cases were also treated but these are not included as results of treatment are difficult to assess and it is felt that more prolonged observation will be necessary. So far, however, the results appear to be analogous. Of the series of cases under discussion 128 patients were uncomplicated infections of acute anterior urethritis. The remaining 8 cases had developed prostatitis or epididymitis and had had previous treatment with simple sulphanilamide and urethral irrigation with Pot. Permang. Before the institution of treatment with M. & B. 693, all cases were proved to have gonococci in the urethral and/or prostatic smears. At the outset, our efforts to discover the optimum dosage were based on our previous experience with sulphanilamide. The dose that was found to give the best clinical results was one of three grammes daily maintained for seven days. If the patient did not respond within that period it was useless to continue the drug. Unlike treatment with sulphanilamide where there was a difference of opinion as to whether the drug should be prescribed at the earliest possible moment or withheld until the patient had developed some degree of immunity, treatment with M. & B. 693 should be instituted forthwith. Opinions differ regarding the advisability or otherwise of urethral irrigation. Lavage is given for seven days at this clinic, partly as a balm to conscience and partly to enable us to keep daily observations on the patients undergoing the therapy.

Further experience, however, may well prove that urethral irrigation as a routine measure should be abandoned but this point is one that will have to be answered in final terms of more adequate data.

Treatment on those lines with M. & B. 693 resulted in bacteriological cure within a week in 90% of cases. No complications arose in patients treated with the drug from the outset and in those where complications were originally present, distinct improvement occurred. A marked fall in our total attendance figures for gonococcal infections has been a natural sequela.

Standard of Cure.

With the adoption of this new method of treatment of Gonorrhoea the standard of cure has become a most important matter, for the reasons stated earlier in the report.

It should be remembered that the disappearance of the discharge is not synonymous with cure. The standard aimed at is given therefore in some detail.

Patients remain under observation for at least three months to exclude the possibility of a superadded syphilitic infection. After cessation of treatment all cases are observed for at least six weeks. During this time, there should be a complete absence of subjective phenonema, and repeated examinations of urethral, prostatic and vesicular secretions should be free from pathological organisms, and relatively free from pus cells. These tests should remain negative even after a provoctive injection of 500 millions organisms of a polyvalent vaccine. Before discharge the Gonococcal Complement Fixation Test should be negative and urethroscopic examination reveal a normal, healthy, mucous membrane.

Toxic Effects.

Toxic effects—similar to those with simple sulphanilamide and described in last year's report—were encountered in 30 of the patients under review. In the majority of cases, these symptoms were slight and were not of sufficient severity to necessitate the withdrawal of the drug before it had exerted its beneficial effect on the infection.

From a public health viewpoint, attention should be drawn to the commoner types of drug rash and their possible confusion with the eruptive fevers, especially measles, rubella and scarlet fever to which they may bear a very close resemblance. The usual time of onset was between the seventh and twelth day of administration. In one case the rash appeared within 48 hours. It should be noted that the average interval falls within the incubation periods of the common infectious fevers. It is suggested, therefore, that during epidemic prevalence of any of these diseases, a careful consideration should be given to the possibility of recent M. & B. 693 therapy in discussing the differential diagnosis.

In conclusion, there is appended a guide to the management of a male case of Gonorrhoea.

M. & B. 693 should be prescribed as soon as the diagnosis is made or even if it is only suspected. It is not necessary to wait for immunity to develop. Urethral lavage as an adjuvant form of treatment may be prescribed according to the individual wish of the clinician but should rarely be prolonged beyond a week. The technique suggested by our experience is as follows :—

The patient should receive six ½ gramme tablets per diem for seven days—one tablet after breakfast, two after lunch, one after tea and two after dinner or supper. The tablets are best taken with a large draught of water. During the treatment, patients should be warned to avoid sulphur-containing foods such as eggs and aperients that contain magnesium sulphate. They should remain under observation and be submitted to " tests for cure " before discharge on the lines described.

End Results of Treatment

As a result of treatment 445 patients were discharged as completely cured—27 cases of syphilis, 355 of gonorrhoea, and 63 non-specific venereal infections. At the end of the year 1180 patients were still under treatment; 161 were transferred to other centres; 388 lapsed treatment during the year, equal to 14.6% of the total patients attending.

BACTERIOLOGICAL

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REPORT OF WORK CARRIED OUT IN THE DEPARTMENT OF BACTERIOLOGY, UNIVERSITY OF ST. ANDREWS, MEDICAL SCHOOL, DUNDEE, ON BEHALF OF THE DUNDEE PUBLIC HEALTH AUTHORITIES, from 1st January, 1938, to 31st DECEMBER, 1938.

The Report is presented in the same fashion as in previous years so that continuity of arrangement may be maintained.

I. Control of Venereal Diseases.

(a) Control of Syphilis.

1. Dark Ground Examinations.
2. Wassermann Reactions (Routine).
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(b) Control of Gonorrhoea.

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II. Control of other Communicable Diseases.

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1. Throat swabs from cases and contacts.
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(b) Enteric Fever.

1. Widal Reactions.
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3. Clot cultures.
4. Examinations of faeces and urine in cases and convalescents
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6. Examination of water for enteric bacilli.

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(d) Puerperal Sepsis

III. Special Investigations.

(a) Examination of Milk for contamination.
(b) Examination of Milk for tuberculosis.
(c) Food-poisoning.
(d) Primary meningitis.
(e) Secondary meningitis.
(f) Faeces for amoebic dysentery.
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(i) Leptospirosis.
(j) Blood culture in pyrexia of unknown origin.
(k) Miscellaneous investigations.

I. Control of Venereal Diseases.

(a) Control of Syphilis.
1. Microscopical examinations of material to demonstrate the presence of Treponema Pallidum.

During 1938 only 25 examinations were made for the presence of T. Pallidum in suspected syphilitic sores. This number is smaller even than in previous years, and it is almost certain that there is a large number of cases of this disease whose diagnosis is unnecessarily delayed. The success of preventive and therapeutic measures in this, as in most other communicable diseases, is largely dependent upon early and accurate diagnosis. Delay in diagnosis and treatment means greater danger of spread of the disease, for, with modern methods of treatment, the infectivity of a case of syphilis can be markedly reduced in a very short time.

It is repeated and it cannot be sufficiently emphasised that the Wassermann Test, reliable though it be, cannot give the same unequivocal evidence of syphilitic infection as does the demonstration of T. Pallidum in morbid exudates.

Moreover, postponement of treatment means prolonged treatment which is more costly, and the end results of which are much less satisfactory than when active treatment is commenced in the primary stage of the disease.

To call upon the venereal diseases officers to treat late cases of syphilis in which the diagnosis could have been established with certainty during the early phases of the infection is to place upon these officers a burden of work and a responsibility which is quite unnecessary, and defeats, to a large extent, the object of the scheme for the control of Venereal Diseases.

Of the 25 cases examined, all were sent by the venereal diseases officers.

2. Wassermann Reactions.

The improvement in the technique for conducting the Wassermann Reaction, elaborated during 1926-27, continues to form the basis of the routine method of conducting that test in this laboratory, and the experience now obtained shows definitely that these improvements have greatly enhanced its reliability, and it may be said that the test now is as reliable as it is possible to make it.

The number of routine tests carried out was 7,398, of which 2,940 were from the clinic, 935 from other Public Health Institutions, 233 from private practitioners, 1,997 from ante-natal clinics, and 1,293 from institutions other than those connected with the Department of Public Health.

To the total number there must be added 238 tests in which the material examined was cerebro-spinal fluid, and in such cases a reinforced method is always employed, so that the total of Qualitative Wassermann Reactions conducted is 7,636 for 1938.

Of the 1,997 tests performed on specimens derived from cases attending the ante-natal clinics 320 gave positive reactions = 16%.

These figures leave no doubt as to the value of, and need for continuing, the routine examination of ante-natal cases by the procedure under consideration even although it be laborious.

The absence of such investigation must, in the past, have led to considerable loss to the community both because of still births and because of the occurrence of inherited disease.

3. Special (Quantitative) Wassermann Tests.

The special quantitative Wassermann reaction, elaborated in 1925, continued in use during 1938, in order to control the treatment of cases attending the clinics.

It has proved extremely useful in determining the value of treatment, in determining the progress of treatment, and in the continued observation of Wassermann-fast cases. The number of investigations of that nature carried out during the year was

181, 180 from the clinic and 1 from a private practitioner, so that the grand total of Wassermann Reactions for the year under consideration was 7,817.

4. Examination of Cerebro-Spinal Fluids.

During 1938 the complete investigation of cerebro-spinal fluids from cases of suspected Neuro-syphilis was continued. In addition to the ordinary Wassermann test and re-inforced Wassermann test, a complete chemical and cytological examination was performed, while the Lange test was employed as routine. Of the 238 investigations, 17 were carried out on material from patients at the clinic, 42 from Maryfield Hospital, 22 from other institutions connected with the Department of Public Health and none from private practitioners, while the remainder of the specimens were sent by consultant physicians.

5. Precipitation Test.

In 1935 Laughlen described a test for the diagnosis of syphilis which, because its performance is not laborious and its interpretation easy, should prove a valuable check on the results of the Wassermann reaction.

During 1938 a series of observations on the exactitude of this test was undertaken. These preliminary investigations indicated that this method should prove very useful indeed, and it is proposed during 1939 to perform a large number of duplicate tests with a view to assessing its value statistically.

(b) Control of Gonorrhoea.

One is pleased to note that the interest in this disease is being maintained, for the fact must not be lost sight of that Gonorrhoea may be even a more serious malady than Syphilis.

1. Microscopical examination of discharges for the diagnosis of, and control of treatment in Gonorrhoea.

During 1938, 2,875 microscopical examinations of material for the diagnosis and control of Gonorrhoea were carried out. These were distributed thus :—

	Discharges, including urine after prostatic massage.
From other Public Health Institutions, ...	247
From the Clinic, ...	2,391
From Institutions other than those controlled by the Public Health Department, ...	168
From Private Practitioners, ...	69

During 1938, 1,919 Complement Fixation Tests have been carried out with a view to the control of treatment or diagnosis of Gonorrhoea. They were distributed thus:—

From the Clinic,	1,232
From other Public Health Institutions,	528
From Private Practitioners,	39
From Institutions other than those controlled by the Public Health Department,	120

The grand total, then, of examinations conducted for the diagnosis and control of Venereal Diseases is as follows:—

Dark Ground Examinations,	25
Wassermann Reactions (Ordinary),	7,398
Special Quantitative Wassermann Reactions,	181
Special examinations of Cerebro-spinal fluids,	238
Microscopical examination of discharges and urine	2,875
Gonococcus Complement Fixation Tests,	1,919
	12,636

3. Gonococcal Vaccine.

During 1938, the laboratory has continued to supply male and female clinics with gonococcus vaccine upon a large scale.

During the last year the demand for this has been less than in previous years apparently because of the introduction of new methods of chemotherapy.

II.—Examinations for the Control of Other Communicable Diseases.

(a) Diphtheria.

1. Cultural Examination of Throat Swabs.

Although during 1938 there has been no notably serious outbreak of diphtheria in Dundee, nevertheless a considerable number of cases have occurred, and the total number of routine swabs examined was 1,169. Of these, 855 were taken from the throat while 314 were of nasal origin.

The percentage of positive throat swabs was 16.5 and of nasal swabs 32.5.

The high incidence of positive nasal swabs is apparent rather than real, the reason being that bacteria possessing the same

morphology as true diphtheria bacilli are frequently present in cultures made from the normal nasal mucous membrane. Thus numerous " provisional positive " reports are given, and these are included in the above figure.

All such cultures are subsequently investigated by refined methods in order that the necessary differentiation may be made. After such differentiation the corrected figure is 16.5%—the same as that for throat swabs.

The so-called " intermediate " variety of bacillus diphtheriæ continues to be the most important type of that micro-organism in this district, being responsible for practically all those cases which are clinically severe.

In connection with the examination of throat swabs, two points call for comment, viz :—(1) The result of the bacteriological examination of the throat is of great importance to the Public Health officer, and its value to the practitioner is no less great when he is dealing with doubtful cases, but when the clinical features suggest diphtheria, it is unwise to delay the administration of anti-toxin until the result of the bacteriological examination is available. A case which is clinically diphtheria should be treated as diphtheria. If complete investigation negatives the diagnosis no harm is done, but harm is liable to be done to cases of diphtheria when the administration of serum is delayed. (2) In cases which are clinically diphtheria it is well to have the diagnosis verified by bacteriological examination, but it is especially important that treatment be initiated forthwith, and in order that no misunderstanding should arise from this cause, every report on the examination of a throat swab which is negative is sent on a form on which the following is printed in red :—

" IMPORTANT.—Please note that a negative swab result does not exclude diphtheria. The laboratory findings pre-suppose that the suspicious lesion has been touched with the swab—NOT ALWAYS POSSIBLE IN CERTAIN TYPES OF DIPHTHERIA, ESPECIALLY LARYNGEAL DIPHTHERIA. CLINICALLY SUGGESTIVE cases should be treated without awaiting result of swab. DELAY IS DANGEROUS.

2. Virulence Tests.

During 1938, the virulence of strains of bacteria resembling bacillus dipththeriæ, and recovered from the respiratory tract of 120 convalescents or suspected carriers was determined.

The object of this type of investigation is to ensure on the one hand that convalescents who appear to remain infected with the diphtheria bacillus are in fact infected and infective and also to ensure that suspected carriers do harbour the organism.

Care must be exercised in these matters, as harmless bacteria, which are normal inhabitants of the throat but in appearance resemble the diphtheria bacillus, may be mistaken for that micro-organism. The result of such error is that the period of hospital residence of convalescents may be quite unnecessarily prolonged, or that an individual may be wrongly suspected of being a carrier and so a potential danger to his fellows.

Accurate information concerning these so-called "diphtheroid" bacilli in such circumstances reduces expenditure in the case of convalescents and is protection from unnecessary inconvenience in that of the suspected carrier.

The details of these 107 are as follows:—

(i.) Gravis strains—nil.

(ii.) Intermediate strains—27, all of which were virulent.

(iii.) Mitis strains—39, of which 10 were avirulent.

(iv.) "Saccharose fermenting diphtheroids"—13.

(v.) Cultures containing Hofmann bacillus—16.

(vi.) In 12 cases the diphtheroid bacilli had disappeared from the cases before the investigation was made.

The avirulent strains were of interest in that, although in all other respects they qualified as true diphtheria bacilli, they were, at least so far as laboratory investigation was concerned, devoid of disease producing qualities.

Since August, 1938, every child admitted to the Dundee Infant Hospital has been examined for the presence of bacillus diphtheriæ. In making the examination, swabs were plated out on a medium especially suitable for the growth of micro-organisms of the "diphtheria group."

Suspicious colonies so obtained were made the subject of complete investigation, the object being to ensure on the one hand that admission of the child to the hospital would be safe and, on the other hand, that such admission would not be delayed.

During the period 20/8/38 to 31/12/38 this procedure was used in the case of 66 infants, the results obtained being:

(a) In 58 instances the only diphtheroid organism isolated was the Hofmann bacillus.

(b) In 5, saccharose fermenting avirulent diphtheroids were found.

(c) In one case a virulent intermediate type of true b. diphtheriæ was recovered.

(d) In two no diphtheroids of any kind was found.

(b) Control of Enteric Fever.

During the year 1938 a number of cases of enteric fever occurred in the city, and the examination of material from suspected cases of this malady involved the investigation of 516 specimens in all.

These examinations, many of which were performed solely for the purpose of excluding a diagnosis of enteric, were as follows:—

1. Widal Reactions.

During 1938, tests were carried out on 126 specimens of blood from suspected cases of enteric fever.

Each specimen is now tested in this laboratory for the presence of antibodies both to the flagellar and somatic antigens of bacillus typhosus and bacillus parathyphosus beta. Moreover, all such specimens are tested in addition for the presence of antibodies to the Brucella abortus.

This extension of the work was considered desirable as occasionally the diagnosis of enteric is delayed if a less elaborate test be applied.

The investigation of these 126 specimens, therefore, involved the performance of 630 reactions.

In 27 instances a positive result was obtained. Eighteen were from cases of typhoid infection and 9 from cases of paratyphoid beta.

Attention must be called to the fact that as more than one test was performed on a single patient, the figure 27 represents more than the total number of cases of Enteric fever which occurred in the City during the year under consideration.

One is glad to report that no serious spread either of typhoid or of paratyphoid occurred in the community.

Among the 126 specimens tested, 10 agglutinated the bacillus abortus in such low concentration that the reaction was diagnostic, while in 6 others, although undulant fever was specifically suspected, a negative result was obtained.

In addition examination of suspected cases of undulant fever by blood culture was performed in 7 instances with, however, negative findings.

It would seem then that there is a small but an appreciable incidence of undulant fever in our city, the causal agent of which is the bacillus abortus of Bang.

2. Blood Culture.

The most satisfactory of all methods for diagnosing enteric fever is blood culture, as by this means an early and accurate diagnosis can be established. In the past, this method has not found much favour among the practitioners of the City.

The method was, however, employed in 82 instances and of these 5 were positive for bacillus typhosus.

In many instances the procedure is carried out too late in the disease to permit of positive results being obtained.

In this connection it cannot be sufficiently emphasised that **blood culture is the only method whereby an early and accurate diagnosis of enteric can be made, and it should be employed during the first week of the illness.**

The significance of this, from the standpoint of public health, is not only that early diagnosis leads to the necessary precautions being taken to prevent further spread of the infection, but, in this instance, the diagnosis may be made at a period when the infectivity of the case is still minimal.

3. Clot Culture.

In January of 1938 it was decided as a routine method to cultivate the blood clot from specimens submitted for examination by the Widal reaction.

This procedure can be carried out satisfactorily only when the specimen is adequate.

The value of this examination lies in the fact that occasionally specimens of blood are sent for investigation before the patient has developed the anti-substances upon whose presence a positive Widal test depends. During this period, if the case really be one of enteric, the causal micro-organisms are still circulating in the blood.

This "clot culture," as it is called, is virtually then a blood culture, and during 1938 was applied to 104 of the 126 specimens of blood submitted for examination by the Widal test.

In 8 instances a positive result was obtained, the organism present being bacillus typhosus in 3 and bacillus paratyphosus beta in 5.

4. Examination of Fæces, Urines, etc., from Enteric Convalescents, and re-examination of cases occurring in the past year.

(i.) Fæces.

During 1938, 124 specimens of fæces from convalescents of enteric fever or from possible carriers of the disease were examined, the typhoid bacillus was found in 13, while the bacillus paratyphosus beta was present in 21.

(ii.) Urines.

During 1938, 77 specimens of urine from convalescents of enteric fever were made the subject of cultural investigation. Seven gave a positive finding, the organism present being bacillus typhosus in 2 and bacillus paratyphosus beta in 5.

Attention should be specially directed to these cases of urinary infection in enteric, as patients with infective urine are always a greater danger to others than are those whose intestinal contents alone are infected. The reason for this is that frequently less care is exercised in the disposal of urine than of fæces.

Indeed, chronic urinary carriers are in a special sense a menace to those around them, and it is important that this be adequately appreciated.

(iii.) Other Material Examined for Enterica Infection.

During the course of 1938, post-mortem cultural investigation of spleen pulp was required in 5 instances in order to exclude the possibility that fatal cases of undiagnosed pyrexia were in reality cases of enteric fever.

One proved to be infected with bacillus typhosus.

In four cases the contents of the large intestine were similarly examined as there was a remote possibility of fulminating fatal enteric infection. The finding was, however, negative in all.

We were requested also to investigate fully two gall bladders, removed because of gallstones, for the presence of enteric bacilli.

It not infrequently happens that there is a positive correlation between the occurrence of the enteric carrier state and the presence of gall stones.

In both cases the findings were negative.

5. Examination of Stools and Urines from Members of the Staff of the Water Department.

In view of experience elsewhere it was deemed advisable to exclude the possibility that any member of the staff of the water department of the City might be a carrier of enteric bacilli.

Specimens of fæces and of urine from all of these men were examined at intervals during 1938. Of fæces and of urine each, 52 specimens were investigated, the results being negative in all.

It is proposed to continue this scrutiny and to submit to a similar examination those who join this service in the future.

6. Examination of Water for the Presence of Bacilli of the Enteric Group.

As there was a possibility that one of the cases of typhoid which occurred in Dundee during 1938 had acquired infection through consuming water from a private source, the source in question was examined three times during 1938.

Five specimens of this water were fully investigated using Szper's modification of the enrichment method of Muller which allows of bulk specimens being handled.

A negative finding was obtained in all instances.

(c) Control of Tuberculosis.

237 specimens of sputum were examined from cases in Dundee during 1938, a figure showing a considerable decrease as compared with previous years. The percentage of positive findings was 10.1.

In addition to the investigations conducted on behalf of the City Health Authority to assist in the control of tuberculosis, numerous specimens of morbid material submitted from patients in institutions are of such a nature that it is necessary to exclude tuberculosis. During 1938, 451 such specimens have been investigated, comprising :—

Urines,	185
Cerebro-spinal fluids,	81
Pus, including pus from glands,	108
Pleural fluids,	37
Fluids from joints,	23
Miscellaneous,	17
	451

(d) Puerperal Sepsis.

During 1938, the investigation of material from puerperal sepsis has been continued. The improvements in technique introduced in 1932 with a view, if possible, further to elucidate the question of the relative importance of different varieties of streptococci, as causal agents of the condition, have been used throughout the year, and the following are the results obtained :—

In all, 193 examinations from 108 patients have been carried out during the year under review, and these comprise :—

(a) Examination of uterine culture,	176
(b) Blood cultures,	17

As puerperal sepsis is, in the main, associated with streptococcal infections, and as the severer forms of the disease appear usually to be caused by streptococcus hæmolyticus, the following figures dealing with the recovery of streptococci from puerperal cases may be of some interest.

In 12 patients both blood culture and full investigation of uterine discharge was carried out, the following results being obtained.

(i.) In 2 cases streptococcus hæmolyticus was shown to be present in the discharge but not in the blood.

(ii.) In 1, anaerobic streptococci were shown to be present in the uterine discharge, and also in the blood.

(iii.) In 1, streptococcus viridans was recovered both from the uterine discharge and the blood culture.

(iv.) In 8 instances, streptococcus was recovered neither from the uterine discharge nor from the blood.

The results may be summarised thus :—

	Uterine Culture	Blood Culture
Patients,	101	17
Streptococcus hæmolyticus,	8	2
Streptococcus viridans,	4	1
Anærobic streptococci,	1	1
Streptococcus fæcalis,	3	0

During the course of 1938, we were called upon to examine the throats of 49 persons in attendance upon cases of puerperal fever in order to determine whether they were carriers of virulent streptococci.

Urine from two puerperal patients was also examined for the presence of that micro-organism.

III.—Special Investigations.

(a) Examination of Milk for Cleanliness.

In 1938 the tests used to examine milk for cleanliness were altered to conform with those required under the Milk (Special Designations) Order (Scotland), 1936, and therefore during 1938 the examinations of milk for cleanliness were performed using the technique required by that Order.

The total number of samples examined was 385, comprising

(a)	Certified Milk, ...	45	samples
(b)	T.T. Milk, ...	34	,,
(c)	Pasteurised Milk, ...	28	,,
(d)	Undesignated (Sweet) Milk, ...	273	,,
		380	

In addition, 5 samples of " sterilized " milk were investigated, making a grand total of 385.

(a) **Certified Milk.**

Of 45 samples of this designation, all conformed to the requirements of the 1936 Order, in that the total count of organisms present was less than 30,000 per c.c.

The actual figures are :—

Less than 5,000 per c.c., ...	21	samples
5,000 to 10,000 per c.c., ...	12	,,
10,000 to 30,000 per c.c., ...	12	,,

In two instances, however, the samples did not conform to the requirements in that bacillus coli was demonstrated in 0.1 c.c. of the milk.

The details of the examination in these two were as follows :—

Ref. No. of Sample	Colon Test 0.1 c.c.	Total Count
52	Positive 2 tubes out of 3	23,100
186	Positive in all 3 tubes	1,270

In both instances then the total count was low, and especially so 186, in which certainly the presence of B. Coli was accidental.

The figures for the whole group of tests are remarkable and indicate that the production of clean milk is by no means impossible if care be taken.

The producers are to be congratulated on the efficiency of their methods and the very good result obtained.

(b) **" T-T " Milk Samples.**

In the case of milk designated "T-T" there should not be more than 200,000 viable organisms per c.c., while the test for the presence of b. coli should be negative in 0.01 c.c.

Both tests for total count and for presence of b. coli are done in triplicate.

The results obtained were :—

Over 1,000,000 but less than 3,000,000 per c.c., ...	1	sample
Over 300,000 but less than 500,000 per c.c., ...	3	samples
Over 200,000 but less than 300,000 per c.c., ...	1	sample
Over 100,000 but less than 200,000 per c.c., ...	1	sample
Over 50,000 but less than 100,000 per c.c., ...	4	samples
Over 10,000 but less than 50,000 per c.c., ...	10	samples
Over 5,000 but less than 10,000 per c.c., ...	10	samples
Less than 5,000 per c.c., ...	4	samples
	34	

In two instances b. coli was present in 0.01 c.c., and in 5 the total count was higher than the permitted figure.

The details of the examination in these 5 were as follows :—

Ref. No.	Test for b. Coli	Total Count	
163	Positive 0.01 c.c in 3 tests	474,000	
195	Positive 0.01 c.c. 1 test in 3	379,300	
289	Negative	1,200,000	(estimated)
292	Positive 0.01 c.c. 2 tests in 3	32,300	
378	Negative	316,000	

Only No. 292 calls for comment in that the total count is very good indeed and the positive colon test can only be regarded as accidental.

(c) **Pasteurised Milk.**

The samples examined during 1938 and designated " pasteurised " numbered 28, and only 12 of these conformed to the standard of cleanliness required for this grade of milk.

The total counts of viable bacteria in these were as follows :—

Over 1,000,000 but less than 3,000,000 per c.c., ...	2
Over 500,000 but less than 1,000,000 per c.c., ...	1
Over 100,000 but less than 500,000 per c.c., ...	3
Over 50,000 but less than 100,000 per c.c., ...	8
Over 30,000 but less than 50,000 per c.c., ...	2
Over 10,000 but less than 30,000 per c.c., ...	5
Over 5,000 but less than 10,000 per c.c., ...	3
Less than 5,000 per c.c., ...	4

As " pasteurised " milk should not contain more than 30,000 viable micro-organisms per c.c. the above results can only be regarded as unsatisfactory.

Although tests for the presence of bacillus coli are not compulsory under the 1936 Order, such tests are performed as a routine in this laboratory. Of the 28 samples under consideration 11 showed the presence of that micro-organism in 0.1 c.c., the tests being made in triplicate.

The following are the detailed results in the case of those samples which gave unsatisfactory counts or contained bacillus coli.

Ref. No.	Colon Test 0.1 c.c.	Total Count	
8	+	523,000	
199	+	4,510	
202	+	194,600	
219	+	56,000	
220	+	115,000	
221	+	1,120,000	(estimated)
224	+	1,180,000	(estimated)
234	—	97,600	
257	+	84,000	
258	+	96,000	
287	+	64,600	
288	—	84,000	
319	—	79,600	
321	+	59,000	
339	—	150,000	

(d) **Sweet Milk** (Undesignated).

Of this, 273 samples were examined, and of these 88 showed the presence of bacillus coli in 0.01 c.c., while the counts of the viable bacteria were :—

		B. Coli Present
Over 5,000,000 per c.c., ...	10	10
Over 3,000,000 but less than 5,000,000 per c.c., ...	4	4
Over 1,000,000 but less than 3,000,000 per c.c., ...	23	18
Over 700,000 but less than 1,000,000 per c.c., ...	3	2
Over 500,000 but less than 700,000 per c.c., ...	6	4
Over 300,000 but less than 500,000 per c.c., ...	12	8
Over 200,000 but less than 300,000 per c.c., ...	17	10
Over 100,000 but less than 200,000 per c.c., ...	23	8
Over 50,000 but less than 100,000 per c.c., ...	39	6
Over 30,000 but less than 50,000 per c.c., ...	29	7
Over 10,000 but less than 30,000 per c.c., ...	61	7
Over 5,000 but less than 10,000 per c.c., ...	27	2
Less than 5,000 per c.c., ...	19	2

(e) **Sterilized Milk.**

Of this 5 samples were examined during 1938, and all showed absence of micro-organisms from 1 c.c. of the material.

B. Examination of Milks for the presence of Tubercle Bacilli and Examination of Milks for Tuberculosis under Tuberculosis Order.

Early in 1938 the control of milk in respect of tuberculous infection was assumed by the Ministry of Agriculture.

Prior to this four specimens of milk were investigated at the request of the veterinary officer of the City of Dundee to exclude tuberculosis of the udder.

(c) Food Poisoning.

Of 64 suspected cases, 13 proved to be cases of true bacillary food infection due to infection with members of the salmonella group of bacilli.

The Aertrycke bacillus was the causal agent in 6 instances, 4 of which were single sporadic cases while the remaining two occurred in one household. The Gaertner bacillus was responsible for 3, all of which were single sporadic cases. The Sentenberg bacillus and bacillus " Aberdeen " were recovered each from a single case, while the remaining two were due to salmonella bacilli which did not completely conform to any of the well recognised members of the group.

In five further cases a notable feature was the presence of very large numbers of staphylococci in the intestinal contents. This is interesting as it has been suggested that severe enteritis (i.e., so-called food poisoning) can be produced by the growth products of certain staphylococci.

Of the remaining 46 suspected cases, 4 proved actually to be bacillary dysentery, leaving 42 in which evidence of specific intestinal infection was lacking.

The examination of these involved the investigations of 70 specimens of material.

(d) Primary Meningitis.

During 1938, 16 cases of such nature that they might have been primary meningococcal meningitis occurred in Dundee, and all were made the subject of extensive bacteriological examination.

Of these, 5 proved to be cases of true cerebro-spinal (meningococcal) meningitis, each of which was examined several times during the progress of the illness. The total number of tests made in this condition was 29.

In addition to these suspected cases of meningococcal meningitis, there were 73 in which primary meningitis, other than that due to infection with the meningococcus, was suspected.

Of these, 3 proved to be due to the pneumococcus and one infection with the so-called influenza bacillus.

There were also 5 cases in which the infecting micro-organism was streptococcus hæmolyticus, and 3 in which streptococcus viridans was the causal agent. These 8 cases proved on further enquiry to be cases of secondary meningitis, and there were in addition two cases of brain abscess.

There were, therefore, 52 cases in which, although primary meningitis was suspected upon clinical grounds, that diagnosis was not established when complete investigation was undertaken.

These cases of "meningismus" where the clinical findings suggest, but examination fails to reveal, infection are interesting in that the condition is often associated with pneumococcal invasion in other parts of the body.

In 2 of these 52 cases, large numbers of inflammatory cells were present in the cerebro-spinal fluids, and clinically the cases recalled a condition that was cited in the report for the year 1930.

(e) Secondary Meningitis.

During 1938 we were not called upon specifically to investigate any cases of meningitis occurring as a sequel to injury or arising as a complication in other conditions.

Actually 4 such cases were encountered.

The total number of examinations performed in the investigation of suspected meningitis other than meningococcal meningitis was 83.

(f) Amœbic Dysentery.

Three cases of suspected amœbic dysentery occurred in the City during 1938; complete investigation negatived this diagnosis in all.

(g) Bacillary Dysentery.

Dundee, in common with many parts of the country, and indeed of Europe, has shown during the past two years a considerable increase in the incidence of minor intestinal infections which, for want of a more accurate designation, may be termed dysentery.

The attention which has naturally been drawn to bacillary dysentery because of this has resulted in large numbers of specimens from such cases being submitted for investigation.

Thus during 1938 material from 489 patients was examined, the number of tests performed being 640. In each instance when the first specimen from any patient was investigated the procedure followed was :—

(i.) The stool was examined miscroscopically to determine whether pus, blood and/or mucus was present.

(ii.) A purulent portion was selected and cultivated on medium suitable for the growth and differentiation of dysentery bacilli.

(iii.) Plates containing medium which " enriches " the growth of enteric and " food poisoning " bacilli were also inoculated.

(iv.) A double enrichment method to reveal the presence of enteric and " food poisoning " bacilli was likewise employed as a routine.

This procedure, although laborious, is really necessary for the following reasons :

(a) The dysentery bacilli are peculiarly susceptible to bacteriophage and unless a specimen be taken early in the disease negative cultural findings are very frequent. As, however, the presence of pus, blood and mucus is almost diagnostic of bacillary dysentery the first procedure allows of a diagnosis being established when the cultural findings are negative.

(b) Whenever possible it is wise to cultivate the causal micro-organism with a view to determining accurately its position within the group of dysentery bacilli of which there are many varieties. Sometimes it is possible to trace a connection between cases of the disease by demonstrating that the same variety of the bacillus is responsible for their causation.

(c) When many cases of gastro-intestinal upset occur in a community it is always possible that some of them may really be cases of enteric fever or bacillary food infection and these, unless diagnosed, constitute a danger.

It was because of this that, notwithstanding the labour involved, procedures (iii.) and (iv.) supra were used as a routine. The method revealed two cases each of bacillary food infection and of paratyphoid beta fever that would otherwise have escaped notice.

The results obtained in examining these 489 cases were as follows :—

1. In 230 instances there was no pus, blood or mucus present, and we failed to demonstrate the presence either of dysentery bacilli or disease producing members of the colon-typhoid group.

2. More than one case occurred in 21 families, the total number of such familial cases being 51.

The details in the case of these family outbreaks are :—

(i.) Four cases in which the causal agent was Flexner WXY.

(ii.) Four cases in which an " aberrant Flexner " was responsible.

(iii.) Three cases in which an " aberrant Flexner " was responsible.

(Note in ii. and iii. when the patients became convalescent specific antibodies appeared in their serum.)

(iv.) Two cases in which the causal organism was Flexner XYZ.

(v.) Two cases in which the causal organism was Flexner YZ.

(vi.) Two cases in which the causal organism was Flexner V.

(vii.) Two cases in which the causal organism was Flexner X.

(viii.) One family of three, and three families of 2 (9 cases) in which the Schmitz bacillus (B. ambiguus) was apparently responsible for the illness.

(ix.) One family of three and one of two (5 cases) in which bacillus Morgan I. was present in very large numbers.

(Note:—Bacillus Morgan I. although not strictly a dysentery bacillus is one of the micro-organisms which may produce infantile diarrhœa; it is also frequently present in the stools of cases of true bacillary dysentery at a period of the disease when the dysentery bacilli are disappearing.)

(x.) Two families each of three (6 cases) in which pus, blood and mucus were present in the stools but from which we failed to recover dysentery bacilli.

(xi.) Six families each of two (12 cases) in which the findings were the same as "x."

The details in the sporadic (single) cases are:—

(i.)	Flexner VWXYZ	3 cases
(ii.)	VXYZ	1 case
(iii.)	XYZ	10 cases
(iv.)	VXZ	1 case
(v.)	WXY	1 case
(vi.)	VY	1 case
(vii.)	XY	3 cases
(viii.)	YZ	2 cases
(ix.)	W	2 cases
(x.)	X	6 cases
(xi.)	Y	1 case
(xii.)	"Aberrant Flexner"	26 cases

Making a total of 57 Flexner cases.

There were also:—

(i.) Five cases in which the causal agent was the Newcastle dysentery bacillus.

(ii.) Three due to bacillus Sonne III.

(iii.) Two associated with the presence of large numbers of the Schmitz bacillus.

(iv.) In 36 cases bacillus Morgan No. I. was present in large numbers.

There remain 105 cases in which, although dysentery bacilli were not recovered from the stools, the presence of pus, blood and mucus left no doubt as to the true nature of the illness.

It is seen then that during 1938 there were 259 cases of intestinal upset in which there was strong presumptive evidence of infection with dysentery bacilli.

At the present time bacillary dysentery is of far greater importance as a public health problem than is enteric fever, and it cannot be adequately emphasised that this malady is spread because of carelessness in the handling of food and through lack of personal cleanliness; its prevention therefore depends largely on the care exercised by each individual member of the community.

If everyone made it an invariable habit to wash his or her hands after going to stool a reduction in the occurrence of these minor intestinal infections would almost certainly ensue.

(h) Variola Vaccinia Flocculation Reaction.

During 1938, no cases of smallpox occurred in the City, and we were not called upon to perform this reaction during the year.

It may be noted, however, that the help of the laboratory has been requested by other public health authorities to assist in the investigation of doubtful cases of smallpox. Fortunately only negative findings were obtained in cases from this part of the country. Subsequent events proved the cases to have been Varicella.

(i) Leptospirosis.

There was one case of suspected leptospirosis during 1938, but complete investigation of blood specimens both early and late in the disease and examination of urine failed to substantiate the diagnosis.

(j) Blood Culture in Pyrexia of Unknown Origin.

During 1938 the number of blood cultures that have been made to assist in the diagnosis of pyrexia of unkown origin was 65. The value of the procedure both from the standpoint of diagnosis and of prognosis is considerable.

Of these, 47 failed to show the presence of bacteria in the circulation, while the organisms present in those which proved positive were as follows :—

(i.)	Streptococcus hæmolyticus,	3
(ii.)	Streptococcus viridans,	4
(iii.)	Staphylococci,	4
(iv.)	Pneumococci,	4
(v.)	Bacillus fæcalis alkaligenes,	3
		18

A case of Salmonella infection has already been dealt with under heading "c"—bacillary food poisoning.

It is also worthy of note that in several instances these blood cultures were made for the specific purpose of excluding infection with the bacillus of undulant fever—bacillus abortus.

(k) Miscellaneous Investigations.

In addition to the work categorised under the above headings, a number of miscellaneous tests, etc., have been carried out on behalf of the Public Health Authority of the City of Dundee.

Among these miscellaneous investigations were the following :—

(i.) Vincent's Angina.

Material from 8 cases of suspected Vincent's Angina was investigated during the year under consideration.

(ii.) Investigations for King's Cross Hospital.

1.	Complete examination of pleural pus,	2
2.	Complete examination of pus from mastoid,	3
3.	Complete examination of pus from ear,	2
4.	Complete examination of pus from abscess,	2
5.	Complete examination of cerebro-spinal fluid,	1
6.	Examination of throat swab for streptococcus hæmolyticus	1

(iii.) Investigations for Maryfield Hospital.

1.	Examination of pleural fluid,	9
2.	General examination of urine,	11
3.	General examination of peritoneal fluid,	1
4.	General examination of cerebro-spinal fluid,	1
5.	General examination of pus,	7

(iv.) Westgreen Mental Hospital.

1.	Complete examination of pus from pleura,	1
2.	Complete examination of pus from abscess,	1
3.	Preparation of Vaccine,	2
4.	Examination of throat swab for streptococcus hæmolyticus	1

(v.) Examinations for Ashludie Sanatorium.

1.	Complete examination of sputum,	3
2.	Complete examination of urine,	3

(vi.) Investigations for Public Health Institute.

1.	Complete examination of urine,	5
2.	Complete examination of cerebro-spinal fluid,	1

(vii.) Investigations for the Sanitary Department.

1.	Examination of 3 special waters for enteric bacilli from a private source within the City.	3

(viii.)

Examination of throat swabs for streptococcus hæmolyticus from an outbreak of tonsillitis in an institution,	35

(ix.) Routine Examination of Water Supply.

During 1938 the water supply of the City has been under constant supervision. The total number of samples examined by bacteriological methods was 452.

During 1938 the collection of serum from patients convalescent from measles was continued in order that a supply of this might be available for the treatment of grave cases of that illness in weakly children.

The separation of the serum and the testing of it to ensure that it is both sterile and suitable for the purpose in view constituted an additional service rendered by the laboratory during 1938.

The work of the laboratory on behalf of the Public Health Authority of the City of Dundee during 1938 has been very simi-

lar to that in previous years, excepting 1931 and 1932 when, owing to the survey of market milk the volume of work done was in excess of average years, and in 1935 when a survey of milk on behalf of the Milk Marketing Board also increased the number above the average.

It has been a very pleasant duty indeed to conduct the work herein reported, and the success which has attended it is due in no small measure to the ready, willing and helpful co-operation of the staff of the Public Health Department and the hospitals and clinics attached thereto.

This co-operation does much to lighten the work, makes it more interesting, increases efficiency, and offers educational facilities to the department and its ancillary clinics.

MATERNITY SERVICES.

Reports by DR. MARGARET SCOTT-DICKSON,
Deputy Medical Officer of Health, Maternity Services.

DR. MARGARET FAIRLIE.

Much larger numbers of pre-school children between the ages of 2 and 5 years are supervised by the School Medical Officers at their Clinics, and received treatment at the Ultra Violet Ray Clinics. In June, the work of the Special Dental Clinic was also managed with the School Dental Clinics.

These arrangements are of advantage to the Maternity Services, as the attendances of older children at the ordinary Infant Clinics are considerably reduced, and more time can be spent by the staff on the closer supervision of the infants and the giving of advice to the mothers.

The number of applications for free food has again markedly increased. The attendance of mothers at the Clinic mainly in order to secure material assistance forms an increasingly difficult problem. It would be of great advantage to the working of the Scheme if some method could be devised for the distribution of orders for free food elsewhere than at the ordinary sessions of the Clinics.

Day Nurseries.—There has again been a noticeable increase iu the attendance at the Day Nurseries—16,555 as compared with 13,533 in 1937. This fact implies that work for women has been more plentiful during 1938, and the Nurseries are therefore still fulfilling a useful purpose in caring for the younger children of working mothers.

Bellfield Nursery School was taken over by the Education Authority during the year, but the Infant Room, which accommodates 6 children under 2 years of age, remains as a part of the Maternity Services Scheme, and takes the place of an additional Day Nursery unit. It can, however, remain open only during the School sessions, as it can only be carried on as a part of the Nursery School, and cannot function as an independent unit. The number of days on which it was open during 1938 was 205, as compared with an average of 286 in the case of the other Municipal Day Nurseries.

Once more I take this opportunity of thanking all members of the staff for their loyal service and co operation, and in the name of all the staff to thank the members of the Dundee Voluntary Health Workers' Association for their personal service at the Clinics and their assistance in the provision of clothing for the Clinic babies, and their Christmas gifts to the children in the Day Nurseries.

The detailed report of the work follows, including the reports from the Medical Officers in charge of the Special Clinics.

Infantile Mortality.

(a) Number of deaths 242

(b) Rate per 1,000 births 77

(c) For classification of deaths in age groups and causes of death—See Table XII., in the statistical section of the report.

242 deaths of children under one year were noted by the Maternity Services Scheme, distributed as follows :—

1st week	2nd week	3rd week	4th week	1-3 months	3-6 months	6-9 months	9-12 months	Total
93	15	7	8	34	37	23	25	242

Of these 84 were breast fed.

11 were partly breast fed.

6 were mixed feeding (breast and artificial feeding).

78 were artificially fed.

In 2 cases no particulars were obtained (found dead).

In 52 cases feeding was not commenced due to prematurity.

9 cases were not visited.

Regarding the feeding, the ages at which those infants died were as follows :—

	1st month	2nd month	3rd month	4th month	5th month	6th month	7th month	8th month	9-12 months	Total	Feeding not commenced	No Particulars	Not Visited	Total
Breast ..	44	4	5	6	0	5	2	2	16	84	—	—	—	—
Mixed ..	0	0	3	0	0	0	0	0	3	6	—	—	—	—
Partly Breast	1	4	1	2	0	0	0	0	3	11	—	—	—	—
Artificial ..	20	5	10	11	9	2	2	3	16	78	—	—	—	—
Totals	65	13	19	19	9	7	4	5	38	179	52	2	9	242

In 231 cases in which particulars were obtained, 29 mothers were engaged in work outside their own homes ; and 202 were not thus engaged.

15 children who died were illegitimate.

15 who died were twin births.

82 deaths were due to prematurity.

In addition to deaths of infants under one year of age, 118 deaths of children from 1-5 years of age were noted by the Department.

Births.

(a) Number registered (corrected)	3,124
(1) Legitimate	2,872
(2) Illegitimate	252
(b) Number notified	3,468
(c) Number classified according to source of notification (doctor, midwife, etc.):—	
Doctor	116
Doctor and Midwife	254
Midwife	662
Maternity Ward, D.R.I.	1,740
Maryfield Hospital...	184
Clement Park Maternity Home	340
Parents	3
Other sources	169
(d) Number of stillbirths (births of dead children)	160

PARTICULARS OF BIRTHS NOTIFIED AND REGISTERED IN DUNDEE DURING 1938.

Number of births taken from Registrars' Weekly Returns (including transfers out)	3406
Difference between Notification and Registration (1937-1938 and 1938-1939)	10
	3416
(1) Number of live births occurring in Dundee ...	3396
Number of stillbirths	160
(2) Total number of births occurring in Dundee ...	3556
(3) Number of births notified, in accordance with the Act—*i.e.*, 97.5% of total number of births (3556)	3468
(4) Number of live births notified—97.4% of live births (3396)	3308

CLASSIFICATION OF NOTIFICATIONS.

Attendance in relation to notification :—

By whom Notified.	Notified.	Unnotified.	Total.	Total cases attended.	Percentage of total births.
Doctors	116	80	196	371	10.4
Doctor and Midwife	254	—	254	254	7.2
Midwives	662	1	663	663	18.6
Mat. Ward D.R.I....	1,740	1	1,741	1,741	49.0
Maryfield Hospital	184	3	187	187	5.2
Clement Pk. Mat. Home	340	—	340	340	9.6
Parents	3	—	3	—	—
Nursing Homes ...	169	3	172	—	—
	3,468	88	3,556	3,556	100.0

STILLBIRTHS

160 stillbirths were notified during 1938.

28 of these occurred in the practice of Midwives which were classified as follows :—

	Macerated Foetus	Complicated Labour	Congenital Deformities	Unclassified	Total
Full time Infants	7	13	0	2	22
Premature Infants	1	4	1	0	6

Maternal Mortality.

Number of deaths resulting from miscarriage or childbirth **25**

10 of these deaths were due to Puerperal Sepsis (notified 7 ; unnotified 3).

During 1938 an inquiry was made into 33 deaths of women occurring in childbirth or within 28 days after, or later if illness orginated during pregnancy, childbirth or puerperium. 8 of the above deaths occurred in women whose homes were outwith the Dundee boundary, but who had been brought into the City for hospital treatment of complications arising during pregnancy, parturition or puerperium, and the information regarding these cases was sent to the medical officers of the districts to which they belonged.

In the 25 Dundee deaths the attendants at birth were—

Maternity Ward, Dundee Royal Infinmary ...	14
Maryfield Hospital	3
Maternity Home	2
Doctors...	3
Doctor and Midwife	2
Midwife	1
	25

CLASSIFICATION OF CERTIFIED CAUSES OF DEATH (25 cases) :—

(*a*) Deaths from emergencies and other causes directly due to Parturition (16 cases) :—

Puerperal Infection ; Complete tear of rectum ; Pelvic Peritonitis	1
Bi lateral Broncho-pneumonia ; Complete laceration of perineum (including rectum); Puerperal Sepsis	1

Puerperal Uterine Infection ; Haemolytic Streptococcus ; Puerperal Septicaemia	1	
Puerperal Septicaemia ; Acute Yellow Atrophy of the Liver ; Toxic Hepatitis	1	
Puerperal Septicaemia ; Phlegmasia alba dolens	1	
Puerperal Uterine Sepsis ; Septicaemia ...	1	
Puerperal Septicaemia	1	
Peritonitis	2	
Peritonitis (puerperal) following Caesarian Section	1	
Placenta Praevia ; Caesarian Section ; Hysterectomy ; Pulmonary Embolism ...	1	
Haemorrhage and Shock (intra-partum) ; Placenta Praevia	1	
Ruptured Uterus ; Haemorrhage ; Surgical Shock	1	
Concealed accidental Haemorrhage of pregnancy; Shock	1	
Pregnancy with contracted pelvis ; Caesarian Section ; Cardiac failure	1	
Eclampsia	1	
		— 16

(*b*) Causes of Death associated with Pregnancy but not with Parturition (2 cases) :—

Haematuria ; Abortion	1	
Pulmonary Embolism ; Miscarriage ...	1	
		— 2

(*c*) Causes of Death not due to Parturition (7 cases) :—

Mitral Stenosis	1	
Acute Meningo encephalitis ; Cardiac dilatation	1	
Myocardial degeneration	1	
Broncho-pneumonia	1	
Acute Myeloblastic Leukaemia aggravated by labour	1	
Phthisis	1	
Chronic Nephritis following operation for Hysterectomy (3 months pregnant) ...	1	
		— 7

Report Under Midwives and Maternity Homes (Scotland) Acts, 1915 and 1927.

The following is a list of Midwives who, during 1938, intimated their intention to practise Midwifery in the City of Dundee.

NAME and ADDRESS	C.M.B. Reg. No.	REMARKS.
Anderson, Mrs Isabella—197 Princes Street ...	2,863	Trained.
Andrews, Miss Dora B.—St Ronan's Hostel, Dalkeith Rd.	8,253	Trained.
Angus, Mrs. Clementina—96 King St., B.F. ...	3,057	Bona fide.
Arnott, Miss Jean—36 Dundonald Street	1,182	Bona fide.
Bowman, Mrs Jessie—27 Mortimer Street	4,958	Trained.
Craig, Mrs. Margaret—10 Albert Street	6,994	Trained.
Dobson, Mrs Rachel H.—Elmridge, 6 Glamis Drive	4,423	Trained.
Duffus, Miss Mary—34 Victoria Street	2,567	Trained.
Gouk, Miss Margaret R.—10 Tofthill, Lochee ...	6,221	Trained.
Gowans, Miss Eliza—2 Erskine Street	5,925	Trained.
Gunn, Mrs. Sarah—9 Corso Street	5,404	Trained.
King, Mrs Ellen—53½ Perth Road...	755	Trained.
Lindsay, Mrs Marion—3 Gowrie Street	6,457	Trained.
Lowe, Mrs Jane R.—25 Hawkhill	432	Trained.
Masson, Mrs. Jane—3 Tayview Buildings, B.F.	3,122	Bona fide
Neill, Miss Jane—164 Alexander Street	7,434	Trained.
Ramsay, Mrs Ann C.—281 Hilltown	733	Trained.
Rickard, Mrs Helen M.—125 Perth Road	6,453	Trained.
Smith, Mrs. Jamesina—73 Church Street ...	1,553	Bona fide
Stewart, Miss Jean B.—5 Balgavies Avenue ...	7,713	Trained.
Suttie, Miss Annie—43 Tullideph Road	4,174	Trained.
Thomson, Mrs Mary—16 Fleming Gardens, S. ...	10,225	Trained.
Tulloch, Mrs. Isabella—20 Corso Street	6,231	Trained
White, Miss Jeannie C. -77 Albert Street ...	13,037	Trained.
Williamson, Miss Edith—55 Dens Road ...	10,712	Trained.
Martin, Miss Violet M. A.-Clement P'k. Maternity Home	9,999	Trained.
Collings, Miss Lilian F. do.	12,098	Trained.
Fiddler, Miss Elsie M. do.	13,190	Trained.
Holt, Miss Doris do.	12,856	Trained.
Hume, Miss Beatrice A. do.	13,883 (Scot.) 102,531 (Eng.)	Trained.
Lacey, Miss Mary M. do.	13,525 (Scot.) 100,111 (Eng.)	Trained.
Nicolls, Miss Elsie do.	13,524 (Scot.) 90,096 (Eng.)	Trained.
Ross, Miss Johanna do.	11,461	Trained.
Snape, Miss Violet E. do.	8,644	Trained.
Brodie, Miss Chrissie—Craigie Nursing Home (Died August 1938)	7,947	Trained.
Fraser, Miss Helen I. R.—Craigie Nursing Home	13,260	Trained.
Boyd, Miss Marion—Duneaves Nursing Home	13,255	Trained.
Farquhar, Miss Maria L. do.	12,285	Trained.
Smart, Miss Margaret W. do	9,621	Trained.
Winstanley, Miss Maud—Fernbrae Nursing Home	27,846 (Eng.)	Trained.
Morrison, Miss Elizabeth do.	10,772	Trained.
Cunningham, Miss Aline D. do.	5,805	Trained.
Garside, Miss Alice do.	13,248	Trained.
Dawson, Miss Eveline do.	91,285 (Eng.)	Trained.
Webster, Miss Ann C. do.	10,635	Trained.
Webster, Miss Christina do.	10,196	Trained.
McDougall, Miss Louise C.—Fort House Nursing Home	9,213	Trained.
Baird, Miss Dorothy L. do.	11,984	Trained.
Carrie, Miss Ethel M. do.	12,152	Trained.
Cunningham, Miss Charlotte do.	13,093	Trained.

(1) In January, 1938, 46 midwives notified their intention to practise midwifery in Dundee. During the year 4 midwives gave notice of their intention to practise in Dundee. One midwife (matron of Maternity Home) died.

(2) This leaves on the local roll of midwives at the end of December, 1938, 49 names. 17 of the 49 are actually practising as midwives.

(3) The midwives attended a total of 916 births (including 254 cases where the midwife acted as a midwife though a doctor was in attendance)—that is 25.7 per cent. of the total births occurring in the City, including stillbirths.

(4) The extent of the individual practice of each midwife varies, one midwife having 132 cases, another only attending 8 cases. The average to each midwife in practice is 52 cases.

(5) One Lecture on "Diet in Pregnancy" was given to the midwives during the year.

(6) 65 visits were paid by the Inspector of midwives and her Assistant to the midwives' homes; 13 visits were paid to the 7 Registered Maternity Homes in Dundee.

(7) The midwives have sent 400 mothers to ante-natal clinics or to private doctors for advice and supervision.

(8) There has been a noticeable decrease in the total number of cases attended by midwives during the year—(916 as compared with 999 in 1937).

703 Notifications have been received from midwives as follows:

(1) Application for medical assistance—(a) Mother	...	598
(b) Child ...	...	70
(2) Notification of death—(a) Mother	...	0
(b) Child	...	2
(3) Notification of stillbirth	...	7
(4) Notification of liability to be a source of infection	...	1
(5) Notification of laying out a dead body.... ..	...	0
(6) Notification of artificial feeding	...	5
(7) Notification of patient's failure to follow advice	...	20

There were 20 midwives' patients who refused to follow advice as to obtaining Ante-Natal care, as compared with 39 in 1937.

362 Ante-Natal cases who were not complaining of illness were sent for examination to the Ante-Natal clinics.

MIDWIVES' REPORT.

Ante-natal (400).

Examinations	362
Purulent Discharge	12
Varicose Veins...	6
Dental Caries	5
Sickness	3
Headache	2
Ante-Partum Haemorrhage	2
Pain (various)	2
Skin Rash	1
Constipation	1
Cough	1
Albuminuria	1
Cyanosis	1
Pyelitis...	1

Labour (180).

Ruptured Perineum	80
Prolonged Labour	62
Ante-partum Hæmorrhage ...	9
Breech Presentation	7
Abnormal Labour	6
Premature Labour	6
Retained Placenta	6
Post-Partum Haemorrhage ...	2
Contracted Pelvis	1
Funis Presentation	1

Post-natal (18).

Temperature	5
Mastitis	3
Phlebitis	3
Puerperal Mania	2
Exhaustion	1
Cough	1
Secondary Post-Partum Haemorrhage	1
Post Eclampsia	1
Pain	1

Infants (70).

Discharging Eyes	24
Premature or Weakly Infants	16
Stillbirths	11
Congenital Malformation ...	6
Sudden Death	3
Sickness	2
Breathless	1
Malaena	1
Haematemesis	1
Blue Baby	1
Umbilical Haemorrhage ...	1
Unclassified	3

Births in Area or District. DUNDEE, 1938.

Total No. of Births during 1938 (uncorrected)	Total No. of Deaths of Newly-Born Children during 1938 (within 10 days)	Actual No. of Births Attended by Midwives during 1938	Actual No. of Deaths of Newly-Born Children occurring in the Practice of Midwives during 1938 (within 10 days of Birth)	Actual No. of Cases not attended at birth by a Doctor or Midwife during 1938	
				Births	Deaths
3406	101	916	29	0	0

Cases of Ophthalmia Neonatorum.

Total No. of Cases during 1938	Actual No. of Cases occurring in the Practice of Midwives during 1938	Actual No. of Cases occurring where Confinement not attended by a Doctor or Midwife during 1938
60	22	0

Cases of Puerperal Sepsis.

Total No. of Cases during 1938	Total No. of Deaths during 1938	Actual No. of Cases occurring in the Practice of Midwives during 1938	Actual No. of Deaths occurring in the Practice of Midwives during 1938	Actual No. of Cases occurring where Confinement not attended by a Doctor or Midwife during 1938	
				Cases	Deaths
19 Notifications)	*3 and *2 unnotified cases found post mortem	1	1	0	0

Cases of Puerperal Pyrexia.

Total No. of Cases during 1938	Total No. of Deaths during 1938	Actual No. of Cases occurring in the Practice of Midwives during 1938	Actual No. of Deaths ocurring in the Practice of Midwives during 1938	Actual No. of Cases occurring where Confinement not attended by a Doctor or Midwife during 1938	
				Cases	Deaths
50	*6	13	3	0	0

Cases of Still-Birth (Dead Born).

Total No. of Cases during 1938	Actual No. of Cases occurring in the Practice of Midwives during 1938
160	28

Cases of Emergency.

Total No. of Cases of Emergency, in which Medical Practitioners have been called in under Section 22 of the Midwives (Scotland) Act, 1915, during 1938, distinguishing the different cases of emergency

Ante-natal	Labour	Post-natal	Infant	Total
38	180	18	70	306

362 Ante-natal cases who were not complaining of illness, were sent for examination to the Ante-natal Clinics and private Doctors.

*3 cases were notified as "Puerperal Sepsis," and 2 cases were found post mortem but were not notified.

*6 cases were notified as "Puerperal Pyrexia," 5 of which were Puerperal Sepsis, and 1 case was due to Mitral Stenosis

Health Visitors' Work (Maternity Services Only).

Total number of visits to homes,	21,377
Total number of cases visited,	22,166

(a) Routine Visits :—

	1st visits.	Revisits.	Total.
Babies	2,819	13,551	16,370
Children (1–2) ...	—	5,029	5,029
Mothers, A.N. ...	76	40	116
P.N. ...	37	36	73

(b) Notifiable Diseases and Special Visits.

Ophthalmia Neonatorum	528
Infantile Diarrhoea	11
Puerperal Pyrexia	33
Puerperal Fever	2
Maternal Deaths Enquiries	1
Special Visits	3

Of the 2,819 babies visited for the first time :—

127 were premature
2,692 were fulltime births

Of the 2,777 homes of the newly born visited for the first time the home conditions were :—very good, 212 ; good, 1,136 : medium, 1,282 ; bad, 147.

An enquiry was made into the particulars of feeding during the first year of life of 2,393 infants who had completed 1 year at the end of December 1937. The results of this enquiry are tabulated below .

Total cases investigated		2,393
Alive at end of 1 year	1,211	
Died during first year of life	182	
		2,393

	Alive.	Dead.	Total.
(1) Breast fed	1,871	111	1,982
(2) Mixed feeding from birth ...	67	9	76
(3) Artificial feeding from birth	273	62	335
	2,211	182	2,393

Of the 1,982 children who were breast fed from birth

691	were weaned before the end of the first month		and 51	died.
393	,, ,, between 1 and 3 months		,, 22	,,
364	,, ,, ,, 3 ,, 6 ,,		,, 18	,,
388	,, ,, ,, 6 ,, 9 ,,		,, 17	,,
35	,, ,, ,, 9 ,, 12 ,,		,, 3	,,

Ante-Natal Consultations.

1. Central A.N. Clinic.

REPORT BY MARGARET FAIRLIE, M.B., Ch.B.

1 Weekly Session of 2 Hours.

(a) Total number of Expectant Mothers attending ...		422
(b) Total number of attendances		787
(c) Classified summary of conditions found :—New Cases, 350.		
Advice only		326
Conditions due to Pregnancy		9
Ante-Partum Hæmorrhage	2	
Albuminuria	6	
Hydramnios	1	
Conditions aggravated by Pregnancy		3
Discharge	2	
Phlebitis	1	
Conditions complicating Pregnancy		12
Contracted Pelvis	3	
Malpresentations	7	
Multiple Pregnancy	2	

(d) Number of Cases :—

	New Cases.	Re-visits.
(1) Referred to Ante-natal Ward	2	9
(2) Treated at Clinic ...	352	424

Post-Natal and Other Consultations.

(a) Total number of Post-Natal cases attending	6
(b) Total number of attendances	10
(c) Classified summary of conditions found :—New Cases, 6.	
Advice	5
Prolapse	1

All the cases received treatment at the Clinic.

2. Lochee A.N. Clinic.

REPORT BY MARGARET SCOTT-DICKSON, M.B., Ch.B., D.P.H.

1 Weekly Session of 2 Hours.

(a) Total number of expectant mothers attending ...		154
(b) Total number of attendances		286
(c) Classified summary of conditions :—New Cases—147		
Advice only		96
Conditions due to pregnancy		4
Ante-partum Haemorrhage	2	
Vomiting	1	
Oedema	1	
Conditions aggravated by Pregnancy		26
Discharge	6	
Varix	20	
Conditions complicating Pregnancy		10
Contracted Pelvis	3	
Malpresentations	6	
Multiple Pregnancy	1	

(d) Number of Cases :—

	New Cases.	Re-visits.
(1) Referred to Ante-Natal Ward	2	0
(2) Treated at Clinic	145	139

Post-Natal Consultations.

One Post-natal case suffering from Prolapse made 7 attendances.

Child Welfare Consultations.

Eight weekly sessions of 2½ hours each were held in Dundee, including Lochee and Broughty Ferry, with five weekly sessions in Dundee and two in Lochee for special Ultra Violet Light treatment.

		Cases.	Attendances.
(1) Under 1 year of age	...	2,501	13,706
(2) Over 1 year of age	...	997	11,736
(3) Mothers—A.N.	...	37	39
P.N.	...	45	64
		2,580	25,545

Diseases recorded on admission to the Clinics :—

(1) Children under 1 year of age.

Of the 1,060 children under 1 year of age attending the 6 clinics for the first time, 136 (12.8%) showed no disease or congenital defect. The remaining 924 showed 1,925 diseases or defects, classified as follows :—

Diseases of the digestive system		822
Diseases of the respiratory system		182
Diseases of nutrition :		
Rickets	11	
Other disorders of nutrition	24	
	—	35
Diseases of the skin		183
Diseases of the eye		28
Diseases of the ear, nose and throat		8
Congenital defects		587
Surgical conditions		16
Infectious Diseases :—		
Chicken Pox	1	
Rubella	1	
	—	2
Various		62
		1,925

(2) Children over 1 year of age.

Of the 93 children between one and five years of age attending the clinics for the first time, 4 (4.3%) showed no disease or congenital defect. The remaining 89 showed 164 diseases or defects, classified as follows:—

Diseases of the digestive system		32
Diseases of the respiratory system...		54
Diseases of nutrition :—		
Rickets	23	
Other disorders of nutrition	11	
	—	34
Diseases of the skin		19
Diseases of the nervous system		2
Diseases of the eye		2
Diseases of the ear, nose, and throat		4
Congenital defects		27
Surgical conditions		2
Various		8
		164

(3) Mothers.

3 Ante-natal mothers attended the ordinary Clinics suffering from the following diseases :—

No disease (advice only)	1
Disease of the respiratory system	1
Various	1
	3

14 Post-natal mothers attended the ordinary Clinics suffering from the following diseases :—

Diseases of nutrition	11
Surgical conditions	1
Diseases of the nervous system	1
Various	1
	14

Special Treatment Centres.

A. Dental Clinic.

(a) Number of **attendances** :—

(1) Mothers	62
(2) Children (5 months only)	34
	96

(b) Classified summary of **conditions recorded on admission** :—

(1) Mothers—(22).

Dental Caries, 16 ; Alveolar Abscess, 2 ; Gingivitis, 1 ; Pyorrhoea, 3.

(2) Children —(28).

Dental Caries, 10 ; Alveolar Abscess, 11 ; Gingivitis, 2; Tartar, 1 ; Erupting Teeth, 2 ; Periodontitis, 1 ; Root in Gum 1.

(c) Classified summary of treatment carried out—(149)

Advice, 10 ; Extractions (temporary) 5 ; (permanent), 81 ; Fillings (temporary) 1 ; Treatment of Alveolar Abscess, 14 ; Dressings, 17 ; Aconite and Iodine treatment, 4 ; Special gum treatment, 1 ; Brushing and Scaling, 1 ; Artificial Dentures Impressions, 14 ; Repairs, 1.

B. Ultra Violet Light Clinic.

Number of Cases.

	New Cases.	From 1937.	Total.	Total Attendances.
Babies ...	53	4	57	1,058
Children ...	120	38	158	3,462
	173	42	215	4,520

Babies.

	Improved	Not Improved	Not Attending	Still Attending	Total.
Debility	3	1	1	2	7
Marasmus	0	1 (ACH)	2	0	3
Late Dentition	10	0	12	4	26
Rickets	8	2	3	4	17
Anaemia	1	0	0	0	1
Not thriving	1	1	1	0	3
	23	5	19	10	57

Children.

	Improved	Not Improved	Not Attending	Still Attending	Total
Not thriving	2	1	4	1	8
Debility	25	2 (1 ACH) (1 DRI)	14	4	45
Marasmus	0	0	0	2	2
Anaemia	2	0	1	2	5
Late Dentition	12	0	15	3	30
Late Walking	1	0	2	0	3
Rickets	21	4 (2 dead)	15 (1 left town)	9	49
Bronchial Catarrh ...	6	0	1	4	11
Rheumatism	0	0	1	0	1
Incontinence of Urine ...	0	0	1	0	1
Tender Gums (?)	0	0	1	0	1
Excessive Salivation ...	1	0	0	1	2
	70	7	55	26	158

Day Nurseries.

(a) Number of attendances :—

(1) Under 1 year of age	3,019
(2) Over 1 year of age	13,533

(b) Charges made :—

4s. 6d. for 5½ day week for each child, with a reduction of 1s. in the case of 2 members of 1 family, and 2s. a week if 3 members of the same family are attending at the same time.

Food and Milk.

The conditions and arrangements for the supply of food and milk to expectant and nursing mothers and children under five years of age are as follows :—

All cases are granted on medical recommendation and only to individuals who are attending a Centre. The usual period covered by a grant is one calendar month ; and vouchers are renewed as often as may be necessary, but only after a further medical examination of the person for whom the grant is made.

Expectant mothers are granted free dinners at approved restaurants or a daily supply of milk during the last three months of pregnancy or longer in special cases.

Nursing mother receive the same for a period of 6—9 months provided they continue to nurse the infant.

The usual amount of milk supplied is one pint each daily to children but mothers may receive more in special cases e.g. albuminuria cases where a milk diet is recommended.

Liquid milk is delivered at the homes or may be obtained by the mothers from approved shops.

Apart from the Home Visitation of the families by the Health Visitors no special steps are taken to ensure the restriction of the use of the milk to the individual for whom it has been granted ; but only on rare occasions are more than two pints per day given to any household, as the experience of the Health Visitors has been that if larger quantities are supplied there is a tendency to waste the milk.

Dried Milk and various supplementary foods are given free to the mothers and children attending the clinics on the orders of the Medical Officer or they may be purchased at cost price.

The monetary scale adopted as a basis for consideration of applications for material assistance is that of the local Public Assistance Department.

A Table is appended showing the amount of milk and other foods supplied, and the cost of the same.

Total Quantity Supplied.

	No. of Persons Supplied.		Mothers.		Children.		Amount Paid by Local Authority in 1938.	Amount Recovered by Local Authority.	Nett Cost.
	Mothers.	Children.	Supplied Free.	At Cost Price.	Supplied Free.	At Cost Price.			
			Gallons.		Gallons.				
quid Milk ... ... (Grade Pasteurised)	16	602	241½	—	15754¾	—	£1740 2 3	—	£1740 2 3
ried Milks			Lbs.		Lbs.				
Ostermilk	—	206	—	—	325	1188	£121 2 3	£94 16 0	£26 6 3
Allen & Hanbury ...	—	1	—	—	5	—	0 15 5	0 0 0	0 15 5
Lactogen	—	1	—	—	—	12	1 5 0	1 5 0	0 0 0
Colact	27	—	221	—	—	—	16 11 6	0 0 0	16 11 6
her Food Preparations			No.		No.				
Dinners	122	—	11807	—	—	—	£412 8 6	—	£412 8 6
			Lbs.		Lbs.				
od Liver Oil and Malt ...	—	329	—	—	3954	—	£ 98 17 0	—	£98 17 0
Virol	—	171	—	—	24¾	175¾	16 14 2	£14 12 11	2 1 3
Virolax	—	69	—	—	1	53¾	4 11 3	4 9 7	0 1 8
Chymol	—	8	—	—	—	3¼	0 4 4	0 4 4	—
Farex	—	1	—	—	—	1	0 1 5	0 1 5	—
							£2412 13 1	£115 9 3	£2297 3 10

Puerperal Sepsis (19 Cases)

	Notified	Unnotified	Primipara	Multipara	Where Treated. King's Cross Hospital	Maryfield H. or D.R.I.	Nursing Home or Mat. Home	At Home	Recovered	Died	Total
Doctors	6	—	—	7	7	—	—	—	6	1	7
Doctor and Midwife	—	—	—	1	—	—	—	—	—	1	1
Midwives	—	—	—	—	—	—	—	—	—	—	0
Maternity Ward (I.P.)	11	*2	9	2	10	1	—	—	8	2	10
Do. (O.P.)	—	—	—	—	—	—	—	—	—	—	0
Maternity Home ...	—	—	—	—	—	—	—	—	—	—	0
Maryfield Hospital...	—	—	—	—	—	1	—	—	—	1	1
	17	2	9	10	17	(1DRI (1MH	0	0	14	5	19

* Found Post Mortem.

	RECOVERED Primipara.	RECOVERED Multipara.	DIED Primipara	DIED Multipara
Where delivered :—				
Home	..	6	1	2
Maternity Ward D.R.I.	7	1	1	1
	7	7	2	3
Where treated :—				
Dundee Royal Infirmary	..	...	...	1
King's Cross Hospital	7	7	2	1
Maryfield Hospital ..	...	...	...	1
	7	7	2	3

Of the 14 cases which recovered the home conditions were good in 11, bad in 3; and of the 5 cases which died the home conditions were good in 3, bad in one case and not known in one case.

PARTICULARS OF CASES.

Primipara.	Recovered.	Died.	Total.			
Normal Confinement	6	1	7			
Instrumental Delivery	1	...	1			
Abortion	...	1	1	7	2	9

Multipara.	Recovered.	Died.	Total.			
Abortion	6	1	7			
Normal Confinement	1	...	1			
Caesarian Section ; Puerperal Peritonitis following Caesarian Section	...	1	1			
Instrumental Delivery	....	1	1	7	3	10

Puerperal Pyrexia (50 Cases).

	Notified	Unnotified	Primipara	Multipara	Where Treated. King's Cross Hospital	Maryfield H. or D.R.I.	Nursing Home or Mat. Home.	At Home	Recovered	Died	Total
Doctors	26	—	—	4	3	—	—	1	4	—	4
Doctor and Midwife	—	—	7	2	7	—	—	2	7	2	9
Midwives	—	—	—	4	4	—	—	—	3	1	3
Maternity Ward (I.P.)	15	—	9	6	11	2	—	1	14	1	15
Do. (O.P.)	5	—	1	4	5	—	—	1	5	—	5
Maternity Home ...	—	—	5	2	6	—	1	—	6	1	7
Maryfield Hospital	4	—	—	4	2	2	—	—	3	1	4
Nursing Home ...	—	—	1	1	1	—	1	—	2	—	2
	50	—	23	27	39	(2DRI (2MH	2	5	44	6	50

Where Delivered.	Recovered. Primipara.	Recovered. Multipara.	Died. Primipara.	Died. Multipara.
At Home	6	8	1	2
Maternity Ward—I.P.	8	6	1	—
O.P.	1	4	—	—
Maternity Home	5	1	—	1
Nursing Home ...	1	1	—	—
Maryfield Hospital ...	—	3	—	1
	21	23	2	4

Where Treated.				
At Home	3	1	—	—
Maternity Ward	2	—	—	—
King's Cross Hospital	14	21	2	3
Maryfield Hospital ...	—	1	—	1
Maternity Home ...	1	—	—	—
Nursing Home ...	1	—	—	—
	21	23	2	4

Of the **44** cases which recovered, the home conditions were good in **30**, bad in 13, and not known in 1 case; and in the **6** cases which which died the home conditions were good in 5 and not known in 1 case.

PARTICULARS OF CASES.

Primipara.	Recovered.	Died.	Total.
Normal Confinement ...	15	...	15
Normal Confinement with Ruptured Perinaeum	1	...	1
Instrumental Delivery	2	...	2
Instrumental Delivery with Lacerations ...	...	1	1

	Recovered.	Died.	Total.			
Instrumental Delivery with Lacerations and Post-partum Haemorrhage	1	...	1			
Instrumental Delivery with Retained Placenta	1	...	1			
Normal Confinement ; Deficient Membranes	....	1	1			
Caesarian Section with Fibroid ...	1	...	1	21	2	23

Multipara.	Recovered.	Died.	Total.			
Normal Confinement	14	2	16			
Normal Confinement ; Ruptured Perinaeum	1	1	2			
Normal Confinement ; Retained Membranes	2	...	2			
Normal Confinement ; with Pyelitis ...	...	1	1			
Abortion	5	...	5			
Instrumental Delivery	1	...	1	23	4	27

One case had been notified as Puerperal Pyrexia, in which the cause of death was " Mitral Stenosis."

2 cases of Puerperal Fever and 3 cases of Puerperal Pyrexia followed instrumental delivery. There were 10 deaths from Puerperal Fever.

Number of cases of Puerperal Fever and Puerperal Pyrexia where the Local Authority provided assistance on the request of the Medical Practitioners for :—

(i.)	Consultant Service	1
(ii.)	Bacteriological Examinations	0
(iii.)	Skilled Nursing at Home	0
(iv.)	Hospital Treatment	56

Notifications were sent promptly ; and, in the majority of cases the opportunity of removal to Hospital for treatment was taken advantage of immediately.

Ophthalmia Neonatorum.

	Doctors	Midwives	Doctor and Midwife	Mat. Hosp. In-Pat.	Mat. Hosp. Out-Pat.	Maryfield Hospital.	Maternity Home.	Mat. and C.W. Dpt.	Eye Institution	Nursing Home	Found Dead	Total.
By whom notified...	31	4	—	11	1	1	—	12	—	—	—	60
By whom attended	4	19	3	24	3	3	4	—	—	—	—	60
Total No. of Births attended in 1938	371	663	254	1741		187	340	—	—	—	—	3556

Treated in Institutions	Treated at Home	Type of Case: Severe	Type of Case: Mild	Result: Complete Recovery	Result: Injury to Sight	Died during Treatment	Left Town dur'g T'rm't	Not Visited	Initial Visits	Re-visits
King's Cross H. 10	50	10	50	60	—	—	—	1	59	471
Maryfield H. —	—	—	—	—	—	—	—	—	—	—
Maternity Home —	—	—	—	—	—	—	—	—	—	—

Of the 10 severe cases 6 were attended at birth by the Maternity Department, D.R.I. ; 2 by Midwives ; 1 by Doctor, and 1 by Maryfield Hospital.

Smears were taken in 52 cases. 5 were positive ; 7 were suggestive, and in 40 cases smears were negative. In the other 8 cases 6 had been removed to Hospital and 2 were not taken.

In no case was there loss of vision.

Rickets.

11 infants under one year showed clinical signs of commencing Rickets.

3 of these cases were under 6 months, the others being between 6 months and 1 year. Their feeding was as follows :—entirely breast fed, 2 ; breast fed for 2 months, then on artificial food, 1 ; breast fed for 1 month, then on fresh cow's milk, 1 ; fed from birth on fresh cow's milk, 2 ; fed from birth on condensed milk, 1 ; fed from birth or artificial food, 3 ; fed on fresh cow's milk for 4 months, then on artificial food, 1.

Of the 93 children admitted between the ages of 1 and 2 years 23 (24.7%) showed some signs of clinical rickets on admission.

In these cases enquiries as to the feeding from birth elicited the following information :—

Breast fed for less than 1 year ...	7 out of a total of 34
Breast fed for over one year ...	1 out of a total of 10
Mixed Feeding	0 out of a total of 2
Partly Breast fed (for a few months only)	10 out of a total of 25
Fed on fresh cow's milk	4 out of a total of 16
Fed on artificial food	1 out of a total of 6

Deaths from Infantile Diarrhoea.

13 deaths occurred from infantile diarrhoea during 1938.

Of these 4 were breast fed ; 8 artificially fed ; 1 had mixed feeding.

With reference to feeding, the ages at which these infants died were as follows :

	1st Mnth.	2nd Mnth.	3rd Mnth.	4th Mnth.	5th Mnth.	6th Mnth.	7th Mnth.	8th Mnth.	9-12 Mnth.	Tl
Breast ...	1	0	0	1	0	2	0	0	0	4
Partly Breast	0	0	0	0	0	0	0	0	0	0
Mixed ...	1	0	0	0	0	0	0	0	1	2
Artificial ...	1	0	1	1	3	0	1	0	0	7
Totals ...	3	0	1	2	3	2	1	0	1	13

The family history showed that in these families :—

17 had died in the first year of life.

29 were still alive.

2 of the mothers worked outside their own homes.

Voluntary Agencies.

DUNDEE VOLUNTARY HEALTH WORKERS' ASSOCIATION.

During the year 30 lbs. of wool were made into knitted garments and 360 sewn garments were made by the members of the Association for the Clinics, and 459 were provided for the Day Nurseries.

594 garments supplied by the Association were distributed at the Clinics. Of these 8 were sold at half cost price, 508 at quarter cost price, and 78 were given free on the recommendation of the Medical Officer.

The following voluntary institutions are also associated with the Scheme, and receive an annual grant from the Dundee Town Council :—

(1) SALVATION ARMY HOME.

Report of the Maternity Home—Florence Booth House, Clement Park, Lochee.

Number of non-paying cases in the Home on January 1st, 1938	21
Number of non-paying cases admitted during 1938	34
Number of cases confined in the Home during 1938	29
Number of days in the Home during 1938 ...	9,344

(2) ST. RONAN'S HOME.

This is a Preventative and Rescue Home which admits pregnant and nursing women.

Number of cases in the Home on January 1st, 1938	17
Number of cases admitted during 1938	36
Number of cases left during the year	39
Number of cases in Home on January 1st, 1939 ...	14
Number of days in the Home during 1938	5,536

(3) LOCHEE DAY NURSERY.

Number of new cases admitted :—

Under 1 year of age	8
Over 1 year of age	28

Total attendances :—

Under 1 year of age	493
Over 1 year of age	4,224

(4) NURSERY SCHOOL.

Infant Department :—

Number on Roll	13
Number admitted in 1938	10
Number re-admitted, from 1937	3
Average daily attendances	6
Total number of attendances in 1938	1,060
Number of days open during 1938	205

PRE-SCHOOL AND SCHOOL MEDICAL SERVICES.

REPORT FOR THE YEAR ENDING 31st JULY, 1939,
by Dr. JAMES A. CUTHBERT
Deputy Medical Officer of Health (Pre-school and school medical services)

List of Staff.

Whole-time—

Deputy Medical Officer of Health (Pre-School and School Medical Services):

James A. Cuthbert, M.B., Ch.B., D.P.H.

Assistant Medical Officers of Health (School Medical Services):

Dora W. Gerrard, M.B., Ch.B., D.P.H.
Nona S. Lesslie, M.B., Ch.B., D.P.H.
Claude H. Imrie, M.B., Ch.B., D.P.H.

Dental Officers:

Ernest E. Cassaday, M.B., Ch.B., L.D.S., D.P.H.
Margaret G. L. Ritchie, L.D.S.

Orthoptic Trainer:

Catherine M. Kinnear, M.A., appointed 16/4/39.

Orthoptic Clinic Attendant:

Mary Gray, appointed 24/4/39.

School Nurse:

Catherine Moore—Special School Duties.

Clerkesses:

Mary Hughes.
Margaret H. Beveridge, appointed 18/10/38.
Constance N. Bottler, appointed 22/11/38, additional for general duties.

Cleansing Station Attendant:

Miss M. Rowan.

Part-time—

Specialist Medical Officers:

Allister M. MacGillivray, M.D., D.O.M.S., F.R.S.E., Ophthalmic Surgeon.

Matthew J. Gibson, M.B., F.R.C.S.E., Ear and Throat Surgeon.

John Kinnear, M.D., M.R.C.P.E., Dermatologist.

Assistant Medical Officer of Health:

David G. McIntosh, M.B., Ch.B., D.P.H., appointed 16/4/39, succeeds W. A. Davidson, M.B., Ch.B., D.P.H., in this work.

School Nurses:

23 Health Visitors out of a total of 28 give part time to School Medical Services.

Central Clinic Attendant:

Arthur Littlejohn gives part time to School Medical Services.

General Statistics.

Population of the area,		177,960
Number of Schools:		
(a) Primary	Under Education	34
(b) Secondary	Authority	8
(c) 1. Special Schools,		4
2. Nursery School,		1
3. Special classes in ordinary schools (Nursery Classes),		3
(d) In receipt of grant from Education Authority and under medical inspection,		1
Number of children on the registers,		27,160
Number of children in average attendance,		24,606
Percentage,		90.6

Sanitary Conditions of Schools.

The conditions under which the children are educated are very satisfactory on the whole, and the frequent visits of members of this staff yield little in the way of serious criticism. Two schools in the central congested area are condemned on account of their age and type, but they show a gratifying reduction in numbers of pupils due to the steady progress of rehousing slum and over-crowded tenants in suburban housing schemes. It is hoped that the time is not far distant when it may be possible to distribute

the remaining pupils amongst more suitable schools and to abandon the old buildings. Meantime an extensive building programme is in hand in the new housing areas and the existing schools are being steadily improved from year to year wherever it is found in practice that heating and ventilation are unsatisfactory.

The replacement of ordinary windows in the older schools by windows of the hopper or swivel type is giving an adequate draught-free ventilation of which most of the teachers willingly avail themselves. There is no criticism of the heating system in any of the schools except Stobswell Central as indicated in the last annual report, but this sole remaining Plenum System is to be replaced by natural ventilation while that school is undergoing extension and alteration. This is proceeding at the time of writing. Room temperatures, however, are unsatisfactory at times because inadequate attention is given by some teachers to ventilation. It is necessary to stress continually the importance of free flushing of rooms with fresh air at all intervals and of keeping the temperatures within the prescribed limits. The system of temperature charting practised at present has the desirable effect of focussing the teachers' attention on this matter at least at stated intervals.

The temporary hut accommodation for young school children at St Mary's R.C. School, Lochee, is meantime very unsatisfactory in regard to ventilation and heating, but steps are being taken at once to improve matters by the installation of exhaust fans. These premises will doubtless be abandoned as classrooms as soon as may be possible.

There have been fewer complaints about the condition of the sanitary conveniences in the past year due to improved supervision by teachers and janitors, but this is a matter in which there is room for still further improvement. In the few modern schools only are the offices within easy reach for convenient use and supervision, but in all cases adequate oversight and proper cleanliness are extremely important.

Indoor W.C. provision is being made for the use of nursery children in the three schools where these classes have been established.

In the course of the year all the old type iron cup drinking fountains have been replaced by the bubbling type of which about 90 in all have been installed. Additional fountains have been placed in the playground of two schools but further additions in most of the older schools or in the playgrounds will be required before the number can be considered adequate.

The following is a list of the main alterations and repairs carried out during the past year :—

Reflooring of certain rooms in eight schools.

Repainting inside of six schools and part of another.

Installation of domestic hot water systems in both parts of two schools.

Improved lighting by replacement of obscure glass in one school.

Improved ventilation by complete installation of hopper windows in three schools and swivel windows in two rooms of another school.

System and extent of Medical Inspection and Treatment.

The school year just closed has seen the introduction of the new school health record card recommended by the Department of Health for Scotland in the circular N. M. & C. No. 60/1938 and the systematic examination of the age groups prescribed by the Circular N. M. & C. 62/1938, namely, Entrants children born in 1929, 1925 and 1922. In following the recommendations, the systematic examination of the seven-year old group in this area was omitted except for vision testing, and in addition the examination of the children born in 1924 and due to leave in the past year was continued so that vocational guidance might be given to the "leavers" and a report based on a recent medical examination supplied to the Ministry of Labour and to panel practitioners.

The schools of the city are divided for the purposes of visitation for systematic and special examination into three main groups roughly according to their position and population, and each group is allocated to a medical officer. An Assistant Medical Officer of Health, giving part time to these duties, carries out the work in two schools—one primary and one post-primary.

In the same way each of the 18 health visitors in charge of a district of the city under the scheme of combined services outlined in previous reports (vide Annual Report, 1937, page 179) has the care of two or, in some cases, three schools in or near her own district. The Health Visitor is required to pay a weekly visit to her schools and to assist at systematic examinations.

Lists of pupils for inspection having been obtained from Head Teachers the arrangements are made and the letters to parents are

sent out from the Central Clinic as directed by the Deputy Medical Officer of Health (Pre-school and School Medical Services) to whom the Assistant Medical Officers return a weekly statistical report of their visits and examinations and lists of children whose parents have been notified that they are suffering from defects requiring treatment. Medical Record Cards are stored at the Central Clinic, filed alphabetically according to the year of birth. The cards for a particular morning's inspection are taken to the school by the appropriate health visitor. Twenty-eight or at most thirty children constitute a full systematic inspection session.

Copies of the lists of children suffering from defects requiring treatment are supplied to the Medical Officer, the Health Visitor and the Head Teacher concerned, and these are used for follow up purposes. Cases of vision defect are referred to the Central Clinic to have an appointment made for consultation with the Ophthalmic Specialist who conducts three clinics per week. Non-necessitous cases of all kinds are referred to their own practitioners, and necessitous cases are referred to the Central or to the appropriate district clinic for treatment provided the condition comes within the scope of the services. Otherwise they are advised to consult the area medical officer under the Scheme for Medical Services to the Outdoor Poor. Many cases, however, prefer to attend one or other of the out-patient departments of the Royal Infirmary.

Suitable cases are referred to the Ear and Throat Surgeon and the Dermatologist who have one clinic each, weekly at the Central Clinic premises, and any cases requiring consultant advice outside the scope of these services are definitely referred to the Royal Infirmary.

Minor injuries and ailments, eye conditions excluding defective vision, ear and throat conditions and skin conditions are treated at the Central Clinic and Isles Lane Clinic daily, at Ferry Road and Lochee Clinics daily except one day per week, and at Broughty Ferry Clinic on two days per week. A medical officer consults one afternoon weekly at each of the district clinics and three days per week at the Central Clinic. In addition the Deputy Medical Officer of Health (Pre-school and School Medical Services) has a special clinic for referred cases on one afternoon at least each week.

The Deputy Medical Officer of Health (Tuberculosis) attends one afternoon per month to see cases specially referred, and at other times suitable cases may be sent to him for advice at the Tuberculosis Dispensary.

Clinics for treatment by artificial sunlight are held bi-weekly at Lochee Clinic and thrice weekly at the Central Clinic.

Cases of scabies or other vermin infestation requiring treatment are referred to the Cleansing Station, The Baths, Constable Street, which is open daily under the supervision of one attendant. The cases remain under regular weekly supervision at one of the clinics.

VISITS TO SCHOOLS

The Deputy Medical Officer of Health (Pre-school and School Medical Services) paid 50 visits to the Nursery School and Special Schools for the purpose of supervision, examination of pupils, intelligence testing, etc., in addition to supervisory visits to ordinary schools and clinics.

The Assistant Medical Officers paid 392 visits to the ordinary schools for systematic inspections compared with 444 in the previous year.

189 special visits were paid compared with only 69 in 1937-38 and 55 visits to special schools compared with 60.

Reduction in the numbers of systematic inspections required, and also in the number of consultation clinics at the Central Clinic premises from five to three per week, has allowed the Assistant Medical Officers more time for visiting their schools to examine special cases, but the advantage is not yet fully apparent on account of the extraordinary accumulation of clerical work produced by the requests from various Insurance Committees for Form S.H./Med. 62 completed in respect of young persons who had left school before that scheme started.

System and Extent of Dental Inspection and Treatment.

For this purpose the schools are divided into two groups, each allocated to a dental officer, who deals with the schools in the group in rotation. The children of the five to eight years age group are systematically inspected at one forenoon session weekly

by both dental officers, and children suffering from defects requiring treatment are recorded. Letters are sent through the children to parents advising treatment and asking either an undertaking to obtain the treatment privately or, in necessitous cases, an acceptance of treatment at the Central School Clinic. From the acceptances received appointments for treatment on the other mornings of the week are made by postcard distributed by way of the schools. The treatment is mainly conservative but sinuses and oral sepsis are also dealt with. Cases of malocclusion are referred for treatment to the Dundee Dental Hospital.

The afternoon sessions of both dentists are occupied with the treatment of casual cases mainly, and a few return appointments and referred cases.

School Nursing and Arrangements for Following-up

As already indicated, one health visitor spends her whole time on the work of the Special School for Physically Defective and Mentally Retarded Children. One health visitor administers artificial sunlight treatment at the Central Clinic and on the other days of the week assists at a consultation clinic or the ordinary treatment clinic, and another is concerned wholly with clinic work in relation to eye and skin conditions. A health visitor attends full time to the work of each of the dental officers. The 18 health visitors on district duties pay routine weekly visits to the schools allocated to them and such special visits as may be required in connection with special cases or conditions. They examine dirty, neglected or verminous cases and any others that may be brought to their notice by the Head Teachers, and they follow up the case found at routine inspection to be requiring treatment. The nurses visit the homes where necessary within their own districts, otherwise arrange for visitation by the appropriate district visitor.

The Medical Officers visit their schools at least once each term for following-up purposes and record the results on the lists of children found to require treatment at the systematic inspections.

As from 1st January, 1939, a new form of monthly record of work has been in use by the health visitors so that the information regarding their work which follows in this and the next section requires to be given in relation to two periods of six months.

From 1st July to 31st December, 1938.

Working time of the 18 nurses on district duties in periods of half days :—

Systematic Inspections, ...	152 half days
Pre-school and school clinic duty (Consultation and Treatment), ...	919 half days

In addition, those nurses paid at least a weekly visit to their schools for follow-up and special examinations.

Follow-up visits to childen in their homes are included among :—

950 Special Visits paid to children 5-14 years.
6 Cases visited on account of dirt or neglect.
22 Cases visited on account of verminous conditions.

From 1st January to 30th June, 1939.

Number of half days on Systematic Inspections, ...	240
Additional visits to schools, ...	727
Number of half days on Pre-school and School Clinic Duty, ...	968
Follow-up visits to children in their homes, ...	772
Number of children, ...	580

Co-ordination with the Public Health Service and with other departments of the authority which render services to the children.

The Maternity and Infant Welfare services share the Central Clinic and office premises with the Pre-school and School Medical services and a staff of health visitors combined for all purposes is employed, as detailed in the Public Health Department Annual Report, 1930, p.p. 158-160, and referred to briefly in last year's Report, page 179. There is the closest possible co-ordination and co-operation of these services.

For health visiting purposes the city is divided in 18 districts having regard to the following main factors :—

1. Birth rate.
2. Proportion of " visited " houses.
3. School population.
4. Number of tuberculosis cases.

One health visitor is attached to each district and visits the families there for all purposes. These district health visitors in rotation do duty for one month in the Tuberculosis Department and six months in the Venereal Diseases (Female) Department, and they staff the regular child welfare and school clinics which serve their own districts.

The Infant Health Record Cards have been revised by the Deputy Medical Officer of Health (Maternity and Child Welfare Services) and made to conform in size to the new School Records. They are attached to the School Records when children are admitted to school so that a complete summary of progress from birth is available in most cases.

This department is notified daily by the Central Public Health Office of all admissions to and discharges from Maryfield General Hospital and King's Cross Infectious Diseases Hospital, and the visitors extract all the information they require for their records and for the purpose of visiting.

This combined scheme has now been established for eight years and the advantages in the more intimate and continuous supervision of families are quite obvious.

Minor adjustments in the area of some districts have been necessary on account of the migration of the population, and certain details have been changed in the light of experience, but the scheme is substantially as it was originally drawn up.

With regard to the control of infectious disease, the first visit to affected houses is paid by a member of General Health Services staff, and subsequent visits on request by the health visitors, for all such diseases except Ophthalmia Neonatorum, Infantile Diarrhoea, Puerperal Pyrexia and Sepsis, Measles, Rubella, Whooping Cough, Mumps and Pneumonia. Those named are visited initially by the health visitors, so that either from them or from the Central Public Health Office comes the information necessary for the completion of certificates of exclusion from school to be transmitted to Head Teachers through the Attendance Department.

The number of such certificates in the past year was 2,053.

One of the most gratifying features of the co-operation and co-ordination outlined is the service it is possible to render conveniently to the pre-school child. So long as a mother attends an infant welfare clinic with a child under the age of two years her 2-5 years old children are supervised at that clinic, but should there be no child under 2 years, the 2-5 year olds pass over to the care of the school clinics. Many of these cases receive proper care for running ears, conjunctivitis and vision defects including strabismus, dental caries, skin conditions, rickets, chest conditions, etc., at a much earlier stage than they might otherwise.

From 1st July to 31st December, 1938.

Health Visitors made a total of 5,737 visits to houses and that work included :—

Special visits to children, 2-5 years	378	
Special visits to children, 5-14 years,	950	
	1,328 in 1,263 homes	
Other cases, ...	3,218 in 2,173 homes	

Infectious Diseases.

2,314 visits to 2,274 homes.

These were mainly accounted for by the following :—

Visits to cases of tuberculosis, ...	1,349 in 1,283 homes
Visits to cases of scarlet fever,	271 in 261 homes
Visits to cases of chickenpox, ...	130 in 121 homes
Visits to cases of whooping cough,	53 in 41 homes
Visits to cases of ophthamia neonatorum, ...	281 visits to 30 cases

From 1st January to 30th June, 1939.

Visits by Health Visitors :—

20,023 visits to 10,588 cases.
13,970 visits to 7,176 homes.

Number of Children, 1-5 years, visited,	4,159
Visits, ...	7,773
Number of Children, 5-15 years, visited,	1,807
Visits, ...	2,526

Infectious Diseases.

Cases visited, ...	1,563
Visits, ...	2,526

These are mainly accounted for by the following :—

	Cases	Visits
Tuberculosis, ...	594	1,145
Scarlet fever, ...	64	89
Chickenpox, ...	470	629
Whooping cough, ...	274	317
Ophthalmia neonatorum, ...	30	218

Co-operation with Voluntary Bodies and other Outside Agencies.

There is most ready and full co-operation between this department and voluntary and other agencies which render services to children.

Many cases are referred for medical and surgical consultant advice to the Royal Infirmary. The names of children of all ages who have attended the casualty department of the Infirmary and require treatment or supervision are intimated to this office at least once daily through the Central Public Health Office and they are visited by the health visitors. In this way there is obtained much useful information on which appropriate action can be taken.

The Dundee Invalid and Cripple Children's Aid Association deals with children suffering from crippling defects or prolonged illness and provide bedside instruction in handicrafts, etc., in addition to that given at their Central Club premises. The Association was responsible for establishing the original special school for physically defective children and they carry on the excellent Holiday Home at Auchterhouse to which children are sent by this department. They contribute generously to the supply of orthopædic appliances and do most useful work in the general following-up and care of cripples and invalids, throughout which their social worker is in close touch with this department.

The Dundee Branch of the Scottish Association for Mental Hygiene is an active body to whose visiting committee are referred the names of ineducable mental defectives and those under five years of age. These cases are visited in their homes and parents are advised and assisted with the care and proper training of the defectives. This Association was responsible for the establishment of a small mental clinic in 1926 which became, ten years later, the Dundee Child Guidance Clinic.

The Dundee Child Guidance Clinic with a competent staff is housed in the premises of the St. Andrews Provinical Training College for Teachers. Since 1936 the clinic has become firmly established and is to be regarded now as an integral part of the educational and medical services of the city. The schools, either direct or through the Medical Services, refer most of the cases dealt with (50 of the 83 new cases dealt with in the year ended 30th June, 1939), but the work is widely known and appreciated,

and doctors, parents, social workers, police, etc., refer a considerable number. Intellectual disorders constituted about 50 per cent. of the problems in the past year, habit and behaviour disorders about 20 per cent. each, and nervous disorders of one kind or another the remaining 10 per cent.

Toc H, Grey Lodge Settlement, Newport Children's Home Committee, and the Society of St. Vincent de Paul are other agencies actively interested in the welfare of children and this department co-operates with them in selection of cases and medical examinations when necessary for clubs, holiday homes and camps, outings and so on.

The department is in close touch with the Juvenile Employment Exchange and it is a pleasure to record appreciation of the considerable trouble which is taken to place in suitable work particularly the physically defective and mentally retarded cases from the special schools.

The Unemployment Assistance Board also co-operate with this department through the Central Public Health Office in regard to cases in receipt of allowance who may be below par physically and in need of extra assistance. Many cases are visited or examined at the clinics in the course of a year and specific recommendations as to the families' needs are made in most cases and dealt with by the Board in the appropriate manner.

Co-operation with Teachers and Parents.

The relations of this department with the teachers are pleasant and thoroughly satisfactory. The teachers are always ready and willing to co-operate so far as they can in the work of the school medical services and in any measures for improving the health of the children under their care.

During the past year a series of lecture demonstrations on the teeth and their proper care was arranged by the Dental Board of the United Kingdom in the Secondary Schools. The children were keenly interested and many were believed to have been inspired to seek conservative dental treatment. Educational posters supplied by the Board are displayed in schools and pamphlets are distributed to the children at systematic dental inspection.

The district lecturer of the Scottish Milk Marketing Board also conducted a series of lecture demonstrations which were highly instructive and appreciated.

There are no parent-teacher associations in this city.

With regard to the attendance of parents at the systematic medical inspection of their children, the results are disappointing in spite of the urgent request contained in the circular letter which all parents receive one or two days before the inspection.

2,884 parents, out of a possible 8,943, or 32.2 per cent. is the number recorded for the past year, compared with 4,028, or 39.4 per cent. in 1937-38.

A number of factors are probably responsible for the small proportion. In this city both parents are employed in many cases and only a few arrange to be represented by a responsible person. The system of medical examination is now so well known and so generally accepted that the children themselves are unafraid of it and the parents are content to allow them to report unattended unless there is some known defect about which advice is desired. Many take advantage of the knowledge that should anything requiring attention be discovered, the Health Visitor will call and explain matters.

The Findings of Medical Inspection.

The number of children examined systematically in the past year was 8,943 on 392 visits, an average of 22-23 per visit. These figures compare with 10,201 in 1937-38 or 444 visits, the same average number per visit. The reduction, as stated elsewhere, is explained by the confining of systematic examinations to the age groups prescribed by the Department of Health for Scotland. The inspection of the entrants to the Junior Division (age seven years) has been dropped in the past year except so far as careful scrutiny by the nurse and testing of vision are concerned. It is believed that the new arrangements represent a definite gain in efficiency because the seven year old children requiring special care and attention are still ascertained and both doctors and nurses have more time to devote to the special examination of pupils of all ages who may be brought to their notice by teachers or parents.

In schools the Medical Officers examined :—

	2,102 special cases.
and re-examined, ...	661
a total of, ...	2,763
compared with, ...	1,193 in the previous year

These figures indicate that it has been possible to give more attention to the children thought to be in special need of it.

The following are the particulars of special examinations in schools :—

Condition for which Examined	Cases	Number Defective	Re-examinations of Children known to have been Defective.
Head—Vermin and nits, ...	55	55	31
Other conditions, ...	17	17	17
Body—Vermin, ...	—	—	—
Other conditions, ...	35	35	24
Diseases of tonsils, ...	38	38	91
Defective Vision, ...	116	116	144
Diseases of the Eyes, ...	43	43	25
Defective Hearing, ...	3	2	—
Diseases of the Ears, ...	14	14	14
Speech Defects, ...	244	200	2
Mental or Nervous Conditions	87	68	12
Infectious Diseases, ...	242	225	139
Other Conditions, ...	1,208	1,180	162
	2,102	1,893	661

In addition to the above, the staff carried out other special examinations as follows :—

Applicants for licences under the Corporation's Byelaws regulating the employment of children, ...	1,000
Children as to fitness to proceed to holiday homes, camps,	1,707
Juvenile Court Cases, ...	75

The defects listed below are the headings in the new form of School Medical Record Card, and many of them are so changed that no exact comparison is possible with the figures of previous years in regard to these. Explanatory notes for the guidance of medical officers have been provided which enable the application of the same standards here and throughout the country and which will give results more strictly comparable. Meantime it is possible only to look forward to the gradual accumulation of such interesting information.

CLOTHING UNSATISFACTORY

This means that the child is ragged or insufficiently clad to such an extent as to affect his health adversely.

Number examined, 8,943. Number defective, 9. Per cent. 0.1.

FOOTGEAR UNSATISFACTORY

This connotes insufficient protection against wet or against injury to the feet. This definition leaves to the examining officer considerable scope for the exercise of a personal opinion with regard to the sufficiency of different types of cheap footwear, e.g., sandshoes and sandals, Wellingtons, etc.

Number examined, 8,943. Number defective, 12. Per cent., 0.15.

4,712 children were provided with boots or shoes and stockings during the year.

UNCLEANLINESS (HEAD, BODY OR BOTH)

Most children show signs of having been prepared for medical examination, but evidence of vermin infestation of head or clothing is all too common. The figures regarding heads for this report, however, show an improvement of almost 2% on those for the previous year and are the best ever recorded.

Number examined, 8,943. Number defective—Head, 344, per cent. 3.85; Body, 35, per cent. 0.4.

SKIN—HEAD AND BODY.

There is an increase in the number of cases of scabies, the figure being almost double that for the previous year. The success of the modern methods of diagnosis and treatment of ringworm is reflected in the absence of any cases discovered in systematic examination of such a fair sample of the school population. The incidence of impetigo of head and body is about the same as last year.

Unclassified other conditions include simple inflammatory lesions, intertrigo, a few cases of molluscum contagiosium, pityriasis, etc., but none in sufficient numbers to warrant particular comment.

	Ringworm		Impetigo		Scabies	Other Diseases	
Number Examined	Head	Body	Head	Body		Head	Body
8,943	—	—	73	32	17	45	105
Per cent.,	—	—	0.8	0.36	0.2	0.5	1.2

NUTRITIONAL STATE

It is to be noted that " Bad " nutrition refers only to children who, in the opinion of the medical officer, are suffering in health to a serious degree in consequence of bad or insufficient feeding and does not apply to children who are merely small for their age or delicate in spite of reasonable parental care and attention.

The figures are not comparable with those for previous years when the chief consideration has been the child's weight in relation to the average for the sex, age and stature. There are undoubtedly many cases of slight malnutrition met with in schools and clinics and occasionally very bad cases, but there is a definite impression of improvement from year to year in this respect.

Number examined, 8,943. Slightly defective, 127. Per cent., 1.4. Bad, 2.

The feeding of school children has proceeded as usual in the past year, but considerable dissastisfaction with the methods has been expressed. The whole matter is at present in the hands of a sub-committee of the Education Committee for review, and it is hoped to be able to arrange in the near future for improved seating accommodation, supervision, service and also more varied menus.

The number of meals provided was :—

To necessitous cases, ...	451,891
To semi-necessitous cases, ...	10,475
To non-necessitous cases, ...	30,540
Total, ...	492,906

Supply of Milk in Schools.

11,693 children (47.5% of average number in attendance) took milk in school during the year. 1,965,896 bottles, each containing one-third pint were consumed, representing an average of 168 bottles per child.

326 children were recommended by the medical officers to be granted free milk in school. These figures compare favourably with those of 1937-38, when 9,451, or 38% of average number of children in attendance participated in the scheme, and 271 were recommended for free milk.

MOUTH AND TEETH UNHEALTHY

Medical officers are not now expected to deal with dental caries in detail, and the figures recorded are of conditions of the mouth and teeth which obviously require treatment for the sake of the child's general health.

The number recorded is abouut 1% more than those who were reported to be suffering from oral sepsis in the previous year, and it indicates a very considerable number of school children urgently in need of dental treatment. It is difficult to understand and excuse the complete indifference of so many parents to the important matter of preserving their children's teeth. There is room for considerable expansion of the dental service and propaganda on the subject of oral hygiene.

Number examined, 8,943. Number defective, 457. Per cent, 5.1.

NASO-PHARYNX

Nose, throat and glands. In making this particular examination the medical officers now record unhealthy conditions which call for further observation or definitely for operative treatment, and the results are likely to be of considerably greater value and interest.

There is a considerable reduction in the number of children suffering from nasal catarrh and other unclassified conditions. With regard to tonsils, the figures are not comparable because until now these have been judged according to their size and not their condition.

Nose

	Obstruction		
Number Examined	Requiring Observation	Requiring Operation	Other Conditions
8,943	93	29	219
Per cent.,	1.0	0.32	2.45

Throat

	Tonsils	
	Requiring Observation	Requiring Operation
	667	126
Per cent.,	7.45	1.3

Glands

	Requiring Observation	Requiring Operation
	190	4
Per cent.,	2.1	—

EYES

The percentages for external eye diseases are almost identical with those for the previous year, and compare favourably with any results in recent years. Blepharitis is a particularly troublesome condition, the incidence of which is somewhat high, and the treatment of this condition which tends to be chronic presents considerable difficulty.

The Orthoptic Clinic has now been established since the end of April, 1939, and the serious problem of squinting is now being given a measure of the attention it merits.

External Disease

Number Examined	Blepharitis	Conjunctivitis	Corneal Opacities	Strabismus	Other Diseases
8,943	198	89	7	304	33
Per cent.,	2.2	1.0	—	3.4	0.4

Vision during the year just closed has been considered by all the medical officers in terms of that of the better eye as prescribed by the Department and defective vision not worse than 6/12 in the better eye is described as "fair." In any case where the defect is greater the vision is described as bad. The figures therefore give more accurate information as to the degree of handicap from which these cases suffer educationally. Correction by glasses has been taken into account where these were worn. The results do not include the entrants' group whose vision test was not included in their systematic inspection.

Vision Defect

		Fair	Bad
Number examined, ...	6,219	1,115	182
Per cent., ...		17.9	2.9

All cases for which glasses had not been prescribed recently were recommended for refraction.

EARS

The percentage of cases of ottorrhœa is exactly the same as last year, and of other diseases, including excessive wax, is considerably smaller.

No attempt has been made to grade the cases suffering from defective hearing pending the installation of a Gramophone Audiometer. It is hoped to be able to test by that method all children examined systematically in the new school session.

Number Examined	Otorrhœa	Other Diseases	Deafness Slight	Deafness Marked
8,943	92	56	56	1
Per cent.,	1.0	0.6	0.6	—

SPEECH

The question of speech defects has been receiving special attention from a sub-committee of the Education Committee, and the appointment of a speech therapist is under consideration at present.

The percentage of children suffering from stammer shows a slight increase this year.

		Defective Articulation	Stammering
Number examined, ...	8,943	37	23
Per cent.,		0.4	0.25

MENTAL AND NERVOUS CONDITIONS

The six headings under which these cases are classified are mutually exclusive. The cases here classified require further detailed examination and the appropriate treatment, namely, special class or school, or child guidance.

" Nervous " means highly nervous or unstable to such a degree as to interfere with ordinary education.

" Difficulty in behaviour " includes only those children who give frequent trouble at school and interfere with general discipline.

With regard to the former, the medical officer must be satisfied from his own observations and not just from the over-anxious parent's statement that the child " suffers from nerves." Both these groups require child guidance.

Number Examined	Backward	Dull	M.D. Educable & Ineducable	Nervous	Difficult Behaviour
8,043	5	5	—	5	4
Per cent.,	.06	.06	—	.06	.04

CIRCULATORY SYSTEM

The figures for acquired organic heart disease again show a slight improvement, and those for functional conditions are reduced by half.

Number Examined	Organic Congenital	Organic Acquired	Functional
8,943	2	30	21
Per cent.,	—	0.3	0.24

LUNGS

The comparatively large numbers of unclassified " other diseases " is accounted for mainly by simple temporary catarrhal con-

ditions. Greater care exercised in classification has caused a corresponding reduction in the number described as suffering from chronic bronchitis.

Number Examined	Chronic Bronchitis	Suspected T.B.	Other Diseases
8,943	38	18	126
Per cent.,	0.4	0.2	1.4

DEFORMITIES

There is a slightly increased percentage of congenital deformities and double the percentage of acquired non-rachitic deformities recorded last year. The number of cases of deformity due to rickets, however, shows a marked reduction.

		Acquired		
Number Examined	Congenital	Infant. Paralysis	Rickets	Other Causes
8,943	28	6	43	16
Per cent.,	0.3	0.06	0.5	0.2

INFECTIOUS DISEASE

Only 7 cases of infectious disease were found at systematic inspection.

OTHER DISEASES OR DEFECTS

158, or 1.8% were classified under this heading to which belong such conditions as indigestion, urinary troubles, etc.

Parents were notified with regard to defects from which their children were found to be suffering at systematic inspection in 1,194 cases.

Statistical Tables.

Statistical tables will be found at the end of this report. Attention is directed to Table III., which has been drawn up with the object of determining from year to year the progress of children suffering from remediable defects. This classification is based on principles recommended by the Committee on Scottish Health Services and aims at bringing out, in addition to the numbers of children affected, the degree of defect and how far the defects are remediable. Every child examined at systematic inspection is classified according to the most serious defect from which he suffers, and for this purpose lack of cleanliness of person or clothing, insufficiency of clothing or footgear, and pediculosis are not regarded as physical defects. Cases of mental defect are not included in the summary.

It must necessarily be a considerable time before Table IV., Return of All Exceptional Children of School Age in the Area, is complete because of the difficulty of ascertainment. No attempt has been made in the present report to record more than the cases definitely known to this department.

Medical Treatment.

The arrangements for medical treatment which have already been outlined have been unchanged in the past year except in that a nurse in attendance on two afternoons per week at the Broughty Ferry Clinic has been found to meet the needs of that area.

Clinic facilities in somewhat modified form have been continued in all districts throughout school holiday periods and have been well used.

The number of cases of impetigo in the past year has been impressively high, but as new statistical methods were introduced from the beginning of last school session, there are no figures for previous years with which to make comparisons.

Consultation Clinics.

School children are admitted to these clinics on production of a card from Head Teachers, Attendance Officers, Health Visitors or private practitioners, and pre-chool children require no admission card. The cases are advised or treated or referred to the appropriate place for treatment, and certificates regulating school attendance are transmitted to the schools through the Attendance Department.

	School Children		Pre-School Children (2-5 Years)	
Clinic	Cases	Consultations	Cases	Consultations
Central,	6,255	10,083	433	523
Isles Lane,	1,965	3,739	178	316
Lochee,	1,920	3,704	134	220
Ferry Road,	573	1,586	78	160
Broughty Ferry,	342	779	30	90
	11,055	19,891	853	1,309

Treatment Clinics.

MINOR AILMENTS—

	School Children			Pre-School Children		
	Cases	Attend.	Av. per Case	Cases	Attend.	Av. per Case
Cuts, bruises, sprains, minor injuries, etc.,	3,633	20,837	5.7	121	605	5.0
Diseases of the ear,	574	7,266	12.6	29	612	21.0
Diseases of the eye (excluding def. vis.),	805	11,917	14.8	33	435	13.2
Diseases of the skin—Ringworm (scalp)—						
X-Ray treatment,	—	—	—	—	—	—
Other treatment,	3	13	4.3	—	—	—
Ringworm (body),	6	40	6.6	1	9	9
Scabies—						
Clinic treatment	63	290	4.6	1	5	5.0
Baths treatment,	230	3,952	17.2	12	125	10.4
Impetigo,	1,480	12,250	8.3	113	837	7.4
Other diseases,	343	2,672	7.8	27	185	7.0

The report of the Dermatologist will be found in the appendix.

DEFECTIVE VISION AND SQUINT

The Ophthalmic Surgeon has held three clinics each week throughout the session, and details of the cases in which he has carried out refraction and other special treatment will be found in his report in the Appendix. In spite of the extra weekly session the number of cases requiring refraction mounts up, and it will be necessary to add at least one refraction clinic per week in the new session.

Glasses were provided as follows :—

(a) Under the Authority's Scheme			(b) Otherwise
At Contract Rate	Half-Price	Free	(Figures not complete)
130	80	450	129

Squinting is now under treatment on modern lines at the fully equipped Orthoptic Clinic which was started at the beginning of May, 1939. A report on the work to date is given by the Ophthalmic Surgeon (vide Appendix).

NOSE AND THROAT (OPERATIVE TREATMENT)

The Nose and Throat Surgeon dealt with referred cases at his weekly clinic as detailed in his report in the Appendix.

Operative work was carried out as follows :—

	Dundee Royal Infirmary	
	Under Authority's Scheme Cases	Private Arrangement Cases
Enucleation of tonsils and adenoids,	136	457

ORTHOPAEDIC AND POSTURAL DEFECTS (Specialist Treatment)

There is no scheme by the Authority for treatment of these cases in this area. Cases are taken by parents or referred by the medical officer and practitioners to the Surgeons on the Royal Infirmary Staff who undertake or direct treatment. The surgeons refer cases suitable for the Special School to this Department, and in that school remedial exercises and massage are given on the lines laid down by the surgeons.

Orthopædic appliances are provided or assistance given toward the provision by the Samaritan Society of the Royal Infirmary or by the Dundee Invalid and Cripple Children's Aid Association as voluntary bodies and by the Authority.

In the past year the Education Authority has provided :—

	Free	Part Cost
Special boots or shoes, ...	5	—
Special boot with leg iron, ...	3	—
Artificial limbs, ...	—	1
Artificial eyes, ...	1	—
Other appliances, ...	1	—

ARTIFICIAL LIGHT TREATMENT

Clinics have continued throughout the year on three whole days per week at the Central Clinic and two afternoons per week at Lochee Clinic. Most of the cases treated were suffering from general debility and loss of appetite, rickets, anæmia, chronic bronchitis or asthma. Particularly good results have been obtained in the treatment of cases of chronic bronchitis and asthma, but the results in all cases have been more strikingly good since the addition of Sollux Radiant Heat Units at the beginning of the session.

The numbers are as follows :—

Cases	B't. Fwd.	Central Clinic	B't. Fwd.	Lochee Clinic	Total	Attendances
Boys, 2-5 years, ...	11	27	1	8	47	1,072
Boys, over 5 years,	23	69	13	44	149	3,977
Girls, 2-5 years, ...	8	30	2	6	46	1,209
Girls, over 5 years,	23	85	13	44	165	4,383

DENTAL INSPECTION AND TREATMENT

The Dental Service scheme as carried out in this urban area embraces two divisions of the City, each under the care of a dental officer.

The work comprises :—

(a) Systematic inspection and treatment of school children of age groups 5-8 years inclusive.

(b) Treatment of pre-school children and maternal cases.

(c) Treatment of emergency and special cases of children of all ages.

There are 42 schools, 28 of which have been chosen for systematic inspection, 14 being allotted to each division.

Each week's work consists of :—

(1) One morning's visit to a school for systematic inspection of the first permanent molars for early decay and any suppurative condition of the mouth interfering with the child's health.

(2) Four morning sessions for treatment of systematic cases selected at the school visit.

(3) Five afternoon sessions and one morning session for treatment of emergency and special cases and pre-school children.

(4) One session for maternal cases.

The following schools were systematically inspected :—

Ancrum road, Blackness, Hawkhill, Hill Street, Liff Road, Mitchell Street, Rockwell (Primary), Rosebank, St Andrew's, St Joseph's, St Mary's (Dundee), St Mary's (Lochee), Tay Street, Victoria Road, Eastern (Broughty Ferry), St Martin's, Mid-Craigie, Glebelands.

Treatment is provided free for necessitous cases. In connection with systematic inspection, parents or guardians are notified regarding the necessary dental treatment for the child and have the choice of having the treatment carried out by their own private dentist, or if unable to afford the expense, at the dental clinic. No charge has yet been made for treatment of any cases, but advice has always been given whether the parent or guardian is in necessitous or non-necessitous circumstances.

The acceptances for systematic treatment numbered 45% and the refusals numbered 460, or 17% of the notifications.

The number of pre-school children who received treatment was 196.

About 50 cases for orthodontic treatment for irregularities of the teeth were sent to the Dundee Dental Hospital for purposes of instruction.

OBSERVATIONS

The occurrence of dental pain is still in too many cases the factor which decides a visit to the dental clinic.

It is hoped that parents or guardians, who have indicated that they wished dental treatment carried out by their private practitioners, have not failed in their intentions for the sake of the health of their children.

Attached in the Appendix is a table indicating in figures the various data pertaining to the work of the Child Welfare Dental Service.

Special Schools and Classes.

PHYSICALLY DEFECTIVE CHILDREN

Invalid and cripple children are accommodated in Fairmuir Special School in nine classes. Four rooms are designed for 30 children each, and five rooms for 20 each. The accommodation is fully taxed, and the question of extension is due for consideration at an early date.

Number on the roll on 31st July, 1938, ...		232
Admitted, 1938-39, ...		61
Discharged, over-age or exempted, ...		40
Transferred to ordinary schools, ...		31
On the roll on 31st July, 1939—		
Boys, ...	112	
Girls, ...	110	222

The Health Visitor on duty at Fairmuir Special School attends to all pupils there—both physically defective and mentally retarded.

The nurse gave treatments during the year as follows:—

General conditions, ...	3,723
Eye conditions, ...	645
Ear conditions, ...	630
Throat conditions, ...	145
Skin conditions, ...	247
Dental conditions, ...	87
Fits, ...	94
Special treatments, ...	601
Accidents (trivial for the most part) ...	68

and in addition paid visits to the Royal Infirmary 32, to pupils' homes 67, and others 37.

Artificial sunlight treatment was given by the nurse thrice weekly to 49 boys and 35 girls, and good results are recorded in pupils suffering from chest conditions, general debility and loss of appetite.

The following are particulars of cases recommended for admission during the past session :—

Tuberculous (non-pulmonary),	2
Pre-tuberculous cases,	23
Asthma and unresolved pneumonia,	7
Rheumatism,	11
Chorea,	6
Congenital cardiac conditions,	3
Epilepsy,	3
Deformities—Congenital,	9
Acquired,	7
Chronic eczema,	1
Chronic intestinal indigestion,	1
	73

Two cripple children (boys) from this area are boarded for treatment and education in East Park Home for Infirm Children, Glasgow. Both are cases of cerebral diplegia.

Tuberculous children who are patients in Sidlaw Sanatorium, Auchterhouse, attend the Special School there at the discretion of the Medical Superintendent. One teacher works in a very bright and airy class-room.

Number on the roll on 31st July, 1938,	25
Admitted 1938-39,	45
Transferred to ordinary schools,	44
On the roll on 31st July, 1939,	26

BLIND AND PARTIALLY SIGHTED CHILDREN

This special school occupying premises belonging to the Royal Dundee Institution for the Blind was taken over by the Education Authority on 1st August, 1938. No changes have been made in the staffing or administration of the school in the past session, but the removal of the school to other premises is an urgent matter to enable the expansion of the Institution, and it is hoped that alternative accommodation may be obtained in the near future.

Number on the roll on 31st July, 1938, ...	34
Admitted, ...	6
Discharged, over-age or exempted, ...	6
Transferred to ordinary schools, ...	1

On the roll on 31st July, 1939—

Boys, ...	19	
Girls, ...	14	33

Eight of these children are from county areas, and they are boarded along with five Dundee pupils in the Hostel attached to the school and conducted by the Institution Authorities.

The vision of eight of these pupils is so defective that they require teaching as blind children although at present only two of the Dundee cases are certified blind. The remainder are partially sighted and require sight-saving methods.

Two blind children from this area are boarded and educated at the Craigmillar School, Edinburgh.

DEAF, PARTIALLY DEAF AND DEAF MUTE CHILDREN

These children are accommodated in a modern six-room school where the amenities are of a high order.

Number on the roll on 31st July, 1938, ...	59
Admitted, 1938-39, ...	5
Discharges, over-age or exempted, ...	3
Certified imbecile, ...	2
Transferred to ordinary schools, ...	3
On the roll 31st July, 1939, ...	56

Ten of these cases suffer from serious speech defects, and are unfit for education in ordinary schools on that account.

Three deaf mute children from this area are boarded in residential Special Schools in Glasgow, and two are boarded and educated in the Dundee Institution for the Deaf.

MENTALLY DEFECTIVE AND DULL CHILDREN

One wing of Fairmuir Special School comprising five classrooms provides accommodation for 100 such pupils. There are no special classes in ordinary schools. The ascertainment of these cases is far from complete, and a considerable increase in accommodation is urgently required. Meantime many of these children are making little or no progress themselves in the ordinary schools and are hampering the work of their normal fellows.

Number on the roll on 31st July, 1938, ...		98
Admitted 1938-39, ...		20
Discharged, over-age or exempted, ...		15
Discharged, certified ineducable, ...		1
Transferred to other special or ordinary schools, ...		2
On the roll on 31st July, 1939—		
Boys, ...	60	
Girls, ...	40	100

BELLFIELD NURSERY SCHOOL

This school, established as a voluntary effort, was taken over by the Education Authority as from October, 1937. There is good accommodation for 50 children between two and five years of age, and full use is made of it.

A medical officer visits regularly at least once a month and examines thoroughly all new pupils and any others who may be requiring attention.

The numbers for the year are as follows :—

On the roll on 31st July, 1938, ...	46
Admitted, ...	46
Discharged, ...	48
On the roll on 31st July, 1939, ...	44

NURSERY CLASSES

One nursery class was started in each of three primary schools on October, 1938, and the applications for admission of 2-5 year old children greatly exceed the available accommodation. These classes are visited and the pupils examined whenever the medical officers are in the schools, and the Health Visitors exercise a closer supervision on their weekly visits.

The improvement to be observed in the health of most of the children attending the nursery school and classes is striking and gratifying, and it is hoped that this movement to provide suitable school facilities for the " pre-school " child is just the beginning of greater developments in that direction.

HOLIDAY HOMES

Children in need of convalescent home care or a holiday are ascertained by the medical officers in the course of their daily duties in schools and clinics. A few cases are recommended by head teachers, medical practitioners and the members of the visiting committee of the Dundee Invalid and Cripple Children's Aid Association.

Auchterhouse Holiday Home, under the auspices of that association, and Newport Children's Home, Comerton, provide facilities for Protestant children and St Teresa's Holiday Home, Aberdour, for Roman Catholic children through the Society of St Vincent de Paul. A few children are sent for a month's stay at the home in St Andrew's established by the former pupils of St Leonard's Girls' School.

Every fortnight throughout the Spring, Summer and Autumn, groups of about 26 children are sent to Newport and about 20 children to Auchterhouse. The numbers to Aberdour are more variable, but groups are sent each fortnight except during June and part of July, when larger groups are sent for a week's holiday. A few special cases at all the homes are kept for longer periods.

The homes are admirably conducted and do splendid work which is fully appreciated.

During the year 1938 the numbers were as follows :—

Newport, ...	407	child fortnights
Auchterhouse, ...	381	child fortnights
Aberdour, ...	242½	child fortnights
St Andrews, ...	48	child months

Arrangements for Physical Education and Personal Hygiene.

ACCOMMODATION FOR PHYSICAL EXERCISES IN SCHOOL AND PLAYGROUNDS

Playground facilities on the whole are fairly satisfactory. Space is adequate for this purpose, and the surfaces are good and well drained.

Indoor facilities are entirely lacking in thirteen of the primary schools.

In the eight secondary schools and two primary schools there are good indoor facilities for physical education, including changing rooms and spray baths. In the remaining nineteen primary schools there are halls in use as gymnasia but none of the other desirable features.

SWIMMING BATHS

None of the schools is equipped with a swimming bath, but the children are encouraged to make use of the excellent facilities at the Central Baths and Lochee Baths.

At a meeting in September, 1938, the Conveners of the Education and Baths Committees and the officials concerned agreed that the Education Committee should promote fuller use of the Central and Lochee Baths by organised classes of Primary and Secondary School children during arranged hours, and by the distribution of tickets for swimming practice at hours to be determined by the Baths Manager; and that in class instruction a general standard of proficiency should be aimed at, namely, that all children attending the baths for instruction in swimming shall be able at the age of 12 years to swim a minimum of one length.

Instruction is provided by the Baths Department, and teachers co-operate when they so desire. The older pupils receive instruction also in life-saving, and may qualify before leaving school for the award of certificates and medallions. Instructors are provided at both swimming baths.

During the past year the attendances were as follows :—

Central Baths, ...	32,939
Lochee Baths, ...	11,092

PLAYING FIELDS

Six of the secondary schools have fairly adequate playing field facilities, and thirteen of the primary schools have facilities for field games for senior pupils once weekly. Changes and additions are being made at present, and it will be possible in subsequent reports to give more detailed information.

SCHOOL CAMPS

Under the auspices of the Educational Institute of Scotland one group of about 30 senior girls and one of senior boys take part annually in the admirable Trek Camp Scheme, spending ten days between Callander, Achray and Aberfoyle.

In Summer, 1938, two camps were carried on in the schools at Edzell and Saline respectively, and this year these have been continued and a third camp added in the school at Limekilns.

Last summer 96 boys and 103 girls enjoyed one week each at one or other camp, and this year the total will be about 325.

Roman Catholic children, as an alternative to camp, are sent in greater numbers to St Teresa's Holiday Home, Aberdour, for a week.

It is hoped that it may be possible to establish a semi-permanent camp at some suitable place and make full use of it throughout Easter and Summer holiday periods.

The children owe this experience of camp, which they enjoy so thoroughly and from which they derive so much benefit, to the generous support received by Dundee School Children's Holiday Fund, to the willing work of the Committee which administers the fund and also to the splendid voluntary work of the teachers who run the camps.

PRACTICAL INSTRUCTION IN PERSONAL AND COMMUNAL HYGIENE

This is left entirely in the hands of the head teachers and class teachers and to the staff of the Director of Physical Education. When the weather is unsuitable for outdoor games, senior pupils receive instruction in personal hygiene, but no particular periods are set apart for that subject.

Hygiene is included in the Domestic Science course for girls at Secondary Schools. Many cases are instructed individually by the Lady Superintendent and by the Women Medical Officers when the appropriate occasion arises.

In closing this Report, I wish to take the opportunity of thanking the Director of Education and his staff and also the Teachers for their unfailing courtesy and assistance in the work of the School Medical Services. I make grateful acknowledgment of the loyal assistance of my colleagues and all the members of the staff of this department and also of the cordial co-operation of all the other departments of the Public Health Service.

TABLE I.

Total number of children examined at :—

	(A) Systematic Examinations— (See note(a).)	Other Systematic Examinations— See note (b).)
Ordinary Schools—		
Entrants,	2,672	52
Second age group,	2,455	—
Third age group,	2,879	681
Fourth age group,	—	—
Secondary Schools—		
Age group,	204	—
Total,	8,210	733

(B) Other examinations :—

Special Cases,	13,157
Re-inspections by Medical Officer,	9,497
Total,	22,654

Number of *individual* children inspected at systematic examinations, who were notified to parents as requiring treatment (excluding uncleanliness and dental caries) :—

Entrants,	350
Second age group,	356
Third age group,	374
Fourth age group,	—
Secondary age group,	5
Other systematic examinations,	109
Total,	1,194

TABLE II.

Systematic Examinations

Number 5943

Return of number and percentage of individual children in each age group suffering from particular defects.

Nature of Defect	Total at all Ages	AGE GROUP: Entrants Boys	Entrants Girls	Second Boys	Second Girls	Third Boys	Third Girls	Fourth Boys	Fourth Girls	All Ages Boys	All Ages Girls
1.—Clothing unsatisfactory,	9	1	3	—	—	4	1	—	—	5	4
	0.1	—	0.1	—	—	0.1	—	—	—	0.1	0.1
2.—Footgear unsatisfactory,	12	3	3	—	—	4	2	—	—	7	5
	0.15	0.2	0.2	—	—	0.1	0.1	—	—	0.1	0.1
3.—Cleanliness—											
(a) Head: Dirty, nits or vermin,	344	8	101	9	103	4	119	—	—	21	323
	3.85	0.6	7.0	0.7	8.5	0.1	7.6	—	—	0.5	7.1
(b) Body: Dirty or verminous,	35	4	13	6	—	8	4	—	—	18	17
	0.4	0.3	1.0	0.5	—	0.3	0.1	—	—	0.4	0.4
4. Skin—											
(a) Head: Ringworm,	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—
Impetigo,	73	25	9	14	11	11	3	—	—	50	23
	0.8	1.9	0.6	1.1	0.9	0.6	0.1	—	—	1.1	0.5
Other Diseases,	45	6	7	4	7	10	11	—	—	20	25
	0.5	0.4	0.5	0.3	0.5	0.6	0.6	—	—	0.5	0.6
(b) Body: Ringworm,	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—
Impetigo,	31	6	7	3	3	11	4	—	—	18	14
	0.36	0.4	0.5	—	0.2	0.6	0.2	—	—	0.4	0.3
Scabies,	17	5	3	3	2	4	—	—	—	12	5
	0.2	0.3	0.2	0.2	0.1	0.2	—	—	—	0.3	0.1
Other Disease,	105	9	11	13	14	25	23	1	1	46	59
	1.2	0.6	0.8	1.0	1.1	1.2	1.3	0.9	1.0	1.0	1.3
5. Nutritional State: Slightly Defective,	127	12	12	17	12	27	36	—	1	66	61
	1.4	1.6	0.9	1.4	1.0	1.5	2.0	—	1.0	1.5	1.3
Bad,	2	1	—	1	—	—	—	—	—	2	—
	—	—	—	—	—	—	—	—	—	—	—
6. Mouth and teeth unhealthy,	457	38	86	75	89	58	78	1	1	203	252
	5.1	5.2	6.3	6.0	7.4	3.2	4.2	1.9	1.0	4.6	5.6
7. Naso pharynx—(a) Nose:											
(i.) Obstruction requiring observation,	93	21	21	14	13	12	12	—	—	47	46
	1.0	1.6	1.5	1.1	1.1	0.7	0.7	—	—	1.0	1.0
(ii.) Requiring operation,	29	9	8	2	2	2	8	—	—	13	16
	0.3	0.6	0.6	0.1	0.1	0.1	0.3	—	—	0.3	0.4
(iii.) Other conditions,	229	50	61	30	38	24	28	—	—	104	125
	2.5	3.8	4.4	2.3	2.15	1.4	1.5	—	—	2.3	2.5
(b) Throat:											
(i.) Tonsils requiring observation,	667	110	141	171	111	54	74	1	1	336	331
	7.45	8.2	10.2	13.7	9.2	3.0	4.2	0.9	1.0	7.3	7.4
(ii.) Requiring operation,	126	45	27	15	19	10	10	—	—	70	56
	1.3	3.3	2.0	1.2	1.6	0.6	0.5	—	—	1.6	1.3
(c) Glands:											
(i.) Requiring observation,	190	40	56	24	36	18	15	—	1	82	108
	2.1	3.0	4.1	1.9	0.1	1.0	0.8	—	1.0	1.8	2.4
(ii.) Requiring operation,	4	2	1	—	1	—	—	—	—	2	2
	—	0.1	—	—	—	—	—	—	—	—	—
8. Eyes—(a) External diseases:											
Blepharitis,	198	54	21	26	19	45	41	1	—	126	91
	2.2	3.5	1.5	2.1	2.4	2.6	2.3	0.9	—	2.3	2.0
Conjunctivitis,	89	12	13	17	14	21	12	—	—	50	39
	1.0	0.9	0.9	1.4	1.1	1.2	0.7	—	—	1.1	0.9
Corneal Opacities,	7	3	—	2	1	—	1	—	—	5	2
	—	0.2	—	0.1	—	—	—	—	—	0.1	—
Strabismus,	304	34	46	43	44	60	55	2	—	159	145
	3.4	4.0	3.4	3.3	3.6	3.3	3.0	1.9	—	3.6	3.2
Other diseases,	33	9	2	4	7	7	4	—	—	20	13
	0.4	0.8	0.1	0.3	0.5	0.4	0.2	—	—	0.5	0.3
†(b) Visual acuity: (Snellen) Fair,	1,115		1	225	203	320	346	14	16	549	566
	17.9	Not	—	17.3	16.8	18.3	19.1	13.2	16.3	17.7	18.2
Bad,	189	Tested		36	31	39	72	2	2	77	105
	2.9	—	—	2.9	2.6	2.0	4.0	1.9	2.0	2.5	3.4
9. Ears—(a) Diseases: Otorrhœa,	92	16	16	8	14	19	15	—	—	53	37
	1.0	1.9	0.7	0.6	1.1	1.1	0.8	—	—	1.4	0.9
Other diseases,	56	14	9	11	8	4	9	—	—	30	26
	0.6	1.0	0.6	0.9	0.6	0.2	0.5	—	—	0.7	0.5
(b) Defective hearing: Slight,	56	11	7	4	8	9	6	—	—	33	21
	0.6	1.6	0.5	0.2	0.6	0.5	0.3	—	—	0.8	0.5
Marked,	1	—	1	—	—	—	—	—	—	—	1
	—	—	—	—	—	—	—	—	—	—	—
10. Speech—Defect articulation,	17	16	1	1	2	9	1	—	—	28	9
	0.2	1.2	0.1	0.1	0.1	0.5	0.1	—	—	0.7	0.1
Stammering,	23	1	—	5	1	10	4	—	—	18	5
	0.25	—	—	0.4	—	0.7	0.1	—	—	0.4	0.1
11. Mental and Nervous Conditions—											
(a) Backward (due to irregular attendance, etc.),	5	—	1	3	—	1	—	—	—	4	1
	0.06	—	—	0.2	—	—	—	—	—	—	—
(b) Dull (intrinsically),	5	2	2	—	1	—	—	—	—	2	3
	0.06	0.1	0.1	—	—	—	—	—	—	—	—
(c) Mentally defective (educable),	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—
(d) (ineducable),	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—
(e) Highly nervous or unstable,	3	1	1	—	1	2	—	—	—	3	2
	0.06	—	—	—	—	0.1	—	—	—	—	—
(f) Difficult in behaviour,	4	1	1	—	—	—	1	—	—	2	2
	0.04	0.1	—	—	—	—	—	—	—	—	—
12. Circulatory system—											
(a) Organic heart disease:											
(i.) Congenital,	2	—	1	—	—	—	1	—	—	—	2
	—	—	—	—	—	—	—	—	—	—	—
(ii.) Acquired,	30	1	2	4	10	1	12	—	—	6	24
	0.3	—	0.1	0.3	0.8	—	0.7	—	—	0.1	0.5
(b) Functional conditions,	21	—	7	1	3	3	10	2	—	6	15
	0.24	—	0.1	—	0.2	0.2	0.6	1.9	—	0.1	0.3
13. Lungs—Chronic Bronchitis,	38	15	11	5	2	3	2	—	—	23	15
	0.4	1.1	0.8	0.4	0.1	0.2	0.1	—	—	0.5	0.3
Suspected Tuberculosis,	18	3	2	3	3	4	3	—	—	10	8
	0.2	0.2	0.1	0.2	0.2	0.2	0.1	—	—	0.2	0.1
Other Diseases,	116	46	33	11	14	6	6	—	—	33	73
	1.4	3.3	4.0	1.7	1.1	0.3	0.3	—	—	1.1	1.6
14. Deformities—											
(a) Congenital,	28	4	9	3	3	—	6	1	—	8	20
	0.3	0.3	0.6	0.2	0.2	—	0.3	0.9	—	0.1	0.4
(b) Acquired (Infantile Paralysis),	6	1	2	—	—	—	3	—	—	1	5
	0.06	—	0.1	—	—	—	0.1	—	—	—	0.1
(c) Acquired (probable) Rickets,	43	12	9	6	3	5	5	—	—	26	17
	0.5	0.8	0.6	0.5	0.2	0.4	0.3	—	—	0.6	0.3
(d) Acquired (other causes),	16	2	2	3	—	5	4	—	—	10	6
	0.2	0.1	0.1	0.2	—	0.3	0.2	—	—	0.2	0.1
15. Infectious disease,	7	3	2	1	1	—	—	—	—	4	3
	—	0.2	0.1	—	—	—	—	—	—	—	—
16. Other diseases or defects,	158	24	21	21	26	17	45	—	—	79	86
	1.8	1.8	1.5	1.7	1.6	1.3	2.5	—	—	1.6	1.9

†Entrants are not included in these figures. Vision is tested with glasses if worn.

TABLE III.

Systematic Medical Examinations.

Classification	Entrants		Second age-group		Third age-group		Fourth age-group		Total	
	No. of children	Percentage of the children examined in this group	No. of children	Percentage of the children examined in this group	No. of children	Percentage of the children examined in this group	No. of children	Percentage of the children examined in this group	No. of children	Percentage of the children examined at sytematic medical examinations
I. Children free from defects, ...	1,727	63,4	1,436	58.5	2,185	61.4	164	80.4	5,512	61.63
II. Children (otherwise free from defects) who suffer from—										
(a) Defective vision not worse than 6/12 in the better eye with or without glasses; or	—	—	327	13.3	561	15.76	29	14.2	917	10.25
(b) Conditions of the mouth and teeth requiring treatment, ...	118	4.3	78	3.2	84	2.37	2	1.0	282	3.15
(c) Both (a) and (b), ...	—	—	29	1.2	31	0.87	1	0.5	61	0.7
Total, ...	118	4.3	434	17.7	676	19.0	32	15.7	1,260	14.1
III. Children suffering from ailments (other than those mentioned in II.) from which complete recovery is anticipated within a few weeks, ...	707	26.0	461	18.8	501	14.0	7	3.4	1,676	18.74
IV. Children suffering from (or suspected to be suffering from) defect less remediable than defects specified in II. or III., distinguishing cases—										
(a) Where complete cure or restoration of function (in the case of eye defect, full correction) is considered possible, ...	146	5.3	100	4.0	132	3.7	1	0.5	379	4.23
(b) Where improvement only is considered possible, e.g., without complete restoration of function, ...	26	1.0	24	1.0	66	1.9	—	—	116	1.3
Total, ...	172	6.3	124	5.0	198	5.6	1	0.5	497	5.53
Total number of children examined,	2,724	100%	2,455	100%	3,560	100%	204	100%	8,943	100%

TABLE IV.

Return of ALL Exceptional Children of School Age in the Area.

Disability	At ordinary schools	At special schools or classes	At no school or institution	Total
1. Blind,	1	6	2	9
2. Partially sighted—				
(a) Refractive errors in which the curriculum of an ordinary school would adversely affect the eye condition,	2	14	—	16
(b) Other conditions of the eye, e.g., cataract, ulceration, etc., which render the child unable to read ordinary school books or to see well enough to be taught in an ordinary school,	1	7	—	8
3. Deaf—				
Grade I.,	204	—	—	204
Grade II.a,	6	—	—	6
Grade II.b,	—	—	—	—
Grade III.,	—	47	—	47
4. Defective speech—				
(a) Defects of articulation requiring special educational measures,	12	6	—	18
(b) Stammering requiring special educational measures,	88	8	—	96
5. Mentally defective (Children between 5 and 16 years)—				
(a) Educable (I.Q. approx. 50—70),	20	95	2	117
(b) Ineducable (I.Q. generally less than 50),	—	5	12	17
6. Epilepsy—				
(a) Mild and occasional,	4	6	—	10
(b) Severe (suitable for care in a residential school),	—	4	—	4
7. Physically defective (Children between 5 and 16 years)—				
(a) Non-pulmonary tuberculosis (excluding cervical glands),	36	24	—	60
(b) General orthopædic conditions,	148	48	3	199
(c) Organic heart disease,	120	43	1	164
(d) Other causes of ill-health,*	74	110	—	184
8. Multiple defects—				
(a) Crippled and F.M.,	—	4	2	6
(b) Blind and F.M.,	—	1	—	1

*Definition of ill-health—" Children who by reason of ill-health are unable to attend ordinary schools or are incapable of receiving proper benefit from the instruction in ordinary schools."

Note:—The figures in the above tables are not submitted as a complete record.

TABLE V.

Dental Inspection and Treatment.

Number of children who were:—

Inspected by the dental officers:—

Age	(a) Systematic examinations	(b) Special and emergency cases	Total
5,	1,501	236	1,737
6,	1,635	207	1,842
7,	1,622	262	1,884
8,	1,202	285	1,487
9,	—	357	357
10,	—	281	281
11,	—	237	237
12,	—	207	207
13,	—	229	229
14,	—	20	20
15,	—	5	5
Total,	5,960	2,326	8,286

	Systematic Examinations
Found to require treatment,	2,630
Actually treated by the school dental officers,	987
Number of attendances made by children for treatment,	1,660
Fillings—	
(a) Permanent teeth,	1,748
(b) Temporary teeth,	13
Extractions—	
(a) Permanent teeth,	4
(b) Temporary teeth,	667
Number of administrations of a general anæsthetic for extractions,	None
Other operations—	
(a) Permanent teeth,	45
(b) Temporary teeth,	40
Half-days devoted to inspection,	63
Half-days devoted to treatment,	325
Number of children treated under private arrangements,	655

Ophthalmic Specialist's Report — 1938-39.

The following is a detailed list of 2,429 attendances at the Eye Clinic during the session 1938-39, showing an increase of 165 since last session :—

Refractions,	1,480
Corneal Ulcers,	317
Interstitial Keratitis,	84
Conjunctivitis,	44
Follicular Conjunctivitis,	25
Trachoma,	120
Chalazion,	15
Congenital Cataracts,	23
Blepharitis,	254
Corneal Nebula,	8
Wound of Eyeball,	11
Hordeolum,	14
Traumatic Cataract,	13
Sebacceous Cysts,	9
Lid Abscess,	3
Coloboma of Iris,	1
Foreign Bodies,	1
Choroidal Atrophy,	6
Ophthalmia Neonatorum,	1
	2,429

My thanks are due to the full-time Medical Staff and Clinic Nurses for their invaluable assistance during the past session.

The new Orthoptic Clinic for the training of squinting children was established on 23rd April, 1939, with Miss Catherine Kinnear as Orthoptist, and the clinic is now working smoothly and efficiently. In all 722 attendances were recorded. The total number of new cases was 119. Of these 64 were sent direct from the school clinic, Nelson Street, 26 were referred from the Dundee Eye Institution, 24 from Dundee Royal Infirmary, and 5 as private patients. So far, the work shows great promise, and I am confident that the Clinic will prove of much value to the City.

ALLISTER M. MACGILLIVRAY,
M.D., D.O.M.S., F.R.S.E.

EAR, NOSE, AND THROAT DEPARTMENT.—1938-1939.

New Cases seen	322
Diseases of the Ear—	
Furuncle	4
Diffuse External Otitis	1
Acute Suppurative Otitis Media ...	34
Chronic Suppurative Otitis Media ...	47
Wax	3
Catarrhal Otit's Media	7
Deafness—nerve	1
Tenderness over Mastoid Area	1
Diseases of Nose and Throat—	
Nasal Catarrh	4
Keratosis Pharyngia	1
Enlarged Thyroid Gland	3
Disease of the Nasal Vestibula ...	3
Deviation of the Nasal Septum ...	11
Hypertrophic Rhinitis ...	3
Nasal Polypus	4
Vasomotor Rhinitis ...	2
Adenoids	128
Enlarged Tonsils	164
Chronic Tonsillitis	1
Acute Tonsillitis	5
Granular Pharyngitis	2
Cervical Adenitis	79
Epistaxis	2
Trauma to the Nose	1
Mouth Breather	28
Diphtheria	1
Atrophic Rhinitis	4
Operations Performed—	
Tonsils and Adenoids	186
Did not attend for Operation	11
Mastoid (Radical)	1
For X-Ray	1
Refer Dentist	10
Negative examinations	15
Report later	12
Old Patients examined	179
For Observation	2
Total number of cases examined ...	501
Average number of cases examined daily ...	12.2

(Signed) M. J. GIBSON, M.B., F.R.C.S.E.

Dermatologist and X-Ray Specialist's Report — 1938-39.

During the past year 102 children have made 451 attendances at this Department. The following table shows the diseases from which they suffered :—

Ringworm of the scalp—	
Microsporon (a),	9
Trichophyton,	1
Kerion,	2
Favus of the scalp (b),	3
Alopecia areata,	4
Streptococcal dermatitis,	14
Eczema and dermatitis,	16
Psoriasis,	8
Other diseases of the skin,	45
	102

(a) Includes 9 cases from Perthshire.

(b) Includes 2 cases from Perth.

X-ray epilation continues to be carried out at my home pending the installation of new apparatus.

I have to thank Dr Cuthbert for his friendly help and co-operation which have continued the pleasure of my work and Nurse Millar for her much valued assistance.

JOHN KINNEAR, M.D., M.R.C.P., Ed.

SANITARY DEPARTMENT.

Report by Mr ALEX. A RUSSELL, Chief Sanitary Inspector.

SANITARY DEPARTMENT,
WEST BELL STREET,
DUNDEE, 16th May, 1939.

To the Honourable—

The Department of Health for Scotland; and the Lord Provost, Magistrates, and Councillors—the Local Authority of the City of Dundee.

MESDAMES AND GENTLEMEN,

I have the honour to submit my Annual Report showing the work of the Sanitary Department during the year 1938. The Report has been prepared in accordance with the circular of the Department of Health for Scotland dated 19th December, 1938.

Introductory.

The Index to the Report is primarily for the purpose of rendering the contents easily accessible; in addition, however, it forms a useful table indicating briefly and concisely the nature of the work and the variety of the duties required to be carried out by a modern Sanitary Department.

Obviously, if progress is to be made and maintained the table cannot remain static. That our Legislature is quite cognisant of this fact is confirmed by the steady outflow of statutory measures designed to deal with the ever increasing number of health problems associated with, and in consequence of, the rapid progress now being made towards the mechanisation of all classes of industry, and the trend of our modern civilisation to regiment all the activities of human life.

The year 1938 has not been unfruitful with regard to either the number of Acts, Orders, etc., relating to health matters placed on the Statute Book, or the diversity of subjects to which they apply, as the following list shows:—

The Food and Drugs Act, 1938.

The Housing (Agricultural Population) (Scotland) Act, 1938.

The Housing (Rural Workers) Amendment Act, 1938.

The Increase of Rent and Mortgage Interest (Restrictions) Act, 1938.

The Young Persons (Employment) Act, 1938.

The Orders, Regulations, etc., are not particularly mentioned, but the number promoted during the year substantially augments our responsibilities.

The administration of this new legislation has thrown a considerable amount of additional work on the staff, both clerical and inspectorate; I therefore take this opportunity of expressing my appreciation of the ready response made by them to their new duties, and wholehearted service generally.

I also record with gratification the generous assistance given by the Departments of the Chief Constable, City Engineer, and Superintendent of Cleansing.

Death-Rate: Density of Population, and Acreage.

The death-rate per 1,000, as corrected, for 1938 was 13.7, as against 15.0 in 1937 and 14.1 in 1936.

The population, as estimated to the middle of 1938 by the Registrar-General, was 177,960.

The acreage of the City, excluding foreshore, is 7,316. This works out at 24.32 persons to an acre.

Rainfall.

The total rainfall in Dundee, as noted at the Official Station, Mayfield Hostel, Dundee, was 31.78 inches as against 33.02 inches last year. The figures for each month are as follows:—

January	3.94 inches
February	0.44 inches
March	0.42 inches
April	0.05 inches
May	3.84 inches
June	2.93 inches
July	4.48 inches
August	1.42 inches
September	3.24 inches
October	4.00 inches
November	3.72 inches
December	3.30 inches
Total ...	31.78 inches

Showing an average fall of 2.65 inches per month as against 2.75 inches in 1937 and 2.30 inches in 1936.

Water Supply.

The Corporation are responsible for the Supply of Water to the City. The Department particularly concerned therewith is under the charge of Mr Angus A. Fulton, B.Sc., A.M.Inst.C.E., M.I.Mech.E., who reports for the year 1938 as follows :—

Sources and System of Supply.

"The Water Supply of the City of Dundee and of the area supplied from the Dundee Corporation Water Undertaking outwith the City is wholly by gravitation. The principal source of supply is Lintrathen Loch, situated approximately 18 miles north-west of the city at an elevation of 680 feet above sea level. The other supplies of the Undertaking are derived from the Works of the old Dundee Water Company at Monikie and Crombie, situated approximately 8 miles and 10 miles north-east of the city at elevations of 476 feet and 522 feet above sea level respectively.

The relative importance of the foregoing works from a water supply point of view is apparent from the following particulars of their reservoir capacities and catchment areas.

	Capacity. Gallons.	Surface Area at Top Water Level.	Extent of Catchment Area.
Lintrathen Loch	2,141,429,000	440 acres	18,500 acres
Monikie and Crombie (4 Reservoirs)	654,763,000	181½ ,,	3,500 ,,

Under normal conditions 90% of the daily supply of the city and district is drawn from Lintrathen, 8% from Monikie, and 2% from Crombie for the supply of the Burgh of Carnoustie.

Area and Population Supplied.

The statutory area of supply of the Undertaking, excluding the areas supplied from the aqueducts and conduits between the various storage reservoirs and the city, extends to 54¼ square miles, of which 15½ square miles are situated in the compulsory area, and 38¾ square miles in the permissive area of supply.

Outside of the City of Dundee the principal burghs and villages supplied are :—On the north side of the Tay Estuary, the burghs of Carnoustie and Monifieth, and the villages of Barry, Wellbank, Newbigging, Kellas, Muirhead, Birkhill, Invergowrie, Longforgan and Meigle; and, on the south side of the Estuary, the burghs of Newport (including Wormit) and Tayport.

The area varies in altitude from sea level to an elevation of 457 o.d., which is the highest point supplied, while the average population supplied is approximately 204,000.

Consumption.

The average daily consumption of water for all purposes for the year ending 15th May, 1938, was 10,769,550 gallons. This represents a consumption per head of the population supplied of 52.79 gallons, of which 37.17 is for domestic and non-metered supplies and 15.62 for trade and general industrial purposes supplied through meter. The minimum daily consumption for the same period was 7,673,300 gallons and the maximum 12,496,100 gallons.

Chemical Analyses of Waters.

The following are the average Chemical Analyses of the Lintrathen, Monikie and Crombie Waters as supplied during 1938.

	Lintrathen	Monikie	Crombie
P.h. Value,	7.1	7.5	8.0
Colour (Hazen Scale),	25 m.m.	12 m.m.	21 m.m.
Hardness in Clarke's Degrees—			
Temporary,	0.61	1.50	0.93
Permanent,	1.75	6.64	5.96
Combined Alkalinity (as Ca CO_3),	19 p.p.m.	62 p.p.m.	46 p.p.m.
Combined Chlorine,	7 p.p.m.	16 p.p.m.	14 p.p.m.
Nitrates,	0.14 p.p.m.	1.53 p.p.m.	1.08 p.p.m.
Nitrites,	None	None	None
Free Ammonia,	.008 p.p.m.	.006 p.p.m.	.007 p.p.m.
Albuminoid Ammonia,	.177 p.p.m.	.101 p.p.m.	.097 p.p.m.
Lead or other Poisonous Metal,	None	None	None

Bacteriological Analyses of Waters.

Weekly bacteriological analyses taken throughout 1938 of the filtered and unfiltered waters put into supply give the following results :—

	First Class Samples B.Coli absent in 100 c.c.	Poor Samples B.Coli present in 10 c.c. or less
Filtered Water—		
Monikie,	68%	10%
Crombie,	62.5%	10.4%
Unfiltered Water—		
Lintrathen (taken at Clatto),	24%	50%

New Works.

With the development for housing purposes of ground hitherto used for purely agricultural purposes and remotely situated from the present centres of distribution, the Department recently found it necessary to construct two new service reservoirs—one of 710,000 gallons capacity at Balmossie, north of Barnhill, and the other of 1,050,000 gallons capacity at Gowriehill, north-east of Invergowrie. The principal purpose of these reservoirs is to maintain adequate pressures at the extreme ends of the Low Level Distribution System.

Both reservoirs are now in service, the one at Balmossie distributing filtered water to Broughty Ferry and Monifieth and the other at Gowriehill supplementing the supply from Stobsmuir reservoir to the low level district. The full effect of the Gowriehill reservoir will not be apparent until the new 24 in. main from beyond Ninewells to the Sinderins has been laid next year."

Sources of Water Supply—Other Than Corporation.

A survey to ascertain what water supplies other than Corporation existed within the Burgh was undertaken, and the following information gives the position so far as can be secured.

There are 19 wells and 8 springs, and the water therefrom is used as follows:—

For domestic purposes,	6
Brewing and manufacture of aerated water,	2
Purposes incidental to industry (cooling, etc.),	7
Flushing sanitary conveniences, horticulture, and watering animals,	3
From which public are liable to drink,	2

In 7 other instances the wells or springs are sealed up or in disuse.

A report was submitted to the Public Health Committee for their consideration, and they agreed that where it was considered advisable sampling should be undertaken to determine the quality and wholesomeness of the water. This work will be put into operation next year.

Domestic Water Supplies—Sinks, Etc.

The following table shows that there are 685 houses within the city lacking an internal supply of water — 21 less than last year. Of these, 331 have already been dealt with under the Housing Acts by way of Closing or Demolition Orders, etc., or are included within Clearance Areas. In addition, 226 dwellings are considered by reason of low ceilings or general construction or situation, to be unsuitable for the installation of internal water supply and will probably form suitable subjects for future action by the Slum Visitation Committee. Thus, there are only 128 houses remaining to which attention is being given towards the introduction of the necessary fittings.

Ward.	No. of Houses	ROOMS 1	2	3	4 & over	WATER SUPPLY. On Stairs, Landings, &c.	In Courts, Areas, &c.
1.	55	51	4	—	—	55	—
2.	98	66	28	3	1	88	10
3.	110	89	17	2	2	89	21
4.	46	32	10	3	1	43	3
5.	24	17	4	2	1	14	10
6.	157	133	21	3	—	152	5
7.	21	2	11	6	2	2	19
8.	63	49	14	—	—	54	9
9.	55	42	13	—	—	54	1
10.	13	2	3	8	—	2	11
11.	5	1	—	4	—	—	5
12.	38	33	4	—	1	33	5
Totals,	685	517	129	31	8	586	99

15 houses and 23 other premises were each provided with a sink and internal supply of water direct from the public main; 159 houses had their supply improved by means of larger service piping, and in 44 instances old iron sinks were replaced with modern enamelled earthenware fittings.

The above heading is appropriate for briefly remarking on two subjects allied to water—drinking fountains and horse troughs. The question of converting city fountains to the bubble type is at present engaging the attention of the Local Authority, and as an experiment two of the bubble type have been installed in busy thoroughfares.

Regarding horse troughs—in Dundee horse watering facilities are of two varieties, the old-fashioned ever-running trough, and horse-drinking pillars. The latter are small roadside cabinets complete with pails which can be filled from spigots in the cabinets. The glaring difference between the water consumpt of the two types was brought to the notice of the Local Authority, and arrangements made for replacing all troughs by pillars. This work is proceeding and, when completed, will result in a marked reduction in supply costs.

Drainage.

The choked drain may be typified as one of the most common complaints received at a sanitary inspector's office, meriting quick action from the health point of view and to prevent damage to property.

In the course of the year 414 feet of cast-iron drain piping, 20 cast-iron traps, 735 yards of fireclay drain piping, 26 drain traps, 1 inspection chamber, and 1 septic tank were used in renewals, repairs and additions to drainage systems.

Public Sewerage.

The construction and maintenance of the sewers within the City are under the charge of Mr David B. McLay, B.Sc., M.Inst.C.E., who reports as follows :—

New Sewers Laid.

" During the year from 16th May, 1937, to 15th May, 1938, approximately 3.53 miles of new sewers were laid, making the total length of sewers 164.55 miles; and the sum of £3,289 was expended on the work of maintenance and repair.

Flooding.

" Several minor cases of flooding were investigated during the year from widely distributed points within the City.

" During the severe storm on 30th July, Dock Street, Candle Lane, High Street and Wellgate were the areas chiefly affected, although the amount of damage done was fortunately slight.

" In most of the cases reported the flooding took place in basement premises, and in some instances was due to the exceptional intensity and suddenness of the storm making impossible the closing of flood prevention valves before flooding had commenced.

"The storm of 12th August mainly affected the Broughty Ferry district, and reports of flooding were received from Camphill Road, Links Cottages, Panmure Street and Brook Street. The flooding

originated in the regurgitation from the sewer in St Vincent Street, which is the main outlet from the major portion of this area. At the time of the storm this sewer was tide-locked, and consequently was unable to carry off the surplus storm water.

" Consideration is being given to a scheme for the reconstruction of part of the Broughty Ferry drainage system with a view to preventing a recurrence of this trouble.

Proposed Intercepting Outfall Sewer.

" Since the publication of last year's Report, no appreciable progress has been made towards the approval of this scheme. The Harbour Authorities have been approached on numerous occasions with a view to settling the question of a suitable point of discharge, but, so far, it has been impossible to get from them a definite decision on the matter.

" As was mentioned in the local press recently, the construction of sections of the tunnel could be undertaken immediately, such sections to be used in a national emergency as Air Raid Shelters in what is probably one of the most congested areas in the City. Working adits sited at suitable points along the line of the sewer would afford additional shelter and also facilitate the removal of excavated material from the tunnel workings.

Dighty Valley Sewer.

" During the year a start was made on a portion of this scheme, mainly for the purpose of draining the Linlathen and Magdalene's Kirkton Housing Schemes.

" Work is in progress on the construction of a Pumping Station on the site adjoining Pitkerro Road. This Pumping Station, when completed, will deal with the sewage from the area west of this point, lying between the existing Downfield Sewer and the Dighty Water. Good progress is being made, and it is hoped to complete the section in about 18 months.

" The eastern section of this sewer, which is located outwith the present Burgh boundary, is held up meantime until the proposed extension of the boundary is sanctioned.

Ninewells Outfall Sewer.

" The existing outfall sewer which discharged on to the foreshore close to Ninewells Bridge was extended for a distance of approximately 1,000 feet, and now discharges into a channel which will ensure the effluent being carried away from the foreshore at practically all states of the tide, thus obviating the possibility of complaints of nuisance such as have been frequent in recent years.

"The sewer was extended in bitumen lined and covered steel tubes 24 in. in diameter, carried on specially cast "Y" shaped reinforced concrete piles."

Rivers Pollution.

The discharge from the outfall sewer at west end of Eastern Wharf is still giving trouble, and will continue to do so until the proposed intercepting outfall sewer referred to by the City Engineer is completed.

Scavenging and Refuse Disposal.

The Cleansing Department, under the charge of Mr W. H. Sagar, Superintendent of Cleansing, is maintaining a very high standard of efficiency. The work of scavenging, refuse collection and disposal is carried out in a most up-to-date manner, and is in accordance with the best principles of modern practice. He reports that the steadily growing number of houses being erected in outlying parts of the city is not only adding to the work of the Department, but the disposal of the consequent increasing amount of refuse collected is providing a problem which will have to be dealt with in the near future. The quarry on the outskirts of the City, though proving useful for the reception of surplus dust, is rather far removed to make its use an economic proposition.

A great improvement has been carried out at part of the Broughty Ferry Esplanade. What was formerly a stretch of uneven sand dunes has been converted into a grassy sward by the simple process of levelling up with dust., etc.

The covered type of refuse collecting van has greatly improved this branch of his Department's activities, and these vehicles have also merited public approbation, being clean, efficient and comparatively dustless.

The sales for recovered fuel and dust to farmers continue to be satisfactory.

Public lavatories are also under Mr Sagar's charge, and he hopes during 1939 to see the replacing of unsightly cast-iron conveniences with modern accommodation.

Ashbins.

To replace those which were no longer fit for service, 1,266 new receptacles were laid down throughout the year, and in places where no such accommodation previously existed or to augment existing storage accommodation 71 were provided.

SANITARY CONVENIENCES.

Water Closets.

Where practicable the work of installing water closets within dwelling-houses is being pursued. During the year, 531 such fittings were provided as follows:—321 within houses, 83 for shops, 52 within premises such as offices, work places, etc., 13 in suitable external positions where it was found impracticable to provide them inside, while 62 were renewals in place of obsolete or defective fittings.

In connection with the foregoing installations, 5,579 feet of soil pipe and 2,441 feet of flushing pipe were used.

In a number of instances proposed improvements, including the installation of sanitary conveniences, could not be proceeded with owing to the work of reconstruction necessitating the removal of the occupier—practically an impossibility owing to the serious shortage of dwelling-houses within the city.

In the majority of cases where the existing accommodation is at a minimum the houses have either already been the subject of action under the Housing Acts or are situated in properties scheduled to be similarly dealt with in the future.

As required by the Department of Health for Scotland, the following Table is submitted showing the number of water-closets used in common by 2, 3, 4, 5 or 6 or more tenants respectively:—

	W.C.'s Each Serving					
Wards.	2 Tenants.	3 Tenants.	4 Tenants.	5 Tenants.	6 Tenants or Over.	Total Tenancies.
1.	465	217	99	9	11	2,091
2.	307	113	80	23	17	1,503
3.	578	213	173	36	16	2,763
4.	383	256	118	21	23	2,256
5.	212	64	79	4	4	976
6.	380	226	205	31	34	2,631
7.	126	29	48	2	—	541
8.	586	321	162	42	36	3,250
9.	586	270	166	42	23	3,011
10.	81	28	14	9	4	372
11.	104	41	16	4	1	421
12.	877	337	275	38	26	4,219
	4,685	2,115	1,435	261	195	24,034

The year's figures, 24,034, compared with last year's, 24,480, show a reduction of 446, partly due to improvements effected during the year and partly to houses in old properties being closed under the Housing Acts.

Earth Closets, Privies, and Privy Middens.

AS AT 31ST DECEMBER, 1938.

Situation.	Number of		To Serve.		
	Privies, Earth Closets or Chemical Closets.	Privy Middens	No. of Households.	Persons. M.	Persons. F.
Dighty Toll House	1	...	1	2	2
Old Manse, Mains,	1	...	1	3	3
Castle Mains (South House)	1	...	1	...	3
Manse Lodge (Old Glamis Road)	1	...	1	...	2
Trottick	14	...	19	32	41
Harestane Rd. (W. March Cottar House)	1	...	1	1	2
Harestane Road (Bleachfield)	1	...	1	1	1
East Pitempton	1	...	1	1	1
Pitempton Railway Cottages	2	...	2	1	2
Pitempton Baldovan	1	...	1	1	1
517 Strathmartine Road	1	...	2	...	5
Station Cottage, Cox Street	1	...	1	1	1
West Kirkton Cottages, Kirkton Road	5	...	5	8	9
Gelly Cottages	1	..	1	2	2
East Lodge—McAlpine Road	1	...	1	1	4
Main Lodge—Coupar-Angus Rd,	1	...	1	1	2
Backhill of Balgay	1	...	3	5	6
Balgay—Mains	1	...	1	1	1
Bingham Terrace (Gallowhill)	1	...	1	1	2
220-222 Arbroath Road	2	...	2	2	8
399 Arbroath Road (Craigie North Lodge)	1	...	1	1	2
Gotterstone Cottar Houses (North)	...	5	5	12	10
do. do. do. (South)	2	...	2	3	6
Barnhill Farm (Grieve's House)	1	...	1	1	1
434 King Street, Broughty Ferry	1	...	1	...	1
Arbroath Road (Linlathen W. Lodge)	1	...	1	1	1

In addition there are 2 privies (1 Chemical Closet) serving premises other than dwelling-houses.

During the year 2 privies, each serving one house, have been removed from the list. In one case the house was demolished, and in the other, an arrangement for the share of an adjacent water closet was made. Apart from this there is no change to record. Five of the houses above-mentioned are served by chemical closets.

Baths and Wash-Hand Basins.

At privately owned property 2 shower baths, 39 baths, and 123 wash-hand basins have been installed.

Washing-Houses.

During the year 76 enamelled earthenware wash-tubs were provided in place of insanitary wooden tubs, 7 earthenware tubs renewed, 2 defective cast-iron boilers replaced by new boilers, and 2 gas boilers installed in place of the old cast-iron fittings. At one property a new washing-house was erected where formerly there was no suitable accommodation.

The undernoted materials were used in connection with Domestic Water Supplies, Sinks, Water Closets, Baths, Wash-Hand Basins and Washing-Houses :—

53 lead traps;
13,162 feet of water pipe;
2,490 feet of waste pipe;
5,004 feet of vent pipe;
4 urinals.

Plans Submitted to the Works Committee.

In order that new buildings, and additions and alterations to existing buildings, comply with local bye-laws, plans showing proposed erections and alterations are carefully examined prior to approval by the Committee. Occasionally amendments are suggested or insisted upon, as the case may require, before the plans are finally agreed to.

A routine inspection during the year brought to light alterations being carried out for which plans had not been approved. The owner of the dwelling had instructed the provision of a bathroom on the first floor in lieu of the existing apartment on ground floor and the installation of a new tub and sink in the kitchenette. Notification of this breach of the bye-laws was made to the appropriate Department and, after a minor alteration to the proposed scheme, the work was allowed to proceed.

Schools.

The following information was kindly supplied by Mr John R. Cameron, M.A., Director of Education :—

" On 10th October, 1938, the Roman Catholic children of Lochee entered into full occupation of the new school which had been erected for their use in St Mary's Lane. The new building contains 16 classrooms and a large hall, and provides accommodation for pupils between the ages of 7 and 12. In accordance with an arrangement authorised by the Education Committee the infants are accommodated in what was formerly the Boys' School. So large, however, has been the demand for accommodation, occasioned not only by the needs of the Roman Catholic population of Lochee itself but by Roman Catholic families transferred to the new housing scheme at Beechwood, that it seems likely that the Education Committee may require to make still further provision for the Roman Catholic children of the north-western area of the City.

" Steady progress has been made with the erection of St Michael's Central R.C. School in Graham Street, and it is hoped to have the building ready for use early in 1940. A beginning has been made with the erection of a new Central School for Boys on a site between Clepington School and Stobswell Central School. It is hoped to commence operations in 1939 for the erection of new primary schools at Mid Craigie and Linlathen and a Nursery School in Cotton Road.

" During the year the external appearance of some of the old schools was greatly improved by the process of redressing the stonework. This was done with Ann Street School and Rosebank School, and at the same time the boundary walls of Morgan Academy and St John's Central R.C. School also received attention. In addition, the outsides of certain schools were repainted, namely Broughty Ferry Eastern, Hill Street and Logie Central.

" An improvement was made in the playgrounds of two schools by relaying them with pavex. These schools were the School for the Deaf and St Joseph's Boys' R.C. School.

" The internal condition of certain schools was made more hygienic in several ways. Hopper windows, intended to increase the ventilation, were installed in Blackness, Butterburn, Glebe-

lands, Hill Street, and Liff Road Schools. An extensive programme of internal repainting was carried out at Blackness, Butterburn, Hawkhill (South Building), Lawside Academy, Rockwell Central, St John's Central R.C., and Victoria Road Schools. Old and worn floors were removed and new flooring provided in certain classrooms in Ann Street, Butterburn, Clepington, Hawkhill, Lawside Academy, Mitchell Street, Rosebank, and St Mary's R.C. (Forebank) Schools. New flooring was also laid in the Hall of the Morgan Academy.

" Mention has formerly been made of the fact that the Education Committee endeavours annually to install a certain number of new domestic hot water systems in schools that require such, and to recondition a certain number of old systems. In pursuance of this policy during the year 1938, two new systems were introduced into the two buildings that make up Hawkhill School and one into Hill Street School. The second of the two buildings that make up Hill Street School had an old system reconditioned.

"In conclusion, reference should be made to the great hygienic advantage resulting from the reconditioning of the latrines at St Andrew's Boys' R.C. School in Brown Street and St John's Central R.C. School, and the provision in all school playgrounds of new drinking fountains in place of those of an obsolete type."

Complaints.

Complaints reaching this office during 1938 numbered 4,076, compared with 4,186 in 1937. This steady fall in number is most encouraging, and reflects well on the benefits of new housing. Inferior housing conditions always give rise to complaints. With a continued policy of re-housing families into decent homes we can look forward to a steady decline in complaints received.

Groundless complaints numbered 182, which is also a reduction from last year's figure of 211.

Statutory Intimations or Notices.

To obtain compliance with the terms of the Public Health (Scotland) Acts, Burgh Police (Scotland) Acts, Local Acts and other legislation 12,501 notices or intimations, written or oral, including two Statutory Notices in terms of Section 10 of the Shops Act, 1934, were transmitted to property owners or agents or authors of nuisances, all of which have received or are in course of receiving attention.

General Nuisances.

Visits numbering 64,105 were made for the purpose of detecting nuisances, of which 4,501 were discovered, and in each instance immediate steps were taken to secure their abatement.

Nuisances were many and varied, but of those most outstanding the following may be cited as typical.

Complaints of flooding were received from several new housing schemes, and in each case the cause was found to be defects in the main drains occasioned by ground subsidence fracturing the connections between down pipes and drains, thus allowing sewage to percolate under the floors of the ground floor houses. In all instances extensive repairs or renewals were made on the main drains so as to render them watertight.

Report of fungi growing from the plaster wall of a top storey house was intimated to the Department. An inspection revealed the growths to be of most unusual shape and size and of rapid development. This phenomenon was discovered to be due to leaky rhones and the measures to combat the nuisance consisted of excising all plasterwork and woodwork affected over a wide area and the treatment of the internal surface of the external wall with creosote and copper sulphate, which treatment proved successful.

Following a mill fire the dumping of smouldering jute on a piece of waste ground gave rise to nuisance to residenters in the neighbourhood. The mill owner was communicated with, and he in turn employed the fire brigade to soak the jute thoroughly, which obviated further complaint.

Notification of red fluid dripping from the ceiling of a house was received, and on investigation this apparently gruesome occurrence was happily capable of easy explanation. In a grocer's store over the house in question a barrel of wine had sprung a leak and, seeping through the ceiling, had filled the tenant with misgiving as to what source the stains were coming from.

Complaint was received regarding the carcases of two sheep which had been washed up on the beach at West Ferry. This is not altogether an isolated incident, and is possibly due to animals being caught in the upper reaches of the river when it is in spate.

One carcase was interred by Corporation employees, but the other could not be found, and it is assumed that river currents had obligingly borne it seawards.

Verminous Houses and Persons.

Of all vermin, the bug, or to give the generic name, *cimex lectularius*, would appear to withstand most stoutly any attempt at extinction. Many would-be eradicators are satisfied if they kill the insects, and after a big slaughter compliment themselves on their efforts. Certainly, for a short space of time, comparative immunity will be enjoyed, but again consternation will be experienced when re-infestation takes place. Assuredly the bugs were killed, but what of the eggs which have been untouched? Defestation is only half accomplished unless these also are destroyed.

Complete development from egg to adult may be attained under two months' time, when the perplexed householder will again be faced with the necessity of exterminating another generation of bugs.

Defestation measures, therefore, are best carried out by those who know exactly how to tackle the menace. The personnel of this Department are always ready to assist in these operations, and in 1938 in reply to requests treated 264 rooms in 181 houses for bug infestation. These figures include 59 rooms in 37 new Corporation dwellings. Liquid insecticide and sulphur dioxide were the destructive agents.

Verminous Persons.—Seven such cases came to our notice during the year. Old age and ill-health were the prime causes of their unhappy plight. In 5 instances the people entered Hospitals or Institutions. One refused to leave home, and in one case the man died before he could be transferred to hospital.

Whitewashing and Painting Common Stairs and Passages.

It is a custom of this Department to inspect all stairs and passages, etc., each spring and thereafter inform owners or agents of such properties where work of this nature is required. Early in June 177 letter intimations were dispatched drawing the attention of owners or agents to stairs, passages, mutual water closets and wash-houses at 1,117 properties under their control where cleansing or renovation was required.

Every effort is made to have this work carried out in the early summer so that tenants have the benefit of freshly done up accesses to their homes, but owing to delay on the part of persons responsible or tradesmen, it was necessary in November to issue 61 Statutory Notices giving seven days in which to have that work carried out. This concluded the matter in a fashion satisfactory to all concerned. Some tradesmen seem to take in as many orders as they can get, and it would appear their idea is to spread this work over quiet periods so that their operatives will be ensured of constant employment.

Brushes are available on demand for those who do not possess the means to procure such articles of their own, and during the year 1,705 brushes were issued for the cleaning of approximately 4,000 rooms. Ochre and whiting were also provided in needy cases.

Back Courts, Areas, Footways, Etc.

The paving of back courts and footways, etc., and the maintaining of such paving in good repair is essential to facilitate easy and efficient cleansing. Tar chips are proving a popular and cheap substitute for paving-stones or concrete, and in some instances we have managed to get large areas covered with this material with very satisfactory results.

Approximately 73,542 square feet of paving or other suitable material complete with appropriate facilities for draining were laid down at back courts, etc. The footways in connection with Corporation property which were paved during the year are included in this figure.

Smoke Nuisance.

Observations numbering 60 were taken over the year, and in connection therewith 31 warning letters were addressed to mill owners, etc., the balance, where necessary, received strict verbal censure.

It is frequently observed after letters have been dispatched regarding offending chimneys there is a reduction in smoke emission, but this improvement does not endure and suggests a gesture of " keeping the sanitary inspector quiet." Officially this is construed as contempt, and unless there is more serious heed given to warnings, statutory proceedings may be adopted instead.

Domestic chimneys also contribute their measure to atmospheric pollution; it is hoped that with smokeless fuel being now marketed more freely householders will make greater use of this commodity. Housewives would find, among other benefits, their houses would be less toilsome to keep.

Complaints of smoke from the chimney of a small factory were received. The matter was investigated, advice given, and the chimney raised, but still on occasions the nuisance persisted. The fireman has other duties imposed on him and probably this accounts for, although not justifying, the nuisance.

In last year's report it was stated that as a curative measure against excessive grit emission at a factory a grit arrester was to be installed. This work has now been completed and no further nuisance has been reported or observed.

The proprietors of a large mill have installed a new type of plant designed to enable flue dust to be extracted from the boilers without interrupting the firing. The installation should help towards a clearer atmosphere and render less frequent the necessity for opening up flues for cleaning purposes.

Rats and Mice (Destruction) Act, 1919.

Notification of serious rat infestation at several west end residences was received. It was averred that the rats were coming from the Corporation dump at west end of Riverside Drive.

The terms of the above Act place the onus of ridding premises from infestation upon the occupiers, but in this case the invasion was on a larger scale than is usually encountered and, as the Cleansing and City Engineer's Departments were involved, Corporation employees undertook defestation measures, gas being the vehicle of destruction.

At the houses concerned, the owners were advised to clear their grounds of garden refuse and to refrain from permitting such accumulations in future. They also undertook at our suggestion such rat proofing as was considered essential, and it appeared that our efforts had attained success. Later in the year, however, when fish offal for manurial purposes was deposited in an adjacent field, a recurrence of rat invasion was threatened. The farmer respon-

sible for this land was communicated with and the offending material removed, since when there has been no further complaint.

Ground nearby a factory was reported to be overrun with rats and our help enlisted to combat the danger to dwellings in the vicinity. Advice was given and assistance in the more material form of gassing the ground resulted in the area being freed from these pests.

The discovery and closing of rat runs at a property where infestation had existed concluded a protracted nuisance.

Word came of the capture of a musk rat in a sewer near a new housing scheme; investigation proved all fears to be groundless, the animal caught being a water vole.

No special rat week was held in Dundee—continuous destruction being our maxim.

The Milk and Dairies (Scotland) Acts.

Registers.—At the end of the year the Registers stood as follows:—

Dairymen or Cow-Keepers	24
Retail Purveyors of Milk (including Producer-Retailers) made up as under :—	851
Purveyors from shops, milkhouses, etc.	769
Purveyors from vans	22
Purveyors resident outwith the City but registered to purvey milk within it from vans on streets	32
Purveyors from shops or milkhouses together with vans on streets	28

The foregoing table shows 24 Dairymen or Cow-keepers—two less than the previous year. Three of the Dairymen do not possess cows but obtain their milk supply from outside sources.

In the remaining 21 dairies there were housed 362 cows, and to the premises 347 visits were paid. 2,312 inspections were made of shops and other places where the retail of milk was carried on. Generally speaking, there is no call for adverse criticism regarding these businesses.

Regarding the dairies removed, in one case the owner retired from business and in the other the premises have been converted into a garage.

Alterations effected on dairy premises during the year included improved water supply by the installation of 195 feet of copper piping, the provision of automatic drinking bowls, and overflow of cesspool connected to sewer.

There are 5 cowsheds where 10 milk cows are kept, exempt from Registration, under Section 2 of the 1914 Act " From which a person sells milk only in small quantities and for their own consumption to persons in his employment or to neighbours."

Generally, Articles 4 to 14 of The Milk and Dairies (Scotland) Order, 1934, are being complied with.

The Milk (Special Designations) Orders (Scotland), 1936/38.

At the end of the year the Register showed that the undernoted licences had been issued by the Local Authority :—

1 Producer of Pasteurised Milk ; and
483 Retail Sellers thereof.

a total of 484 as against 95 last year ; and

2 Producer Dealers in Standard Milk ;
1 Producer Dealer in Tuberculin Tested Milk ;
2 Producer Dealers in Certified Milk ;
1 Supplementary Licence for dealing in Certified Milk ;
1 Supplementary Licence for dealing in T.T. Milk ;

In addition there are registered :—

56 Dealers in Certified and Tuberculin Tested Milks.

From the above table it will be seen that there are now 2 producers entitled to apply the designation " Standard "to the milk produced by their herds. In all, 3 applications were received, and of these two were granted. The third was refused as the dairyman in question did not possess facilities for the steam sterilisation of utensils, etc., and no acceptable proposals were advanced regarding suitable containers for the distribution of the milk.

One application for a Supplementary Licence to sell Standard Milk within this area was refused on the grounds that the applicant did not possess steam sterilisation facilities for the various milk utensils. Arrangements are now being made, however, for the installation of the necessary equipment.

The Third Schedule of the 1936 Order is amended by the Milk (Special Designations) Amendment Order (No. 2) (Scotland), 1938, whereby, *inter alia*, the standard of 3.5 per cent. of butter fat is omitted. This alteration now places Scottish producers on a par with those in England, removing an irritating anomaly.

The premises of our local pasteurising company are regularly visited; the plant and equipment are of high standard. In addition, there is on the Register one producer of Sterilised Milk.

Artificial Cream Act, 1929.

There is only one registration in force under this Act.

Stables and Piggeries.

Stables.—There is no change in the number of Stables within the City since last year, which remains at 169. 358 visits were paid to these premises and all were found to comply with this Department's requirements. Only once was it necessary to serve a notice regarding the removal of manure.

Piggeries total 47—9 more than last year. This increase is due to small-holders on the outskirts of the City commencing the business of pig rearing. During the course of 205 inspections all pig-stys were found to be maintained in an acceptable manner. One application for permission to utilise the main byres at a farm for the keeping of pigs was rejected by the Local Authority owing to the distance between these erections and the public roadway being under the stipulated 100 feet.

There were 697 pigs within this area at the last census.

Offensive Trades.

There is no alteration falling to be recorded in connection with the premises utilised for this type of business. They are located as undernoted :—

Old Air Station, Stannergate Road—Tallow Melter.

At Public Slaughter-Houses, East Dock Street (Private)—Gut Cleaner (1) and Hide Factors (2).

At Public Slaughter-Houses, East Dock Street (Corporation) —(a) Slaughterer of Cattle; (b) Tripe Cleaner; (c) Tallow Melter; and (d) Blood Boiler.

These businesses have been conducted in a satisfactory manner, and no complaints arose in connection therewith.

Interments.

Section 69 of The Public Health (Scotland) Act, 1897

The assistance of the Department was sought on 57 occasions in connection with the interment of bodies of destitute persons.

In 53 cases funerals were carried out at a cost of £84 9s, against which expenditure the sum of £16 11s 1d was recovered. In 4 cases other arrangements were made.

An analysis of the interments shows that there were 6 adults, 28 juveniles and 19 still-born infants buried.

Before interment of still-born infants can be undertaken, it will be necessary in terms of the Registration of Still-births Regulations (Scotland), 1938, which become operative on 1st January, 1939, that all such births shall be recorded and a certificate obtained from a Registrar.

Burial Grounds.

The following interments were made at the undernoted Burial Grounds within the Burgh during the year:—

Eastern Necropolis	1,280
Western Necropolis	991
Western Cemetery (Perth Road)	153
Barnhill Cemetery	180
Parish Church Burying-Ground (Broughty Ferry)	12
Constitution Road Burying Ground	1
St. Luke's Episcopal Church, Downfield	0
New Mains Cemetery	11
Total	2,628

Additional to the interments recorded above, cremations numbering 136 were carried out at the Dundee Crematorium, which particulars are available through the courtesy of the Secretaries.

Old Mains Cemetery.—As predicted in last year's Report this burial ground has now been closed in terms of Section 5 of the Burial Grounds (Scotland) Act, 1855, except for the interment of cremated human remains. This burial ground which lies near the ruins of Mains Castle is believed to have been in use for about 400 years. Prior to 1880 there was no record kept of interments, but between that year and 1930 there were 761 burials. When it is mentioned that the area of this cemetery is less than half an acre, further comment is superfluous.

HOUSING

The housing problem and its speedy solution has received an infinity of consideration from experts all over the country, and much apprehension felt as the snail-like progress of building was viewed alongside the overwhelming number of insanitary houses and the large amount of houses swiftly approaching a similar condition.

Many people, lacking any knowledge of the question, have expressed the opinion that the matter is elementary and capable of disposal by the simple expedient of reconstructing the existing houses, averring that the old houses are of much better construction than the product of the present time.

Criticism is invidious, and the merits or demerits of past and present craftsmen will be ignored, but it must be made clear that re-construction alone is totally incapable of relieving us of our anxiety. The word reconstruction conjures up visions of a rather formidable undertaking, for the completed article virtually means the transforming of insanitary houses into dwellings compatible with the standards ruling to-day.

It is not being despised—anything but—for it has done a little to relieve the stress; nevertheless, even if it were possible to adopt this measure on a large scale, it can only be looked upon as a palliative and would fall very far short of being a cure. Briefly discussing the reconstruction theory, it must be borne in mind when such a course is decided on, many factors have to receive consideration, such as:—

Is the fabric worth the necessary expenditure?

Has the owner neglected it to such an extent as to preclude any possibility of reconditioning?

Will its continued existence be prejudicial at a future date to the re-development of an area or street widening, etc.?

Will the lifetime of the reconstructed building be of sufficient length to warrant the expenditure?

Assuming that all is propitious, let us now turn our attention to the property proposed to be dealt with, a three-storied tenement consisting of, on each floor, two two-roomed and one one-roomed houses entering off a mutual lobby—a total of 9 houses capable of accommodating, in accordance with the Housing Act Standards, twenty-four adults.

Its present population may be far in excess of this number and their re-housing, perhaps necessitating houses of four and five rooms, has to be accomplished so that the property may be vacated to permit of operations commencing.

What might be done to those houses, apart from renewal of floors, grates, enlarging windows, renewing plasterwork, woodwork, installing electric light and hot water supply, to say nothing of a host of minutiæ incidental to the process, would be to convert the three houses on each floor into a three-roomed house complete with kitchenette and bathroom, giving three serviceable houses in the whole building. But to make this possible we have sacrificed six houses, or, in other words, while the building formerly provided accommodation for twenty-four adults, it can now, by housing standards, only house fifteen adults.

In view of this, and nearly all such undertakings, involve the loss of at least rooms, if not whole houses, it is evident that we cannot look to reconstruction to assist us to any great degree, and we are brought face to face with the only means of mitigating our plight—the production of new houses as swiftly as possible.

Housing Requirements.

In accordance with Section 22 of the Housing (Scotland) Act, 1930, which makes it imperative for a Local Authority to examine the housing conditions within its area and to estimate future requirements for housing persons of the working classes during each quinquennial period, consideration was given for the years 1939 to 1943. In the Return submitted to the Department of Health for Scotland the number of new houses likely to be erected by the Local Authority during those years was given as 3,000.

While it cannot be visualized that this number of houses will, by a long way, solve our problem of house shortage, the difficulties of finding the necessary qualified labour to undertake a more ambitious programme is, in the opinion of those responsible for the erection of our houses, insurmountable. Be that as it may, our requirement of dwellings to meet the ordinary needs of working-class families is short by at least 14,000.

Discounting houses of one and two rooms either unfit for habitation or fit overcrowded dwellings, the position at the end of the year is approximately :—

Houses required to meet the needs of families living in unfit houses, ...	1,410	
Houses required to accommodate families living in overcrowded houses—after complete decanting allowed for, ...	7,552	
Houses—three rooms and over—required to meet the general needs of the population, newly-married couples, persons living with relatives, etc., ...	597	
		9,559
Approximate number of houses (including Overgate Improvement Scheme) to be dealt with during the next five years under the Housing Acts, ...		5,000
		14,559

Without any additions to our burden it will be observed that there is an immediate need for approximately 10,000 houses, and at the rate of 600 per annum as given in the latest estimate we have already mortgaged our next 16 years' output.

Is there any source from which help might be expected to assist in this gigantic problem? Speculative building of the type of dwellings we desire, to rent at a figure which an artisan's pocket could reasonably afford is, to all intents and purposes, at an end, and while there is, each year, quite a contributory factor in the number of houses erected by owner-occupiers we cannot look upon this source of house building to materially reduce our shortage.

There is, however, the possible source of reconstructed dwellings, and while the curative effect would be somewhat in the nature of " a drop in the bucket " it is a means to which encouragement should be given.

At the end of the year there were approximately 405 houses for which plans have been approved to enable reconstruction to take place, after which there will be some 219 houses of a moderate standard capable of providing accommodation of the type desired for a period of years, but, as it is necessary for the sitting tenants, of whom there are 394, to find alternative accommodation, this work is meantime held up. Can it not be possible for the Local Authority to provide at least temporary accommodation for those tenants, many of whom would return to the reconstructed dwellings when the necessary work was completed. In this manner lies help which, even though small, will materially improve the housing conditions so badly needed for at least a number of families.

A gratifying feature which we are happy to record is the pioneering effort in approving of a scheme of 174 three-apartment, 268 four-apartment, and 98 five-apartment solid cedar houses as a first instalment to meet the needs of overcrowded families living in fit houses. These houses have the advantage that erection can be undertaken more speedily than other types, and, in fact, it is estimated that from the commencement of operations the whole scheme will be completed and ready for occupation within a period of from nine to ten months.

What are our other prospects for the coming year? In schemes other than the one referred to in the preceding paragraph the Director of Housing reports that at the end of 1938 there are some 747 houses under construction. Assuming 500 of those are completed, we can take a more optimistic outlook and envisage a provision of houses more in keeping with what is definitely required, more particularly when it is kept in view that the rehoused families from fit overcrowded houses will be leaving dwellings which are again capable of being relet for the ordinary needs of the population.

TABLE I.

Shows the number of houses which have been erected by the Corporation and Private Enterprise during the year 1938:—

	1 Room	2 Rooms	3 Rooms	4 Rooms and over	Total
By the Corporation, ...	—	—	163	172	335
By Private Enterprise, ...	—	—	109	107	216
			Total		551

This is a decrease of 151 on the figure for 1937, and as 216 houses provided by Private Enterprise were mainly for sale to owner-occupiers, only 335 houses remain for Slum Clearance in terms of the 1925-1935 Acts.

TABLE II.

The locus of the Corporation Housing Schemes—the number of houses completed; in course of construction; proposed; and the Act under which erected, or to be erected (from data supplied by the Director of Housing).

Act under which erected.	Scheme or Site.	Type.	No. of Houses Completed Apartments 1	2	3	4	5	In Course of Construction. Apartments 1	2	3	4	5	6	Proposed to be Erected. Apartments 1	2	3	4	5	6
1919 Act	Logie	Flatted	...	88	162	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Logie	Tenement	...	8	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Hospital Park	Flatted	...	52	100	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Stirling Park	Do.	...	...	116	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Taybank	Do.	...	...	180	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Craigiebank	Cottage	...	...	...	76	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dudhope	Flatted	...	...	88	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Broughty Ferry	Do.	...	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1923 Act	Johnston Avenue	Cottage	...	...	...	52	...	...	...	...	...	...	...	...	...	...	...	...	...
	Dudhope	Tenement	...	46	26	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1924 Act	Broughty Ferry	Flatted	...	68	128	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Craigiebank	Do.	...	...	204	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Alpin Road	Do.	...	52	164	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Lawton	Do.	...	...	264	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Stirling Park	Do.	...	...	20	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Steel Houses (Lawton Road; and Alpin Road)	Do.	...	...	20	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Steel House (Alpin Road)	Bungalow	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Strathmore Avenue	Tenement	...	...	54	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Lawton (Boot's Pat.)	Flatted	...	...	264	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Graham Street (Boot's Pat.)	Do.	...	...	236	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Arklay Street	Tenement	...	216	180	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Corso Street	Do.	...	66	210	24	...	...	...	...	...	...	...	...	...	...	...	...	...
	Lawton Farm	Flatted	...	12	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Harefield Road	Do.	...	12	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Law Crescent	Do.	...	64	196	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Hepburn Street	Tenement	...	...	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Ann Street	Do.	...	4	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1925 Act (Not State Aided)—																			
	Glenprosen Terrace	Flatted	...	24	68	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Graham Street	Do.	...	72	140	72	...	...	...	...	...	...	...	...	...	...	...	...	...
	Taybank	Do.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

1923/25 Acts— Slum Clearance and Closing Orders—																				
Dudhope	Tenement	...	24	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Byron Street	Do.	...	36	48	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Arklay Street	Do.	...	36	72	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wester Clepington I.	Do.	...	90	138	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. Do. II.	Do.	...	96	150	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tullideph Road	Do.	...	18	66	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Do. Do.	Flatted	...	24	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
West Port	Tenement	...	6	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1930 Act—Slum Clearance—																				
Sandeman Street	Tenement	...	...	112	90	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Queen Street, Broughty Ferry	Do.	...	6	24	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Clepington Road	Do.	...	36	60	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Caird Avenue	Do.	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wedderburn Street	Do.	...	20	32	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lawton Road	Flatted	...	...	92	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Moncur Crescent	Tenement	...	18	66	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lorne Street	Do.	...	...	36	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Arbroath Road	Do.	...	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Carnegie Street	Do.	...	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Constitution Street	Do.	...	3	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cotton Road	Do.	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ann Street	Do.	...	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Canning Street	Do.	...	...	60	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Kinghorne Road	Do.	...	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Harcourt Street	Do.	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Paterson Street	Do.	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ogilvie's Road	Do.	...	...	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hilltown I.	Do.	...	3	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bonnybank Road	Do.	...	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Forebank Road	Do.	...	...	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hawkhill	Do.	...	8	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cross Row	Do.	...	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hill Street	Do.	...	...	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
King Street, Broughty Ferry,	Do.	...	3	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Marshall Street	Do.	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Fairbairn Street	Do.	...	56	24	24	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hospital Street	Do.	...	12	36	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Dens Road	Do.	...	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Maitland Street	Do.	...	6	36	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Benvie Road	Do.	...	...	18	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Balgay Street	Do.	...	...	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wolseley Street	Do.	32	...	24	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mid Craigie, 1st Dev.	Do.	32	120	300	154	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Mid Craigie, 2nd Dev.	Do. & Cottage	...	...	48	8	23	...	...	208	72	37	...	...	...	...	...	...	...	...	...
Hilltown (II.), Nos. 59-69	Tenement	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Queen St., Bro. Ferry, 2nd Dev.	Do.	...	...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gardner Street	Do.	...	...	18	...	...	...	...	18	...	...	...	...	...	...	...	...	...	...	...
Morgan Street	Do.	...	...	9	21	...	...	...	12	...	...	...	...	...	...	...	...	...	...	...
Beechwood, 1st Dev.	Do.	32	...	92	36	8	...	...	9	33	...	...	...	...	...	...	...	...	...	...
Beechwood, 2nd Dev.	Do. & Cottage	...	...	42	90	24	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Beechwood, 3rd Dev.	Tenement	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Beechwood, 4th Dev.	Do.	...	...	...	...	...	...	...	...	138	...	...	...	...	...	...	...	...	...	...
Wellgrove	Flat. & Cot.	...	...	...	...	...	...	...	...	90	3	...	...	...	...	...	...	...	...	...
Polepark	Tenement	...	...	...	...	...	...	...	...	12	25	10	...	...	...	...	...	...	...	...
1935/38 Acts Linlathen	Do.	...	...	...	...	...	...	...	48	24	...	...	...	...	...	...	...	...	...	...
Unallocated Magdalene's Kirkton, 1st Dev.	Do. & Cottage	...	...	...	...	...	...	...	174	268	98	...	...	...	...	...	...	...	...	...
Magdalene's Kirkton, 2nd Dev.	Do.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Magdalene's Kirkton, 3rd Dev.	Do.	...	...	...	...	...	...	...	...	...	...	...	...	164	88	28	...	...	...	...
Do. and West Kirkton, 4th Dev.	Do.	...	...	...	...	...	...	...	...	...	...	...	...	104	192	50	...	...	...	...
Kirk Street, Lochee	Tenement	...	...	...	...	...	...	...	...	...	...	...	...	148	194	60	...	...	...	...
Long Lane, Broughty Ferry	Do.	...	...	...	...	...	...	...	...	...	...	...	...	100	245	72	...	...	...	...
Dens Brae	Do.	...	...	...	...	...	...	...	...	...	...	...	...	80	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	18	...	...	...	...	...	...
		...	...	...	...	...	...	...	...	...	...	...	...	8	...	...	...	...	...	...
		96	1,473	4,649	665	55	...	...	477	637	163	10	...	...	622	719	210	...	...	...

The Corporation of Dundee as Fleming Trustees—

Fleming Trust Deed—		Rooms 1	2	3																
Easter Clepington	Flatted	192	158	146	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scott Street	Do.	...	...	...	...	...	...	...	...	...	...	...	...	...	172	56	...	...	...	...

The Corporation also provided 76 Timber Huts througout the City, and of these 60 have been demolished, leaving 16 still remaining at 31st December, 1938.

TABLE III.

Gives the number of houses erected since 1919 by the Town Council.

	1 Room	2 Rooms	3 Rooms	4 Rooms and over	Total
1919/20 ...	—	116	150	—	266*
1921/25 ...	—	126	536	102	764
1926/30 ...	—	516	1,839	50	2,405
1931/35 ...	—	569	1,419	155	2,143
1936 ...	32	182	368	143	725
1937 ...	64	36	184	92	376
1938 ...	—	—	163	172	335
Total ...	96	1,545	4,659	714	7,014

*Includes 76 Timber Huts.

The above Table shows 7,014 houses have been provided by the Corporation, or an average of 351 per annum for the past 20 years. During that period, however, a large number of houses has gone out of use as such, as is detailed in :—

TABLE IV.

Houses Voluntarily Closed, Closed by Order, Demolished or turned into Business Premises :—

	1 Room	2 Rooms	3 Rooms	4 Rooms and over	Total
1919/20 ...	63	74	12	20	169
1921/25 ...	106	86	32	47	271
1926/30 ...	376	300	66	86	828
1931/35 ...	856	1,019	196	188	2,259
1936 ...	231	199	25	18	473
1937 ...	208	246	18	17	489
1938 ...	125	134	29	39	327
Total ...	1,965	2,058	378	415	4,816

This total is equal to an average annual figure of 241 houses closed, against an annual provision of 351, or a net increase of 110 per annum in the City during the period under review.

To arrive at the grand total of houses provided there are other sources of supply which must be taken into consideration, such as

closed houses made fit for occupation and re-opened, business premises converted into houses and large houses sub-divided—(Table V.) houses provided by the beneficience of the Fleming and Gray Trusts — (Table VI.), and Private Enterprise—(Table VII.).

TABLE V.

Shops, etc., converted into dwelling-houses; houses reconstructed and re-opened, and large houses sub-divided.

	1 Room	2 Rooms	3 Rooms	4 Rooms and over	Total
1919/20 ...	22	83	19	15	139
1921/25 ...	27	46	18	25	116
1926/30 ...	19	64	17	34	134
1931/35 ...	99	199	41	79	418
1936 ...	15	17	9	13	54
1937 ...	3	16	9	15	43
1938 ...	4	18	16	30	68
Total ...	189	443	129	211	972

TABLE VI.

Houses provided by the (a) Fleming, and (b) Peter Gray, Trusts :—

	1 Room	2 Rooms	3 Rooms	4 Rooms and over	Total
(a) By Fleming Trust (Gift of the late Robert Fleming, Esq., LL.D.)	192	158	146	—	496

The proposed extension to this scheme for additional houses in the west end of the City was further considered, and the Fleming Trust Committee came to the conclusion that the erection of two-apartment houses might be omitted in the new development in view of the anticipated surplus of that size of house after decrowding operations had been completed in the city.

At the end of the year the Trustees were negotiating with the Corporation in respect to a loan and other matters bearing on the development of the whole site in one operation instead of piecemeal.

(b) By the Peter Gray Housing Trust	24	—	—	—	24
Total					520

TABLE VII.

Houses provided by Private Enterprise.

	1 Room	2 Rooms	3 Rooms	4 Rooms and over	Total
1919/20 ...	—	—	1	6	7
1921/25 ...	—	1	51	261	313
1926/30 ...	—	2	459	555	1,016
1931/35 ...	2	5	131	555	693
1936 ...	12	42	112	125	291
1937 ...	—	12	162	152	326
1938 ...	—	—	109	107	216
Total ...	14	62	1,025	1,761	2,862

These Tables, together, give the sum of 4,354, which figure, added to the Corporation's quota, makes a grand total of 11,368 houses provided during the past 20 years, being an average of 568 houses per annum over that period. From that total, however, we must deduct 4,816, the number of dwellings which have gone out of use as such during the same period, thus giving a net increase of 6,552 houses in the City, or an average annual contribution of 327.

HOUSING (SCOTLAND) ACT, 1925

The Dundee (Blue Mountains, Etc.) Improvement Scheme, 1925; Confirmation Order, 1925, made by the Department of Health for Scotland under the Housing (Scotland) Act, 1925.

This Scheme was completed in 1932.

The Dundee (Small's Wynd) Improvement Scheme, 1928, Confirmation Order, 1929, made by the Department of Health for Scotland under the Housing (Scotland) Act, 1925.

This Scheme was completed in 1935.

The following table shows the dwelling-houses within the City which have been dealt with by Clearance Resolutions, and in addition the details of the properties adjoining these areas included by the Local Authority under Section 3 of the Housing (Scotland) Act, 1930, to make the schemes effective.

HOUSING (SCOTLAND) ACTS, 1930/35. CLEARANCE AREAS

Area Number	Date of Resolution	Included in Terms of Section 1 Houses	Section 1 Other Premises	Section 3 Houses	Section 3 Other Premises	Totals Houses	Totals Other Premises	No. of Houses Still Occupied at 31st Dec., 1938	Remarks
1 to 18	17.11.30	304	73	23	19	327	92	...	All buildings demolished except 1 Hall.
19 to 32	1.12.32	259	31	6	34	265	65	...	Scheme completed in 1933.
Queen St., B.F.	5. 3.31	15	...	1	3	16	3	...	Scheme completed in 1933.
33 to 34	17. 6.32	50	...	2	...	52	...	...	One building yet to be demolished.
35 to 91	2.11.33	840	101	113	74	953	175	211	Amended 1935 and 1936.
92 to 100	14. 2.35	109	17	47	17	156	34	70	
101	1. 8.35	43	5	3	17	46	22	24	
102	6. 6.35	56	9	...	...	56	9	23	
103	1. 8.35	Resolution rescinded, 2.4.36.						...	Houses dealt with under Section 16 of Housing (Scotland) Act, 1930.
104	3.10.35	Resolution rescinded, 6.2.36.						...	Houses dealt with under Section 16 of Housing (Scotland) Act, 1930.
105 to 106	2. 7.36	8	...	7	13	15	13	10	
107	.....	Representation Cancelled.						...	Houses dealt with under Section 16 of Housing (Scotland) Act, 1930.
108	.....	Representation Cancelled.						...	Houses dealt with under Section 16 of Housing (Scotland) Act, 1930.
109	.....	Representation Cancelled.						...	Houses dealt with under Section 16 of Housing (Scotland) Act, 1930.
110	1.10.36	24	...	...	8	24	8	...	All the houses were demolished during 1938.
111	1.10.36	26	1	...	1	26	2	17	
112	1.10.36	6	...	...	...	6	...	...	
113 to 115	1.10.36	52	5	1	4	53	9	24	
116 to 117	1.10.36	29	5	...	3	29	8	28	
118	9.11.36	23	...	...	...	23	...	15	Amended Resolution, 1938.
119	3.12.36	25	...	3	...	28	...	14	
120	4. 3.37	22	...	...	...	22	...	20	
121	2. 9.37	13	3	...	...	13	3	13	
122	2. 9.37	11	5	27	...	38	5	38	
123	2. 9.37	67	6	...	1	67	7	58	
124	2. 9.37	15	6	...	2	15	8	15	
125	2. 9.37	18	3	4	1	22	4	21	

126 to 126a	2. 9.37	65	1	16	2	81	3	72	Amended Resolution, 1938.
127	2. 9.37	242	6	18	39	260	45	255	
128	7.10.37	71	11	...	...	71	11	53	
129	8.11.37	59	3	7	3	66	6	65	
130	8.11.37	110	9	8	1	118	10	118	
131 to 131b	8.11.37	73	11	51	21	124	32	112	Amended Resolution, 1938.
132	10. 2.38	75	...	...	...	75	...	61	
133	10. 2.38	99	5	...	...	99	5	75	
134	10. 2.38	16	6	...	...	16	6	16	
135	10. 2.38	55	2	17	39	72	41	72	
136	3. 3.38	35	2	...	...	35	2	35	
137	3. 3.38	48	1	...	9	48	10	45	
138	3. 3.38	16	...	...	...	16	...	16	
139	3. 3.38	313	41	...	3	313	44	225	
140	3. 3.38	257	12	37	35	294	47	245	
141	3. 3.38	125	5	...	...	125	5	79	
142	7. 4.38	37	6	...	...	37	6	37	
143	7. 4.38	33	...	...	...	33	...	33	
144	7. 7.38	4	2	...	1	4	3	2	
145	7. 7.38	45	5	...	1	45	6	44	
146	7. 7.38	16	6	...	5	16	11	14	
147	7. 7.38	19	3	12	1	31	4	31	
148	7. 7.38	11	2	...	2	11	4	11	
149	7. 7.38	24	8	11	12	35	20	31	
150	7. 7.38	18	4	...	...	18	4	18	
151	7. 7.38	10	...	15	3	25	3	25	
152	7. 7.38	25	1	16	2	41	3	39	
153	7. 7.38	77	15	...	3	77	18	71	
154	7. 7.38	166	10	13	4	179	14	173	
155	7. 7.38	62	3	...	9	62	12	56	
156	7. 7.38	51	18	4	5	55	23	52	
157	7. 7.38	112	4	20	11	132	15	128	
158	1.12.38	7	...	...	...	7	...	5	
159	1.12.38	30	1	1	3	31	4	28	
		4,421	473	483	411	4,904	884	2,943	

Insanitary Buildings.

Since 1924, the year in which the Post-War Housing Policy of the Council was inaugurated, 1,154 Reports and Representations have been submitted to the Local Authority in order to deal with uninhabitable, insanitary, and obstructive buildings, or areas.

The total number of houses has now reached 13,117 and the following tables show, in detail, the position as at 31st December, 1938.

REPRESENTED.

Year	No. of Representations	No. of Rooms 1 Room	2 Rooms	3 Rooms	4 Rooms & over	Total Houses	No. of other Premises
1924/25	17 & 1*	112	69	5	2	= 188	26
1926/30	237 & 19*	877	985	130	49	= 2,041	173
1931/35	310 & 119*	1,860	2,171	255	81	= 4,367	371
1936	242	1,039	1,063	100	23	= 2,225	...
1936	10*	39	109	10	6	= 164	24
1937	155	427	648	85	16	= 1,176	...
1937	12*	267	531	72	25	= 895	134
1938	17	54	61	7	7	= 129	...
1938	15*	725	1,016	157	34	= 1,932	309
	1,154	5,400	6,653	821	243	=13,117	1,037

*Improvement or Clearance Area.

Of the 13,117 houses Represented or Reported :—

467 have been rendered fit under Repair Notices;

253 have been rendered fit under Undertakings, etc.;

while 4,662 houses, declared to be unfit are still in occupation as shown in the following table :—

Dealt with under Housing (Scotland) Acts, 1925/1935.	(a) Number of Rooms. 1	2	3	4	5	6 & c.	Population	(b) Sizes of Houses Required to Accommodate families in (a). Number of Rooms. 1	2	3	4	5	6
Individual Houses, ...	792	817	88	18	3	1	5,272	830	466	365	78	6	—
Clearance Areas, ...	1,006	1,611	260	33	18	15	9,893	1,287	745	662	254	43	2
	1,798	2,428	348	51	21	16	15,165	2,117	1,211	1,027	332	49	2
	4,662							4,738*					

*Includes accommodation required for 76 sub-tenants.

Closing or Demolition Orders.

Section 16 (1).

17 Reports, involving 129 houses, were made to the Local Authority in terms of the above section, and were disposed of as follows :—

Closing Orders were served upon the owners of 8 houses, viz. :—

8 one-roomed houses.

Seven owners gave undertakings not to re-let for human habitation until rendered fit for that purpose, 83 houses, viz. :—

41 one-roomed houses;
34 two-roomed houses;
6 three-roomed houses; and
2 four or more roomed houses.

Three owners gave undertakings to render fit 8 houses, viz. :—

2 one-roomed houses;
2 two-roomed houses; and
4 four or more roomed houses.

Six Reports, involving 30 houses, await the consideration of the Local Authority, viz. :—

3 one-roomed houses;
25 two-roomed houses;
1 three-roomed house; and
1 four or more roomed house.

Repair Notices.

SECTION 14.

No action falls to be recorded under this section during 1938 beyond the service of notices in connection with 34 houses which were dealt with at the end of 1937.

Reports Awaiting Consideration from 1937.

At the end of the previous year Reports and Representations submitted to the Local Authority, embracing 617 houses, were

awaiting consideration. During the year under review they were dealt with as follows :—

104 houses were closed under Section 16 as follows :—

7 one-roomed houses;
15 two-roomed houses;
6 three-roomed houses; and
4 four-roomed houses by way of **Demolition Orders.**
44 one-roomed houses;
25 two-roomed houses;
2 three-roomed houses; and
1 four-roomed house closed by **Closing Orders.**

Letters of Undertaking were accepted on 324 houses, as follows :—

Not to Let—	**To Render Fit—**
95 one-roomed houses;	24 one-roomed houses;
151 two-roomed houses;	39 two-roomed houses; and
10 three-roomed houses: and	2 three-roomed houses.
3 four-roomed houses.	

A Report involving one house was withdrawn, while 36 houses formerly reported under Section 16 were embraced within a Clearance Area, and in addition consideration was deferred in respect to 152 houses involving 20 Reports.

Appeals Against Closing and Demolition Orders.

All the outstanding appeals, embracing 291 houses, made during 1937 were finally disposed of by Joint Minutes lodged in Court throughout the year. Closing Orders were confirmed by the Sheriff on 140 houses while Undertakings were approved in respect of 84 dwellings. The action relating to 54 houses was continued *sine die*, the dwellings concerned being included in Clearance Areas which were the subject of Resolutions by the Corporation. In the remaining 13 houses it was agreed to cancel the notices pertaining to Closing Orders thereon. Of the houses ultimately dealt with by Closing Orders and Undertakings, plans for reconstruction of 183 were approved by the Local Authority.

Summary in regard to Housing conditions and alterations during 1938.

I.—Particulars of Houses (364) Improved :—

	1 Room	2 Rooms	3 Rooms	4 Rooms & over
(a) At properties that had been "Closed by Order" for a period	5	13	1	—
(b) At instance of Sanitary Inspector, but not "reported" to Committee	1	15	2	5
(c) After Plans had been submitted to and approved of by the Works Committee	5	230	39	14
(d) Two or more houses made into one	6	3	1	—
(e) Houses divided and improved	—	1	3	20

II.—Other premises converted into dwelling-houses :—

	1 Room	2 Rooms	3 Rooms	4 Rooms & over
1 Hall	—	—	1	—
1 Office	—	—	1	—
2 Shops	1	1	—	—

III.—New Houses completed and ready for occupation during the year :—

(a) Under the Corporation Housing Schemes.

	1 Room	2 Rooms	3 Rooms	4 Rooms & over
Ward 3—Beechwood — 1st Dev. ...	—	—	46	—
Beechwood — 2nd Dev. ...	—	—	42	114
Gardner Street	—	—	18	—
Ward 4—Mid Craigie — 2nd Dev. ...	—	—	48	31
Morgan Street	—	—	9	21
Ward 6—Hilltown — 2nd Dev.	—	—	—	6
	—	—	163	172

Total Houses — 335.

(b) Private Enterprise.

	1 Room	2 Rooms	3 Rooms	4 Rooms & over
Ward 1	—	—	4	8
Ward 2	—	—	4	1
Ward 3	—	—	13	11
Ward 4	—	—	14	8
Ward 5	—	—	19	11
Ward 7	—	—	43	23
Ward 8	—	—	6	3
Ward 9	—	—	3	17
Ward 10	—	—	2	9
Ward 11	—	—	1	16

Total — 216 houses.

Giving a grand total of 551 new houses erected throughout the year.

IV.—Particulars of dwelling-houses closed (327) for human habitation during the year 1938 in whole or in part and vacated :—

	1 Room	2 Rooms	3 Rooms	4 Rooms & over
(a) Voluntarily — houses generally in very bad repair, very damp, and not reasonably fit for human habitation	3	3	1	2
(b) Converted into business premises, offices, shops or workshops, etc.	5	3	4	10
(c) By absorption into other houses ...	6	7	8	23
(d) Closed by Order or Demolition Order	13	37	5	1
(e) Clearance Areas	88	61	4	2
(f) Closed by Undertaking	10	23	7	1
Total	125	134	29	39

V.—Dwelling-houses Demolished (264) during the year 1938:—

	1 Room	2 Rooms	3 Rooms	4 Rooms & over
(a) Dwelling-houses that had been Closed by Order or Demolition Order	10	31	7	1
(b) Dwelling-houses that had been Closed Voluntarily	3	3	2	6
(c) Clearance Areas	118	69	2	3
(d) Dwelling-houses that had been Closed by Undertaking	—	9	—	—
Total	131	112	11	10

In addition to the above, 50 other premises were demolished, viz:—

7 Workshops, 3 Garages, 9 Stores, 3 Stables, 13 Shops, 2 Offices, 1 Factory, 4 Cellars, 1 Photographer's Studio, 1 Reading Room, 1 Billiards Room, 1 Warehouse, 4 Common Lodging Houses.

VI.—Net Result for 1938:—

The net result for the year is that there are only 292 more houses available for human habitation than at 31st December, 1937, i.e., houses of:—

1 Room	2 Rooms	3 Rooms	4 Rooms and over
121 less	116 less	259 more	270 more

VII.—The total number of Dwelling-houses (Private and Corporation) in course of erection (1,516) — all stages — at 31st December, 1938, is as follows:—

	1 Room	2 Rooms	3 Rooms	4 Rooms & over
Ward 1	—	—	12	7
Ward 3	—	2	53	280
Ward 4	—	—	225	142
Ward 5	—	—	174	377
Ward 7	—	—	42	31
Ward 8	—	—	62	29
Ward 9	—	—	—	16
Ward 10	—	—	38	4
Ward 11	—	—	4	18
Total	—	2	610	904

VIII.—Estimated Number of Inhabited Houses (excluding Institutions and other large establishments) within the Burgh of Dundee, as arrived at from the Quinquennial Survey undertaken during the year and corrected to 31st December:—

1 Room	2 Rooms	3 Rooms	4 & over Rooms	Total
5,690	22,304	13,127	8,852	49,973
or	or	or	or	
11.4%	44.6%	26.3%	17.7%	

of which approximately 4,260 are owner occupied.

Overcrowding.

The requests for assistance towards alleviating families living under overcrowded conditions continue to pour in without any sign of abatement, confirming the fact that this spectre is as much to the fore as ever.

Happily for Dundonians, definite steps have now been undertaken by the Local Authority towards mitigating this evil.

During the latter part of 1938 building operations were commenced at Linlathen, on the outskirts of the City, where Cedar houses to the number of 540 are being erected. These houses are to be dedicated solely to the rehousing of families occupying overcrowded houses.

The worst cases of overcrowding will naturally be dealt with first, and this should ease matters considerably as fit houses when vacated will, no doubt, be available for other, though to a less degree, overcrowded households; thus the whole situation should be appreciably bettered.

These timber houses are of 3, 4 and 5 rooms, and the site chosen, practically in the open country, ought to prove beneficial to the health of those fortunate enough to secure them.

IX.—The Official Return submitted to the Department of Health for Scotland for the year ended 31st Dec., 1938, is :—

Housing (Inspection of District) Regulations (Scotland) 1928.

1. Number of dwelling-houses* inspected
   (a) during the year - - - (a) 1019
   (b) since 1st January 1931 - - (b) 9653

2. Number of dwelling-houses which, on inspection, were considered to be in any respect unfit for human habitation

(a) during the year - - -	(a)	*1750
(b) since 1st January 1931 - -	(b)	8254

* includes 759 houses inspected prior to 1938.

Burgh Police (Scotland) Act, 1892.

3. Number of houses in respect of which notice was given during the year under Section 246 requiring provision of a sufficient water-closet ..... Nil

4. Number of houses where requirements were complied with by owners during the year ..... Nil

5. Number of houses where works carried out by Town Council during the year after failure of owners to do so ..... Nil

6. Number of houses for which water-closets were provided during the year at instance of Town Council without formal notice under Section 246 .....*481

*Includes 321 within houses.

7. Number of houses in respect of which notice was given during year under Section 246 requiring provision of inside water supply and sink ..... Nil

8. Number of houses in which requirements were complied with by owners during year ..... Nil

9. Number of houses in which works carried out by Town Council during year after failure of owners to do so ..... Nil

10. Number of houses in which inside water supply and sink were provided during year at instance of Town Council without formal notice under Section 246 15

Section 246 not adopted by this Burgh

Housing (Scotland) Act, 1930.

11.	Number of dwelling-houses in respect of which notices were served during year under Section 14 (1)† -	34
12.	Number of dwelling-houses rendered fit for human habitation during year following on notices under Section 14 (1)† - -	Nil.
13.	Number of dwelling-houses in respect of which work has been done during year by Town Council under Section 15 (1). -	Nil.
14.	Number of dwelling-houses in respect of which, in terms of Section 17, a demolition order or closing order under Section 16 (3) has been substituted during year for a notice under Section 14 (1) - - -	Nil.
15.	Number of dwelling-houses in respect of which notices were served during year in terms of Section 16 (1) - - -	785
16.	Number of dwelling-houses in respect of which, following on notice under Section 16 (1) :—	
	(a) undertaking has been given during year that the house will not be used for human habitation until it has been rendered so fit -	445
	(b) undertaking has been given during year that house will be rendered fit - -	81
	(c) demolition orders have been made during year under Section 16 (3)‡ - -	32
	(d) closing orders have been made under Section 16 (3) and (4) - - -	227
17.	Number of dwelling-houses rendered fit during year following on undertakings under Section 16 (2) - - -	19
18.	Number of dwelling-houses rendered fit for human habitation during year at instance of Town Council without formal notice under Housing (Scotland) Act, 1930 - -	Nil.

19	Number of dwelling-houses in respect of which closing orders have, in terms of Section 16 (3) been determined by Town Council during year following upon houses having been rendered fit for human habitation - - - -	Nil.
20.	Number of houses in respect of which advances have been made during year in terms of Section 34 towards cost of repairs and amount so advanced - -	Nil

*Houses inspected more than once should be entered only once.

†If action for repair of houses has been taken under other Powers please state these Powers and number of houses dealt with.

‡If permission to reconstruct a building has been granted, the number of houses existing prior to the reconstruction should be stated (see in this connection, sub-section (3) of Section 49 of the Housing (Scotland) Act, 1930).

Note.—Any general information or observations as to the character of defects usually found to exist, as to the extent to which overcrowding was found to prevail and the steps taken to remedy it, or as to the work of inspection generally, should be entered in the space below :—

Inadequate lighting and ventilation; dampness in houses; houses not provided with sinks and inside water supplies; insufficient water closet accommodation; want of suitable storage for foodstuffs and fuel; insufficient refuse storage accommodation; lack of facilities for the washing and drying of household and wearing apparel; and open spaces around buildings restricted.

Overcrowding is still prevalent within the City although many cases from unfit houses have been decrowded and in respect of which a pointage system is in operation whereby the families living under the worst conditions are rehoused first. A scheme totalling 540 dwellings, for the rehousing of families living in overcrowded fit houses, is in course of construction.

The Rent and Mortgage Interest Restrictions Acts, 1920 to 1938.

	BY TENANTS.			BY OWNERS.		
Year	No. of Applications	Granted	Refused	No. of Applications	Granted	Refused
1920/25	116	102	14	1	1	—
1926/30	42	36	6	9	8	1
1931/35	1111	1011	100	324	317	7
1936	324	300	24	52	51	1
1937	169	135	34	91	91	—
1938	118	62	56	33	33	—
	1880	1646	234	510	501	9

As shown above, 118 applications were received from tenants craving certificates testifying that their houses were in a state of disrepair.

Of these 62 were granted and the remaining 56 were disposed of as follows, 54 were refused owing to the repairs, mainly trivial, being undertaken by factors upon notification. Two applicants had their fees returned as their applications were made in error.

Quinquennial Housing Survey.

In the circular letter of date 19th December, 1938, the Department of Health for Scotland requested that a Statement be included in the Annual Report of the Sanitary Inspector, showing :—

Sanitary Conveniences.—State the number of (i.) dry closets in use, with particulars as to the number serving 1, 2, 3, 4, or 5 or more tenants respectively; (ii.) water closets used in common by 2, 3, 4, or 5 or more tenants respectively; (iii.) houses the tenants of which do not have the use of either a water closet or a dry closet; and (iv.) houses without indoor water-supply and sink.

This work, which entailed 22,851 visits to properties, was undertaken and completed in 1938, and the particulars in connection therewith are as follows :—

THIRD HOUSING SURVEY, 1938

COMPARATIVE STATEMENT

Ward	Total No. of Houses	Allocation of Houses Rooms 1	2	3	4	5	6 and over
1	4,098	311	1,822	1,356	373	116	120
2	2,834	314	1,079	674	266	140	361
3	4,685	645	2,289	1,157	364	111	119
4	5,657	494	2,546	1,634	606	213	164
5	4,850	417	2,095	1,460	429	133	316
6	3,643	746	1,779	575	350	81	112
7	4,821	97	1,328	2,303	482	261	350
8	5,410	961	2,730	1,197	239	141	142
9	5,223	692	2,413	1,021	453	192	452
10	1,222	34	355	234	128	76	395
11	1,978	30	397	500	333	296	422
12	5,552	949	3,471	1,016	70	25	21
Totals	49,973	5,690	22,304	13,127	4,093	1,785	2,974

Population, ... 177,960

Acreage (excluding Parks, Cemeteries, etc.), ... 6,670

No. of Persons per acre, ... 26.68

No. of Houses per acre, ... 7·49

SHOPS AND OTHER PREMISES

	WARDS 1	2	3	4	5	6	7	8	9	10	11	12	Total
Number of													
Shops, ...	344	395	268	340	110	476	105	285	336	29	148	435	3,261
Other Premises, ...	637	429	138	231	84	714	189	229	160	75	166	185	3,237

WATER SUPPLY

	WARDS 1	2	3	4	5	6	7	8	9	10	11	12	Total
Within Houses, ...	4,043	2,736	4,575	5,611	4,826	3,486	4,800	5,347	5,168	1,209	1,973	5,514	49,288
Outwith Houses, ...	55	98	110	46	24	157	21	63	55	13	5	38	685
													49,973

SANITARY CONVENIENCES

	WARDS 1	2	3	4	5	6	7	8	9	10	11	12	Total
Item—WATER CLOSETS—													
(a) For Houses, etc., ...	2,874	1,916	3,056	4,258	4,240	1,960	4,483	3,386	3,363	990	1,735	3,027	35,288
(b) For Shops, etc., only, ...	465	668	181	239	90	845	150	160	197	40	126	189	3,350
DRY CLOSETS—No. of, ...	1	1	4	3	18	...	14	1	...	2	3	...	47
Serving (a) Houses, ...	1	...	6	3	23	...	14	1	...	2	3	...	53
(b) Other Premises, ...	...	1	...	...	...	...	1	...	...	...	...	...	2
PRIVY MIDDENS—No. of, ...	...	...	...	...	...	...	...	...	...	5	...	...	5
Houses Served, ...	...	...	...	...	...	...	...	...	...	5	...	...	5

ALLOCATION OF WATER CLOSETS, DRY CLOSETS AND PRIVY MIDDENS

Ward		Number of Tenants Included at 1 Tenant to 1 W.C.	2 Tenants to 1 W.C.	3 Tenants to 1 W.C.	4 Tenants to 1 W.C.	5 & over Tenants to 1 W.C.	Total Tenants Served by (a) Water Closets	(b) Dry Closets	(c) Privy Middens	Total Served By (a), (b) and (c) Houses	Shops, Etc.
1	.....	2,073	930	651	396	114	4,164	1	...	4,098	67
2	.....	1,376	614	339	320	230	2,879	1	...	2,834	46
3	.....	2,040	1,156	639	692	276	4,803	6	...	4,685	124
4	.....	3,449	766	768	472	250	5,705	3	...	5,657	51
5	.....	3,885	424	192	316	44	4,861	23	...	4,850	34
6	.....	1,084	760	678	820	373	3,715	...	...	3,643	72
7	.....	4,278	252	87	192	10	4,819	15	...	4,821	13
8	.....	2,239	1,172	963	648	467	5,489	1	...	5,410	80
9	.....	2,276	1,172	810	664	365	5,287	...	...	5,223	64
10	.....	854	162	84	56	70	1,226	2	5	1,222	11
11	.....	1,569	208	123	64	26	1,990	3	...	1,977	16
12	.....	1,474	1,754	1,011	1,100	354	5,693	...	...	5,552	141
	Totals,	26,597	9,370	6,345	5,740	2,579	50,631	55	5	49,972	719

Ward 11.—In addition 1 Bothy, no W.C. Accommodation .

REFUSE STORAGE, ETC.

	WARDS												
	1.	2	3	4	5	6	7	8	9	10	11	12	Totals
ASHPITS—													
Number of,	...	...	...	...	6	...	...	1	...	...	...	...	7
Houses Served,	...	...	...	...	22	...	...	154	...	...	...	...	176
ASHBINS—													
Number of,	1,267	600	1,424	1,647	1,800	560	2,459	1,466	1,451	722	1,184	1,110	15,690
Houses Served,	3,654	2,065	4,655	5,610	4,810	2,849	4,796	5,210	5,118	1,110	1,875	5,541	47,293
DAILY COLLECTION, ETC.—													
Houses Served,	444	769	30	47	18	794	25	46	105	112	103	11	2,504

Houses Served by Ashpits,	176
Houses Served by Ashbins,	47,293
Houses Served by Daily Collection, Etc.,	2,504
	49,973

ALLOCATION OF

Ward	ASHPITS — 7 SERVING HOUSEHOLDS 1	2	3	4	5/9	10 & over	Total Houses Served	ASHBINS — 15,690 SERVING HOUSEHOLDS 1	2	3	4	5 & over	Total Houses Served
1	...	...	...	...	...	...	...	526	334	20	77	310	3,654
2	...	...	...	...	...	...	...	222	34	38	106	200	2,065
3	...	...	...	...	...	...	...	407	211	215	166	425	4,655
4	...	...	...	...	...	...	...	473	160	210	352	452	5,610
5	2	1	...	1	2	...	22	561	491	236	262	250	4,810
6	...	...	...	...	...	...	...	60	22	33	88	357	2,849
7	...	...	...	...	...	...	...	1,194	694	308	134	129	4,796
8	...	...	...	...	...	1	154	432	202	37	311	484	5,210
9	...	...	...	...	...	...	...	523	26	153	244	505	5,118
10	...	...	...	...	...	...	...	568	39	59	28	28	1,110
11	...	...	...	...	...	...	...	805	212	69	68	30	1,875
12	...	...	...	...	...	...	...	32	48	148	175	707	5,541
Totals,	2	1	...	1	2	1	176	5,803	2,473	1,526	2,011	3,877	47,293
	7							15,690					

Common Lodging Houses.

At the close of the year there were four Registered Common Lodging-Houses capable of accommodating 448 Lodgers as undernoted :—

	Male Lodgers
55 Commercial Street,	236
3/5 Craig Street	137
25 North Lindsay Street	56
67 Cowgate,	19
	448

These premises received 214 visits throughout the year, and were found to be maintained in a satisfactory manner.

Of the Common Lodging-Houses dealt with under the Housing Acts, the sole remaining occupied one was finally closed during the year, the occupants having found alternative accommodation.

Females requiring this class of lodging are dependent on the Salvation Army who, at their Metropole for Women, provide very satisfactory accommodation at moderate prices.

The SEAMENS' BOARDING HOUSE (DUNDEE SAILORS' HOME AND HOSTEL) and the SALVATION ARMY HOME AND METROPOLE FOR WOMEN are well kept—clean and comfortable, the former also being available for commercial "boarders."

Houses Let in Lodgings.

Inspections to these premises totalled 431 during the year, and at the end of 1938 the Register showed 95 houses to be so listed.

Trouble was again experienced with the keeper of one house. Despite the fact of being fined in 1937 for permitting the common kitchen of his premises to be used as a sleeping apartment, he still persisted in his defiance, and for similar contraventions in 1938 was twice reported to the Procurator Fiscal. In the first instance the Procurator Fiscal felt that the circumstances did not justify proceedings, but on the second occasion, when three persons were found occupying the kitchen as a sleeping apartment, the case went to Court and a fine of 25/- was imposed.

Apart from these incidents, and with the exception of minor infringements, which were speedily righted on the issue of a severe warning by the Inspectors, it may be taken that these establishments are being conducted in a manner compatible with requirements.

In a certain section of the town, consequent upon a cinema reverting to variety entertainment, a demand for lodging was created, and several persons have commenced catering for the needs of the artistes. These houses were duly registered, and owing to the lodgers being in residence for short periods are subject to more frequent supervision.

Speaking of Houses Let in Lodgings, it would appear that the Bye-Laws governing such places and the Housing Acts are at variance when it touches on the capacity of houses.

In Dundee, if practicable, it is always stipulated that the kitchen be left solely as such for the common use of residenters who have to prepare their own meals, etc. The requirements for the occupier's needs are then set aside, leaving the rest of the house for lodgers. Taking the Standard of the Bye-Laws relating to such premises (400 c.ft. per adult), it has been found that a four-roomed house (exclusive of common kitchen and occupier's family) is capable of taking 10 adult lodgers, whereas, under the 1935 Housing Act this house is only capable of accommodating 7½ adults. It appears on the one hand we have legislation for vanquishing overcrowding and, on the other, Bye-Laws which might be said to legalise it.

The time is now approaching when it will have to be definitely considered what standard is to be applied to these houses (and probably common lodging-houses) when computing the permissible numbers of lodgers.

Tents and Vans.

Tents and vans are usually the dwelling places of pedlars and those connected with travelling shows.

In the summer months they pursue their itinerant mode of living, but, when winter comes, endeavour to locate themselves adjacent to or within cities.

During 1938 we had at various parts of the town such little communities. They were regularly inspected and, on the whole, any request from this Department was readily complied with.

In the West End of the City a yard, where there were several caravans stationed, became a nuisance owing to the erection of temporary dwellings in the form of shacks to accommodate the surplus population of the caravans, and the water closet accommodation and water supply provided was thereby rendered inadequate. On our intervention the huts were removed and the population decreased to suitable numbers.

In an instance where a caravan was being used for lack of a dwelling-house, both the caravan and the site were entirely unsuited to the purposes to which they were being put, and we had to take steps to terminate the let. Eventually the occupier of the caravan found other accommodation.

A small colony of vans in connection with an amusement park located in the east end of the town was kept under supervision throughout their sojourn. The arrangements were satisfactory and the place was kept clean.

Sites equipped with sanitary conveniences and water supplies where vans are located for the winter months were regularly visited, and found satisfactory.

Considerable defiance was exhibited by a man who had been evicted from lodgings in Corporation property when he was challenged in connection with a hut he had erected without obtaining the consent of the Corporation. In this hut he lived with his wife and family in very primitive conditions. Finally he was evicted and the hut removed, he and his wife going into lodgings and the children taken to a home under the control of the Local Authority.

To tents and vans 140 visits were made throughout the year.

Seasonal Workers, Etc.

There is no change to report regarding the position of this class of worker. People engaged in work of this nature are afforded means of transport between their homes and work each day.

The tragic circumstances connected with a shed occupied by potato workers which was destroyed by fire in Kirkintilloch about

two years ago will still be fresh in the memory of many. In an effort to prevent a recurrence of a similar nature the Department of Health for Scotland recommended the making of Bye-Laws or, revision of existing Bye-Laws dealing with the accommodation for this class of worker. In Dundee we are complying with this request by replacing our existing Bye-Laws with a new set on the lines indicated by the Department of Health for Scotland. The proposed Bye-Laws are meantime in the hands of the Department of Health for Scotland for their observations.

Under the Housing (Agricultural Population) (Scotland) Act, 1938, Bye-Laws relative to bothies, chaumers and similar places have been made and are likewise in the hands of the Department of Health for Scotland.

Mechanical and Non-Mechanical Factories.

The undernoted non-mechanical factories, etc., are on our Register at the close of the year. The list shows numbers and types of businesses carried on. In the course of routine inspection 736 visits were paid to these places, and where any nuisance was discovered remedial measures were forthwith applied.

Trade or Business.	Factories	Domestic	Other Premises
Blacksmiths, Cartwrights and Carriage Builders	12	0	1
Boot Repairers	60	4	0
Cabinetmakers, Joiners, and French Polishers	55	0	0
Cycle and Motor Mechanics, Enamellers and Vulcanisers	51	0	0
Dental Mechanics	33	6	0
Dress, Mantle, and Corset Makers	39	10	0
Engineers	18	0	0
Electro - Platers, Wire Workers, Blind Makers and Bellhangers	2	0	0
Florists	0	0	28
Furriers	4	3	0
Granite and Marble Cutters, and Masons ...	0	0	28
Hairdressers and Wigmakers	0	5	139
Hotels and Restaurants	0	0	40
Milliners	27	1	0
Painters	6	0	51
Photographers	8	0	1
Piano and Gramophone Repairers	8	0	0

Picture Framers, Gilders, and Glaziers ...	8	0	90
Plasterers	0	0	1
Plumbers and Tinsmiths	48	0	0
Saddlers and Leather Cutters	7	0	0
Slaters	0	0	26
Stamp Cutters, Engravers and Ticket Writers	6	0	0
Sugar Boilers	7	0	0
Tailors	41	6	0
Umbrella Makers and Repairers	3	0	0
Underclothing, Baby Linen, and Blouse Makers, Hosiers and Knitters... ...	21	1	0
Upholsterers and Carpet Sewers	15	1	0
Waste, Rag and Metal Merchants	3	0	9
Watch and Jewellery Repairers and Opticians	42	0	1
Miscellaneous, i.e., Gut Manufacturer, Mica Makers, Clay Pipe Makers, Paper Bag Makers, Bottlers, Potted Meat Manufacturers, Oil Refiners, Manufacturing Chemists, Sack Repairers, Laundries, Basket Makers, Brush Makers, Scale Makers, etc.	53	3	18
	577	40	361

Up to the end of the year the Department had been unable to undertake a survey of mechanical factories as necessitated by the Factories Act, 1937.

Notifications, however, received from H.M. Inspector of Factories dealing with defects, etc., in factories were accorded attention.

During 1939 it is hoped to undertake a complete survey and secure compliance with the Act regarding sufficient water-closet accommodation for males and females.

Throughout the year 32 Intimations were received from H.M. Inspector of Factories to the effect that he had served Notices relating to :—

No.	Nature of Defect.	Improvements Effected.
6	Lack of Cleanliness	In 6 cases.
4	Insufficient Water-Closet Accommodation	In 4 cases.
18	Unsuitable Water-Closet Accommodation	In 14 cases.
4	No separate Accommodation for Sexes	In 4 cases.
—		
32		

Bakehouses.

The following bakehouses are on the Register:—

Occupied mechanical factory bakehouses, ...	50
(Included in this number are 7 underground.)	
Occupied non-mechanical factory bakehouses, ...	38
(Included in this number are 3 underground.)	
Bakehouses, empty, ...	8

Throughout 1938 there were several changes on the Register of Bakehouses—most notable, perhaps, being the removal of a mechanical factory bakehouse belonging to a long-established firm which went into voluntary liquidation.

The Register at the end of the year showed a gain of two bakehouses—one mechanical factory and one non-mechanical factory, both of which were inspected and passed as suitable for the use to which they were intended.

A regular system of inspection is maintained, and during the period under review 1,112 such visits were paid. In general these places were found to be kept in a manner compatible with requirements, except for minor defects, and on 91 occasions attention was directed thereto; remedial measures were applied in all cases without delay.

One bakehouse, a mechanical factory, was completely gutted on change of ownership, extra natural light and ventilation being provided by means of additional windows; and new machinery incidental to the business of baking installed.

Other improvements effected were the installation of water-closets, a footbath and a wash-hand basin.

Bakehouses still remain on our list which, structurally, are not all that could be desired, and even though they are conducted in a cleanly manner, no great regret could be expressed at their removal.

FOOD INSPECTION

Shops, Stalls, Barrows, Etc.

ARTICLES OF FOOD SEIZED.

ARTICLES.	WHERE SEIZED.	QUANTITIES OR WEIGHTS.				REASONS FOR SEIZURE.
		Tons.	Cwts.	Qrs.	Lbs.	
Roast Duck (tinned) ...	Shops, or stalls, or barrows on streets, or food or wholesale stores, or railway stations.	0	0	1	10	Decomposition, etc.
Spiced Ham		0	9	0	22	
Mutton (tinned)		0	2	2	22	
Milk (tinned)		0	1	2	17	
Beef (tinned)		0	3	1	25	
Fruit (tinned)		1	10	3	1	
Eggs (tinned)		0	2	2	10	
Jellied Veal, etc. (tinned)		0	9	1	17	
Chicken and Ham Roll, etc.		0	2	2	7	
Fish (tinned)		0	1	1	26	
Tongue (tinned)		0	1	1	21	
Jam		0	0	0	16	
Peas, Beans, Tomatoes etc. (tinned)		0	2	3	15	
Pork		0	1	0	13	
Sugar		0	1	3	26	
Luncheon Meat		0	3	1	14	
Soup (tinned)		0	0	2	8	
Cream (tinned)		0	0	0	1	
Sauce		0	0	1	9	
Rabbits		0	1	2	2	
Fish		0	0	0	9	
Potatoes (Egyptian) ...		0	13	2	20	
Dried Fish		0	0	3	12	
Cheese		0	0	0	1	
Fruit Pulp (tinned) ...		0	0	0	7	

The above table details the weight and description of the various foods destroyed at the instance of this Department.

Towards securing a clean food supply for the city, 2,315 inspections were made to provision shops, etc.

For some time the Department has viewed with concern the practice of depositing boxes of fish on the footway in front of fish fryers' premises to await the opening of the shops. Fish thus left exposed is prone to contamination from many sources—not the least of which are cats and dogs. A circular letter was despatched to those engaged in the business directing attention to the matter and urging arrangements to be made for the reception of such perishable goods into their premises on delivery.

A letter on similar lines was addressed to wholesale and retail milk dealers regarding the early morning delivery of milk and cream left in unprotected containers at the doors of unopened shops.

Consignors and consignees were asked to reach a satisfactory agreement whereby milk, etc., would, upon delivery, be immediately received within the consignees' premises and thus avoid the risk of pollution.

Copper in Imported Tomatoes. When a conference of Port Medical Officers was held at the Ministry of Health, it was agreed that a reduction in the copper content of concentrated Tomato Pulp was necessary. A circular was sent to importers of this class of tinned goods informing them that a content of 20 parts copper per million in the dry weight of the puree was desired.

Meantime, a provisional limit of 50 parts was suggested as a basis for action, and after 1st January, 1939, any consignment exceeding this figure would be liable to action.

At a further conference of Port Medical Officers it was decided, owing to representations having been received averring that the proposed limits were too stringent and the enforcement day too early, to postpone this date till 1st January, 1940. Until then, no action would be taken against a copper content of 100 parts, but after that date goods not conforming to the standard will be liable to be refused admission to the country.

Importers were notified of this decision and doubtless will take up the matter with their suppliers.

Before leaving the subject of food inspection notice might be taken of habits which are disgusting and practised by customer and shop assistant. It is no rare sight to see purchasers with gloved hands lifting cakes, etc., which they do not buy — perhaps the hint will be taken. Assistants likewise would do well to refrain from the obnoxious trait of moistening fingers on their tongues to assist in picking up wrapping paper and also from inflating bags with their breath prior to filling them with eatables.

The Public Health (Meat) Regulations (Scotland), 1932—Article 15.

Four certificates were granted in terms of the above Regulations to persons selling, or offering or exposing for sale meat or meat food products from off a van or other vehicle, etc., approving of the storage accommodation.

The Public Health (Imported Food) Regulations (Scotland), 1937. The Public Health (Imported Food) (Amendment) Regulations (Scotland), 1937.

These Regulations demand that meat, meat products and foodstuffs imported into Scotland for the purpose of human consumption shall be vouchsafed for by an Official Certificate recognised by the Department of Health for Scotland stating that the foodstuff to which it relates was passed prior to export by a competent authority declaring it to be fit for food both regarding quality and cleanliness in preparation.

H.M. Customs Officers are also empowered under these Regulations to examine and detain any suspicious imports.

FOODSTUFFS ARRIVING AT THE PORT OF DUNDEE, EITHER DIRECTLY FROM ABROAD OR BY COASTWISE TRAFFIC.

The following two tables show the kind and quantity of foods arriving by waterway at the Port during the year.

The total is 65,398 tons 5 cwts. 3 qrs., as against 63,908 tons 16 cwts. 1 qr. last year, and 65,125 tons 10 cwts. 2 qrs. in 1936.

TABLE No. I.

Shows the foodstuffs arriving coastwise at the Port by steamers plying between Dundee and the Ports of London, Hull, Liverpool, Aberdeen, Newcastle, Belfast, Southampton, Leith, etc.

	Tons.	Cwts.	Qrs.
Baking Powder	2	13	1
Bacon and Ham	5	16	2
Biscuits	349	3	1
Bran	218	12	0
Butter	16	15	2
Cereals	384	6	2
Cheese	365	7	2
Baking Oil	135	7	0
Cordials, Cider, &c.	37	17	0
Cocoa and Cocoa Beans	20	13	1
Cocoa Butter	4	0	0
Cocoanuts	4	4	3
Eggs (Dried)	0	4	2
Coffee	38	13	3
Confectionery	653	11	2
Cream of Tartar	95	9	3
Custard Powder	11	18	0
Eggs	11	3	3

	Tons.	Cwts.	Qrs.
Fish (Dried)	11	10	0
Fish (Tinned)...	51	17	2
Flour	1,607	17	2
Fruit	1,150	11	1
Fruit (Dried)	374	12	0
Fruit (Pulp)	49	11	1
Fruit (Tinned)	408	18	1
Glucose	83	1	2
Lard and Lard Compound	595	3	0
Macaroni	35	10	1
Margarine	1,607	5	1
Meat Extract	35	0	3
Meat (Tinned)	102	6	0
Milk (Dried)	4	3	3
Milk (Tinned)	268	10	1
Nuts	18	4	3
Peas, Beans, &c.	108	6	2
Honey, Jams, &c.	2	13	0
Pickles, Spices, Condiments and Sauces	143	1	2
Preserves	87	11	1
Rice	171	8	2
Stearine	0	1	1
Sugar	7,723	15	0
Syrup	681	4	1
Tapioca	25	9	0
Tinned Soup	1,136	0	3
Treacle	339	8	0
Vegetables	334	16	1
Vegetables (Tinned)	56	2	2
	19,569	18	3

TABLE No. II.

Shows the amount and kind of foods arriving direct from abroad

	Tons.	Cwts.	Qrs
Butter	42	10	3
Cereals	175	2	0
Cheese	231	15	0
Cream of Tartar	4	5	0
Cocoanuts	32	5	2
Cocoa Butter	4	10	0
Confectionery	0	17	1
Flour	9,021	8	2
Fruit	25	15	1
Fruit (Dried)	22	5	3
Fruit (Pulp)	72	2	3
Fruit (Tinned)	98	1	3
Glucose	658	1	2
Eggs	1	19	2
Lard	26	8	2

	Tons	Cwts.	Lbs.
Macaroni	9	8	1
Meat (Tinned)	73	15	0
Milk (Dried)	4	0	0
Milk (Tinned)	417	3	0
Peas, Beans, &c.	161	15	0
Pickles, Spices, &c.	116	3	2
Pork and Beans (Tinned)	6	10	3
Margarine	4	14	3
Ground Rice	41	11	2
Soup (Tinned)	414	4	2
Sugar	32,813	17	0
Vegetables	1,343	5	3
Vegetables (Tinned)	3	0	0
Rice	1	9	0
	45,828	7	0

With the exception of a small quantity of sugar arriving from the Continent in a damaged condition, and to which reference is already made in this Report, no occasion arose for the detention of any food stuffs arriving by waterway.

Fish Inspection at the Fish Market, Carolina Port.

It was unnecessary for this Department to intervene during the year relative to fish landed at the fish dock and the premises themselves called for no attention.

Public Slaughter-House, Meat and Cattle Market.

The undernoted table (kindly supplied by the Superintendent of Markets and Slaughter-Houses) gives the number of animals slaughtered and particulars of meat found to be unfit for human consumption.

Class of Animal	Number of Animals. Slaughtered.	Wholly Condemned.	Partially Condemned.	Weight (in lbs.) of condemned Meat.
Cattle, ...	14,982	205	4,455	213,345
Sheep, ...	25,798	48	879	4,185
Pigs, ...	4,534	28	279	6,132

Note.—Calves are included as Cattle.

Number of Carcases stored in Chilling Chambers during the Summer Months of 1938.

Cattle Sides.	Cattle Legs.	Calves.	Sheep.	Pigs.	Sundries.
9,962	1,230	10	3,396	802	2,480

There are no Private Slaughter-Houses Within the City.

The Slaughter-House, Meat Market and other premises incidental to the business are in a satisfactory condition and kept in a cleanly state.

Merchandise Marks Act, 1926, and Agricultural Produce (Grading and Marking) Act, 1928, Etc.

During 1938 it was necessary on two occasions to report to H.M. Board of Trade contraventions of the Merchandise Marks Acts.

The first case referred to the use of milk bottles belonging to another firm. Warnings went unheeded, and when an inspector in the course of routine inspection discovered 18 bottles belonging to another owner in the premises he was examining, it was felt that the only resort was to prosecute. A fine of 20/- was imposed. This form of piracy is widespread, and even substantial fines appear to lack a deterring effect. Continuous action, it is hoped, will make it more economical to buy instead of purloin bottles.

The other prosecution related to the ticketing of tomatoes. In 1937 the terms of the Merchandise Marks (Imported Goods) No. 4 Order, 1929, were plainly brought to the notice of all fruiterers, etc., within the city by a circular issued by this office. Since then verbal warnings and advice have been freely given by Inspectors, but it would all seem to have been to no purpose. It was then decided that statutory action might succeed where suasion had failed, and consequently when tomatoes grown in the Channel Islands were labelled "Home" instead of their proper designation, action was taken. The accused appeared before the Sheriff and rceived an admonition. Quite a large proportion of departmental time is devoted to verifying if the terms of these Acts are being adhered to, and if repeated cautioning is to be ignored shopkeepers have only themselves to blame for unpleasant consequences.

The premises of the Dundee Ice and Cold Storage Co., Ltd., situated in Trades Lane, are the only premises within this area registered in terms of Art. 4 (1) of the 1928 Act, and Art. 7, Agricultural Produce (Grading and Marking) Eggs (Scotland) Regulations, 1929.

The Public Health (Preservatives, Etc., in Food) Regulations (Scotland) 1925 to 1927.

Mince.—27 samples (19 Official and 8 Test) were purchased throughout the year for the purpose of analysis. Of these, 6 Official and 4 Test were reported by the Analyst to contain sulphur dioxide in a greater proportion than that allowed by the Regulations or to contain preservative during the prohibited period.

All the Official Samples returned as adulterated were reported for prosecution and hereunder are the fines imposed :—

2 were fined 20/-.
1 was fined 25/-.
3 were fined 30/-.

One sample of mince was sold under the term "Sausage Meat," but the lack of farinaceous material and condiment (recognised as usual components of sausage meat) gave the lie to the seller's assertion. He is included among those fined 30/-.

Test Samples, four adulterated. These were followed by official samples, one of which was pronounced "genuine," two were adulterated and are included in above list of fines. The fourth sample formed the basis of a prosecution under the Food and Drugs (Adulteration) Act, 1928, particulars of which will be found under the appropriate heading.

Sausages.—11 Samples (8 Official and 3 Test) of Sausages (including Lorne Sausage) were forwarded to the Analyst, all of which were returned "Genuine."

Food and Drugs (Adulteration) Act, 1928.

Undernoted I give a statement of the number of samples purchased under these Acts during the last ten years :—

		Certified to be	
	Purchased.	Genuine.	Adulterated.
1929	... 674	630	44
1930	... 635	600	35
1931	... 654	618	36
1932	... 637	606	31
1933	... 638	611	27
1934	... 603	583	20
1935	... 632	607	25
1936	... 628	598	30
1937	... 637	600	37
1938	... 623	605	18

SYNOPSIS OF THE SAMPLES PURCHASED THIS YEAR :—

I.—Samples taken in the ordinary course, with a view of following up by prosecution, if necessary, should adulteration be discovered.

	Purchased.	Certified to be Genuine.	Adulterated
Sweet Milk	164	157	7
Do. (Pasteurised) ...	8	8	—
Do. (Sterilised) ...	6	6	—
Do. (Certified) ...	16	16	—
Do. (T...)	7	7	—
Margarine	12	12	—
Coffee	3	3	—
Whole Rice	7	7	—
Ground Rice	4	4	—
Flour	1	1	—
Lard	2	2	—
Sausages	6	6	—
Lorne Sausage	2	2	—
Ground Cinnamon ...	4	4	—
Mince	19	13	6
Pepper (White)	6	6	—
Cream of Tartar	6	6	—
Ground Ginger	1	1	—
Tapioca	2	2	—
Tomato Puree	1	1	—
Butter (Salt or Fresh) ...	12	12	—
Jams	3	3	—
Dripping	1	1	—
Cheese	1	1	—
Baking Powder	1	1	—
Baking Soda	1	1	—
Essence of Coffee with Chicory	1	1	—
Arrowroot	1	1	—
Honey	1	1	—
Mixed Spice	1	1	—
Total ...	300	287	13

II.—The following samples were taken in terms of Section 8 of the 1928 Act :—

	Taken	Genuine	Adulterated
Sweet or Fresh Butter ...	9	9	0

III.—The undernoted "test" samples were purchased or taken :—

	Purchased or Taken	Certified to be Genuine	Adulterated
Sweet Milk	24	24	—
Boric Acid	1	1	—
Cream and Cream (Tinned)	7	7	—
Milk (Tinned)	10	10	—
Tapioca	8	8	—
Margarine	17	17	—
Coffee and Coffee Essence ...	8	8	—
Whole Rice	11	11	—
Ground Cinnamon	7	7	—
Corn Flour	6	6	—
Sago	5	5	—
Pepper (Black)	1	1	—
Pepper (White)	13	13	—
Pot Barley	10	10	—
Cream of Tartar	11	11	—
Ground Ginger	7	7	—
Baking Soda	5	5	—
Ground Rice	12	12	—
Flour	5	5	—
Oatmeal	6	6	—
Butter (Salt and Fresh) ...	20	20	—
Lard, etc.	4	4	—
Orange Juice	1	1	—
Syrup and Treacle	2	2	—
Mince	8	4	4
Sausages	3	3	—
Kippers	1	1	—
Almond Oil	2	2	—
Fish and Meat Pastes, etc.	9	9	—
Ground Almonds	1	1	—
Lemon Curd and Cheese ...	2	2	—
Tomatoes (Tinned)	2	2	—
Cocoa	6	6	—
Custard Powder, etc. ...	6	6	—
Mustard	5	5	—
Jams and Jellies	5	5	—
Cheese	4	4	—
Semolina	5	5	—
Sauce	1	1	—
Olive Oil	3	3	—
Tinned Peas	5	5	—
Tea	1	1	—
Macaroni	1	1	—
Mixed Spice	1	1	—
Castor Oil	1	1	—
Tomato Puree	2	1	1
Table Jelly	1	1	—
Herring in Tomato Sauce ...	1	1	—

	Purchased or Taken	Certified to be Genuine	Adulterated
Tinned Sardines, Salmon, Sild, etc.	8	8	—
Baking Powder	1	1	—
Tinned Fruit	3	3	—
Camphorated Oil	3	3	—
Baked Beans	2	2	—
Ground Cocoanut	2	2	—
Ice Cream	12	12	—
Tinned Lobster, Crab, etc.	6	6	—
Total	314	309	5
Add Table I.	300	287	13
Add Table II.	9	9	—
Total	623	605	18

With a population of 177,960, this works out to 3.50 samples for every 1,000 persons, as against 3.58 last year.

The average milk fat of the samples taken each month (other than those taken at King's Cross Hospital) was as follows:—

	No. of Samples Purchased.	Average Fat.
January	16	3.73
February	16	3.54
March	19	3.76
April	16	3.49
May	18	3.69
June	17	3.72
July	16	3.66
August	16	3.64
September	17	3.84
October	16	3.67
November	16	3.82
December	18	3.63
	201	3.68

The lowest milk fat recorded this year in **official samples** was 2.45 per cent. and the highest 5.91 per cent. The number of samples with milk fat below 3 per cent. was 4, and the number of samples with milk fat of 4 per cent. and over was 39.

Test samples of milk as supplied to King's Cross Hospital, were submitted on 24 occasions, and the results as declared by the City Analyst showed an average of 3.71 per cent. of fat.

The highest fat content was 4.28 per cent. and the lowest 3.02 per cent.

In 1938 the total number of samples returned by the Analyst as being adulterated was half that of the former year, a very encouraging state of affairs to those whose duty it is to guard the food supply of the public.

Out of 225 samples of Sweet Milk, 7 were below the requisite standard—two in Fat and Non-Fatty Solids, two in Fat only, and three in Non-Fatty Solids alone.

Three of the samples formed part of a batch taken on arrival at a railway station, the average of which revealed a Non-Fatty Solids deficiency. Legal proceedings were adopted, and a fine of 20/- imposed. One sample deficient in Fat formed the basis of a prosecution—fined 30/-. The remaining three cases were disposed of as follows:—(1) Milk from Canadian Friesian Cows—the producer warned to observe greater precaution in mixing; (2) In this instance the supplier of the purveyor was sampled by the County Authorities and a deficiency revealed which cleared our purveyor of adulteration. In the third case the seller was reported for prosecution, but owing to special circumstances (delivery boys wilfully watering the milk) the Procurator Fiscal decided to warn the boys.

Test Samples.—One sample of Tomato Puree was returned not genuine as it contained 170 parts per million copper of the dried total solids, being an excess of 70 parts per million copper over the 100 parts allowable till 1st January, 1940.

The matter was taken up with the Medical Officer of Health in the city where the wholesalers were located. The principal of this firm was enlightened regarding requirements, and informed future consignments exceeding the permissible copper content would be liable to detention. He, in turn, advised his shippers.

Owing to the decrease in adulteration returned, there is no further call for comment on our sampling activities for 1938, but the following items may be of interest.

Kippers.—From an Institution under the charge of this Local Authority there came reports of unusual taste in this variety of fish.

To verify or dispel doubt of staining with prohibited coal tar dye or other banned colouring matter, a sample was submitted to the Analyst who reported the results of his examination to be negative. The taste was attributable to the method of smoking.

Ice-Cream.—Within recent years the dietetic value of this commodity has been greatly lauded and the vastly increased consumption has shown the general public to have made a great response to the various slogans enticing them to partake of Ice-Cream. But what IS Ice-Cream? While perhaps not expecting a literal acceptance of the word "Cream," it is at least hoped that the product will, if it is to contain the nourishment we are led to believe, have a very generous percentage of Butter Fat.

Unfortunately no standard—even vague—is prescribed, and consequently if a proprietary brand is not purchased one runs, so far as food value is concerned, much the same risk as in a lottery—one may or may not be lucky.

Twelve samples were purchased for analysis during the year, and the Butter Fat content ranged from 0.98% to 23.46% — 7 being over 8.00% and 5 varying from 0.98% to under 3.50%, thus clearly showing the clamant necessity for a standard being fixed for Butter Fat content, and the power, as with other articles of food, for prosecution of those whose Ice-Cream fails to reach the necessary percentage.

As mentioned under the heading Public Health (Preservatives, Etc., in Food) Regulations (Scotland), 1925 to 1927, an adulterated test sample of mince was the cause of a prosecution under Section 16 (5) of the Food and Drugs (Adulteration) Act, 1928. The Sampling Officer was instructed to follow the sample up with an Official one. On entering the shop, he indicated the tray (of which there were three displayed priced 6d, 8d and 1/- per lb. respectively) from which he desired the mince to be taken. He was told "it was ordered," and was offered other mince—not being from off the three trays—which was refused. Again a request to be provided with the mince previously indicated was met with a refusal. The production of his Authorisation Card as a Sampling Officer under the above Act had no effect—the desired article still being withheld. This refusal to sell was reported to the Procurator Fiscal, and at his first appearance the accused pled Not Guilty, but later (January, 1939) pled Guilty and was fined £2.

Additional to the samples mentioned was one specimen of sugar (arriving from the Continent in a damaged condition) submitted for analysis to ascertain the cause of the contamination. This proved to be salt or sea water, and the remainder of the damaged bag was tipped into the dock in the presence of our Food Inspectors along with Customs Officials.

Details concerning the samples of sausages and mince, shown in Tables (I.) and (III.) as being adulterated, will be found in the part of this report headed "The Public Health (Preservatives, Etc., in Food) Regulations (Scotland), 1925 to 1927."

Margarine, Etc.—214 inspections were made to the various shops or premises in the City where Margarine, Margarine Cheese, or Milk Blended Butter are offered for sale.

Wholesale Dealers.—At the end of the year the premises registered where the business of a Wholesale Dealer in Margarine, Margarine Cheese, or Milk Blended Butter is carried on, numbered 31.

Re-Worked Butter.—Six factories—all duly registered—where by way of trade butter is blended or re-worked, were found to be suitable and satisfactory. Nine official samples of re-worked butter were procured during the year, all of which were returned by the City Analyst as genuine.

Milk for Bacteriological Examination.

Samples were purchased or taken for Bacteriological examination as follows:—

Sweet Milk	.....	267
,,	(Pasteurised)	33
,,	(T.T.)	34
,,	(Certified)	45
,,	(Sterilised)	5
		384

These were submitted to Prof. W. J. Tulloch at the University College, the duly appointed Bacteriologist.

The result of the examinations will be found fully dealt with by the Medical Officer of Health in his Report for the year.

Rag Flock Acts, 1911-1928.

To ascertain if the requirements of the above Acts (a maximum of thirty parts chlorine per 100,000 parts flock) were being observed, sampling from the premises of upholsterers and bedding manufacturers was again undertaken.

The results of the analyses shown hereunder indicate attentive regard to the legal demands.

One sample to contain	3.50 parts.
Two samples to contain	5.00 parts.
One sample to contain	6.66 parts.
One sample to contain	8.33 parts.
One sample to contain	23.00 parts.
One sample to contain	24.80 parts.

Apropos of Rag Flock, it is interesting to note the appointment of a Departmental Committee to consider whether the above Acts and their subsequent Regulations are adequate to ensure that the Rag Flock used for the manufacture of bedding, upholstery, etc., is properly cleaned. Deliberation will also be given to the question, if deemed necessary, of amending the existing legislation and also if their provisions should be extended to material other than Rag Flock which may be put to the uses aforesaid.

Mr Andrew Dargie, B.Sc., A.I.C., Public Analyst, kindly supplies the following interesting figures and particulars:—

"During the year 624 samples of Foods and Drugs were submitted for examination, of which 19 were found to be adulterated, deficient or otherwise not conforming to prescribed standards or limits. The articles not conforming are as follows:—

Sweet Milk,	7
Mince,	10
Sugar,	1
Tomato Puree,	1
	19

Milk Supply.—The average composition of the milk supply as deduced from the analyses of samples taken under the Food and Drugs (Adulteration) Act, 1928, is as follows:—

Water,		87.60
Total Solids,		12.40
Fat,	3.67	
Non-Fatty Solids,	8.73	
		100.00

The percentage of butter fat shows an increase of 0.05 per cent. over the corresponding figure for last year; the quality of the milk supply is keeping at a high standard. The distribution frequencies of butter fat and non-fatty solids are given in Table I. below:—

TABLE I.

Butter Fat Per Cent.	Frequencies	N.F.S. Per Cent.	Frequencies
Below 2.80	2	Below 8.50	5
2.80—2.89	2	8.50—8.59	26
2.90—2.99	—	8.60—8.69	39
3.00—3.09	7	8.70—8.79	43
3.10—3.19	8	8.80—8.89	53
3.20—3.29	10	8.90—8.99	39
3.30—3.39	21	9.00—9.09	18
3.40—3.49	20	Over 9.40	2
3.50—3.59	27		
3.60—3.69	26		225
3.70—3.79	19		
3.80—3.89	24		
3.90—3.99	14		
4.00—4.09	15		
4.10—4.19	12		
4.20—4.29	5		
4.30—4.39	4		
4.40—4.49	1		
4.50 and over	8		
Total of	225		

The presumptive minimum limits for Sweet Milk are 3.00 per cent. butter fat and 8.50 per cent. of Non-Fatty Solids. Accordingly, 7 samples did not conform, two were deficient in both fat and non-fatty solids, two in fat alone, and three in non-fatty solids alone.

The lowest butter fat was 2.45 per cent. and was accompanied by the exceptionally low non-fatty solids of 6.51 per cent., indicating gross watering. Three samples contained over 5.0 per cent. of butter fat, namely 5.23 per cent., 5.40 per cent. and 5.91 per cent. respectively.

Table II. shows the samples which were found to be low in non-fatty solids and it also gives the figures for the depression in Freezing Point.

TABLE II.

Butter Fat per cent.	N.F.S. per cent.	Depression of Freezing Point.
2.45	6.51	—.394 deg. C.
3.25	7.44	—.464 deg. C.
3.66	7.82	—.475 deg. C.
2.79	6.42	—.388 deg. C.
3.52	7.90	—.492 deg. C.

With the low non-fatty solids there was a presumption of added water, and the presumption is further strengthened by the low depressions of the Freezing Point. In my opinion these samples were watered.

Butter and Margarine.—41 Butters and 29 Margarines were examined; they all conformed to the Food and Drugs Act and Preservatives in Food Regulations. In the butters the water content ranged from 12.05 to 15.53 per cent., the maximum permitted being 16.00 per cent. In the Margarines the lowest water content was 10.99 per cent. and the highest 15.92 per cent. The distribution frequencies are given in the following table:—

TABLE III.

Water—per cent.	Butter	Margarine
10.00—10.99	—	1
11.00—11.99	—	—
12.00—12.99	7	2
13.00—13.99	9	4
14.00—14.99	14	10
15.00—15.99	11	12
	41	29

Mince and Sausages.—27 samples of Mince and 11 of Sausages were submited for examination, particularly for preservatives. All the sausages conformed to the Preservatives Regulations, but 10 Mince either contained sulphur dioxide during the period in which it is prohibited or contained over 450 parts of sulphur dioxide per million parts of mince. One sample of mince which was sold as sausage meat contained 224 parts of sulphur dioxide per million parts of the sample and that in the absence of farinaceous material or condiments. That particular sample was reported as a contravention, as it was quite evident an attempt to get behind the Preservatives Regulations. In Table IV. will be found the frequency distribution.

TABLE IV.

Parts per million Sulphur Dioxide	Mince	Sausages
Absent	11	1
Up to 99 parts	1	3
100—199 parts	3	3
200—299 parts	2	2
300—399 parts	1	1
400—450 parts	3	1
500—599 parts	2	—
600—699 parts	2	—
700—799 parts	2	—
	27	11

Condensed Milk.—1 Full Cream and 9 Machine Skimmed Condensed Milks were examined. The Full Cream contained 9.02 per cent. Butter Fat and 32.16 of Total Milk Solids. In the skimmed samples the Total Milk Solids ranged from 27.04 to 28.76 per cent, the average being 27.98 per cent., while the butter fat ranged from 0.13 to 1.02 per cent. with an average of 0.46 per cent. All these samples conformed to the Condensed Milk Regulations.

Spices.—11 Ground Cinnamon, 8 Ground Ginger, 19 White Pepper, 5 Mustard, 1 Black Pepper and 2 Mixed Spice. The average percentages of Ash contained in these samples were Cinnamon, 4.30; Ground Ginger, 3.75; White Pepper, 0.75. None varied much from the averages, and the samples were otherwise found to be genuine.

Farinaceous Foods.—Whole Rice 18, Ground Rice 16, Barley 10, Flour 6, Corn Flour 6, Custard 6, Oatmeal 6, Tapioca 10, Semolina 5, Sago 5, Arrowroot 1. The Pot Barley and nine of the Whole Rice were free from Talc facing, the remaining nine Rice containing from 0.10 to 0.38 per cent. Talc, which is well within the provisional maximum of 0.50 per cent. All the other foods were found to be genuine in all respects and conformed to the Preservatives Regulations.

Cream of Tartar.—17 samples were examined and found to be of high-class quality.

Oils and Fats, etc.—Lard 5, Cream 7, Cheese 5, Camphorated Oil 3, Olive Oil 3, Almond Oil 2, Castor Oil 1, Dripping 1, Cookex 1. All these samples were found to be genuine in all respects. The percentage of Butter Fat in the Cream ranged from a minimum of 22.07 to a maximum of 28.56 per cent., the average of the 7 being 25.29 per cent. The butter fat in the Cheese averaged over 25.00 per cent.

Jams and Jellies, 8 samples.—The soluble solids varied from 68.95 per cent. to 74.70 per cent., which figures are well over the arbitrary minimum of 68.50 per cent. They all conformed to the Preservatives Regulations.

Ice-Cream.—12 samples were examined. The percentage of Butter Fat showed wide variations as will be seen from the following figures: 0.98, 1.06, 2.69, 2.83, 3.47, 8.88, 10.01, 10.86, 11.12, 11.81, 13.74, 23.46 per cent. respectively. Ice-cream is not defined and there are no standards provisional or otherwise, but a glance at the series of figures shows there is a definite need for supervision over this commodity. Seven of these Ice-Creams are of high-class quality, but the other five are poor articles of food.

Tinned Foods.—These various articles were examined specially for the presence of poisonous metals. They contained the following proportion of Tin in grains per pound:—

Brisling (6), 0.04, 0.15, 0.62, 0.73, 0.84, 0.15.
Salmon (2), 0.20, 0.14.
Sild (1), 0.11.
Mandarin Oranges (2), 0.30, 0.07.
Baked Beans (2), 0.68, 0.12.
Fruit Salad (1), 0.12.
Peeled Tomatoes (2), 0.26; 0.70 and 45 p.p.m. Copper.
Tomato Puree (3), 1.44; 1.35 and 170 p.p.m. Copper.
2.00 and 81.8 p.p.m. Copper.

Metals were found to be absent in the following :—Green Peas, (5), Crab (3), Lobster (1), Prawns (1), Herrings (1), Shrimps (2), Meat Pastes (6), Meat and Fish Paste (1).

Miscellaneous Articles.—Ground Coffee (10), Coffee Essence (2), Cocoa (6), Tea (1), Baking Soda (6), Baking Powder (2), Cocoanut (2), Lemon Cheese (2), Macaroni (1), Jelly Crystals (1), Honey (1), Orange Juice (1), Syrup (1) Treacle (1), Sauce (1), Ground Almonds (1), Sugar (1), Kippers (1), Boric Acid (1).

The sample of Sugar was damaged by salt water and was reported unfit for human consumption. All the other samples were found to be of normal composition. The Kippers were specially examined for prohibited coal tar dyes or metallic colouring matter but with negative results.

Rag Flock Acts, 1911 and 1928.—Seven samples were submitted and found to conform to the Rag Flock Acts. The amounts of Chlorine expressed in parts per 100,000 were as follows :—3.50, 5.00, 5.00, 6.66, 8.33, 23.0 and 24.8. The permissible maximum is 30 parts per 100,000.

Poisons Rules, 1935.—One sample of Ammonia was examined; it was found to contain 4.30 per cent. w/v, which conforms to the provisions of the Poisons Rules.

Fertilisers and Feeding Stuffs Act, 1926.—Two informal samples were examined.

Clay's Fertiliser.—Conformed to guarantee in Nitrogen and Potash and showed an excess of Phosphoric Acid (P_2O_5) insol. in water 1.54 per cent. above guarantee.

Ichthemic Guano.—Conformed to guarantee in Nitrogen, Phosphoric Acid (P_2O_5) soluble in water and Potash. Showed an excess of Phosphoric Acid (P_2O_5) insoluble in water 1.68 per cent. above guarantee."

Fertilisers and Feeding Stuffs Act, 1926.

During the year two informal samples were taken under Section 12 of the above Act—1 of fertiliser and 1 of ichthemic guano —both of which on analysis were found to be in conformity with the guarantee, except for a slight excess of Phosphoric Acid. No formal samples were obtained, and there was no request received

for sampling operations to be undertaken in terms of Section 3 of the Act.

Pharmacy and Poisons Act, 1933, etc.

The requirements attached to labelling of goods under this Act have on several occasions caused perplexity to sellers, and our advice was frequently sought so that the letter of the law might be observed. This practice of asking to be kept right is very commendable, and makes for harmony in the administering of legal requirements and avoids any friction. All the premises wherein Part II. poisons are offered for sale were kept under observation, and the businesses found to be conducted satisfactorily. At the end of the year they numbered 124.

One sample of ammonia was taken and returned by the analyst as conforming to Regulations.

Shops Acts, 1912/38.

The complexity of modern shop legislation is greatly confusing to many shopkeepers, more especially in the case of small businesses conducted by elderly persons who seem totally unable to see rhyme or reason in the laws pertaining to shops.

The shop inspectors do their utmost to enlighten such traders, but their tutorial efforts are not always crowned with success and technical offences persist. These contraventions are usually very trivial and indulgence is shown.

There is, however, the other type of shopkeeper who, unless an inspector is continually exercising supervision, wittingly and systematically lays himself out to contravene the law on every available occasion. In these cases clemency is merely wasted and looked upon as weakness, so to disabuse that view prosecutions are instituted as the only remedy for such flouting of authority. Prosecutions, let it be known, are neither pleasant nor profitable, as the Procurator Fiscal's account with the Department rarely shows other than an adverse balance.

Infringements of the Shops Acts and relative Orders necessitated the reporting of 20 cases for prosecution, the results of which are given hereunder.

Shops (Hours of Closing) Act, 1928.—17 cases. Four were fined 10/-; 11, 15/-; 1, 20/-; and 1, 80/-.

Shops Act, 1934.—3 cases, two of which related to the employment of young persons without the necessary interval of 11 consecutive hours. In one instance the shop keeper was fined 40/-, and in connection with the other the prosecution was not completed by the end of the year.

The third infringement related to Section 7 of the foregoing Act—the keeping of records—which breach was also coupled with a contravention of the Shops (Hours of Closing) Act, 1928. A fine of 20/- (i.e., 10/- for each offence) was imposed.

In pursuance of the terms of Section 10 of the 1934 Act, there falls to be reported the undernoted improvements to shop premises :—

83 water-closets have been provided for the use of shops;
9 shops have had sinks installed therein;
9 shops have had wash-hand basins installed therein;
13 shops have been provided with heating facilities.

Only in one instance was stubborn resistance to our demands encountered. Authority to serve a Statutory Notice on owner and occupier was obtained. Even this did not have the desired effect, and information was prepared for placing the matter in the hands of the Crown Procurator Fiscal. Capitulation by the parties concerned, however, rendered this course unnecessary.

There are 3,805 shops, wholesale shops and warehouses within the city subject to supervision, 4,211 visits of inspection were made throughout the year. Contraventions to the number of 263 were discovered and 243 warnings issued. Street patrol was undertaken when the occasion for such arose.

Places for Public Refreshment.—Such premises were regularly inspected and the businesses found to be conducted in an acceptable manner. These places numbered 262 at the end of the year.

Ice-Cream Shops.—At the close of 1938 the register showed 222 persons and 289 premises registered in terms of Section 35 of the Dundee Corporation Order of 1935.

Theatres, Cinemas and Dance Halls.

Prior to the granting or renewal of licences by the Local Authority this Department inspects all such premises to ensure that the sanitary accommodation provided, ventilation, and general cleanliness merit approval.

To these places of amusement 322 visits were made during the year, and, apart from minor defects, remedied upon attention being directed thereto, all were found to be maintained satisfactorily.

This year saw the conversion of a cinema theatre to its pristine occupation as a variety theatre. Alterations on a big scale were carried out and the sanitary accommodation augmented. Seating capacity for an audience of 1,330 is provided.

In another instance the more frequent conversion took place—a theatre closing to undergo alteration prior to opening up as a cinema.

A new cinema of the " super " type is in course of construction in the east end of the city.

Port Inspection.

This year there was more activity at the docks and wharves than was evident last year. Foreign arrivals reached a total of 400 vessels, 33 more than the figure of 1937, and is reflected in an increase in nett tonnage amounting to 80,869. Coasting trade also participated in the improvement. The number of arrivals was 851, showing the large increase of 97 vessels. The total number of ships arriving at this Port was 1,251 of an aggregate nett tonnage of 1,020,405. This volume of shipping necessitated 1,051 visits by the Port Sanitary Officer.

The number of ships direct from foreign ports known to have certain infectious diseases in epidemic form amounted to 16; from the same or similar ports but calling at other British Ports prior to arrival here, the number was 122. The remaining 262 were either direct or indirect from ports known to be clear of infectious disease. All those ships were kept under close supervision while in Dundee.

Cargoes.

The nature of the cargoes discharged at this Port during the year remains constant.

From India—Jute, Gunnies, Cotton, Tea, Desiccated Cocoanut, Linseed, Oilcake and Pig Iron.

Mediterranean Ports—Esparto Grass, Phosphates, Pyrites, Cork Shavings, Oilcake and Cotton Seed.

Baltic and White Sea Ports — Flax, Pulp, Paper, Slates, Matches, Timber and partly manufactured Timber Articles.

Other Continental Ports—Margarine, Butter, Cheese, Sugar, Condensed Milk, Fruit Pulp, Vegetables, Peas, Ground Rice, Glucose, Flower Bulbs, Shrubs, Fruit Trees, Fertilisers, Fancy Goods, Steel and Iron Bars, Electric Cables and Oil.

North American Ports—Cheese, Flour, Fruit, Tinned Goods, Cereal Foods, Pitch, Ochre, Oak and Maple Flooring, Pitch Pine Logs, Wire and Binder Twine.

West Indies—Crude Oil and Sugar.

Nuisances.

An increase in the number of nuisances has to be reported, the number being 243 this year against 156 last year. These nuisances were all of a minor character, and in every instance the matter was put right before the vessel sailed.

Vermin Infestation.

Only in one instance did inspection reveal traces of bugs, but no action was taken at Dundee as the vessel was to undergo survey and repairs at the next port of call.

Deratisation.

The vessels calling at Dundee maintain the improvement observed for some time regarding freedom from rat infestation. In this connection it is interesting to note that certain American shipping companies have appointed an officer and one or more members of the crew whose duty includes the maintenance of the vessel in a rat-free condition. For this they have an increased pay. A bonus is also payable each time the ship is granted a Deratisation Exemption Certificate, but should it be found necessary to fumigate the ship as a result of rat infestation a small fine is levied against them.

In terms of Article 28, International Sanitary Convention and Article 19, Port Sanitary Regulations (Scotland), 1933, 33 vessels were inspected, and in each case a Deratisation Exemption Certificate was granted.

The number of rats killed within the precincts of the harbour is yearly decreasing as the result of intensive action on the part of the officials of the Dundee Harbour Trustees.

The Parrots (Prohibition of Import) Regulations (Scotland), 1930.

The above Regulations required action to be taken on 8 occasions. One parrot and 11 budgerigars were involved. In all cases but two the necessary assurance was given by the owners not to land the birds at Dundee. In the other two cases the four birds were drowned, and the bodies produced for inspection in compliance with the Regulations.

Table of Inspections, etc.

Total number of Verbal Intimations		373
Total number of Rat Notices issued		27
Number of Visits to Ships		1,051
Number of Ships from Infected or Suspected Ports (direct)		16
Number of Ships from Infected or Suspected Ports (indirect)		122
Number of Ships from Free Ports (direct)		122
Number of Ships from Free Ports (indirect)		140
Total number of Ships from Foreign Ports		400
Nuisances and defects attended to		243
Forecastles Cleaned	39	
Messrooms Cleaned	22	
Galleys and Store-rooms Cleaned	23	
Accumulations of Food Refuse	14	
Choked or Defective W.C.'s	19	
Dirty W.C.'s	13	
Discharge of Foul Water on Quay	37	
Ventilators Obstructed	49	
Excessive Smoke Emission from Vessels	14	
Rat Refuges Destroyed	11	
Leaking Forecastle Ceilings	2	
		243

In addition the following work was carried out while the vessels were in Port:—

Fresh Water Tanks Cleaned Out	60
Forecastles Washed or Painted	47
Bathrooms or Wash-Places Painted	33
Galleys Washed or Painted	11
W.C.'s Painted	23

1. Amount of Shipping entering the Port in 1938:—

	Number	Tonnage
(1) Foreign,	400	721,168
(2) Coastwise,	851	299,237
Totals,	1,251	1,020,405

2. No. of Vessels subjected to measures of Rat Destruction in 1938:—

"A."

No. of Vessels subjected to Measures of Rat Destruction	33
On Ships*—No. of dead rats recovered	117
No. of rats examined bacteriologically	Nil
No. of rats found infected with Plague	Nil
On Shore*—No. of rats destroyed (other than on ships)	163
No. of rats examined bacteriologically	Nil
No. of rats found infected with Plague	Nil

*Species of rat recovered—239 Common Grey and 41 Black Rats.

"B."

No. of Vessels fumigated by SO_2	Nil
No. of dead rats recovered	Nil
No. of Vessels fumigated by HCN	Nil
No. of dead rats recovered	Nil
No. of Vessels in which poisoning, etc., was employed	33
No. of dead rats recovered	117
No. of Deratisation Certificates issued	Nil
No. of Deratisation Exemption Certificates issued	33

3. No. of Vessels (included in (2) above) deratised **before discharge of Cargo** ..... Nil

Section 164 of the Burgh Police (Scotland) Act, 1892.
Provision and Renewal of Rain Water Spouts and Downpipes.

Under the above Section the following work was executed, viz. :—

Number of Properties where the rain water spouts and conductors have been overhauled, renewed or otherwise repaired.	Lineal feet of new rain water conducting channel rhones or gutter pipes used in the renewing or repairing of the same.	Lineal feet of new rain water conducting or downfall pipes used in the same way at the different properties.
327	4,826	2,465

General Prosecutions.

The prosecutions for the year were as under :—

Food and Drugs (Adulteration) Act, 1928 Sec. 16 (5)	Preservatives in Food (Mince)	Shops Acts, 1912/1938	Food and Drugs (Adulteration) Act (Milk)
1	6	20	2

Houses Let in Lodgings Bye-Law 4	Merchandise Marks Act. 1887
1	2*

Total — 32.

*After authority from H.M. Board of Trade.

Detailed particulars of each are given under the various heads.

I am, Mesdames and Gentlemen,

Your Obedient Servant,

ALEX. A. RUSSELL,
Chief Sanitary Inspector.