

[Report 1929] / Medical Officer of Health, Dundee City.

Contributors

Dundee (Scotland). City Council.

Publication/Creation

1929.

Persistent URL

<https://wellcomecollection.org/works/jkrtqd5y>

License and attribution

You have permission to make copies of this work under a Creative Commons, Attribution license.

This licence permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See the Legal Code for further information.

Image source should be attributed as specified in the full catalogue record. If no source is given the image should be attributed to Wellcome Collection.



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>



CITY OF DUNDEE

REPORT

OF THE


MEDICAL OFFICER OF HEALTH

FOR THE

YEAR ENDING 31ST DECEMBER, 1929

DUNDEE :

PRINTED BY DAVID WINTER & SON, SHORE TERRACE.



Digitized by the Internet Archive
in 2016 with funding from
Wellcome Library

INDEX.

	PAGE
Introductory Letter	5
Staff of the Health Department	6
Summary of Vital Statistics	7
Death-Rates	11
Infectious Disease	12
Measles	13
Whooping Cough	13
Scarlet Fever	13
Enteric Fever	15
Diphtheria	16
Smallpox	18
Chickenpox	18
Influenza	18
Pneumonia	18
Ophthalmia Neonatorum	19
Puerperal Fever and Puerperal Pyrexia	19
Encephalitis Lethargica	23
Other Infectious Diseases	23
Tuberculosis	23
Venereal Diseases	24
Diabetes and Supply of Insulin	25

	PAGE
Hospital Accommodation	25
Bacteriological Laboratory Services	26
Disinfection	26
The Public Health (Port Administration Infectious Diseases) Regulations (Scotland), 1921	27
Maternity Service and Child Welfare	27
Infantile Mortality	27
Food Supply	29
Factory and Workshop Acts	30
Housing	30
Two-Roomed Houses	30
Rents	35
Houses still Required	37
List of Statistical Tables and Charts	41
Statistical Tables and Charts	43
Tuberculosis—Dr. Hunter's Report	79
Child Welfare Centre—Dr. Margaret Scott Dickson's Report	89
Ante-Natal Clinic—Dr. Margaret Fairlie's Report	100
Dental Clinic—Dr. H. Gordon Campbell's Report	103
Special V.D. Clinic—Dr. Annie Fulton's Report	103
Venereal Diseases Scheme—Dr. Averill's Report	113
Bacteriological Laboratory—Professor Tulloch's Report	123
King's Cross Hospital	137
Veterinary Inspector's Report	149
Sanitary Department—Mr Mitchell's Report	155

*Public Health Department,
Dundee, 24th July 1930.*

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

Gentlemen,

I have the honour to submit my Annual
Report on the health of the City of Dundee during the
year 1929.

The reports of the various executive medical officers
and that of the Chief Sanitary Inspector are included.

I have to express appreciation of the loyal support
given throughout the year by members of the staff of
the Department. I also take this opportunity of
expressing thanks to Dr. A. E. Kidd, Chief Medical
Officer of the Education Authority for Dundee, for his
valuable co-operation.

I am, Gentlemen,

Your obedient Servant,

W. R. Burgess.

Medical Officer of Health,

STAFF OF THE HEALTH DEPARTMENT.

Medical Officer of Health—

W. L. BURGESS, M.D., D.P.H., D.T.M. & H., M.R.C.P.(Ed.)

Chief Sanitary Inspector.....ROBERT MITCHELL

Veterinary Inspector.....HUGH FERRIER, M.R.C.V.S.

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

Assistant Tuberculosis Medical Officer.....ARTHUR MEEK, M.B., D.P.H.

Child Welfare Medical Officer.....MARGARET SCOTT DICKSON, M.B., D.P.H.

Additional Assistant Medical Officer.....ELLEN DOUGLAS, M.B., D.P.H.

Consulting Obstetrician and Gynaecologist.....MARGARET FAIRLIE, M.B., Ch.B.

Dental Surgeon—Special Child Welfare Dental Clinic (part time)—

H. GORDON CAMPBELL, L.R.C.P., L.D.S.

Medical Officer, Venereal Diseases Scheme—

CHARLES AVERILL, M.A., B.Sc., M.D., D.P.H.

Medical Officer, Women's Section, Venereal Diseases Scheme—

ANNIE FULTON, M.B., D.P.H.

City Analyst (part time).....ANDREW DARGIE, B.Sc., A.I.C.

Matron, King's Cross Hospital.....MISS M. A. CLARK

Senior Resident Medical Officer, King's Cross Hospital—

JOHN PETRIE, M.B., D.P.H.

Junior Resident Medical Officers, King's Cross Hospital—

J. MACLEOD, M.B., D.P.H., and A. A. DOUGLAS, M.B., D.P.H.

Diseases of the Ear, Nose, and Throat—Consulting Surgeon—

R. P. MATHERS, M.D.

Matron, Ashludie Sanatorium.....MISS A. HENRY

Clerical Staff.....8 CLERKS

Sanitary Staff.....1 SUPERINTENDENT and 18 INSPECTORS

Health Visitors—

Child Welfare.....Miss HUNTER, Superintendent, and 11 NURSES

Tuberculosis.....4 NURSES

Venereal Diseases.....3 ORDERLIES and 2 NURSES

Day Nursery Staff.....4 MATRONS, 8 NURSES, etc.

Epidemic Officers, Disinfecting Officers, Ambulance Drivers, Hospital Staff, etc.

ANCILLARY INSTITUTIONS.

Bacteriological Laboratory, University College.

Director—Professor W. J. TULLOCH.

Assistant—JAMES CRAIGIE, M.B., Ch.B.

Infant Hospital, The Lodge, Broughty Ferry.

Matron—Miss EDWARDS.

Seafield Hostel, Lochee Day Nursery, etc., etc.

Summary of Vital Statistics.

The following is a summary of the principal statistics for the years 1927, 1928 and 1929:

	1927.	1928.	1929.
Population	172,444	172,214	167,109
Number of Deaths (corrected)	2,918	2,598	2,670
Death-rate per 1,000 Population (corrected)	16·9	15·1	16·0
Deaths of Infants under 1 year	485	357	355
Infantile Death-rate per 1,000 Births	138	102	102
Marriage-rate per 1,000 Population	7·4	7·8	7·7
Number of Births registered (corrected)	3,517	3,501	3,486
Birth-rate per 1,000 Population	20·4	20·3	20·9
Illegitimate Birth-rate per 100 Births	7·6	7·8	7·6
Number of Deaths from Pulmonary Tuberculosis	153	138	130
Death-rate per 1,000 from Pulmonary Tuberculosis	·89	·80	·78
Death-rate from all forms of Tuberculosis	1·16	1·05	1·05
Death-rate from the Principal Epidemic Diseases	1·43	·65	·38
Deaths from Enteric Fever	0	0	2

Annual Report—1929.

The accepted estimate of the population of Dundee at the middle of 1929 was 5,105 less than that for the middle of 1928. The statistics based on these estimated populations cannot be considered as too reliable as it is unlikely that there was such a marked drop in the population within twelve months.

The death-rate at all ages and from all causes was 16 per 1,000 population, compared with 15·1 per 1,000 in 1928. The increase is explained by a marked rise in the deaths allocated to the respiratory group.

There were sharp outbreaks of influenza and of pneumonia in the early months of the year. Neither measles nor whooping cough was present in epidemic form. The fatality rate from diphtheria was the lowest yet recorded for the city. While scarlet fever prevailed to a considerable extent, the type was very mild.

The infantile death-rate (102 per 1,000 births) and the tuberculosis death-rate (1·05 per 1,000 population) were the same as the corresponding rates for 1928.

There was a considerable decline in the number of deaths from malignant disease.

A large number of tables showing death-rates, etc., from various diseases are included in the statistical section of the report, and comments are made in the text where these are considered necessary.

Two instances of permanent interference with sight due to ophthalmia neonatorum occurred during the year.

The Public Health Institute completed a full year's working and the work done, especially under the Venereal Diseases Scheme, provides ample evidence of the value of the Institution.

Observations are made in the section of the report dealing with housing on the question of rents for dwellings erected under rehousing schemes and on the need for two-roomed houses.

The extensions at Ashludie Sanatorium are proceeding and it is expected that they will be completed by the end of the present year. The alterations agreed to under the scheme for the reorganisation of day nurseries and branch child welfare centres were commenced.

The arrangements made in the city for the free supply of diphtheria anti-toxin and of sterile outfits for its administration have been improved, and any doctor, who applies to this department, can obtain an outfit including sterile syringe, anti-toxin, etc., to be retained by him for immediate use in an emergency, a fresh outfit being supplied for a used one.

The facilities for the treatment of women suffering from puerperal fever and puerperal pyrexia have been considerably extended, and the attention of medical practitioners is directed particularly to the section of the report dealing with this subject.

The Registrar General estimates the population of Dundee at the middle of 1929 to have been 167,109, a reduction of 5,105 on the accepted estimate for 1928, which was 230 less than the 1927 figure. The latest estimate is the lowest since Broughty Ferry was included within the city, but it cannot be considered as accurate. Too many years have elapsed since the last census was taken to make it possible to estimate population with any degree of accuracy, and we must wait until next year for reliable information. The methods in use for estimating population are constantly changing and are all untrustworthy. The Chief Sanitary Inspector in the course of a sanitary survey of every house in the city, which has extended over the last three years, recorded the number of residents in each occupied house. The total population based on his observations suggest that the Registrar General's figure under-estimates the population. Although the sanitary survey cannot be considered as anything like an exact census of the population, it can be accepted as being at least as reliable as an estimate which of necessity is based on too many assumptions and too few facts. After the preparation of the Dundee death-rates for 1928, which were based on an estimated population of 172,214, a revised estimate was made for purposes of the Local Government Act, new factors such as the number of local government electors, and the observed natural increase being taken into account. The revised estimate for 1928 was 167,207, a drop of over 5,000. The 1929 figure is based on the revised one for 1928, and shows a further fall of 98. These changes in population are reflected in the various rates and allowance must be made in using them for comparative purposes.

The vital statistics (*v. summary*, page 2) are not entirely satisfactory. The death-rate from all causes and at all ages was 16 per 1,000 population, compared with 16·9 and 15·1 for 1927 and 1928 respectively. The increase of ·9 on the 1928 figure may be said to arise from (a) the marked fall in the estimated population on which the rates are based, and (b) an increase of 72 in the number of certified deaths accepted for the city. In regard to (a) if it is assumed that the population used for the year 1928 applied also to 1929, the death-rate for the latter year would have been in the neighbourhood of 15·5 instead of 16 per 1,000. The difference of 5,105 in the population figures for 1928 and 1929 used in the preparation of the death-rates for these years, and which cannot be considered as even approximately the actual change in population, has had the effect of artificially pushing up the 1929 figure as compared with that for the preceding year. As mentioned under (b) there were, however, 72 more deaths in 1929 than in 1928, the actual number being 2,670 in the former year and 2,598 in the latter. The increase is explained by a marked rise in

the deaths allocated to the respiratory group. The certified deaths from respiratory causes numbered 607 in 1929 and 471 in 1928, the corresponding rates per 1,000 population being 3.63 and 2.73. The rate for 1929 is the highest for Dundee since the influenza pandemic of 1918. The deaths from the infectious diseases group remain substantially the same, but the death-rate for the six principal epidemic diseases show a drop of .28 per 1,000 from .65 in 1928 to .37 in 1929. The absence of measles and whooping cough in epidemic form and the low fatality rate from diphtheria and scarlet fever account for the lower figure. There were, however, 72 deaths from influenza, compared with 18 in 1928, which increase balances the decline in the deaths for which the six principal epidemic diseases were responsible. Notifications of tuberculosis both pulmonary and non-pulmonary were fewer than ever before. The death-rate from pulmonary tuberculosis was .78 per 1,000, the lowest figure yet recorded, and the death-rate from all forms of tuberculosis, which was 1.05 per 1,000, equalled the 1928 figure, which was the lowest then reached. If allowance is made for the fact that the 1929 rate was based on an estimated fall of over 5,000 in the population, the progress can be considered as very satisfactory. A decided fall in the number of deaths from malignant disease as compared with the preceding year falls to be recorded. The figure for 1928 was unusually high and the 1929 figure, although lower than the average of the last few years, cannot be accepted as evidence of a decline. The infantile mortality was again 102 per 1,000 deaths, the second lowest for the city. The death-rates at the various age periods are recorded in Table IV. (Statistical Section), and those for the various months in Table V. The monthly rate varied from 10.6 in August to 31.2 in February when influenza and pneumonia were prevalent. The statistics applicable to the various city wards are given in Table VI. to XI. and Chart 5. Once more, Ward 3 provides the highest general death-rate.

Infectious Disease.

The infectious diseases were less prevalent in 1929 than in the year 1928. The notifications and intimations totalled 4,339 last year, compared with 5,247 in 1928 and 7,351 in 1927. The absence of measles and whooping cough was entirely responsible for the fall, the presence of scarlet fever in epidemic form being insufficient to balance the decline in these two diseases, along with a reduced prevalence of diphtheria. The death-rate from the principal epidemic diseases was .37 per 1,000 population, compared with .65 for 1928. The corresponding rates for the years 1924, 1925, 1926, and 1927 were 1.69, 1.70, .79, and 1.43 respectively.

In last year's report it was mentioned that in several instances information had been withheld regarding contacts with infectious

disease and that in order to obviate difficulty in the future certain clauses had been introduced into the Provisional Order then being promoted by the Town Council. The Order is now in force and the occupier of any building refusing to give any information necessary for the purpose of enabling measures to be taken to prevent the spread of disease, or knowingly furnishing false information, is now liable to a penalty not exceeding forty shillings.

Very complete figures are given in the statistical section of the report, and some observations on certain of the infections are contained in the following paragraphs.

Only 72 cases of measles were intimated to the department, and ^{Measles.} these were fairly evenly distributed over the year. Three cases were removed to hospital and there was one death, a child less than one year old. The last epidemic ended in the Spring of 1928, and it is expected that the disease will prevail during the present year.

Whooping cough was also comparatively quiet, there being 208 ^{Whooping Cough.} known patients, 14 of whom were treated in hospital and 7 died. It is extremely likely that whooping cough also will appear in epidemic form during the present year.

The number of scarlet fever notifications increased from 208 in ^{Scarlet Fever.} 1928 to 822 last year. The figures in 1925, 1926, and 1927 were 1,528, 1,275, and 414 respectively.

During the first quarter of the year there were 41 notifications. The second quarter provided 89, the third 227, and the last quarter 465. During the second half of the year, and particularly during the last three months, the disease was present in epidemic form. Of the 822 cases, 484 or 58·9 per cent. were removed to hospital, but the percentage of removals varied with the degree of prevalence. Thus in March, 90 per cent. of the patients notified received treatment in hospital, while in December only 40·6 per cent. were so dealt with. The pressure on hospital accommodation began to be felt towards the end of September, and from that time until the end of the year an increasing number was isolated and treated at home. The selection of cases for hospital was based on size of house, severity of case, presence of complications, facilities for isolation and efficient nursing, economic circumstances, etc., and the suggestion that a patient should be kept at home was generally welcomed by patient, relatives and medical attendant, especially as a specific request for removal to hospital was always complied with. The public and the medical profession are becoming accustomed to the fact that scarlet fever cases can very often be treated at home with perfect safety, and that

it is much more important to remove cases of measles and whooping cough to hospital. While the outbreak was at its height the epidemic staff was increased by the addition of one whole-time nurse and one part-time nurse. All notified cases were promptly visited and arrangements made for isolation and treatment at home or in King's Cross Hospital. Home treated patients were systematically visited by the nurses, who advised in regard to precautionary measures, giving nursing assistance when required, and all cases discharged from hospital were kept under observation for at least 14 days after returning home. The experience of this outbreak certainly supports the view that wholesale removal to hospital is not a necessary measure of control. A comparison between the home treated and the hospital treated series in regard to secondary cases and return cases showed quite definitely that there was no greater spread of the disease when isolation was carried out at home than when isolation in hospital was resorted to. The home conditions of the patients treated in hospital were certainly not so good as those of the home treated series, and it is not suggested that all the cases could have been safely dealt with at home. It is suggested, however, that with the type of scarlet fever prevailing at present a very large proportion of the patients—at least 50 per cent.—can with perfect safety to immediate contacts and to the public generally be treated at home, even in one or two-roomed houses provided wise selection is exercised. Size of house is not so important as the presence in the house of an intelligent person who will carry out with ordinary care the instructions given in regard to the simple precautions necessary to prevent spread. It was also clear that apart from isolation the actual treatment of scarlet fever of the prevailing type can perfectly well be carried out at home. All the home treated patients made straightforward progress, and only a few suffered from the less important complications. Indeed, the home treated series made much more satisfactory progress than the hospital treated series, but it must be noted that severity of disease was a factor in the selection of cases for removal, so that comparison of the two series is not permissible in this connection.

The type of scarlet fever was very mild and there were only three deaths among the 822 cases. One of these was a woman, aged 20, who developed an extensive cellulitis. Another was a two years' old marasmic infant who contracted both scarlet fever and chickenpox, while the third was a man of twenty who developed scarlet fever after an accident. The first two died in King's Cross Hospital and the third died in an institution in the city where he was under treatment for his injury.

All the hospital patients were treated with the specific serum, and on the disease becoming epidemic those who remained entirely

free from complications were discharged on the 24th day of illness. The occurrence of any complications indicating infectivity or likely to call for special treatment necessitated a longer stay in hospital for the affected patient, but during the epidemic period the average day of discharge for all patients was the 28th day of illness. As already explained all patients were supervised by the outdoor staff for a period of at least 14 days after discharge from hospital with a view to the early detection of late complications and in order to ensure a modified isolation likely to prevent return cases. There were 8 return cases among 461 hospital discharges for the year, that is 1·7 per cent. These return cases were all investigated but the real source of infection could not be traced, although the re-appearance of a slight rhinitis may explain two of the 8 infections.

The infection was widespread throughout the city and was not concentrated in any one part. A small group of 12 cases in the north end of the city was believed to have been caused by a missed case subsequently detected.

The age incidence of the years cases showed that school children suffered most, over 60 per cent. of the total being children from 5 to 15 years of age, while over 45 per cent. were children in the 5 to 10 years age group. During the epidemic period there appeared to be a somewhat higher proportion of adults than usual.

The testing for susceptibility for scarlet fever and active immunisation against the disease was continued at the hospital. The following is an outline of the work :—

Age Group.		Dick Positive.	Dick Negative.	Dick Positive and Immunised.	Total.
Under 5 years	....	9	24	65	98
5 to 15 years	....	21	85	96	202
Over 15 years	....	5	68	35	108
		—	—	—	—
Total	....	35	177	196	408

One child, aged six years, who showed a negative Dick test in February 1928 was notified as suffering from scarlet fever in November 1929.

Seventeen notifications were received. In fourteen the infecting *Enteric Fever* organism was found to be the *B. paratyphosus B.*, in one the *B. typhosus*, and in two the condition was not confirmed bacteriologically.

A small outbreak comprising six of the fourteen para-typhoid cases occurred in an institution in the city. They were all women patients who had been admitted for abdominal operation, and while under treatment they contracted the infection. They were removed

to King's Cross Hospital. The source of infection was in all probability a woman carrier who was under treatment in the ward, but circumstances made it impossible to complete the enquiry. The evidence available, however, points very strongly to this woman having been the source of infection.

Seven cases occurred in various parts of the city and no definite source of infection was established. Another patient had been operated on for empyema and par-typhoid *B. bacilli* were recovered from the discharge. The case of typhoid fever was a boy of 15 years, who at the estimated time of infection was camping out on the banks of a stream in the country.

There were two deaths (para-typhoid)—both being women infected after operation as described.

Diphtheria.

The year 1929 was a very satisfactory one so far as diphtheria is concerned. The notifications numbered 437, against 623 in 1928. There were 13 deaths, which gives a case mortality of 2·97 per cent.—a very satisfactory figure and the lowest yet recorded in Dundee.

The steady fall in the fatality of diphtheria appears to have a direct relation to the active measures adopted to ensure early administration of the specific remedy, and last year's experience supports the view expressed in earlier reports that deaths would be less frequent if the services of a doctor were secured at an earlier stage in the disease, and if the doctor administered anti-toxin in every case in which the possibility of diphtheria could not be absolutely and immediately excluded without assistance from the laboratory. The younger the patient the more serious is the issue. The case mortality among children of less than 5 years was 6 per cent. and for older children just over 2 per cent. Only one death occurred in a person over school age, and in this case there was considerable delay in the recognition of the true nature of the disease and in the administration of anti-toxin. Care must be exercised at all ages but especially in children under five, who must be treated as suffering from diphtheria immediately there is evidence of an affection in the faucial or laryngeal regions which cannot be definitely and immediately attributed to some other cause. As in 1928 the circumstances attending every death were carefully investigated and the evidence obtained supports this view. The arrangements made in Dundee for the free supply of anti-toxin and of sterile outfits for its administration have been improved, and any doctor who applies to this department can obtain an outfit including sterile syringe, anti-toxin, etc., to be retained by him for immediate use in an emergency, a fresh outfit being supplied for a used one. An outfit is given in exchange for the old one at the end of a month, thus ensuring the potency of the anti-toxin and the sterility of the

syringe. Medical practitioners are making free use of the facilities as is shown by the fact that 927,000 units of anti-toxin were issued to them last year. Of that amount 462,000 units were issued with 77 outfits (6,000 units in each), 374,000 units were issued in varying amounts apart from outfits, and 91,000 units were issued for prophylactic purposes. There appears to be a greater tendency for doctors to give anti-toxin as a precautionary measure, for 62 of the total of 149 applications were for the treatment of patients who were not subsequently notified as suffering from diphtheria, and presumably were not ultimately believed to be suffering from that disease. It is also a satisfactory feature of the year's work that 91,000 units were given out for the passive immunisation of healthy immediate contacts, and that in addition 98 contacts were similarly treated by the staff of the department. None of these contacts subsequently developed the disease. Medical practitioners are reminded that prophylactic doses of anti-toxin can be obtained free of cost at the Public Health Office or at King's Cross Hospital, and it is hoped that they will take full advantage of this certain means of preventing the spread of infection to other members of an invaded household.

Active immunisation by toxoid anti-toxin and the testing for susceptibility are not viewed with favour by the public generally. The procedure necessary entails too many operations and observations, and it is difficult to stimulate and sustain interest among parents. This is especially so when diphtheria is not epidemic and the danger is not imminent. As I have already stated in other annual reports this method of control, although a most promising one, is not likely to be practicable at any rate until the technique has been very much simplified. With the staff available we can do little more than test the efficacy of the protective measure in its application to limited and selected sections of the population. In 1929 there were 497 Schick tests done in Dundee. Of that number 11 persons did not return for reading. The following is an analysis of the results in the remaining 486 :—

Age Group.		Total.	Positive.	Percentage.
Under 5 years	....	94	6	6·38
5 to 15 years	....	273	29	10·62
Over 15 years	....	119	26	21·85
		—	—	—
Total	....	486	61	12·55

A total of 227 persons received three intra-muscular injections of toxoid-anti-toxin mixture at intervals of one week. Of the 61 persons showing positive skin tests 50 were immunised, while 177 persons,

mainly children under five, were protected without a preliminary test. The details are as follows :—

Age Group.	Immunised after showing positive Schick.	Immunised without preliminary test.
Under 5 years	4	161
5 to 15 years	25	16
Over 15 years	21	—
	—	—
	50	177

Total—227 persons, 681 injections.

Of the 61 positive skin tests 11 did not complete the prescribed course. In 3 cases, one, and in 8 cases two doses were given. Again, 11 persons not previously tested began the course but did not complete it—9 receiving one dose and 2 two doses. Thus 32 injections were given to persons who must be considered as defaulters. These are not included in the total shown in the table.

Four notifications of diphtheria in persons who had been tested or immunised were received during the year. Two were not accepted as diphtheria. Extracts from the records of the other two are as follows :—

- I. (3 years). Last immunising dose on 4.2.27. Notified as diphtheria 1.10.29. Clinically and bacteriologically positive diphtheria.
- II. (7 years). Schick negative 9.8.29. Notified as diphtheria 4.11.29. Clinically diphtheria but swabs all negative.

It was only possible to re-test 9 persons who had been previously tested and immunised.

Smallpox and Chickenpox.

The city was free of smallpox throughout the year. The department was notified of 17 persons who were in contact with the disease on board six ships. All these contacts were kept under supervision.

During the year 1,149 cases of chickenpox were notified, and these were all inspected lest any of them were suffering from smallpox.

Influenza.

Influenza was present in epidemic form in the early part of the year. It was the certified cause of 72 deaths—55 of which occurred in February. Adults were mainly affected, 59 of the deaths being at ages over 25 years and 33 at ages over 65 years. There were 83 notifications of influenzal pneumonia—60 of which were received in February.

Tables XXIV. and XXV. give details regarding the influenza deaths in Dundee during recent years.

Pneumonia.

As already pointed out the rise in the total number of deaths in Dundee last year is the result of a marked increase in the number of

deaths from causes included in the respiratory group. There were notified 810 cases of primary pneumonia and 83 of influenzal pneumonia—a total of 893, compared with 759 in 1928, 1,023 in 1927, 415 in 1926, and 446 in 1925. It prevailed throughout the whole year but was most evident in January and February, which together provided 389 notifications. Children were mainly attacked—444 or nearly half of the patients being less than 5 years old and 599 less than 15 years of age. Treatment in hospital was provided for 611 cases, or over 68 per cent. of the total. These were distributed between the Dundee Royal Infirmary and King's Cross Hospital.

There were 371 pneumonia deaths, against 279 in 1928 and 369 in 1927. Of the total, 175 were of children under 5 (86 under one year). Persons aged over 55 years also showed a high death-rate from the disease.

A total of 91 notifications of ophthalmia neonatorum was received. Ophthalmia Neonatorum. Of these, 89 completely recovered and two resulted in permanent interference with vision. In one infant there was complete loss of vision in one eye (this infant died later of marasmus), and in the other corneal opacities are present in both eyes, but there is every prospect of a fair amount of vision later. The circumstances attending these two unsatisfactory cases were fully investigated and were the subject of special reports. Smears from the affected eyes were taken in 67 cases—59 were negative, 5 were positive, and 3 were doubtful. Institutional treatment was provided for 16 cases (11 in King's Cross Hospital) and 75 were treated at home.

The Public Health (Notification of Puerperal Fever and Puerperal Puerperal Fever and Puerperal Pyrexia. Pyrexia) Regulations (Scotland), 1929, came into force on 1st October, and make it compulsory for medical practitioners to notify puerperal pyrexia in addition to puerperal fever, which is already a notifiable condition under the Infectious Diseases (Notification) Act, 1889.

The attention of medical practitioners is specially directed to the definition of puerperal pyrexia which is contained in the Regulations. It is defined as "any febrile condition (other than a condition which is required to be notified as puerperal fever under the Infectious Diseases (Notification) Act, 1889), occurring in a woman within twenty-one days after childbirth or miscarriage in which a temperature of $100\cdot4^{\circ}$ F. (38° centigrade) or more, has been sustained during a period of twenty-four hours, or has recurred during that period." Medical practitioners are thus under obligation to notify to the medical officer of health all cases of pyrexia during the puerperium irrespective of the cause to which the fever may be attributed.

A few months' experience of the working of the new Regulations has made it very evident that there is confusion in the minds of many doctors as to the proper interpretation of the terms "puerperal fever," "puerperal pyrexia," and "puerperal morbidity." The following extract from the Tenth Annual Report of the Scottish Board of Health, 1928 (page 140), may be helpful :—"A good deal of confusion seems to have arisen in regard to the definition of the term puerperal fever, puerperal pyrexia, and puerperal morbidity. Whatever the first of these may have originally signified, it has now come to be quite clearly regarded as a general septic infection, a toxæmia, the invasion of the blood stream by a pathogenic organism being by way of the genital canal. It has come, that is to say, to imply quite definitely a diagnosis. The term puerperal pyrexia, on the other hand, indicates a feature, a symptom, and no more. It would include a rise of temperature (of a certain elevation and persistence) during the puerperal period from whatever cause. Indeed, it might be and frequently is from a cause quite unassociated or only accidentally associated in time with the recent confinement. Thus, though it may include conditions much less serious than puerperal fever, it is yet a term of wider extension. Puerperal morbidity, on the other hand, is a term of wider extension still, and includes conditions such as hæmorrhage and eclampsia which are not associated with pyrexia. The exact significance of these terms has been set forth with some fullness because there is evident a tendency to regard puerperal pyrexia as differing from puerperal fever merely in degree, the former being a mild form of the latter; and to regard puerperal morbidity as definitely associated with elevation of temperature, thus giving to morbidity a new and undesirable meaning.

"The British Medical Association in 1906 recommended as a criterion of puerperal morbidity all cases in which the temperature reached 100° F on any two of the bi-daily readings from the end of the first to the end of the eighth day after delivery; the temperature to be taken in the mouth night and morning. The terminal limitation of the period seems of doubtful expediency. Doubtless a true puerperal infection will manifest itself within eight days in the vast majority of cases. Nevertheless, a good deal can be said in favour of an extension of the period, which, moreover, was originally limited on merely administrative grounds."

In November a special report on the Regulations was prepared and the following recommendations have been agreed to by the Town Council :—

1. Consultant Service.—

That the following will form a panel of specialists, whose services will be available to assist medical practitioners

in attendance on patients suffering from or suspected to be suffering from puerperal pyrexia or puerperal fever :—

Dr. R. C. Buist, 16 Airlie Place ;

Dr. A. E. Chisholm, 7 Windsor Terrace ;

Dr. Margaret Fairlie, 170 Nethergate ;

Professor J. M'Gibbon, 7 Airlie Place ;

that the fee for each consultation, payable by the Town Council, will be fixed at three guineas (£3. 3s. 0d.) ;

that consultants will be expected to send to the Medical Officer of Health a brief note regarding diagnosis ;

that, in order to avoid delay, a medical practitioner will call in a consultant without first of all obtaining the authority of the Medical Officer of Health ;

that it must be understood by medical practitioners that any arrangement made by the Town Council will only apply to patients residing within the City, and only to patients suffering from or suspected to be suffering from puerperal pyrexia or puerperal fever ;

that a medical practitioner, who has called in one of the specialists, will immediately intimate the fact to the Medical Officer of Health ;

that when a specialist's fee is paid directly by a patient, no intimation to the Medical Officer of Health is necessary, except the notification required by the Regulations should the case be one of puerperal pyrexia or puerperal fever ;

that the Medical Officer of Health be authorised, after consideration of the circumstances of a particular patient, to reclaim from the patient the whole or part of a fee paid to a specialist by the Local Authority, it being clearly understood that the question of fee must never be responsible for any delay in calling in the services of a consultant ;

that the Town Council will only accept responsibility for the payment of a fee provided the claim reaches the Medical Officer of Health within one month of the date on which the consultation is held.

2. Bacteriological Examinations.—

That material for bacteriological examination will be examined by Professor Tulloch, Department of Bacteriology, University College, Dundee, who performs all the bacteriological work for the Public Health Department, in terms of the arrangement now in operation between the University Court of the University of St. Andrews and the Town Council of Dundee. Material for bacterio-

logical examination will be collected either by medical practitioners in attendance on the patients or by specialists in consultation. Outfits for the collection of material have been prepared by Professor Tulloch and distributed.

3. Skilled Nursing at Home.—

That as patients suffering from puerperal fever or puerperal pyrexia, who require the services of trained nurses, would be much better in hospital, provision of such nursing assistance should be discouraged ;

that, if in very exceptional cases, it become necessary to provide nursing assistance the medical officer of health be authorised to deal with each case on its merits, either by engaging a special nurse, or nurses, or by arranging for visits being paid by visiting nurses, such as those of the Dundee Sick Poor Nursing Society ;

that an arrangement be entered into with the Dundee Sick Poor Nursing Society whereby the Society undertake to supply nurses to attend patients suffering from puerperal fever and puerperal pyrexia under treatment in their own home, the Town Council undertaking to refund the cost on a fee per visit basis—medical practitioners requiring the services of a nurse to apply direct to the Matron, Caird Nurses Home, 41 Roseangle.

4. Hospital Treatment.—

That the present arrangement, whereby all cases of puerperal fever and puerperal pyrexia, requiring institutional treatment, occurring in Dundee and the surrounding districts, are treated in the wards of King's Cross Infectious Diseases Hospital, will be continued. This arrangement has already been approved of by the Department of Health for Scotland.

These arrangements are now in operation and medical practitioners are invited to use them freely and to note the conditions which must be complied with.

There were 32 cases of puerperal fever notified and 22 cases of puerperal pyrexia (1st October to 31st December). Twenty-two of the former and twenty of the latter were treated in hospital. The cases treated in King's Cross Hospital—which admitted patients from districts outwith Dundee—are dealt with in the Hospital section of this report. Puerperal sepsis was the certified cause of 11 deaths.

During the year eight cases of encephalitis lethargica were notified. Encephalitis Lethargica
In seven cases the diagnosis was accepted but in one there was reason for doubt. The years of onset were as follows :—

1923.	1924.	1926.	1927.	1929.	Total.
2	1	2	1	1	7

Three of the patients appear in need of institutional treatment (one is at present in the Dundee Eastern Hospital, one was certified, and one was removed from the Eastern Hospital to his own home outwith Dundee). One case has apparently recovered and three have died.

The following classification represents the position at the end of the year. There were :—

- (a) 6 cases requiring institutional treatment. Four of them are in the Eastern Hospital and two are in their own homes.
- (b) 4 cases not requiring institutional treatment now but may at a later date.
- (c) 4 cases suffering from marked sequelae but are not likely to avail themselves of any offer of indoor treatment.
- (d) 3 cases under observation and not definitely classified.

The total number of cases which have come under the notice of this department is now 76. Of these—

- 19 have died.
- 27 have recovered sufficiently as to require no further action by this department. (In a few of these there may be reason to doubt the diagnosis.)
- 5 cases have left the district or cannot be traced.
- 5 are under treatment in Asylums.
- 7 are in hospitals or other institutions (includes 4 in Dundee Eastern Hospital).
- 6 are in need of institutional treatment but 4 of them would not accept it if offered.
- 4 cases are not requiring institutional treatment now but may at a later date.
- 3 cases are being kept under observation.

Diarrhoea in children under 2 years of age accounted for 37 deaths Other Infectious Disease.
—31 of which were infants under one year. There were 8 notifications of cerebro-spinal fever, 2 of infantile paralysis, 8 of dysentery, 2 of malaria, and 215 of erysipelas. No special comment is necessary regarding those infections.

Although the death-rate from all forms of tuberculosis remains at Tuberculosis.
1.05 per 1,000 population—the same figure as in 1928 and a record—it

may be accepted that there has been an actual decline. The total number of deaths was 175—the lowest we have yet had in any year. In 1928 there were 180 deaths. The assumed drop of the population by over 5,000 explains why the rates which are based on population are the same for the two years. The difference in population balances the reduced number of deaths, and even although we accept the 1929 population estimate it certainly cannot be agreed that there was a fall of over 5,000 in 12 months. Such a fall must have occurred over a period of years since the last census. It can safely be concluded that the downward trend of the tuberculosis death-rate remained uninterrupted last year. Considering the pulmonary tuberculosis death-rate and the non-pulmonary tuberculosis death-rate separately, the former was $\cdot 78$ per 1,000, a record figure ($\cdot 80$ in 1928), and the latter was $\cdot 27$ per 1,000 ($\cdot 25$ in 1928). The view that the steady decline is not due entirely to more successful treatment, but to a gradual eradication of the disease, is supported by an examination of the notification rates, which represent the yearly harvest of new infections in so far as these become manifest and are recognized. There were 350 notifications last year (260 pulmonary and 90 non-pulmonary), the lowest number for any year since tuberculosis became notifiable. The progress made is shown in Tables XXVIII. and XXIX. and is particularly evident in the non-pulmonary form.

Details of the work done under the Tuberculosis Scheme are given by Dr. Hunter in his report, and numerous tables of figures are included in the statistical section.

Venereal Diseases.

In the report for 1928 it was stated that a full year's working of the new treatment centres in the Public Health Institute would show that the more central, more commodious, and better equipped premises are appreciated. The truth of that statement is fully supported by the work of the Venereal Diseases Scheme last year, the first complete year during which it has been able to function under satisfactory conditions. The total number of new cases was 1,075, against 890 in 1928, and the highest for any year since 1921. The total attendances were 31,995, the corresponding figure for 1928 being 26,775. These figures cannot be read as indicating an increase in the prevalence of venereal disease. It may be assumed that they are the direct result of the improved facilities for treatment. Both sexes and all the venereal diseases shared in the increase. There was also a marked rise in the number of patients receiving indoor treatment—the wards in the Public Health Institute providing accommodation for men while women patients are removed to King's Cross Hospital.

The following tables show the new cases attending the various centres each year during the period 1918-1929:—

SYPHILIS.

	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.
Men -	186	359	533	423	203	177	135	128	115	102	92	127
Women -	269	278	552	454	171	137	150	203	264	140	133	151
Total -	455	637	1085	877	374	314	285	331	379	242	225	278

GONORRHOEA.

	1918.	1919.	1920.	1921.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.
Men -	60	241	277	292	236	159	226	240	254	243	247	291
Women -	18	12	9	40	35	94	63	58	44	65	53	95
Total -	78	253	286	332	271	253	289	298	298	308	300	386

The new gonorrhoeal cases figure for both sexes is the highest for any year since the scheme began.

Table XLIV. shows the defaulter rate for the year 1929-30 and for each of the preceding six years. The figures for last year are the most satisfactory yet obtained.

Dr. Averill includes in his report observations on the working of the scheme during the year.

In terms of the Public Health (Scotland) Amendment Act, 1925, there were issued 820×5 c.c. (100 units) bottles of insulin to approved cases. The number of persons on the insulin register at the end of 1928 was 19. During 1929 three new applications were made and granted. Three patients died, one was removed from the list on becoming an insured person under the National Health Insurance Act, one was removed to a hospital, one left the country, and two ceased using insulin. At the end of 1929 there were thus 14 persons in receipt of insulin. All cases were visited by a medical officer of the department.

Diabetes and
Supply of
Insulin.

During 1929 twenty deaths were accepted as being caused by diabetes mellitus. Of these 6 were men and 14 women. Only three of these obtained insulin from this department. A few, no doubt, obtained the remedy as insured persons and certain others bought it themselves. It may be necessary, however, to remind practitioners that insulin can be obtained free of charge by necessitous patients on application being made to this office. It is important that no patients likely to benefit from the specific treatment should be deprived of the opportunity by reason of the cost.

There is nothing to add to the observations contained in the last annual report under this heading. The extensions at Ashludie are proceeding but the new beds are not likely to be ready for use before the end of the present year.

Hospital
Accommo-
dation.

The bacteriological examinations conducted by Professor Tulloch on behalf of the department continue to increase, the total for last year being 9,922, against 9,582 in 1928. Details of the work done are given by Professor Tulloch in his section of the report, and no comments from me are necessary, except an expression of our appreciation of the excellent assistance daily rendered by him and his staff.

Particulars of the disinfection work done during the year are contained in Table XLI., but it may be useful to take the opportunity to inform medical practitioners and the public that in recent years opinion has greatly changed as to the value of disinfection as a measure for the control of infectious disease. It used to be considered necessary to carry out a complete process of disinfection of houses and contents (i.e. terminal disinfection) after the death, recovery, or removal to hospital of a case of infectious disease. It is now realized that most of the infectious diseases are caused by organisms which are so fragile that they cannot survive for any time outside the human body. Others may survive or even multiply in a particularly suitable medium such as milk and other foods or possibly water, but only a few are likely to live long enough on floors, walls, furniture, etc., to demand special treatment of these surfaces beyond thorough domestic cleansing. Satisfactory disinfection can only be carried out during the course of the illness by the routine and immediate destruction of all infected discharges from the body, and the routine and prompt destruction or disinfection of all articles likely to be infected such as swabs, handkerchiefs, towels, feeding utensils, etc. Such routine or concurrent disinfection can only be carried out properly by the person in attendance on the patient and under instructions from the medical practitioner in charge. If efficiently done routine disinfection makes terminal disinfection superfluous. It is only in diseases such as pulmonary tuberculosis and smallpox, the viruses of which are believed to be exceptionally resistant, that disinfection of premises by formalin spray or by fumigation is undertaken by the department. The occurrence of cases of measles, whooping cough, pneumonia, scarlet fever, or diphtheria, does not call for disinfection of premises, although steam disinfection of bedding and clothing may be necessary in the last two. Ordinary domestic cleanliness of houses and contents, prompt disposal of infected discharges (i.e. routine disinfection), and free access for sun and air should be emphasised as the sort of disinfection which will be most effective. One does not require to emphasise the impossibility of disinfecting thoroughly a one or two-roomed house by formalin spray or formaldehyde while the family are still in occupation even if such a procedure were considered necessary. The practice should

only be adopted when other measures fail and under conditions which will ensure satisfactory results.

Details of the work done under these Regulations are to be found in Tables XXXVII., XXXVIII., and XXXIX. No comments are necessary here.

The Public Health (Port Administration Infectious Diseases) Regulations (Scotland) 1921.

Dr. Dickson, in her report, gives detailed information in the form requested by the Department of Health for Scotland of the work done under the Child Welfare Scheme during the year 1929. The extensions and alterations are proceeding at Lilybank Day Nursery and at Fleuchar Street, and these two institutions should be completed by the autumn of the present year. No decision has yet been arrived at regarding the proposal to have a combined nursery school and day nursery on the cleared site of the Blue Mountains area. The cost of the ground is the difficulty and it may be necessary to find another site in the same district.

Maternity Service and Child Welfare.

The infantile mortality was 102 per 1,000 births, the same as that for 1928, and the second lowest on record—the lowest being the 1923 figure of 98. There were 355 infant deaths in 1929 and 357 in 1928, which had a higher birth rate. Allocated in groups there were increases in the number of infants dying from congenital, digestive, and respiratory causes, and decreases in the infectious diseases and in “all other causes” groups. The absence of measles and whooping cough explains the lower infectious disease death-rate, and the presence of epidemic pneumonia in the early months of the year accounts for the higher number of respiratory deaths among infants. The factors responsible for the occurrence of the pneumonia epidemic may also have been responsible for the increase in the number of deaths certified as due to causes included in the congenital group. Certainly the infant death-rates from all causes were highest during the months when pneumonia was epidemic. The average monthly infantile mortality for the first four months of the year was 148, for the second four months 92, and for the third 114. The death-rate from the infectious, respiratory, and even the digestive group are fluctuating figures, varying with the prevalence of these infections. The congenital group infant death-rate, however, does not fluctuate to any extent. It is persistently high and has failed to show a satisfactory response to preventive measures mainly because these do not begin early enough. Practically all the deaths from congenital causes occur soon after birth and precautionary measures must commence before then if satisfactory results are to be expected. An extended maternity service scheme is necessary which will include the expectant mother and the infant up to the age of one

Infantile Mortality.

year. The child welfare scheme as at present constituted must be split up. The problem of the infant until it reaches the age of one year is a maternity problem and must be dealt with under a maternity service scheme. The child from one to five years presents quite a different set of problems which are similar to those of the school child, and which can more readily be dealt with by the organisation which covers the school child. The new Local Government Act will permit of a re-adjustment of these special schemes in the direction indicated, and will permit of the development of a more complete maternity service scheme concentrating on the pre-natal and natal factors responsible for the extraordinary number of deaths occurring immediately after birth. The volume of work now being performed in the two existing ante-natal clinics (one voluntary and one official) suggests that expectant mothers are beginning to realize the necessity for constant medical supervision. But an extension of this work is necessary. Every pregnant woman must be the subject of continuous study until her confinement is over, and the advice of a specialist must be immediately available should necessity arise. The private medical practitioner may undertake this work but the financial problem presents itself. It would appear to be necessary to have an ante-natal clinic in every district in the city and proposals with this object in view will shortly be placed before the Public Health Committee. The housing conditions in the city make it difficult in many cases to conduct the confinement in the home and generous institutional provision is required, which must include adequate accommodation for ante-natal cases requiring special attention which cannot be given at home. The hospital beds available for maternity cases—normal and difficult—cannot be considered as anything like adequate for the needs of the city, and this matter also calls for immediate attention.

Maternal death-rate is closely related to the infant death-rate. The figure for 1929 was 6.88 per 1,000 registered births. There were 24 maternal deaths; 11 of which were certified as being due to sepsis. An improved maternity service scheme will not only reduce the death-rate among infants but also the death-rate and morbidity rate, immediate and remote, among women exposed to risk.

There are 8 maternity homes registered in terms of the Midwives and Maternity Homes (Scotland) Act, 1927. Of these 6 are general nursing homes which also admit maternity cases. Of the others, one is Florence Booth House, Clement Park, Lochee, which is a Salvation Army Maternity Home, and has accommodation for 30 ante-natal unmarried women, and has also two wards for married women, one with five beds and one with two beds. The other is St. Ronan's Rescue Home, which has been slightly altered during the year and now has accommodation for 14 girls, either unmarried ante-natal cases or

unmarried nursing mothers and their babies or preventive cases. It has now a suitable isolation room for two cases. Three of the general nursing homes have only a few maternity cases—the maximum being six in any one year. All the homes and records were quite satisfactory when visited. In one, a recommendation made by the medical inspector to reserve a small room as a special isolation room has been carried out.

Details of the inspections made and of the food samples examined Food Supply are contained in the report of the Chief Sanitary Inspector, and Mr Anderson, the Slaughter-house Superintendent, submits full information in tables which are included in the statistical section of this report of the year's work under the Public Health (Meat) Regulations (Scotland), 1924.

There were no recognised outbreaks of food poisoning during 1929.

The year's work under the Milk and Dairies (Scotland) Act, 1914, and under the Milk (Special Designations) Orders is described in the report of the Chief Sanitary Inspector, and the Veterinary Surgeon deals very briefly with the subject.

Some 73 samples of milk collected in the course of distribution were sent for bacteriological examination. The results are given by Professor Tulloch in his report. Of the 73 samples, 48 were of ungraded milks, while 25 were of designated milks—pasteurised, 15; certified, 4; and Grade A. (T.T.), 6. Among the 48 samples purchased as ungraded milks, reports were received varying from *B. coli* absent in 1 c.c. Total count 3,000 to *B. coli* present in .001 c.c. Total count 3,000,000. The receipt of unfavourable reports is always followed by enquiry, and, although the true cause is never definitely ascertained, it is hoped that these enquiries will result in improved methods of handling during production and distribution. Some of the samples were bacteriologically very satisfactory; indeed several of the 48 satisfied the requirements for a certified milk. Milk sold as pasteurised was sampled for bacterial count 15 times. While 14 of these samples were below the minimum standard laid down in the relative Regulations, 1 was found to contain an excessive number of organisms. This licence holder was communicated with and he agreed to carry out certain improvements in his pasteurising plant.

One dairyman in the city is licensed to produce and sell certified milk and Grade A. (tuberculin tested) milk. Four samples of each of these grades were bacteriologically examined, and in each case the report was very satisfactory.

All the 25 milk samples examined for tubercle bacilli were negative.

Factory and
Workshop Acts.

The work which falls to be performed by the inspectors of the Local Authority was carried out as usual. The tabular statement required by the Home Office is reproduced in Table XLII., and the Chief Sanitary Inspector deals with the subject in his report.

Housing.

Full information is given by the Chief Sanitary Inspector in his special report for the year on the volume of work done in the way of providing new houses, improving old, and getting rid of those which were considered to be unfit for occupation. He submits figures which show to what extent compulsory powers by means of repair notices, closing and demolition orders, and improvement schemes were taken advantage of in order to improve the environment of the people. It is unnecessary to enlarge on his report and I propose to make some brief comments on certain matters which have been raised during the year. The proportion of two-roomed houses, the rents to be charged for houses erected for dislodged tenants, and the number of new houses still required, are three subjects which have been particularly prominent.

Two-roomed
houses.

In regard to the first of these, the proportion of two-roomed houses required in Dundee is a matter which has received a great deal of attention during recent years and particularly last year when various meetings were held in Edinburgh and elsewhere to discuss the subject. In June last, I prepared a statement dealing with the general question as it applied to Dundee, and the following paragraphs represent the substance of that statement.

When the post-war campaign was begun the house of three rooms (with kitchenette, bathroom and watercloset) was accepted as the starting point for consideration of the subject, and sympathy was given to the suggestion that houses of that size should be the smallest permissible for new houses, and that two-roomed houses (with kitchenette, etc.) should only be erected to meet the needs of families whose circumstances called for special consideration. The three-roomed house as the standard minimum was accepted by Dundee, in common with other local authorities, as a genuine attempt to improve the standard of housing. At the outset, it was realised that the maintenance of such a standard would be difficult and that relaxation of the rule would be necessary from time to time. The position is controlled by the financial resources of the people who are to occupy the houses, and also, of course, by the resources of the city and of the State. Experience has proved what was anticipated would be the case that a large number of families in Dundee that are urgently in need of new houses cannot pay the rents demanded for three-roomed houses. Indeed, many of them find it difficult to find the rents for new two-roomed houses. The result is that only a small proportion of the low paid section of the population of

Dundee has been able to share in the allocation of new houses. But the purely financial difficulty, while a dominant one, is not the only one. I have discussed the position with many families during visits of inspection to the poorer quarters of the town, and find that they have a fairly clear idea of their needs. The question of rent is, of course, always uppermost in their minds, but they also hold very definite views as to their actual requirements. The nature of the staple industry introduces special difficulties, which call for special treatment, apart altogether from that of rent. In order to distend the family income, the housewife has to work in the factory. She can only spend an hour or two daily in attending to her household duties. Accordingly, she wants a house just big enough and no more to accommodate her family in a healthy and decent manner. Many of these families are very small, consisting often of a single woman, or two women, or a man and wife beginning their married life, or perhaps an old couple who are still working or are living on a humble income, their families having set out on their own. Such families do not require three apartment houses plus annexes. They have not the time to keep all the rooms properly clean. The same may be said of the young married couple with one or two children. A two-roomed house nicely furnished and kept in a clean condition is preferable to a three-roomed house meagrely furnished and not maintained in a proper state of cleanliness. The housewife will have interest in her home stimulated to a much greater degree if she is permitted to have a little more time to attend to the decorative side and a little less time engaged in the drudgery of floor washing and window cleaning, etc. It is drudgery which is so demoralising and which rapidly destroys interest in the home. Drudgery is an important contributory factor in the production of the slum. New housing schemes have made household work much less of a toil by facilitating the removal of wet and dry refuse, by providing the necessities for the maintenance of cleanliness and by making it easier to heat the house and obtain hot water and by providing accommodation for the proper storage of food, etc. These conditions must prevail no matter what the size of the house may be. But the advantages secured thereby may in certain cases be affected if the small family has to occupy a house beyond their needs. Certainly overcrowding must be avoided and proper sex separation is essential, but the adoption of the three-roomed house as the standard is not necessarily the proper remedy for such evils.

I am satisfied that size of house in terms of number of rooms is a question which cannot be dealt with by fixing a standard for the whole country, or even for a whole community. Healthy life for the small family is quite possible in a tiny house, and very often more possible in a tiny house than in a larger one, provided there exists free access

for sunlight, free circulation of air round and in the house, places of recreation in the open air for persons of all ages, along with the facilities for the removal of refuse, maintenance of cleanliness, storage of food, etc., already mentioned. These are essential for every house, no matter how many rooms it contains, and they can be made the subjects of more or less fixed standards which must be complied with in every case. The size of house will then depend on the needs of the potential tenants. The number of small families in Dundee is such as to call for the provision of a number of houses of a size smaller than the three-apartment house. Up to the present time, something over 20 per cent. of the houses erected by the Dundee Housing Authority are of two rooms. In my view, Dundee housing schemes of the immediate future must reverse the proportion and provide for a much higher percentage of two-apartment houses. At a later date, the position can be reviewed. The two-roomed house will require more complete control than the three-roomed house, especially in regard to number of occupants. This can be done by means of bye-laws which local authorities are empowered to make under the Housing (Scotland) Act, 1925. The aspect of the housing problem in Dundee which calls for immediate action is the clearance of slums, and I am convinced that this can only be done by the provision of alternative accommodation suitable to the needs of the families to be dislodged.

In August 1929, I prepared a statement suggesting a method of applying these general views to a particular problem. The statement was based on figures submitted by the Chief Sanitary Inspector regarding the sizes of families occupying 320 houses in Dundee which had been closed by order, but which were still in occupation, and had reference particularly to a housing scheme comprising 228 houses being promoted on a site at Wester Clepington regarding which the Department of Health for Scotland had requested the Town Council to provide evidence in support of their decision to erect more than 25 per cent. two-roomed houses and had also asked what restrictions it was proposed to impose as regards eligibility for tenancy of two-roomed houses. In this statement, I pointed out that of the 320 houses closed by order which were still in occupation 126 were one-roomed houses (39·3%); 168 were two-roomed houses (52·5%); 15 were three-roomed houses (4·7%), and 11 were four (or over) roomed houses (3·5%).

Of the total, therefore, 91·8 per cent. were houses of less than three rooms.

The Town Council proposed that in order to rehouse these tenants, 75 per cent. of the first 228 new houses should be of two rooms, and 25 per cent. of three rooms, both two and three-roomed houses having kitchenette, w.c. and bath. There can be no doubt, therefore, that in

regard to size and convenience the standard of housing would be tremendously improved.

Section 59 of the Housing (Scotland) Act, 1925, makes it compulsory for a local authority to make bye-laws with respect to dwelling-houses used or intended to be used for occupation by the working classes. Such bye-laws must deal with, *inter alia*, the number of adult persons and children who may occupy a house, such number to be prescribed in accordance with a cubic space standard.

The bye-law drafted for Dundee under this Section reads as follows :—

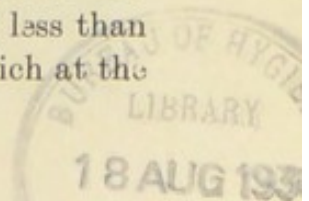
“The number of adult persons and children who may occupy a house shall not exceed a number which will permit of at least 500 cubic feet of air space for each adult person—and half that amount for any child under ten years of age. In the case of one-apartment houses, however, the standard shall be 600 cubic feet for adults and 400 cubic feet for a child under ten years of age.”

Under this particular Section it would appear that the Local Authority cannot adopt “a persons per house standard” but must adhere to “a cubic space standard.” The standard proposed is far too low for new houses.

Section 55 (1) of the Housing (Scotland) Act, 1925, however, reads as follows :—

“The Local Authority may make bye-laws for the management, use, and regulation of dwelling-houses provided by them.”

The necessary authority to make bye-laws would appear to be provided by this Section. In any case, it would probably be quite in order for the Town Council to make regulations controlling the letting of houses which they have built and which they manage themselves. The most important subject for regulation is the number of persons who will be permitted to occupy a two-roomed house erected and controlled by the Corporation. In my opinion, the maximum should be three adults allowing two children under ten years to equal one adult. Such a standard would mean that the City Factor would not let a two-roomed house to any family which was greater in size than the equivalent of three adults. It would also mean that if a house was let to a family of three or less adults, and the family increased to more than the equivalent of three adults, the tenant would have to remove from the house. It may be considered whether or not it would be permissible to permit the tenant to remain in a house if the three adult standard is exceeded by an infant until the infant were, say, two years old. That is to say, the standard of three adults plus an infant of less than two years would only be permitted in the case of a family which at the



time of taking the house consisted of three adults or less, and during the period of the let, the arrival of an infant resulted in a slight increase beyond the three adult maximum. Immediately such an infant reaches the age of two years, the house would have to be vacated unless some adjustment made it possible to limit the size of the family residing in the house at three adults or the equivalent thereof. No doubt any regulations or bye-laws framed by the Local Authority regarding two-roomed houses would deal with other matters besides the size of family. Bye-laws would probably make it an offence for anyone to attempt to secure a two-roomed house by giving false information regarding the size of his family. Bye-laws might also make it incumbent on the occupier to intimate to the City Factor if his family exceeded the equivalent of three adults.

Assuming that the new two-roomed house (plus kitchenette and bath) is not to be let to a family which consists of more than the equivalent of three adults (two children under ten years are considered to equal one adult), the sizes of the families occupying the 320 houses closed by order and still in occupation were examined in order to discover how many of these were equivalent in size to three or less adults. From Mr Mitchell's statement, it would appear that 107 of the 126 families occupying one-roomed houses were equivalent in size to three or less adults; 99 of the 168 families occupying two-roomed houses were equivalent to three or less adults; 5 out of the 15 families occupying three-roomed houses were equivalent to three or less adults, and 2 out of the 11 families occupying 4 (or over) roomed houses were equal to three or less adults. Of the 320 houses, therefore, 213 (66 per cent.) were occupied by families equal in size to three or less adults. From the age and sex distribution point of view and adopting the three adult standard for a two-roomed house, to re-house the 320 families occupying houses closed by order, 320 new houses would be required, as follows:— 212 or 66 per cent. two-roomed houses; and 108 or 34 per cent. of more than two-roomed houses. If instead of a three adult standard for two-roomed houses there is adopted a three and a half adult standard, the new houses required to accommodate the 320 families occupying houses closed by order, and still in occupation, would consist of 230 or 72 per cent. two-roomed houses, and 90 or 28 per cent. of more than two-roomed houses.

It is agreed that if circumstances made it possible, a minimum standard of three rooms for every new house would be an admirable thing, but for the reasons stated it does not appear possible yet to adopt such a standard, and meantime the size of house for rehousing purposes must be fixed after a study of the figures showing the sizes of families occupying the dwellings to be demolished.

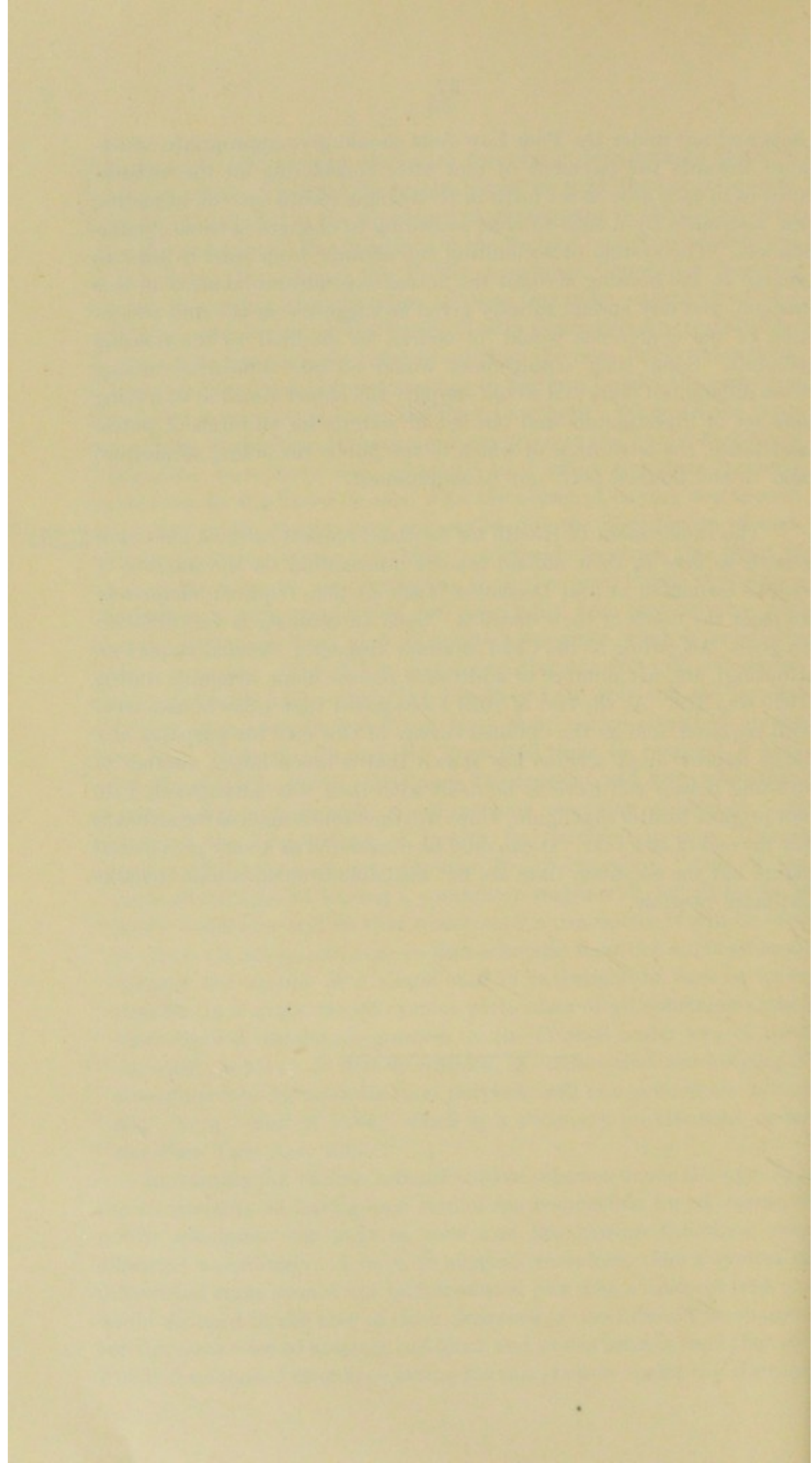
The second of the three subjects which I have mentioned deals ^{Rents.} with the rents to be charged for houses erected for dislodged tenants. From a joint report by the Convener of the Housing Committee and the Director of Housing, who attended a conference of the National Housing and Town Planning Council and the Scottish National Housing and Town Planning Committee held at Buxton towards the end of the year, it would appear that Dr. Millard of Leicester suggested differential rents based on the number and status of children in a family as a means of solving the rent problem, and that Sir William Whyte, Middle Ward of Lanarkshire, submitted a paper in which he recommended that family earnings rather than the number of children should be the chief criterion. It was finally resolved that in the opinion of the Conference (a) a special subsidy should be provided to enable poor families with many dependants to occupy healthy modern dwellings, and that (b) the Exchequer assistance provided towards the expenses incurred by a Local Authority in carrying out a slum clearance scheme should be increased from one half to three-quarters of the estimated average annual loss on the whole scheme. It was apparently agreed (1) that assistance of some sort had to be given out of public funds in order to solve the rent problem, and (2) that the amount of assistance must vary according to the economic circumstances of the tenants. It was also the general opinion, as expressed in the resolutions, that the State should shoulder a larger share of the public burden. I offer no comment on this last point, but I think there will be general agreement on the points (1) and (2) regarding which a few observations might be made, particularly on the method of providing assistance in the form of a reduction in rent. In making these observations, I am taking into consideration the changes in local government which will take place in Dundee as the result of the Local Government (Scotland) Act, 1929. The letting of houses in the same block or even in the same scheme at different rents for the same type of house may lead to serious difficulties. Trouble might arise among the tenants themselves, and the committee and official responsible for adjusting the rents would find their work seriously hampered. Constant changes in the economic circumstances of a particular family would call for constant changes in rents, and the Factorial Committee and the City Factor, assuming that that department will be the one responsible for fixing rents, would require to keep detailed records of the economic circumstances of each tenant, new entries being made on the occurrence of any event involving alterations in these circumstances. Presumably each case would require to be investigated by officials of the Factorial Department, which would become to some extent a public assistance department. That may or may not be considered a desirable thing, but there would be considerable likelihood of overlapping with other

departments. At present there are too many departments engaged in issuing relief, and one of the results hoped for from the Local Government (Scotland) Act is the avoidance of overlapping in the distribution of public assistance. The functions of the Parish Council are transferred to the Town Council and the Public Assistance Committee becomes responsible for the administration of these functions, except those of a medical nature, for which the Public Health Committee are responsible. It cannot be too strongly emphasised that the new Public Assistance Committee have many other functions to perform besides the provision of relief to poor persons under the Poor Law Acts. While all the functions of the Parish Council have not been given to the Public Assistance Committee, there have been allocated to it many functions formerly carried out by the Town Council with the object of having one department only of the Corporation responsible for the distribution of non-medical public assistance. I think it advisable to stress this point as there appears to be an impression that the new Public Assistance Committee is only responsible for poor relief and that anyone who receives assistance from that Committee becomes what is popularly termed a pauper. The Public Assistance Department will give assistance under many Acts other than the Poor Law Acts and the persons receiving such assistance will not have their names inscribed on the Poor Roll. Indeed, although the Poor Roll must be retained, I have no doubt that the Public Assistance Department will keep a separate register containing records of all persons receiving assistance. As stated by the Department of Health for Scotland in one of their circulars (Public Assistance—Circular No. 2—page 5), “One of the
 “main advantages of having a committee responsible for all forms of
 “public assistance will be that under such a committee it will be easy
 “to carry out all enquiries as to domestic and financial circumstances
 “through the agency of a single staff of investigators, and to bring
 “together in a single record system particulars of all assistance (other
 “than medical assistance) granted by the Council under any of their
 “statutory powers. It will be realised, of course, that the keeping of
 “a single record for co-ordination purposes will not obviate the necessity for a ‘Roll of Poor,’ which is a statutory requirement under
 “the Poor Law Act, 1845.”

In framing the various administrative schemes under the new Act, the advisability of having one committee responsible for all forms of public assistance was kept in view and the various functions were allocated accordingly. I have to suggest, therefore, that a system of differential rents should not be introduced but that a uniform rent (no doubt reduced in the case of slum clearance houses) should be charged for the same class of house in one block and in one scheme, and that the Public Assistance Committee acting for this purpose under the Housing

Acts and not under the Poor Law Acts should give appropriate assistance towards the payment of rent after considering all the circumstances in each case as set forth in their single record system, adjusting the assistance from time to time according to changes in these circumstances. The system of accounting can arrange from time to time to charge to the housing account the actual expenditure incurred in this fashion, and any special subsidy given as suggested in the first resolution of the conference would, of course, be credited to the housing account. Some such arrangement would obviate difficulties arising from differential rents and would simplify the object aimed at of having one set of investigators and one set of records for all forms of public assistance, the advantage of which to the public (including applicants) and to the Council need not be emphasised.

The Department of Health for Scotland request medical officers of health to give in their annual reports information on the number of houses estimated at 31st December, 1929, as then required adequately to meet the needs of their districts. Such an estimate is very difficult to give. According to the Chief Sanitary Inspector (Annual Report on Housing), the net number of additional houses made available during 1929 was 379. At the end of 1928 I estimated that 1,250 houses were still required, and as the detailed survey of this city for purposes of a large improvement scheme has shown that a much larger number of existing houses will have to be dealt with than was anticipated, I do not propose to alter that figure, which will therefore remain as the estimate for the end of last year. It can only be considered as a very provisional figure but the necessary data are not available to make a more reliable estimate possible.



STATISTICAL TABLES
AND CHARTS

STATISTICAL TABLES
AND CHARTS

LIST OF STATISTICAL TABLES AND CHARTS.

-
- Table 1. Age and Sex Distribution of Population, 1929.
- Table 2. Estimated Population in various wards, 1929.
- Table 3. Deaths (all causes) at various age periods, 1929.
- Table 4. Death-rates at various age periods (from all causes) each year, 1925-1929.
- Table 5. Death-rate (from all causes) each month during the years 1925-1929.
- Table 6. Death-rate (from all causes) in various wards each year since 1920.
- Table 7. Birth-rate in various wards each year since 1920.
- Table 8. Infantile Death-rate (per 1,000 births) in various wards each year since 1920.
- Table 9. Death-rate in various wards each year since 1920 from 6 principal Epidemic Diseases, namely, Enteric Fever, Scarlet Fever Diphtheria, Infantile Diarrhoea, Measles, and Whooping Cough.
- Table 10. Pulmonary Tuberculosis Death-rate in various wards each year since 1920.
- Table 11. Tuberculosis (all forms) Death-rate in various wards each year since 1920.
- Table 12. Certified causes of death at the various ages under 1 year for 1929.
- Table 13. Infant Mortality from various groups of causes, 1890-94, and each year from 1913.
- Table 14. Infant Mortality from all causes at various age periods since 1916.
- Table 15. Deaths and Death-rates from various groups of causes each year since 1925 (all ages).
- Table 16. Number of illegitimate births, number of deaths (under 1 year) of illegitimate infants, and death-rate per 1,000 illegitimate births since 1920.
- Table 17. 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.
- Table 18. Five-yearly average annual Case Mortality (per cent.) from certain Infectious Diseases, 1891-1925, and number of cases notified and intimated, number of deaths, and case mortality each year since 1926.
- Tables 19, 20, and 21. Malignant Diseases.

- Table 22. Five-yearly average annual Death-rates per 100,000 population, 1876-1925, 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.).
- Table 23. Five-yearly average annual Death-rates per 100,000 population, 1876-1925, and number of Deaths and Death-rates per 100,000 each year since 1926, from Diabetes Mellitus.
- Tables 24 and 25. Influenza.
- Table 26. Infectious Diseases—Number of Cases of each disease notified and reported in Dundee during the year 1929. Also number removed and number not removed to Hospital.
- Table 27. Monthly notifications and intimations of Infectious Disease, Dundee, 1929.
- Table 28. Tuberculosis—Notifications and Deaths with corresponding rates per 1,000 population at various age periods each year since 1917.
- Table 29. Tuberculosis—Notifications and Deaths, with corresponding rates per 1,000 population, for each year since 1913 (since notification became compulsory).
- Table 30. Tuberculosis—Notifications and Deaths, with corresponding rates per 1,000 population in various wards, 1929.
- Table 31. Pulmonary Tuberculosis—Notifications and Deaths with corresponding rates per 1,000 population for each sex each year since 1915.
- Table 32. Pulmonary Tuberculosis—Deaths in Institutions each year since 1920.
- Tables 33, 34, and 35. Maternal Mortality, Birth, Illegitimate Birth, and Marriage Rates.
- Table 36. Vaccination, 1921-1928.
- Tables 37, 38, and 39. The Public Health (Port Administration Infectious Diseases) Regulations (Scotland), 1921.
- Table 40. Bacteriological Laboratory, 1922-1929.
- Table 41. Disinfection, 1929.
- Table 42. Factories, Workshops, and Workplaces, 1929.
- Table 43. Dundee Infant Hospital, 1929.
- Tables 44, 45, 46, 47, and 48. Venereal Diseases Scheme.
- Tables 49, 50, 51, 52, and 53. Unsound Food.
- Chart No. 1. Death-rate per 1,000 population, 1880-1929.
- Chart No. 2. Infant Mortality, 1880-1929.
- Chart No. 3. Pulmonary Tuberculosis Death-rate per 1,000 population, 1880-1929.
- Chart No. 4. Birth-rate per 1,000 population, 1880-1929.
- Chart No. 5. Vital Statistics of the various wards, 1929.

TABLE I.

AGE and SEX DISTRIBUTION of POPULATION, 1929.

Population (estimated by Registrar-General), 167,109.

Percentage of Males to total population (Census, 1921)	....	44.4%
" " Females " " " "	....	55.6%
Estimated Sex Distribution for 1929 :—Males	....	74,196
Females	....	92,913

Age Groups.	Percentage to total at all Ages (Census 1921).		Estimated Age and Sex Distribution for 1929.			
	Males.	Females.	Males.	Females.	Both Sexes.	
0-5	10.0	7.7	7,420	7,154	14,574	
5-10	10.1	8.1	7,494	7,526	15,020	
10-15	10.9	8.8	8,087	8,176	16,263	
15-25	18.8	19.0	13,949	17,653	31,602	
25-35	13.6	15.3	10,091	14,216	24,307	
35-45	12.1	13.5	8,978	12,543	21,521	
45-55	11.8	12.1	8,755	11,243	19,998	
55-65	7.8	8.5	5,787	7,898	13,685	
65-75	3.8	5.0	2,819	4,646	7,465	
75-85	1.0	1.8	742	1,672	2,414	
85 and over	.1	.2	74	186	260	
All Ages	100.0	100.0	74,196	92,913	167,109	

TABLE II.

Estimated population in various Wards, 1929.

Ward.	Population (Census 1921).	Percentage to total Population (Census 1921).	Estimated Population for 1929.
I.	14,506	8.6	14,371
II.	12,500	7.4	12,366
III.	15,946	9.5	15,875
IV.	18,766	11.2	18,716
V.	22,401	13.3	22,226
VI.	17,731	10.5	17,547
VII.	18,049	10.7	17,881
VIII.	18,880	11.2	18,716
IX.	18,614	11.1	18,549
X. and XI.	10,922	6.5	10,862
Totals	168,315	100.0	167,109

TABLE III.
Return showing the Causes of Death (Corrected for Transfers) at the Different Age-Periods during 1929 :—

CAUSE OF DEATH.	ALL AGES.		AGE.										85 & Over.
	Total.	Males, Females.	—1	1—	5—	10—	15—	25—	35—	45—	55—	65—	75—
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...
Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	1	1	1	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	3	1	2	...	...	...	2	...	...	...	...	...	...
Whooping Cough	7	4	3	2	1	...	...	...	...	...	...	...	...
Diphtheria	13	10	3	7	4	1	1	...	...	...	...	...	...
Influenza	72	31	41	6	3	1	2	5	7	4	10	13	16
Encephalitis Lethargica	3	1	2	...	...	...	2	...	...	...	...	1	...
Cerebro-Spinal Meningitis	6	3	3	3	...	...	...	...	...	...	...	...	...
Other Epidemic Diseases	9	2	7	1	2	...	...	...	2	2	1	...	1
Tuberculosis of Respiratory System	130	61	69	1	2	2	27	31	33	23	4	6	...
Tuberculous Meningitis	18	9	9	4	1	2	3	...	...	...	...	...	...
Tuberculosis of Intestines and Peritoneum	9	4	5	1	...	...	2	2	2	2	...	...	...
Other Tuberculous Disease	18	6	12	3	1	1	5	4	1	...	1	...	...
Malignant Tumours	281	101	180	...	...	1	3	3	18	35	85	89	41
Rheumatic Fever	6	2	4	1	...	1	2	...	1	...	1	...	...
Meningitis (not Cer.-Sp. or T.B.)	15	8	7	4	1	2	1	...	...	...	1	...	...
Apoplexy	226	88	138	...	...	...	1	2	2	13	53	83	60
Heart Disease	359	159	200	1	...	1	9	8	14	40	77	125	72
Diseases of Arteries	49	22	27	...	...	...	...	...	...	1	5	20	3
Bronchitis	189	90	99	17	4	...	...	4	8	14	22	53	13
Pneumonia (all forms)	371	191	180	86	11	2	11	14	28	20	37	40	30
Other Diseases of Respiratory System	47	20	27	2	1	...	1	...	1	7	10	14	8
Diarrhoea and Enteritis (under 2 years)	37	19	18	31	6	...	...	...	...	...	...	...	...
Appendicitis	15	8	7	1	1	2	1	...	...	5	2	3	...
All Diseases of Liver (not Malignant)	16	8	8	...	...	...	...	...	1	2	7	4	2
Nephritis, Acute and Chronic	75	40	35	1	...	...	7	2	4	11	21	19	10
Puerperal Sepsis	11	...	11	...	...	...	3	7	1	...	...	...	...
Other Diseases and Accidents of Pregnancy and Parturition	13	...	13	...	...	...	1	10	2	...	...	...	...
Diseases of Early Infancy and Malformations	165	93	72	162	2	1	...	...	...	...	...	...	...
Suicide	29	14	15	...	...	...	1	6	8	3	8	2	1
Other Violent Deaths	81	55	26	2	11	2	7	7	4	8	11	11	10
Other Defined Diseases	360	165	195	23	6	5	9	15	28	32	44	71	86
Causes Ill-defined or Unknown	36	24	12	1	...	...	1	1	2	7	7	11	5
All Causes	2670	1239	1431	355	158	35	24	104	121	167	229	565	414
	...	...	...	...	...	...	...	...	...	...	...	...	91

Note.—2 deaths from Paratyphoid Fever are included under "other Epidemic Diseases."

TABLE IV.

Death Rates at various Age-Periods (from all causes) each year.
1925-1929.

Age. Periods.	1925.		1926.		1927.		1928.		1929.	
	No. of Deaths.	Death Rate.	No. of Deaths.	Death Rate.	No. of Deaths.	Death Rate.	No. of Deaths.	Death Rate.	No. of Deaths.	Death Rate.
All ages	2825	16.7	2514	14.8	2918	16.9	2598	15.1	2670	16.0
0- 5 years	764	51.7	539	36.3	783	52.1	509	33.9	513	35.2
5-10 „	53	3.5	47	3.1	51	3.3	58	3.7	35	2.3
10-15 „	27	1.6	27	1.6	28	1.7	26	1.6	24	1.5
15-25 „	131	4.1	89	2.8	104	3.2	92	2.8	104	3.3
25-35 „	114	4.6	99	4.0	134	5.3	118	4.7	121	5.0
35-45 „	152	7.0	152	6.9	147	6.6	141	6.4	167	7.8
45-55 „	259	12.8	224	11.0	239	11.6	238	11.5	229	11.5
55-65 „	368	26.5	364	26.1	404	28.6	414	29.4	407	29.7
65-75 „	489	64.6	517	68.1	530	68.8	523	68.0	565	75.7
75-85 „	365	149.2	357	145.3	382	153.3	381	153.1	414	171.5
85 and over	103	390.2	99	373.6	116	431.2	98	367.0	91	350.0

TABLE V.

Death-rate (from all causes) each month during the years 1925-1929.

(From Registrar-General's monthly returns.)

Month.	1925.	1926.	1927.	1928.	1929.
January	25.2	16.3	18.6	18.9	21.7
February	21.0	17.5	23.7	15.0	31.2
March	16.0	14.8	25.8	17.1	17.3
April	16.7	18.9	15.0	17.9	15.1
May	14.6	13.7	13.8	14.9	14.9
June	13.7	11.6	15.5	13.3	12.6
July	11.7	11.0	14.5	13.1	12.1
August	12.1	13.4	15.4	13.4	10.6
September	13.4	12.1	14.0	12.8	11.3
October	15.5	14.9	15.7	13.4	13.6
November	17.9	16.6	14.7	13.0	13.5
December	19.8	16.4	18.5	15.4	12.5

TABLE VI.

Death-rate (from all causes) in various Wards each year since 1920.

Year.	Whole.	WARDS.									
	City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11
1920	15.8	16.2	16.7	16.9	15.1	13.6	18.1	14.6	15.2	14.1	19.2
1921	15.8	15.2	16.5	15.2	15.3	13.8	17.4	14.2	16.9	13.5	12.8
1922	16.7	16.0	17.0	18.1	15.5	14.4	18.1	15.0	18.1	15.3	14.0
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

TABLE VII.

Birth-rate in various Wards each year since 1920.

Year.	Whole	WARDS.									
	City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11.
1920	27.4	29.3	27.4	29.3	24.6	26.7	28.9	28.0	30.1	27.0	21.0
1921	26.5	27.9	27.7	25.2	25.1	26.8	29.3	24.9	32.3	24.1	17.8
1922	24.6	27.2	24.6	24.6	22.5	21.1	27.5	24.6	28.3	25.1	19.2
1923	24.6	27.7	24.6	26.0	21.8	22.3	27.7	28.8	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

TABLE VIII.

Infantile Death-rate (per 1,000 births) in various Wards each year since 1920.

Year.	Whole	WARDS.									
	City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11.
1920	131	131	153	150	142	141	150	87	131	133	52
1921	114	130	124	103	101	109	130	131	114	96	99
1922	109	81	101	136	121	109	115	99	125	98	76
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	123	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

TABLE IX.

Death-rate in various Wards each year since 1920 from 6 principal Epidemic Diseases, namely Enteric Fever, Scarlet Fever, Diphtheria, Infantile Diarrhoea, Measles and Whooping Cough

Year.	Whole	WARDS.									
	City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11.
1920	1.05	1.15	.90	1.18	.96	.93	1.95	.78	.89	1.09	.34
1921	1.09	1.00	1.15	1.04	.99	.93	1.56	1.37	1.24	1.04	.37
1922	.80	1.09	.72	.66	.67	.95	1.08	.89	.84	.43	.54
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

TABLE X.

Pulmonary Tuberculosis Death-rate in various Wards each year since 1920.

Year.	Whole	WARDS.									
	City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11.
1920	.99	.90	1.35	1.29	.81	.81	1.21	.88	.93	.86	.51
1921	1.00	1.12	1.23	1.04	.99	.80	1.38	.85	1.13	.74	.56
1922	.98	.54	1.12	.95	.87	1.17	1.18	.72	1.16	.92	.63
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	1.13	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

TABLE XI.

Tuberculosis (all forms) Death-rate in various Wards each year since 1920.

Year.	Whole	WARDS.									
	City.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10 & 11.
1920	1.37	1.02	1.57	1.63	1.05	1.21	1.95	1.09	1.38	1.37	.68
1921	1.35	1.62	1.81	1.60	1.30	.98	1.68	1.31	1.40	1.04	.65
1922	1.37	.82	1.44	1.31	1.43	1.51	1.80	1.00	1.63	1.36	.63
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	1.18	.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

TABLE XII.

Certified causes of death at the various ages under 1 year for 1929.

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	....	1
Scarlet Fever	....	....	....	....	....	....	....	....	....	....	1	1
Whooping Cough	....	....	....	....	....	....	....	1	2	....	1	4
Diphtheria	....	....	....	....	....	....	....	....	....	....	....	....
Infantile Paralysis	....	....	....	....	....	....	....	....	....	....	....	....
Cerebro-Spinal												
Meningitis	....	....	....	....	....	....	....	....	....	1	2	3
Tuberculosis	Lung	....	....	....	....	....	....	....	....	1	....	1
	General	....	....	....	....	....	....	....	....	....	....	....
	Abdominal	....	....	....	....	....	....	....	....	....	....	....
	Brain	....	....	....	....	....	....	....	1	1	2	4
Other Forms	....	....	....	....	....	....	....	....	....	....	2	2
Influenza	....	1	....	....	....	1	....	....	2	1	2	6
Other Infectious												
Diseases	....	....	....	....	....	....	....	1	....	....	....	1
Pneumonia (all forms)	....	2	1	2	2	7	7	5	29	19	20	87
Bronchitis	....	2	2	1	....	5	2	1	6	3	1	18
Laryngitis	....	....	....	....	....	....	....	....	....	....	....	....
Other Diseases of												
Respiratory System	....	....	....	....	....	....	....	....	1	....	....	1
Diarrhoea and												
Enteritis	....	....	2	1	....	3	2	1	13	9	3	31
Other Diseases of												
Digestive System	....	1	....	....	1	2	1	1	3	....	1	8
Meningitis (not T.B.)	....	....	....	....	....	....	1	....	3	1	1	6
Convulsions	....	....	....	....	....	....	....	1	2	....	....	3
Other Diseases of												
Nervous System	....	....	....	....	....	....	....	....	....	....	....	....
Congenital Malforma-												
tions	....	5	3	2	....	10	3	2	3	....	1	19
Congenital Debility,												
Icterus, Sclerema,												
Marasmus	....	14	6	5	6	31	7	8	14	1	....	61
Premature Birth	....	48	6	4	3	61	5	....	1	....	....	67
Injury at Birth	....	6	1	....	....	7	....	....	1	....	....	8
Other Diseases												
peculiar to Early												
Infancy	....	3	....	....	....	3	....	....	....	....	....	3
Suffocation, Overlay-												
ing	....	2	....	1	....	3	....	....	1	....	....	4
Rickets	....	....	....	....	....	....	....	....	....	....	....	....
Syphilis	....	....	....	....	....	....	2	1	1	1	....	5
Violence	....	....	....	....	....	....	....	....	....	....	1	1
All other Causes	....	3	4	....	....	7	1	....	1	1	....	10
Total	....	87	25	16	12	140	31	22	84	40	38	355

TABLE XIII.

Infant Mortality from various groups of causes, 1890-94, and each year from 1913.

Year. Average.	Con- genital.	Diges- tive.	Respira- tory.	Infectious Diseases.	All Other Causes.	Total.
1890-94	53	32	44	25	29	183
1913	62	40	28	12	20	162
1914	58	33	15	17	13	136
1915	64	38	38	51	18	209
1916	63	20	15	13	15	126
1917	57	24	24	13	19	137
1918	53	16	24	20	13	126
1919	60	13	30	8	15	126
1920	53	21	36	10	11	131
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

TABLE XIV.

Infant Mortality from all causes at various age periods since 1916.

Year.	Births.	Death Rates.			
		Under 1 Week.	Under 1 Month.	Under 3 Months.	Under 1 Year.
1916	3,725	32	49	74	126
1917	2,842	25	42	68	137
1918	2,902	27	45	65	126
1919	3,466	29	51	78	126
1920	5,047	26	44	72	131
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

TABLE XV.

Deaths and Death-rates from various groups of causes each year since 1925 (all ages).

DISEASE GROUP.	1925.		1926.		1927.		1928.		1929.	
	Pop. 169,361.		Pop. 170,060.		Pop. 172,444.		Pop. 172,214.		Pop. 167,109.	
	No. of Deaths.	Rate per 1,000 Population.	No. of Deaths.	Rate per 1,000 Population.	No. of Deaths.	Rate per 1,000 Population.	No. of Deaths.	Rate per 1,000 Population.	No. of Deaths.	Rate per 1,000 Population.
Congenital	200	1.18	216	1.27	177	1.03	164	.95	170	1.02
Digestive	137	.81	137	.81	153	.89	128	.74	136	.81
Respiratory	518	3.06	401	2.36	592	3.43	471	2.73	607	3.63
Infectious	511	3.02	351	2.06	499	2.89	305	1.77	306	1.83
Circulatory	414	2.44	350	2.06	427	2.48	403	2.34	410	2.45
Genito-Urinary	90	.53	94	.55	94	.55	78	.45	106	.63
Malignant	295	1.74	272	1.60	279	1.62	338	1.96	280	1.68
Nervous	265	1.57	285	1.68	291	1.69	283	1.64	281	1.68
Other Causes	395	2.33	408	2.40	406	2.35	428	2.49	374	2.24
Totals	2825	16.68	2514	14.78	2918	16.92	2598	15.09	2670	15.98

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 1,000 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	153
1929	265	29	109

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	—	—	—	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	—	—	—	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

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

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

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	15.58
1927	14.50	17.21	16.01
1928	18.05	20.89	19.63
1929	13.61	19.27	16.76

TABLE

Age and Sex Distribution of Deaths from Malignant Diseases

AGE GROUPS	BUCCAL CAVITY			PHARYNX, OESOPHAGUS, STOMACH, LIVER, and ANNEXA							PERITONEUM, INTESTINES and RECTUM									FEMALE GENITAL ORGANS			TOTAL		
	Jaw	Lip	Tongue	Gall Bladder	Liver	Oesophagus	Pharynx	Pylorus	Stomach	Ventriculi	Bowel	Caecum	Colon	Ascending Colon	Descending Colon	Pelvic Colon	Duodenum	Intestine	Rectum	Sigmoid Flexure	Cervix	Ovary		Uterus	
Under 20	M	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	F	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20-25	M	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	F	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
25-35	M	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	F	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
35-45	M	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	F	...	...	...	1	1	...	...	1	...	...	1	...	...	...	...	...	1	...	2	...	4	...	...
45-55	M	...	...	...	...	1	...	...	3	...	1	...	1	...	...	...	...	1	1	...	...	...	...	...
	F	...	...	...	...	2	...	...	4	...	...	1	...	...	...	...	1	1	1	...	...	...	5	...
55-65	M	3	...	2	1	3	1	1	12	...	...	4	...	...	...	...	...	2	1	...	...	...	...	...
	F	...	...	...	...	1	1	...	6	1	1	3	...	...	3	...	1	2	1	1	1	1	4	...
65-75	M	...	1	3	1	1	1	2	5	...	...	2	...	...	...	...	...	4	...	...	...	...	...	...
	F	...	...	...	...	5	1	...	16	...	6	1	8	...	1	...	...	1	2	...	...	1	1	...
& over	M	1	...	1	...	...	...	...	1	...	...	1	...	...	...	...	1	...	1	...	...	...	...	...
	F	...	...	...	...	2	2	1	6	2	1	1	6	1	...	...	...	1	5	1	...	...	1	...
Totals		4	1	6	2	14	10	4	2	55	3	9	3	26	1	1	3	2	7	18	2	3	2	15	2

CXI.

uring 1929, showing parts of the body affected.

SKIN				OTHER OR UNSPECIFIED ORGANS																			TOTALS		
(Unqualified)	Face	Penis	Rodent Ulcer	Abdomen	Bladder	Bone	Brain	Chest Wall	Kidney	Larynx	Leg	Lung	Mediastinum	Neck	Orbit	Pancreas	Pelvis	Prostate	Spine	Throat	Thyroid Gland	Other Parts			Not Specified
...	1	1	1	3	3
...	0	
...	0	1
...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	
...	2	3
...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
...	1	1	1	4	18
...	14	
...	1	1	10	36
...	1	1	...	1	...	...	...	...	1	1	...	...	2	...	...	...	...	...	...	...	26	
...	1	2	1	2	2	...	1	...	2	1	1	2	45	85
...	2	...	...	...	...	...	...	...	1	1	...	...	1	1	...	...	...	...	1	1	40	
...	1	2	1	1	26	88
...	1	...	...	...	...	1	...	1	1	1	...	...	1	...	...	1	...	2	1	...	62	
...	1	1	1	2	...	11	46
...	...	1	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	35
1	2	1	5	4	2	1	2	1	1	2	8	6	2	2	1	7	2	2	2	1	3	5	3	280	

TABLE XXII.

Five-yearly average annual Death-rates per 100,000 population 1876-1925, 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
1876-1880	—	508.5
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

TABLE XXIII.

Five-yearly average annual Death-rates per 100,000 population 1876-1925, 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
1876-1880	—	—
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

TABLE XXIV.

INFLUENZA.

Deaths in which Influenza was given as a cause, each month

January 1920—December 1929.

MONTH.	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
January	4	5	73	2	0	5	1	6	1	6
February	0	6	19	0	2	2	0	14	0	55
March	4	8	3	0	7	3	0	27	3	4
April	55	4	1	2	8	3	14	3	1	1
May	24	2	1	1	2	0	8	0	0	0
June	0	0	0	1	1	0	1	2	0	1
July	1	0	0	0	0	0	0	0	0	2
August	0	0	0	0	0	0	2	0	0	0
September	0	1	0	1	3	3	1	3	1	0
October	2	0	1	0	0	1	2	6	2	0
November	0	2	4	1	10	1	5	4	3	2
December	0	5	1	4	6	2	2	4	7	1
Totals	90	33	103	12	39	20	36	69	18	72

TABLE XXV.

Deaths in which Influenza appears as a cause in death certificate

1920-1929 classified in age periods.

AGE PERIODS.	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
Under 1 year	3	0	4	0	1	0	1	3	1	6
1- 5 years	13	0	3	0	1	2	2	4	0	3
5-15 "	4	1	2	0	1	0	1	3	0	2
15-25 "	12	2	5	0	1	0	3	3	1	2
25-45 "	25	2	28	2	8	3	4	11	4	12
45-65 "	14	9	26	2	12	7	8	21	4	14
65 and upwards	19	19	35	8	15	8	17	24	8	33
Totals	90	33	103	12	39	20	36	69	18	72

During 1929, 11 deaths were certified as due to Influenza alone,
while in 61 cases it was associated with:—

Bronchitis	14
Pneumonia	38
Other Respiratory Disease	4
Dis. and Acc. of Preg. and Part.	1
Other cause	4

TABLE XXVI.

INFECTIOUS DISEASES.—Number of cases of each disease notified and reported in Dundee during the year 1929. Also number removed and number not removed to Hospital.

DISEASE.	At all ages.	At Age—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			
Typhoid Fever	17	....	1	2	4	5	5	....	16	1
Scarlet Fever	822	4	172	496	96	50	3	1	484	338	
Diphtheria	437	9	120	232	42	28	6	....	394	43
Erysipelas	215	5	7	5	15	61	90	32	65	150	
Puerperal Fever	32	....	....	....	10	21	1	....	22	10
*Puerperal Pyrexia	22	....	....	....	11	11	....	....	20	2
Ophthalmia											
Neonatorum	91	91	....	....	....	....	....	....	12	79
Malaria	2	....	....	....	1	1	....	....	2	....
Dysentery	8	....	....	....	....	5	3	....	5	3
Infantile Paralysis	2	1	1	....	....	....	....	....	1	1
Polio-encephalitis	3	1	1	....	1	....	....	....	2	1
Encephalitis Lethargica	8	....	....	....	2	3	2	1	4	4
Acute Primary											
Pneumonia	810	120	297	149	62	82	71	29	581	229	
Acute Influenzal											
Pneumonia	83	4	23	6	13	18	12	7	30	53	
Pulmonary											
Tuberculosis	260	1	4	63	65	88	33	6	194	66	
Non-Pulmonary											
Tuberculosis	90	9	21	23	19	14	4	....	48	42
Cerebro-Spinal Fever	8	3	5	....	....	....	....	....	8	....
Chickenpox	1149	71	277	778	16	6	1	....	12	1137
† Measles	72	3	18	50	....	1	....	....	3	69
† Whooping Cough	208	21	89	98	....	....	....	....	14	194
Totals	4339	343	1036	1902	357	394	231	76	1917	2422	

*Notifiable from 1st October 1929.

†Not notifiable in Dundee during 1929.

Tuberculosis—Cases notified in a previous year and removed to Hospital for the first time during 1929—

Pulmonary, 33 : Non-pulmonary, 4 ; Total 37.

TABLE XXVII.

Monthly Notifications and Intimations of Infectious Disease.
Dundee, 1929.

DISEASE.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Totals.
Typhoid Fever	6	...	1	1	2	...	1	1	...	3	2	...	17
Scarlet Fever	16	15	10	23	29	37	56	75	96	145	187	133	822
Diphtheria	47	31	44	25	28	42	24	27	45	44	41	39	437
Erysipelas	21	16	18	18	16	17	11	9	17	30	25	17	215
Puerperal Fever	5	3	2	3	5	...	2	...	5	2	4	1	32
*Puerperal Pyrexia	...	...	...	...	...	...	...	...	...	9	7	6	22
Ophthalmia Neonatorum	6	3	10	7	10	7	10	12	5	6	5	10	91
Malaria	...	1	...	...	...	...	1	...	...	...	...	...	2
Dysentery	...	...	...	...	2	1	1	3	...	1	...	...	8
Infantile Paralysis	...	...	...	1	...	...	...	...	...	1	...	...	2
Polio-encephalitis	1	...	...	...	1	...	...	...	...	1	...	...	3
Encephalitis Lethargica	2	...	...	1	1	...	...	...	...	3	1	...	8
Acute Primary Pneumonia	149	169	55	51	73	47	35	24	33	45	61	68	810
Acute Influenzal Pneumonia	11	60	3	1	1	2	2	...	1	...	...	2	83
Pulmonary Tuberculosis	11	29	33	22	27	19	19	23	16	30	19	12	260
Non-Pulmonary Tuberculosis	7	3	12	9	10	4	9	11	11	6	4	4	90
Cerebro-Spinal Fever	...	1	1	...	1	...	2	...	1	...	...	2	8
Chickenpox	117	56	79	112	230	179	56	35	52	68	92	73	1,149
†Measles	19	5	...	5	3	5	...	3	9	7	4	12	72
†Whooping Cough	22	9	23	13	23	11	6	4	17	26	30	24	208
Totals	440	401	291	292	462	371	235	227	308	427	482	403	4,339

*Notifiable from 1st October 1929.

†Not notifiable in Dundee during 1929.

TABLE XXVIII.

TUBERCULOSIS.—Notifications and Deaths, with corresponding rates per 1,000 population at various age periods each year since 1917.

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. 1000.	Per 1000.	No. 1000.	Per 1000.	No. 1000.	Per 1000.	No. 1000.	Per 1000.	No. 1000.	Per 1000.	No. 1000.	Per 1000.
1917	Notifications	16	.81	114	3.27	180	3.19	79	2.58	7	.71	54	2.75
	Deaths	4	.20	14	.38	39	1.12	95	1.89	58	1.90	8	.81
1918	Notifications	25	1.27	57	1.55	99	2.84	131	2.61	77	2.52	4	.40
	Deaths	11	.56	23	.63	63	1.81	76	1.51	74	2.42	9	.92
1919	Notifications	13	.64	72	1.92	102	2.91	180	3.38	63	2.02	12	1.19
	Deaths	4	.19	8	.21	38	1.11	71	1.35	37	1.19	7	.69
1920	Notifications	13	.67	74	2.05	94	2.62	159	3.07	75	2.40	8	.84
	Deaths	1	.05	7	.19	38	1.20	73	1.29	56	1.81	8	.84
1921	Notifications	21	1.43	57	1.81	105	3.30	128	2.77	54	1.62	8	.77
	Deaths	3	.20	5	.15	38	1.19	76	1.64	38	1.12	8	.77
1922	Notifications	15	.99	66	2.05	109	3.34	130	2.75	73	2.10	8	.76
	Deaths	0	—	10	.31	36	1.10	64	1.35	53	1.53	5	.47
1923	Notifications	20	1.34	50	1.56	72	2.23	97	2.07	60	1.74	10	.95
	Deaths	6	.40	11	.34	45	1.39	64	1.36	35	1.01	6	.57
1924	Notifications	14	.93	48	1.50	73	2.25	101	2.15	51	1.47	8	.76
	Deaths	1	.06	8	.25	44	1.36	55	1.17	33	.96	5	.47
1925	Notifications	8	.54	49	1.55	72	2.25	100	2.15	42	1.23	9	.88
	Deaths	4	.27	6	.19	39	1.22	57	1.23	36	1.05	6	.58
1926	Notifications	3	.20	67	2.10	72	2.24	107	2.29	53	1.55	6	.58
	Deaths	0	—	4	.13	34	1.06	60	1.29	35	1.02	5	.48
1927	Notifications	7	.47	80	2.48	76	2.33	80	1.69	40	1.15	5	.48
	Deaths	3	.20	6	.19	45	1.38	70	1.48	26	.75	3	.29
1928	Notifications	11	.73	82	2.54	62	1.90	109	2.31	47	1.35	7	.67
	Deaths	3	.20	5	.16	34	1.04	59	1.25	33	.95	4	.38
1929	Notifications	5	.34	63	2.01	65	2.06	88	1.92	33	.98	6	.59
	Deaths	3	.21	3	.10	27	.85	64	1.40	27	.80	6	.59

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.				DEATHS AND DEATH-RATES.			
		Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.		Pulmonary Tuberculosis.		Non-Pulmonary Tuberculosis.	
		No.	Per 1000.	No.	Per 1000.	No.	Per 1000.	No.	Per 1000.
1913	164,975	400	2.42	Non-Pulmonary Notifiable in March 1914.		191	1.16	128	.77
1914	176,584	590	3.34			249	1.41	126	.71
1915	177,300	485	2.73	377	2.12	275	1.55	113	.64
1916	181,437	522	2.87	213	1.17	259	1.42	95	.52
1917	181,773	432	2.37	171	.94	218	1.20	110	.77
1918	181,777	393	2.16	201	1.11	256	1.40	90	.49
1919	185,388	442	2.38	137	.73	165	.89	83	.44
1920	184,084	423	2.29	132	.71	183	.99	69	.38
1921	168,217	375	2.23	99	.58	168	.99	59	.35
1922	172,061	401	2.33	162	.94	168	.98	67	.39
1923	170,901	309	1.80	216	1.26	167	.98	78	.45
1924	171,295	295	1.72	142	.83	146	.85	65	.38
1925	169,361	280	1.65	121	.72	148	.87	59	.35
1926	170,060	308	1.81	123	.72	138	.81	52	.31
1927	172,444	288	1.67	112	.65	153	.89	47	.27
1928	172,214	318	1.85	131	.76	138	.80	42	.25
1929	167,109	260	1.56	90	.54	130	.78	45	.27

TABLE XXXI.

PULMONARY TUBERCULOSIS—Notifications and Deaths with corresponding rates per 1000 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	1.53
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

TABLE XXXII

Pulmonary Tuberculosis—Deaths in Institutions each year since 1920.

	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
Total Deaths from Pulmon. T.B.	183	168	168	167	147	148	138	153	138	130
No. of Deaths from Pulmon. T.B. in Institutions	93	91	85	75	62	66	77	70	74	70
Percentage of Total Deaths from Pul. T.B. dying in Institutions	50.8	54.1	50.6	44.9	42.1	44.6	55.8	45.8	53.6	53.8

TABLE XXXIII.
MATERNAL MORTALITY.

Certified causes of deaths of women from diseases and accidents connected with pregnancy and child-birth during 1929 and average numbers for 5-yearly period 1924-1928.

CAUSE OF DEATH.	Average Annual Number, 1924-1928.	1929.
Abortion, Miscarriage	1	0
Uncontrollable vomiting	1	0
Ectopic gestation	0	0
Other diseases and accidents of pregnancy	1	0
Puerperal haemorrhage	3	2
Other accidents of parturition	2	2
Puerperal sepsis	8	11
Phlegmasia alba dolens, Embolism ...	2	1
Albuminuria of pregnancy, Eclampsia	4	3
Other diseases of puerperium	2	5
Puerperal diseases of Breast	0	0
	—	—
	24	24

TABLE XXXIV.

Maternal Mortality Rates—number of deaths per 1,000 registered births each year, 1920-1929.

1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
7.13	5.61	8.51	4.76	3.88	4.60	8.86	7.96	6.86	6.88

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	8.3
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

TABLE XXXVI.
VACCINATION—1921-1928.

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

TABLE XXXVII.

The Public Health (Port Administration Infectious Diseases)
Regulations (Scotland), 1921.

DETAILS OF VESSELS ENTERING THE PORT DURING 1929.

		No. of Arrivals.	Tonnage.	No. Inspected by		No. Reported Defective.	No. of Orders Issued.
				Medical Officer.	Sanitary Inspector.		
From Foreign—							
Steamers	....	317	554,711	—	317	125	207
Motor-ships	....	5	9,737	—	5	—	—
Coastwise	....	799	301,361	—	—	—	—
		1,121	865,809	—	322	125	207

TABLE XXXVIII.

Port Sanitation.

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

PORT OR COUNTRY.				No.	CARGOES.
India (Calcutta, Chittagong, and Bombay)				87	Jute, Gunnies, Cottonseed, and Linseed.
Hamburg	....	....	....	51	Sugar, Potash, Farina, and Fancy Goods.
Rotterdam, Dunkirk, and Ghent	....	....	....	41	Sugar, Milk, Cheese, Bacon, Fruit, Vegetables, and Steel Plates.
Antwerp	....	....	....	26	Vegetables, Cheese, Iron, and Steel.
Gothenburg	....	....	....	18	Paper, Paper Pulp, and Wood.
Algeria	....	....	....	8	Esparto Grass.
U.S.A. and Canada	....	....	....	18	Flour, Sugar, Tinned Food, Timber, and Pitch.
Baltic Ports, Norway, etc.	....	....	....	21	Timber, Flax, Tar, Paper, and Granite
Other European Ports	....	....	....	43	Cork, Pyrites, Phosphates, and Wood.
West Indies, etc.	....	....	....	9	Raw Sugar.

TABLE XXXIX.

Port Sanitation.

Details of Action taken :—

Total Number of verbal intimations	....	....	....	174
Total Number of rat notices issued	....	....	....	102
Total Number of visits to ships	....	....	....	827
Total Number of ships from infected or suspected ports	....	....	....	92
Do.		(direct)	8	
Do.		(indirect)	84	
Nuisances and defects attended to :—				
Forecastles cleaned out	....	....	....	18
Messrooms cleaned	....	....	....	16
Galleys and store-rooms cleaned	....	....	....	32
Waste food causing a nuisance	....	....	....	25
Water-closets choked and repaired	....	....	....	18
Water-closets cleaned out	....	....	....	48
Discharge of foul water on quay	....	....	....	43
Dirty and broken baths	....	....	....	7
Total nuisances	....	....	....	207
Fresh water tanks cleaned out	....	....	....	24
Forecastles washed	....	....	....	8
Baths painted	....	....	....	12
W.C.'s painted	....	....	....	10
Galleys painted or washed	....	....	....	15

TABLE XL.

BACTERIOLOGICAL LABORATORY.

Examinations carried out on behalf of the Department by Professor Tulloch, in the Laboratory, University College, Dundee.

	1922	1923	1924	1925	1926	1927	1928	1929
Wassermann Tests	3573	3418	3261	3513	3660	3619	4107	4177
Microscopical and other examinations under V.D. Scheme for—								
Syphilis	125	91	68	33	35	42	31	36
Gonorrhoea	485	935	1589	1690	1863	2227	2933	3301
Swabs for diphtheria	569	848	1188	2027	1980	2560	1898	1500
Widal tests for enteric fever	65	126	158	140	220	236	106	228
Sputum examinations	303	317	334	385	320	299	310	302
Examination of faeces, blood cultures, etc., for—								
Enteric fever	24	62	64	80	91	47	26	131
Dysentery	3	2	0	13	6	2	11	37
Infantile Diarrhoea	5	7	11	8	4	3	7	—
Puerperal Fever	—	—	—	—	—	—	—	90
Milk examination	—	66	96	97	101	97	75	74
Food Poisoning—								
No. of outbreaks	—	(0)	(4)	(2)	(3)	(2)	(2)	(1)
No. of examinations	—	0	146	7	71	44	27	14
Cerebro-spinal meningitis	—	0	1	0	8	10	16	13
Other examinations	14	12	27	*78	*60	45	35	19
Totals	5166	5884	6943	8071	8419	9231	9582	9922

*Includes 50 Rats examined for *Leptospira Icterohaemorrhagica*.

TABLE XLI.

DISINFECTION, 1929.

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.	Handkerchiefs.	Table Cloths.	Towels.	Wearing Apparel.	Miscellaneous Articles.	Total No. of Articles.	No. of houses from which clothes were removed.
January	1	—	5	214	201	205	1	47	28	172	—	—	10	9	23	626	232	1774	128
February	5	—	2	145	152	155	—	27	16	99	6	—	13	6	30	470	225	1351	118
March	—	—	15	193	189	195	1	44	20	146	—	—	23	7	47	395	178	1453	136
April	1	—	14	170	130	156	—	36	9	120	—	—	12	2	47	359	144	1200	105
May	—	—	3	202	192	229	—	45	28	186	1	—	16	2	57	337	107	1405	124
June	3	—	9	205	171	241	1	43	10	194	8	1	17	10	69	405	169	1556	121
July	63	—	13	204	258	254	—	49	13	211	2	—	13	1	77	212	77	1447	106
August	232	—	5	253	498	313	—	77	9	249	3	—	26	3	57	352	83	2160	136
September	—	—	10	277	218	299	4	76	30	222	1	2	21	10	46	427	132	1775	158
October	4	—	16	326	282	368	—	102	12	305	5	—	23	6	50	619	122	2240	196
November	2	—	13	353	305	342	2	96	13	287	1	—	29	2	51	558	103	2157	180
December	4	—	7	366	410	387	—	85	24	299	5	2	24	14	101	565	165	2458	210
Totals	315	—	112	2908	3006	3144	9	727	212	2490	32	5	227	72	655	5325	1737	20976	1718

The following figures relate to the articles disinfected and the houses concerned each year since 1920—

Articles ...	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
Houses concerned	20,917	18,078	17,480	20,074	26,763	32,978	29,430	22,721	16,642	20,976
	1,204	1,103	1,025	1,322	1,535	2,234	2,042	1,709	1,276	1,718

TABLE XLII.

FACTORIES, WORKSHOPS AND WORKPLACES.
YEAR 1929.

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

PREMISES.	NUMBER OF		
	Inspec- tions.	Written Notices.	Occupiers Prosecuted.
Factories (including factory laundries)	571	2	0
Workshops (including workshop laundries)	870	0	0
Workplaces (other than outworkers' premises)	307	0	0
	<u>1,748</u>	<u>2</u>	<u>0</u>

2. Defects found in Factories, Workshops and Workplaces.

PARTICULARS.	NUMBER OF DEFECTS.			No. of Offences in respect to which Prosecu- tions were instituted
	Found.	Reme- died.	Referred to H.M. Inspector.	
Nuisances under the Public Health Acts†—				
Want of cleanliness	98	98	....	....
Want of ventilation	4	4	....	....
Overcrowding ....	....	....	....	....
Want of drainage of floors ....	....	....	....	....
Other nuisances ....	....	....	....	....
Sanitary accommodation—				
Insufficient	5	5	....	....
Unsuitable or defective	3	3	....	....
Not separate for sexes	1	1	....	....
Offences under the Factory and Workshop Acts—				
Illegal occupation of underground bakehouse (S. 101) ....	....	....	....	....
Other offences ....	....	....	....	....
(excluding offences relating to outwork and offences under the Sections mentioned in the Schedule to the Scottish Board of Health (Factories and Workshops Transfer of Powers) Order, 1921).				
Total	<u>111</u>	<u>111</u>	<u>....</u>	<u>....</u>

† 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 1929.

In Hospital, 1st January 1929	....	....	....	....	33
Admitted in 1929	....	....	....	....	109
					<hr/> 142
DISCHARGED—					
Relieved	....	....	....	....	47
Unrelieved	....	....	....	....	1
Taken home against advice					6
Sent to Royal Infirmary	....	....	....		6
Sent to King's Cross Hospital	....	....			8
Sent home (Nasal Swab positive for Diphtheria)					6
Sent to Eastern Hospital	....	....			1
				—	75
					<hr/> 67
DIED—					
Marasmus	....	....	....	....	18
Marasmus and Broncho-pneumonia				....	6
Gastro-Enteritis	....	....	....		8
Purpura Fulminans	....	....	....		1
Syphilis and Hydrocephalus	....	....	....		1
Meningitis	....	....	....		1
				—	35
					<hr/> 32
In Hospital, 31st December 1929	....			....
THE CASES TREATED WERE—					
Marasmus	....	....	....	....	39
Marasmus and Rickets	....	....	....		6
Debility	....	....	....	....	37
Debility and Rickets	....	....	....		18
Gastro-Enteritis	....	....	....		8
Broncho-pneumonia	....	....	....		9
Congenital Syphilis	....	....	....		6
Tabes Mesenterica	....	....	....		1
Purpura Fulminans	....	....	....		1
Cerebro-Spinal Meningitis			....		2
Dyspepsia	....	....	....		2
Oppenheim's Disease	....	....	....		1
Bronchitis	....	....	....		5
Rickets	....	....	....	....	6
Meningitis	....	....	....		1
				—	142
Highest Daily Number	....	....	....		34
Lowest Daily Number	....	....	....		25
Average Daily Number	....	....	....		32

TABLE XLV.

Number of New Cases attending the V.D. Treatment Centre each year since 1918.

DISEASE.	1918.		1919.		1920.		1921.		1922.		1923.		1924.		1925.		1926.		1927.		1928.		1929.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Syphilis	186	269	359	278	533	552	423	454	203	171	177	137	135	150	128	203	115	264	102	140	92	133	127	151
Gonorrhoea	60	18	341	12	277	9	292	40	236	35	159	94	226	63	240	58	254	44	243	65	247	53	291	95
Mixed Infections	—	—	—	—	—	—	—	—	—	—	8	8	13	24	15	40	14	22	19	16	16	21	20	37
Other V.D.	—	—	—	—	313	181	280	165	34	64	47	52	25	1	57	—	99	—	56	—	66	1	65	—
Not suffering from V.D.	123	130	260	187	—	—	—	—	151	102	16	36	56	72	85	107	115	92	91	70	157	104	165	124
Totals	369	417	960	477	1,123	742	995	659	624	372	407	327	455	310	525	408	597	422	511	291	578	312	668	407
Totals (both sexes)	786	1,437	1,865	1,654	996	734	765	933	1,019	802	890	1,075												

TABLE XLVI.

Number of Attendances at V.D. Treatment Centre each year since 1918.

	1918.		1919.		1920.		1921.		1922.		1923.		1924.		1925.		1926.		1927.		1928.		1929.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Syphilis	923	1,258	2,453	1,668	7,357	6,986	11,194	12,243	9,418	6,381	5,662	5,291	4,250	5,375	3,234	5,402	2,972	6,668	2,574	6,056	2,665	5,137	4,081	5,281
Gonorrhoea	155	27	—	68	8,752	212	9,396	1,446	10,006	1,078	5,729	3,039	9,458	3,522	9,178	3,949	9,169	3,813	10,782	5,502	9,541	5,330	11,717	5,639
Mixed Infections	—	—	—	—	—	—	—	—	—	—	459	1,145	874	2,879	832	3,145	580	2,557	674	2,273	942	1,726	1,263	2,309
Other V.D.	—	—	—	—	1,510	1,070	828	350	213	178	124	148	2	2	433	—	701	—	453	—	422	6	381	—
Not suffering from V.D.	204	208	697	276	—	—	—	—	216	155	46	137	111	205	250	416	324	683	317	441	426	580	517	857
Totals	1,282	1,493	5,425	2,012	17,619	8,268	21,418	14,039	19,853	7,792	12,343	9,736	14,841	11,983	13,927	12,912	13,746	13,721	14,800	14,272	13,996	12,779	17,909	14,086
Totals (both sexes)	2,775	7,437	25,887	35,457	27,645	22,079	26,824	26,839	27,467	29,072	26,775	31,995												

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

TABLE XLVIII.

LABORATORY WORK—The following examinations were carried out under the V.D. scheme during each of the last ten years :—

	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929
Wassermann Tests	3,019	4,084	3,573	3,418	3,261	3,513	3,660	3,619	4,107	4,177
Microscopical and other Examinations	900	870	610	1,555	1,657	1,723	1,898	2,269	2,964	3,337
	3,919	4,954	4,183	4,973	4,918	5,236	5,558	5,888	7,071	7,514

TABLE XLIX.

UNSOOUND FOOD. ALL SEIZED AT THE PUBLIC SLAUGHTER-HOUSES.

Number of Seizures, Weight of Meat Seized (in lbs.), and reasons for Seizure, for Year ending 31st December 1929.

DISEASE.	BEEF.		MUTTON.		PORK.		TOTAL.	
	Number.	Weight.	Number.	Weight.	Number.	Weight.	Number.	Weight.
(a) Tuberculosis	2,077	116,173	—	—	92	2,000	2,169	118,173
(b) Other Diseases :—								
Abscesses, Tumours, and Cysts	301	753	11	46	20	48	332	847
Actinomycosis	92	706	3	19	—	—	95	725
Anthrax	1	500	—	—	—	—	1	500
Asphyxiation	2	1,013	6	375	—	—	8	1,388
Blackleg	1	273	—	—	—	—	1	273
Decomposition	18	2,204	22	835	—	—	40	3,039
Dropsical Conditions	19	1,457	98	829	3	27	120	2,313
Fevered Conditions	101	17,909	205	3,400	8	483	314	21,792
Fractures and Bruises	71	5,595	35	366	16	323	122	6,284
Inflammation of Abdominal Organs	163	3,989	84	278	7	81	254	4,348
Jaundice	—	—	—	—	1	71	1	71
Lymphadenitis	2	1,149	—	—	—	—	2	1,149
Melanosis	1	104	—	—	—	—	1	104
Pneumonia	56	2,045	40	336	8	158	104	2,539
Rheumatism	24	2,884	8	43	6	81	38	3,008
Septic Conditions	13	4,049	10	364	1	67	24	4,480
Swine Erysipelas	—	—	—	—	2	65	2	65
Uræmia	—	—	1	48	—	—	1	48
Wasted Conditions	6	155	20	160	1	—	27	315
Totals	2,948	160,958	543	7,099	165	3,404	3,656	171,461

TABLE L.

Shews the number of the different kinds of Animals slaughtered at the Public Slaughter-houses each month during 1929, also the number of their carcasses found to be Diseased or Unsound, and the weights of each class seized and destroyed.

MONTH.	Animals Slaughtered.				Number of their Carcasses Diseased or Unsound.				Weights (in lbs.) condemned from Carcasses of Animals Slaughtered on the Premises.				
	Cattle.	Calves.	Sheep.	Pigs.	Cattle.	Calves.	Sheep.	Pigs.	Beef.	Veal.	Mutton.	Pork.	Total.
1929.													
January	1,249	4	2,153	438	223	2	161	17	11,682	80	201	127	12,090
February	1,123	13	2,392	325	209	5	249	11	8,026	98	207	281	8,612
March	1,168	6	2,126	345	243	1	190	16	10,561	7	126	329	11,023
April	1,340	10	2,325	290	284	3	229	13	12,037	2	264	53	12,356
May	1,321	8	2,240	229	319	—	75	9	16,543	—	344	201	17,088
June	1,198	6	1,944	168	255	—	51	12	9,739	—	134	210	10,083
July	1,245	7	2,186	143	263	4	141	11	6,586	—	166	92	6,844
August	1,377	4	2,385	134	255	1	99	7	12,379	104	285	221	12,989
September	1,329	11	2,359	143	299	3	63	13	12,363	110	168	266	12,907
October	1,458	7	2,514	328	311	1	51	21	10,504	—	61	361	10,926
November	1,270	11	2,137	326	293	3	62	14	12,875	24	149	365	13,413
December	1,509	6	2,397	397	331	2	147	19	8,553	—	132	144	8,829
Totals	15,587	93	27,158	3,266	3,285	25	1,518	163	131,848	425	2,237	2,650	137,160

TABLE LI.

Shews the numbers of the different kinds of Carcases, dressed and undressed, brought to the Slaughter-houses, each month during 1929, with the numbers found to be Diseased or Unsound, and the weight of each class seized and destroyed on that account.

MONTH.	Carcases Brought In.				Number of them Diseased or Unsound.				Weight (in lbs.) Seized and Condemned from Carcases brought in.				
	Cattle.	Calves.	Sheep.	Pigs.	Cattle.	Calves.	Sheep.	Pigs.	Beef.	Veal.	Mutton.	Pork.	Total.
1929.													
January	218	2	273	12	13	—	11	—	1,879	—	352	—	2,231
February	228	5	257	3	13	—	19	2	1,061	—	502	45	1,608
March	253	4	476	10	12	—	24	—	1,772	—	767	—	2,539
April	188	3	408	4	18	—	20	1	2,980	—	350	71	3,401
May	213	6	342	16	28	1	16	6	4,754	40	565	170	5,529
June	307	4	364	15	23	—	8	—	2,824	—	167	—	2,991
July	229	6	433	16	14	3	8	—	1,774	174	458	—	2,406
August	266	1	307	11	16	—	4	1	1,284	—	53	24	1,361
September	184	—	294	25	14	—	8	1	2,286	—	233	47	2,566
October	174	—	238	22	8	—	13	1	1,313	—	645	2	1,960
November	204	1	1,078	22	20	—	23	4	3,257	—	667	395	4,319
December	193	1	343	21	18	—	10	—	3,287	—	103	—	3,390
Totals	2,657	33	4,813	177	197	4	164	16	28,471	214	4,862	754	34,301
Table L.	15,587	93	27,158	3,266	3,285	25	1,518	163	131,848	425	2,237	2,650	137,160
Total of Tables L. & LI.	18,244	126	31,971	3,443	3,482	29	1,682	179	160,319	639	7,099	3,404	171,461

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	715		Livers	....	53	Udders	....	26
Livers	....	1,729	Plucks	....	425	Plucks	....	83
Lungs	....	2,168	Kidneys	....	599	Kidneys	....	82
Hearts	....	835	Lungs	....	1,002	Livers	....	28
Kidneys	....	2,226			—	Lungs	....	14
Heads	....	725	Total	....	2,079			
Tongues	....	745				Total	....	233
Skirts	....	2,184						
Total	....	11,327						

TINNED AND FROZEN MEAT SEIZED FOR DECOMPOSITION.

Frozen Meat	....	....	....	140 lbs.
Frozen Ox Livers	....	....	....	72 „
Tinned Meat	....	....	....	31 „
Total	....	....	....	243 lbs.

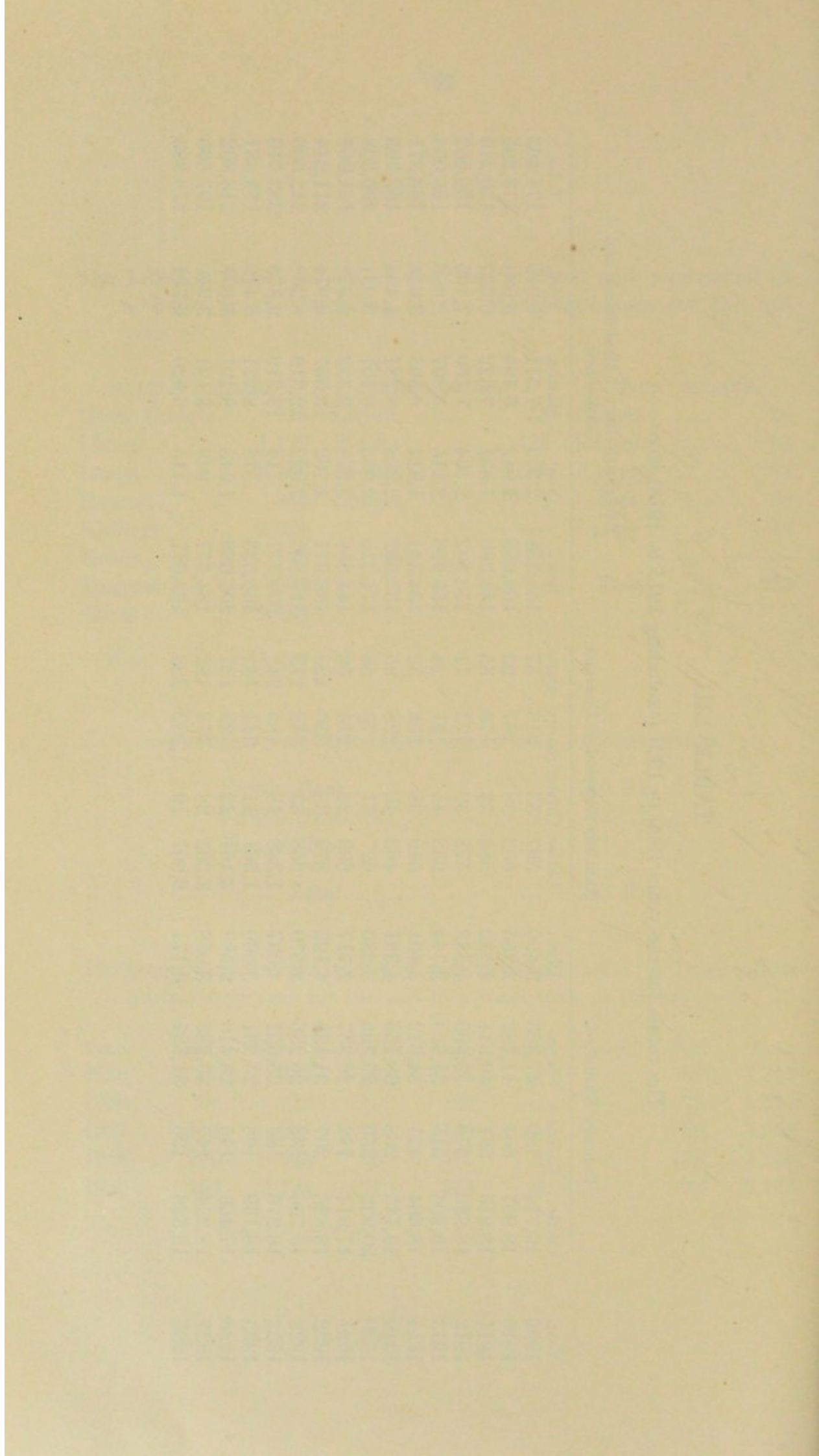
The number of Carcases wholly or partially condemned for Tuberculosis during each year for the last five years were as follows :—

Year.	Bulls.	Bullocks.	Heifers.	Cows.	Calves.	Sheep.	Pigs.	Total.
1925	87	602	14	550	2	—	88	1,343
1926	94	812	19	520	—	—	72	1,517
1927	113	908	16	429	—	—	86	1,552
1928	170	943	16	571	2	—	158	1,860
1929	168	1,198	31	678	2	—	92	2,169

TABLE LIII.

The totals for the years 1909 to 1928 (excluding 1915 to 1918) 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.
1909	19,714	780	47,363	3,490	597	53	218	57	158,354	2,579	7,511	6,019	174,463
1910	19,957	664	41,782	3,255	602	38	167	53	160,085	1,942	6,184	5,084	173,295
1911	19,015	561	40,611	4,132	582	33	179	55	154,380	1,851	7,322	6,657	170,210
1912	18,836	574	38,896	4,339	573	39	173	71	150,502	2,194	7,160	7,106	166,962
1913	19,206	515	34,929	2,744	633	45	131	24	155,996	2,115	5,807	2,086	166,004
1914	18,664	427	34,672	3,401	549	38	156	52	134,341	1,811	6,595	3,624	146,371
1919	19,743	268	38,156	4,381	463	45	228	95	135,692	2,328	8,281	1,494	147,795
1920	20,933	250	29,795	2,386	627	51	170	58	174,715	2,955	6,707	5,931	190,308
1921	17,914	182	26,357	2,717	633	32	214	52	144,858	2,278	9,353	4,572	161,061
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

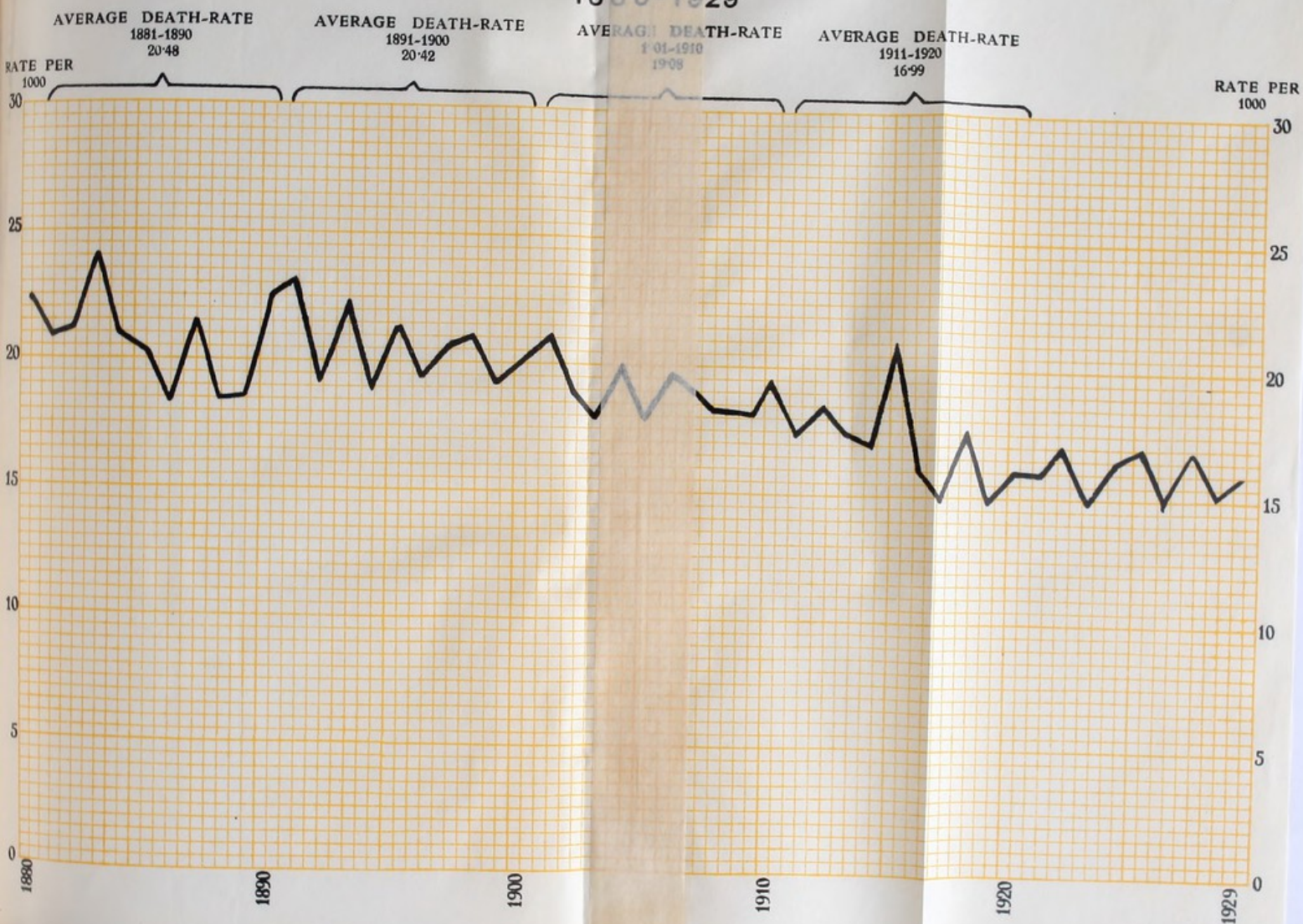


CITY OF DUNDEE

1

DEATH RATE per 1000 Population (at all ages and from all causes)

1880-1929



DEATH RATE

(causes) (at all ages)

1929-1930

AVERAGE DEATH-RATE

1881-1900

1911-1920

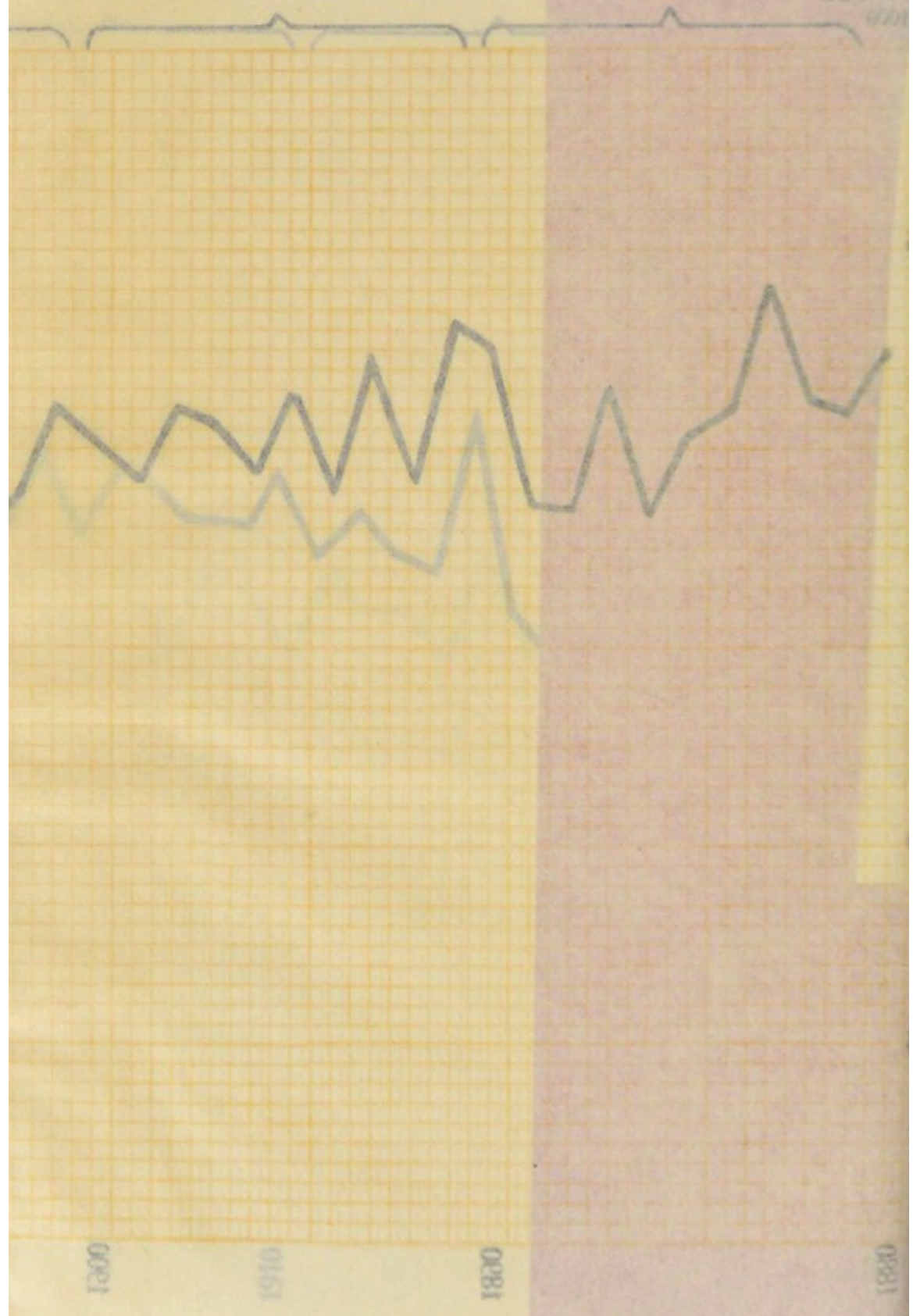
1881-1900

20.43

16.91

20.48

PER 1000



CITY OF DUNDEE

2

INFANT MORTALITY

INFANT DEATHS (under 1 Year) PER 1000 BIRTHS

1880-1929

Average Infant Death-Rate
1881-1890

159

Average Infant Death-Rate
1891-1900

176

Average Infant Death-Rate
1901-1910

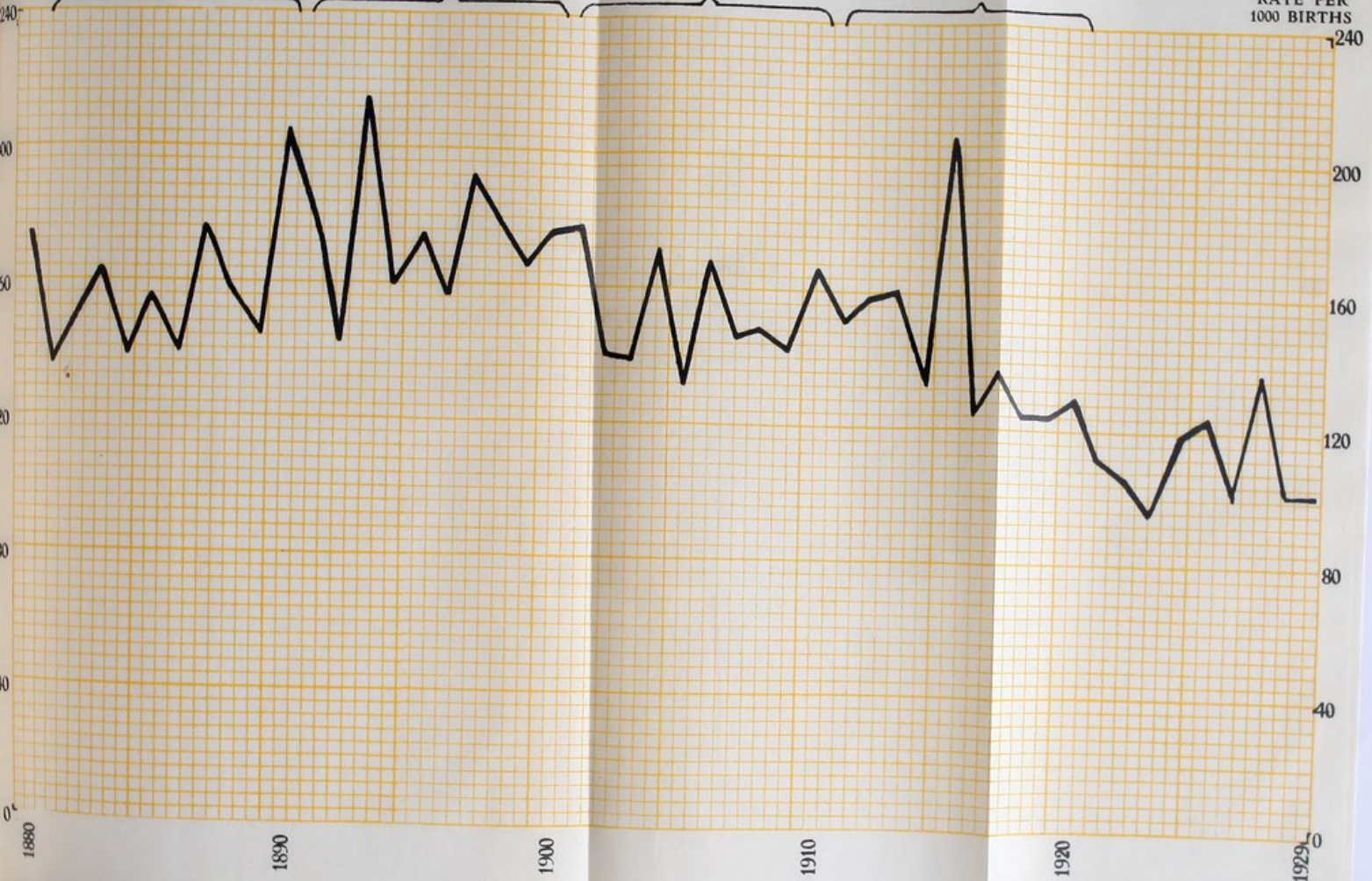
155

Average Infant Death-Rate
1911-1920

146

RATE PER
1000 BIRTHS

RATE PER
1000 BIRTHS



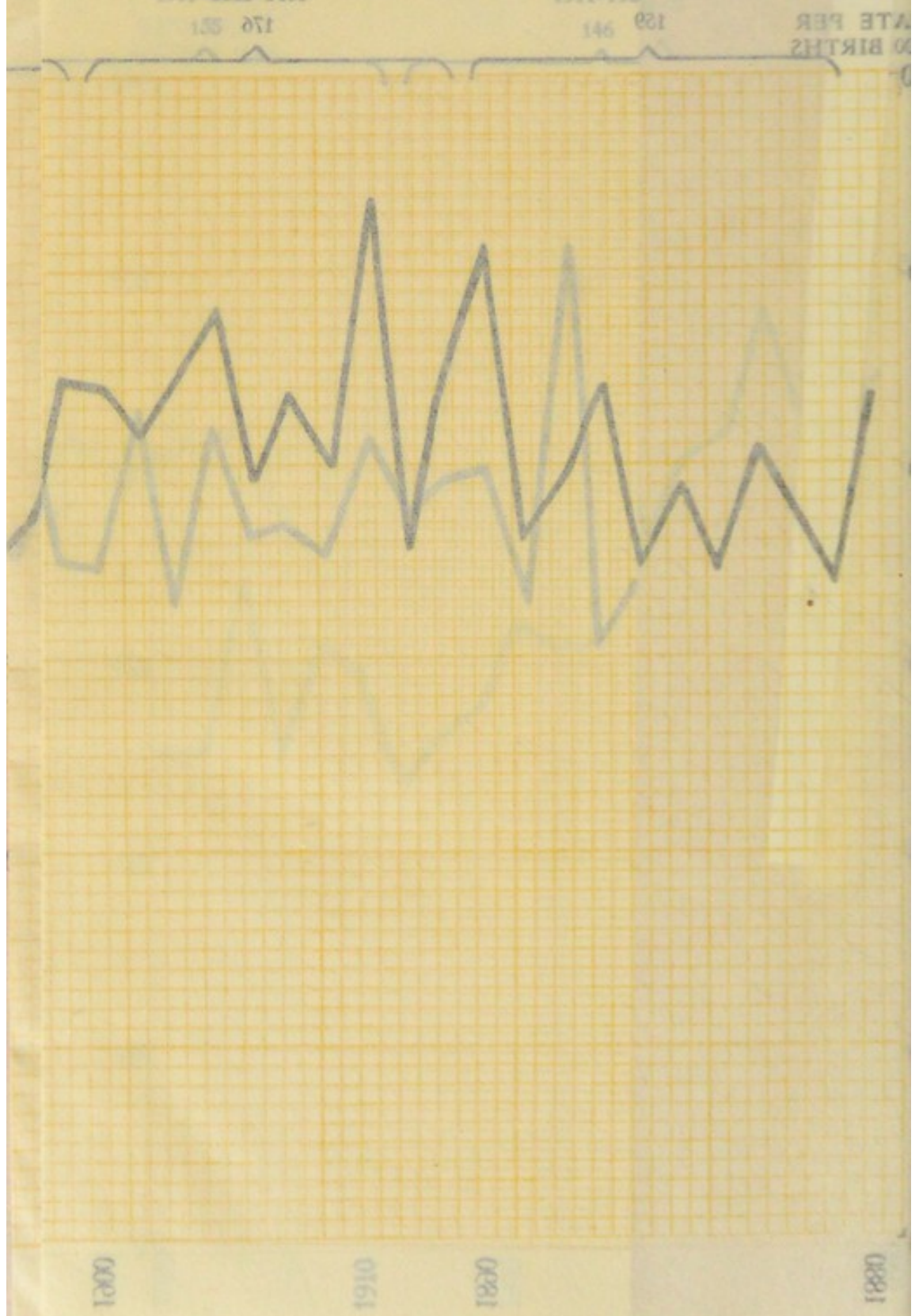
CITY OF INDEE

MORTALITY

INFANT DEATHS (PER 1000 BIRTHS)

1880-1929

Average Infant Death Rate
1881-1890 159
1901-1910 146



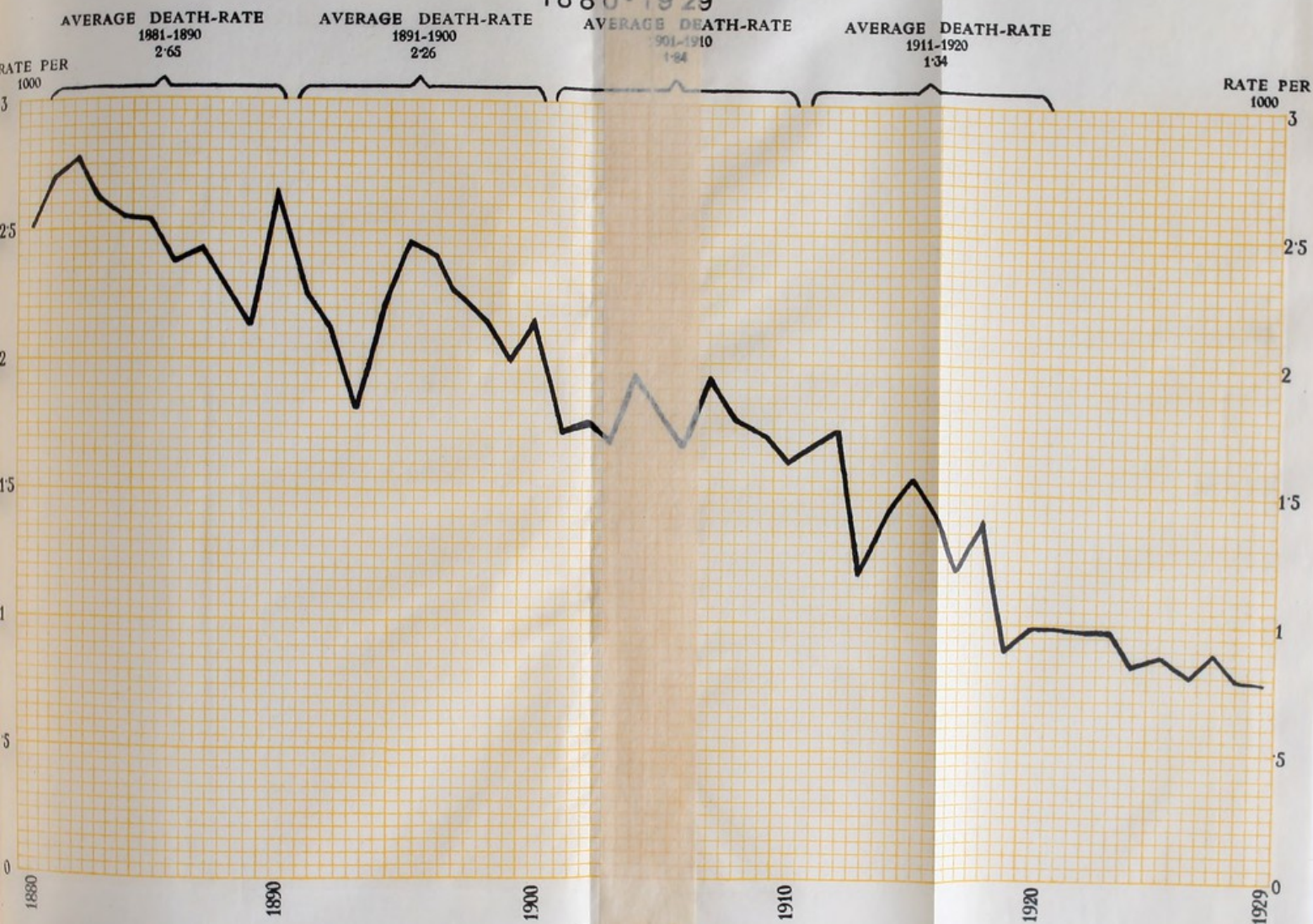
CITY OF DUNDEE

PULMONARY TUBERCULOSIS

3

DEATH RATE per 1000 Population

1880-1929



TO CITY OF

SISOPULMONARY

DEATH RATE

188

AVERAGE DEATH-RATE

1881-1900

2.26

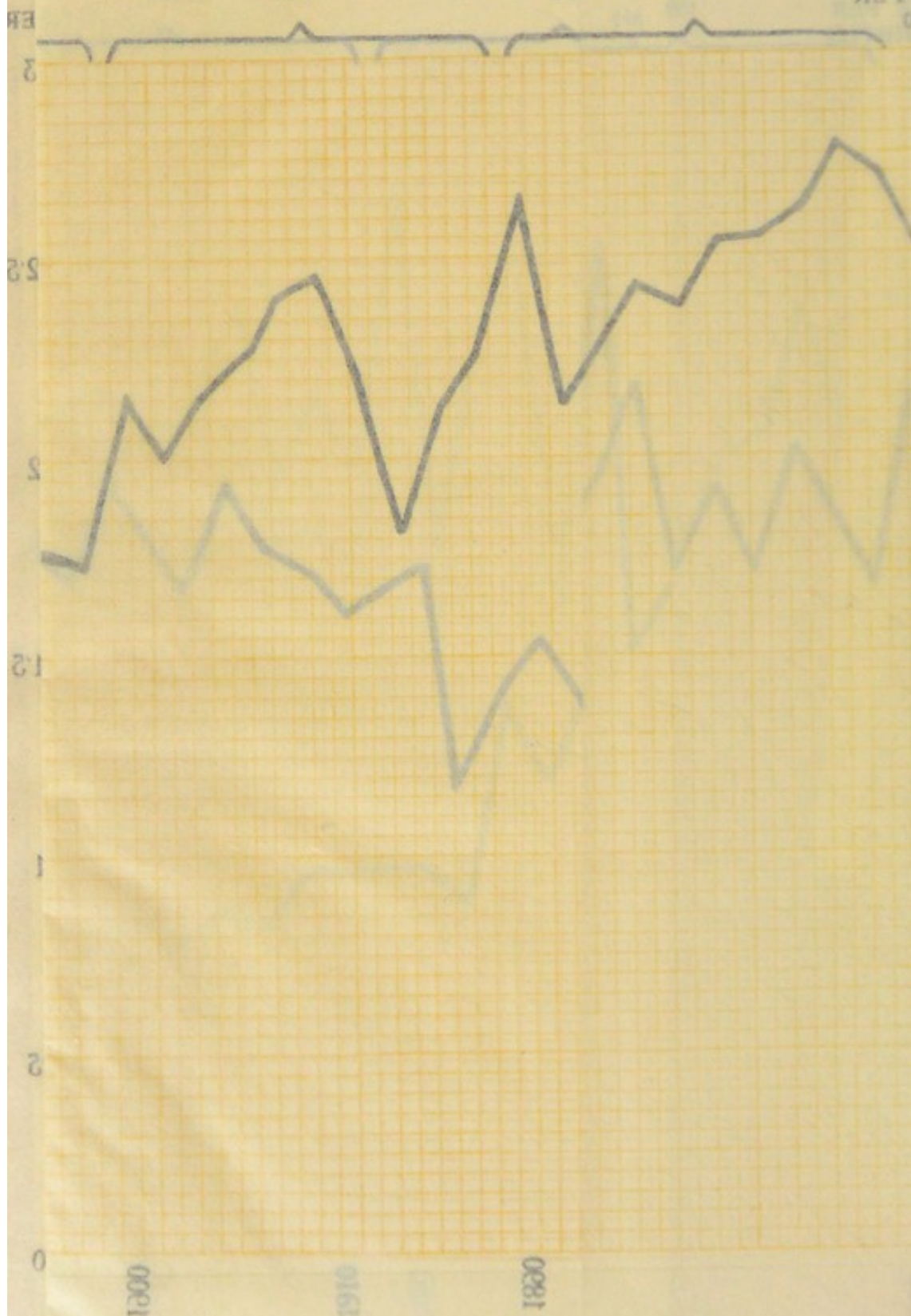
1911-1919

2.1

1881-1880

2.62

PER



CITY OF DUNDEE

4

BIRTH RATE per 1000 Population

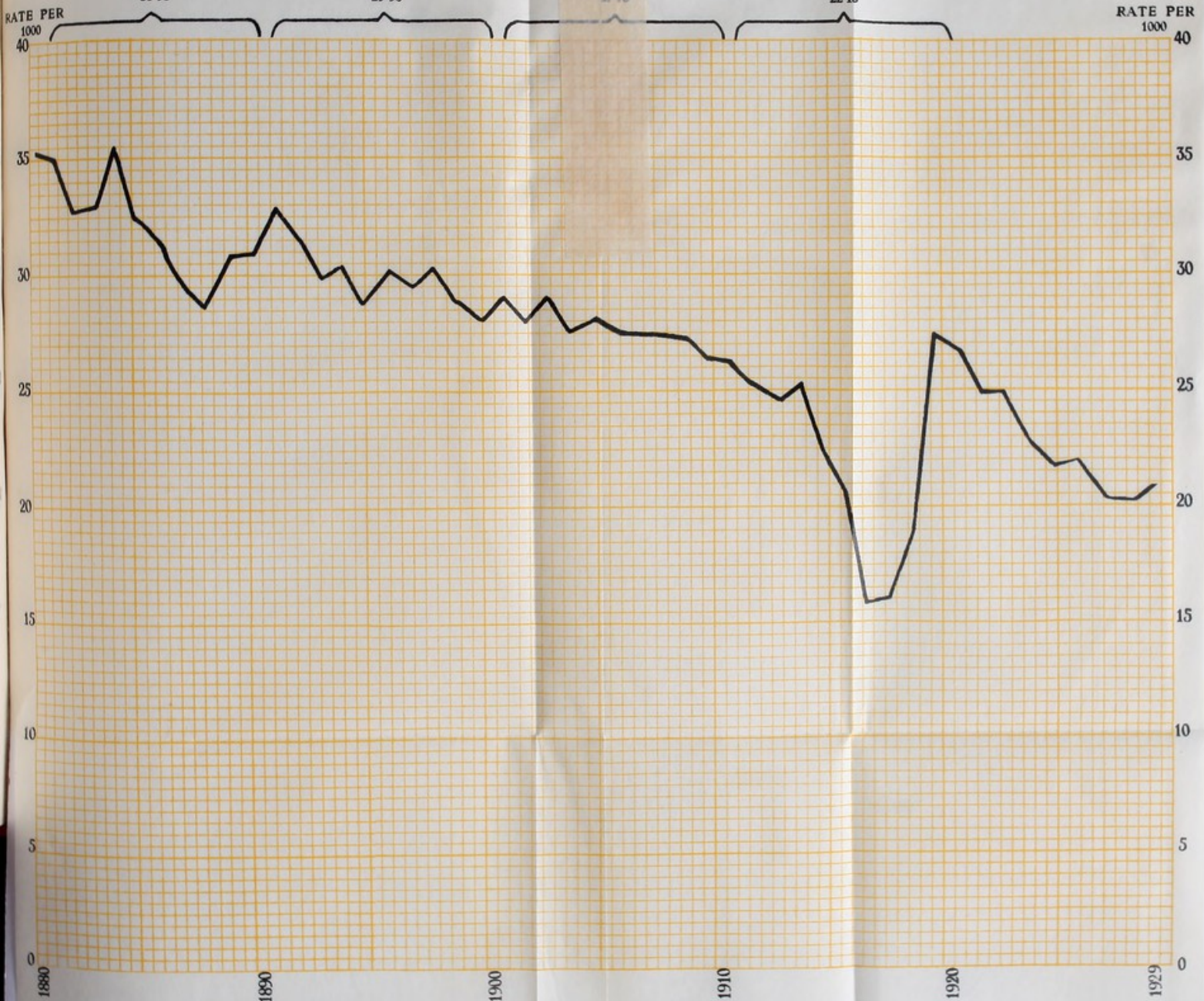
1880-1929

AVERAGE BIRTH-RATE
1881-1890
31.93

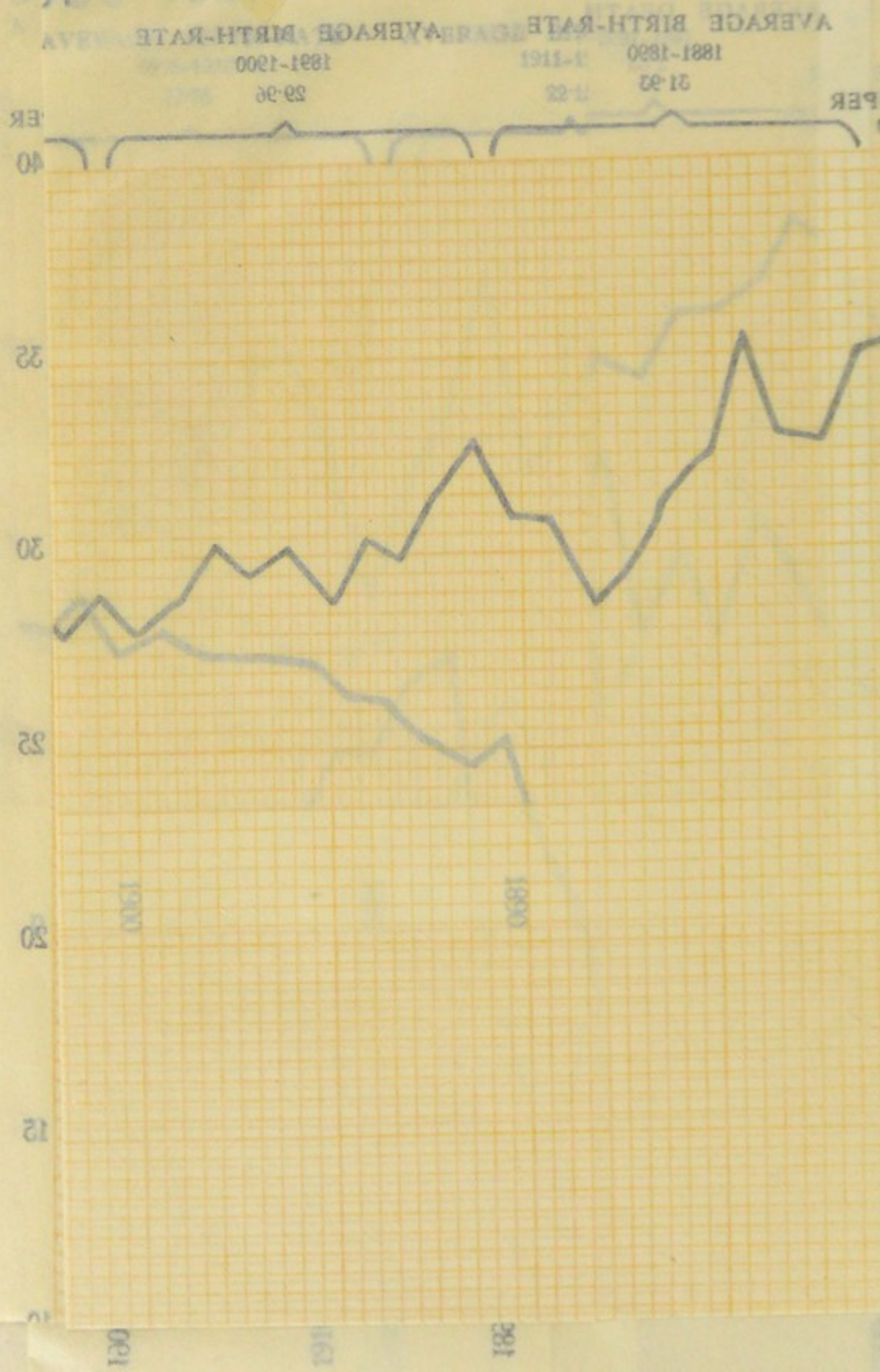
AVERAGE BIRTH-RATE
1891-1900
29.96

AVERAGE BIRTH-RATE
1901-1910
27.75

AVERAGE BIRTH-RATE
1911-1920
22.15

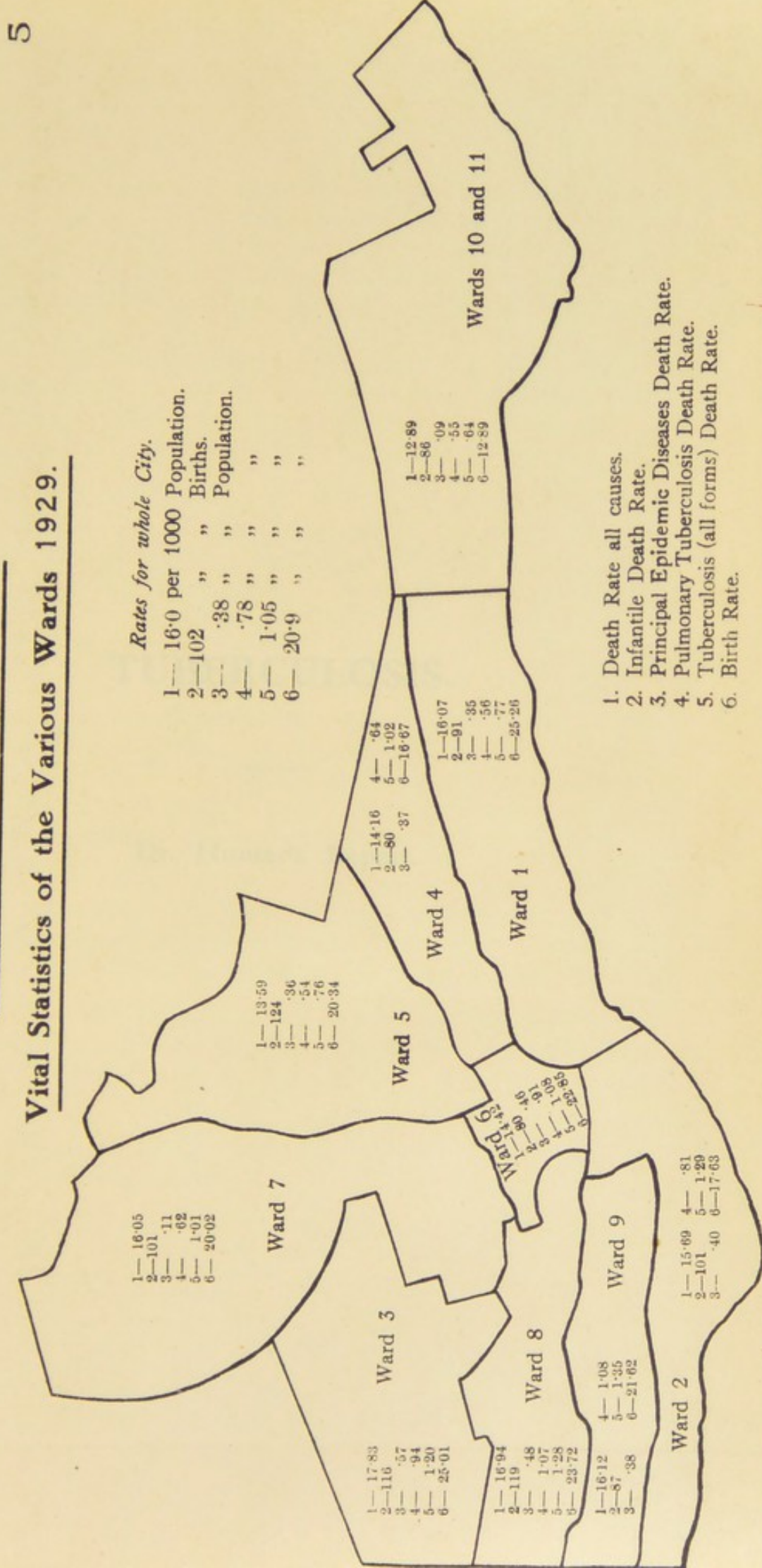


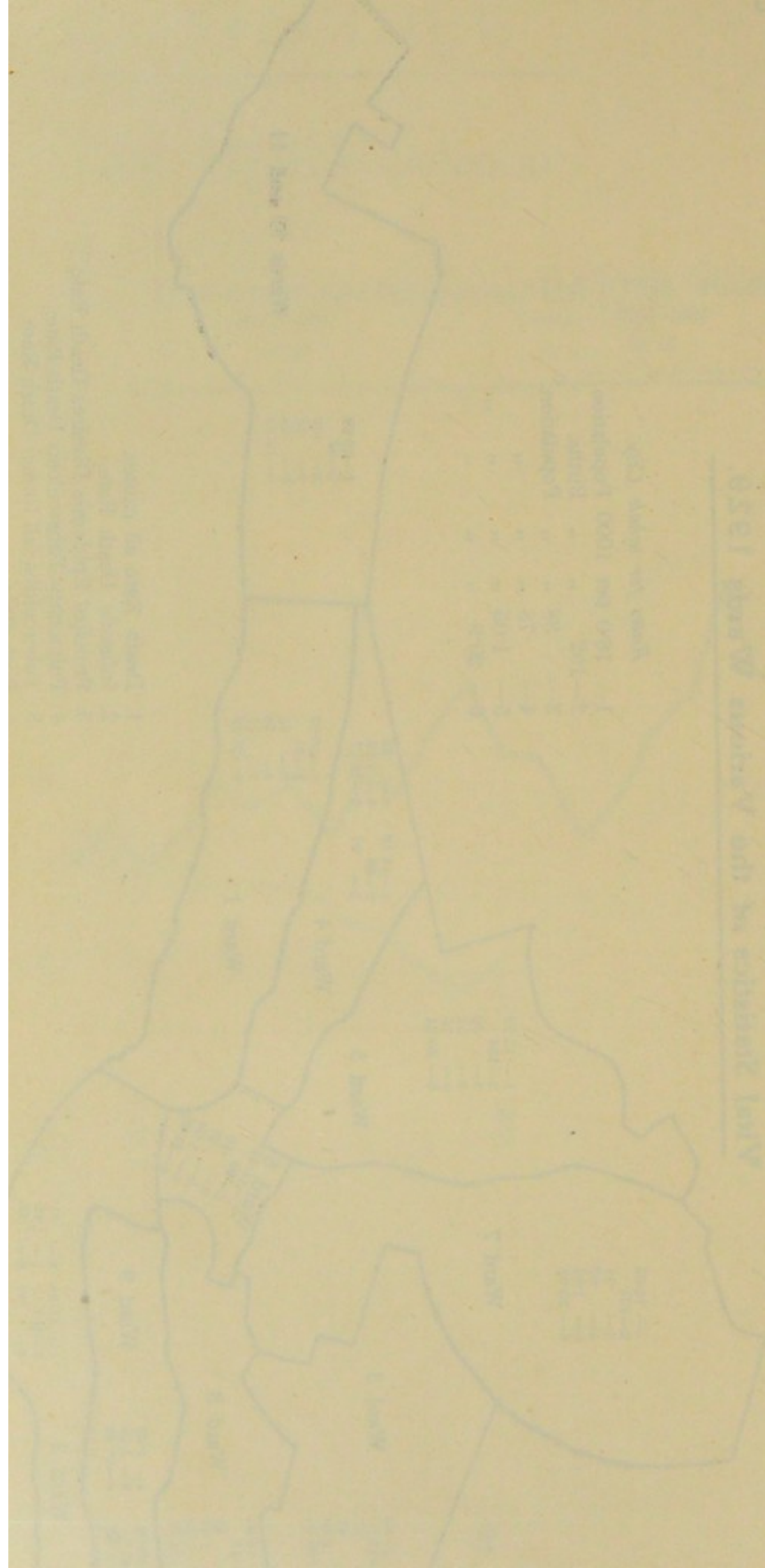
TAR BIRTH Population



CITY OF DUNDEE.

Vital Statistics of the Various Wards 1929.





City of Denver, Colorado 1950

CITY OF DENVER

TUBERCULOSIS.



Dr. Hunter's Report.

TUBERCULOSIS

Dr. H. H. H. H.

During the year 1929, the working of the Tuberculosis Scheme was carried out on the established lines with gratifying results. The relations with the other Authorities concerned in the work, such as the Education Authority, Parish Council, Ministry of Pensions, Royal Infirmary, &c., have been cordial, and the co-operation well maintained.

To the staffs of the Tuberculosis Section, King's Cross Hospital, Ashludie Sanatorium, and the other branches of the Public Health Department, I here tender my appreciation of their helpful services, which have been of great value in the furtherance of our scheme.

After a full year's working in our new quarters, it is now possible to estimate the great advantages that have been gained in comparison with the conditions under which the work was carried on in our previous quarters at 1 Tally Street. The accommodation has been adequate for all our needs, the waiting and dressing rooms sufficient to permit the work of the clinics to run evenly without undue loss of time and with much greater comfort and privacy to the patients.

The installation of an X-Ray apparatus this year has been of great assistance in the diagnosis of doubtful cases and in the carrying out of the artificial pneumothorax method of treatment at present satisfactorily employed at Ashludie Sanatorium. Arrangements were made by which the patients were conveyed to and from the Institute by ambulance.

The dispensing arrangements both for the dispensary and the domiciliary patients have given satisfaction and the few complaints submitted have been investigated and satisfactorily dealt with.

The Canadian Department of Health and the Dundee Branch of the Scottish Association for Mental Welfare still make use of the premises for their various purposes.

In the year 1929, 350 cases of tuberculosis were notified. 260 cases of pulmonary tuberculosis and 90 cases of non-pulmonary tuberculosis. Of these :—

- 137 cases were discovered at the Tuberculosis Section.
- 109 cases were notified by private practitioners.
- 1 case was notified by the School Medical Officer.
- 7 cases were notified from Eastern Hospital.
- 64 notifications came from Royal Infirmary.
- 4 notifications came from Convalescent Home, Barnhill.
- 3 notifications came from Medical Officers outside the City.
- 25 cases came under notice of the Department through the Registrar after death had taken place.

Pulmonary Tuberculosis.

During the year, 260 cases of pulmonary tuberculosis were notified. The ages and sex of these were as follows :—

Age.		Males.	Females.	Total.
Under 1 year	....	—	1	1
1- 5 years	....	2	2	4
5-15	..	38	25	63
15-25	..	28	37	65
25-45	..	37	51	88
45-65	..	17	16	33
65 years and upwards	....	5	1	6
Total	....	127	133	260

The following are the particulars as regards housing :—

No. of Rooms.	No. of Cases.	Total No. of Inmates.	No. of Inmates per Room.
1	31	99	3·19
2	146	720	2·46
3	48	268	1·86
4 and upwards	23	150	1·63

In 8 cases the home conditions were satisfactory.

3 cases lived in lodging houses.

1 case lived in a nursing home.

Non-Pulmonary Tuberculosis.

During the year, 90 cases of non-pulmonary tuberculosis were notified. The ages and sex of these were as follows :—

Age.		Males.	Females.	Total.
Under 1 year	....	5	4	9
1- 5 years	....	11	10	21
5-15	..	14	9	23
15-25	..	6	13	19
25-45	..	5	9	14
45-65	..	1	3	4
65 years and upwards	....	—	—	—
		42	48	90

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. & upwards.		T'l.
	M. F.		M. F.		M. F.		M. F.		M. F.		M. F.		M. F.
Meningitis	3	1	4	5	1	1	0	3	0	0	0	0	8 10
Abdomen	1	0	0	2	3	1	1	1	1	0	1	0	7 4
Glands	0	0	1	0	3	3	0	3	1	5	0	1	5 12
Joints	1	1	4	2	5	3	1	4	1	0	0	2	12 12
Spine	0	0	1	0	1	0	1	0	0	2	0	0	3 2
Other Forms	0	2	1	1	1	1	3	2	2	2	0	0	7 8
Totals	5	4	11	10	14	9	6	13	5	9	1	3	42 48

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	13	58	4.46
2	44	214	2.43
3	23	123	1.78
4 and upwards	6	35	1.45

In 2 cases the home conditions were satisfactory.

1 case lived in the Salvation Army Home.

1 case lived in the Orphanage, Ferry Road.

176 houses were disinfected on removal of patients, as compared with 206 in 1928.

The notifications of tuberculosis this year show a decrease of 99, 58 pulmonary and 41 non-pulmonary.

Analysing these figures with those of the preceding year shows that the decrease is general from all sources.

In the pulmonary form, with the exception of females in age group 15-25 years, which shows an increase of 7, there has been a general reduction.

In the non-pulmonary form the reduction in numbers is most marked in the age group 5-15 years, with glands as the site of disease. It is interesting to note that these are the age group and site which showed the greatest increase last year.

Tuberculosis Clinic.

During the year, 491 new cases were enrolled as compared with 753 in the year 1928. Of these, 140 were found to be suffering from distinct phthisis (73 males and 67 females). 113 were found not to have the disease. In 231 cases the signs were somewhat indefinite; but these cases were regarded as the "pre-tuberculosis" stage; and 7 were found to be suffering from other forms of tuberculosis.

There were 266 contacts examined ; 9 of these were found to be suffering from pulmonary tuberculosis, 97 were suspicious and are being kept under observation, and the remaining 160 were found to be negative.

Of the 140 cases of definite phthisis, 51 were previously notified and 89 were notified from the clinic for the first time.

The ages and sex of these were as follows :—

Age.		Males.	Females.	Total.
Under 1 year	....	—	—	—
1- 5 years	....	4	1	5
5-15 ,,	....	16	15	31
15-25 ,,	....	22	22	44
25-45 ,,	....	20	21	41
45-65 ,,	....	11	7	18
65 years and upwards	....	—	1	1
Total	....	73	67	140

The attendances at the tuberculosis clinic were as follows :—

		Insured.	Non-Insured.	Total.
January	....	401	421	822
February	....	368	339	707
March	....	406	340	746
April	....	287	220	507
May	....	383	236	619
June	....	339	197	536
July	....	346	114	460
August	....	400	168	568
September	....	355	244	599
October	....	329	158	487
November	....	400	210	610
December	....	374	246	620
		4,388	2,893	7,281

Artificial Sunlight.

During 1929, 222 patients attended the artificial sunlight clinic. Of these 105 were males and 117 were females.

		Males.	Females.	Total.
No. of Attendances	....	4,094	4,099	8,193
No. of Sessions	....	....	....	475

X-Ray Department.

From June until December 1929, 100 cases were screened and 61 cases were photographed. Of the 61 cases photographed :—

Chest.	Other parts.
58	3

Laboratory Work.

During the year, 491 specimens of sputum were examined, with the following results :—

		Positive.	Negative.
52 for general practitioners	....	6	46
439 for clinic patients	....	70	369

The new cases enrolled at the clinic and the attendances show a big reduction. This reduction is due to the policy introduced at the end of 1928, on our removal to the new premises. This policy has proved to be of the greatest advantage. Not only is the overcrowding abolished, but far better control and supervision are obtained over the cases, and much more time can be allotted to each individual case. A much more successful search for immediate contacts is possible and has proved eminently satisfactory, as is shown by the increase of the contact examinations which has resulted. To a certain extent, also, greater supervision of the after care of institutional cases has been rendered possible.

The " Ultra-Violet Ray " clinic has again proved to be of use and many children, especially those in contact with positive cases, have derived much benefit.

The X-Ray installation has been in use for six months and has proved of the greatest value in diagnosing early cases and carrying out artificial pneumothorax treatment.

Ashludie Sanatorium.

During the year there were 125 cases admitted to this Institution. Of these 61 were males and 64 were females. 119 patients were discharged (60 males and 59 females). Average stay in Institution—160 days.

The following show the result of the treatment of these cases :—

	Very much Improved.	Improved.	Slight Improvement.	No Change.
Males	.... 22	13	1	20
Females	.... 20	13	4	22

4 males died before discharge. 101 patients are still alive and 14 have died since discharge.

The work at Ashludie Sanatorium has been carried out satisfactorily and good results have been obtained.

The work has been carried out under adverse circumstances during the progress of the building operations. The administrative block is now complete, and the erection of the pavilion is proceeding and occupation may be expected early next year.

King's Cross Hospital.

During the year there were 114 cases admitted to this institution. Of these 51 were males and 63 were females. 47 patients died (18 males and 29 females) and 67 were discharged, many of them greatly improved.

The ages and sex of the fatal cases were :—

Age.		Males.	Females.
Under 1 year	....	—	—
1- 5 years	....	—	—
5-15 ,,	....	2	1
15-25 ,,	....	4	7
25-45 ,,	....	10	14
45-65 ,,	....	2	7
Over 65 years	....	—	—
	Total	18	29

The work at King's Cross Hospital has been carried out most satisfactorily.

Sidlaw Sanatorium.

During the year there were altogether 39 cases from the city under treatment in this institution. 20 of these were males and 19 were females. There were 41 cases discharged (29 males and 12 females). Average stay in institution—163 days.

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

Improved.	Slight Improvement.	No Improvement.
22	13	6

I would here record my appreciation of the courtesy and helpful services of the Visiting and Resident Staffs of the Institution.

CHILD WELFARE SCHEME.

Dr. Margaret Scott Dickson's Report.

ALSO REPORTS BY

Dr. H. Gordon Campbell,
Dr. Margaret Fairlie, and
Dr. Annie A. Fulton.

CHILD WELFARE SCHEME.

The Mayor of the City of London.

1895.

Dr. H. Gordon (London).

Dr. Augustus Smith, and

Dr. Anne A. Wilson.

MATERNITY SERVICE AND CHILD WELFARE SCHEME.

ANNUAL REPORT BY MARGARET SCOTT DICKSON,
M.B., Ch.B., D.P.H.

The general plan of the work has not been materially altered during the year, but the appointment of the additional Assistant Medical Officer in the Public Health Department has made it possible to hold a weekly clinic at Broughty Ferry in place of the weighing centre with monthly medical consultations which was the only arrangement possible in former years. It is hoped that more of the mothers in Broughty Ferry may now be able to bring their children regularly for examination.

The attendances at the ordinary clinics in Dundee have not been so large as in 1928, due mainly to the fact that in 1929 there was a definite increase in the number of mothers who were employed for varying periods and so were unable to attend regularly and also to the occurrence of a considerable amount of illness among the children at the beginning and end of the year. The attendances at the Ante-natal Clinic again shewed a slight increase, which is gratifying, as it testifies to the interest taken by the midwives in the ante-natal care of their patients and also to the fact that the mothers themselves are appreciating more and more the benefit to be derived from skilled supervision during that period.

Through the generosity of the Trustees of the Dr. Anton Memorial Fund an Ultra-Violet Ray Lamp has been installed in Lochee Clinic, which will be of the greatest assistance to the work there as the distance from the Central Clinic in Dundee made it difficult for Lochee mothers to take their children regularly for Artificial Sunlight treatment.

Details of the work as required for the Report of the Scottish Board of Health are appended, including Reports of the Special Clinics, by the respective Medical Officers in charge.

1. Infantile Mortality.

(a) Number of deaths	....	....	....	355
(b) Rate per 1,000 births	....	....	....	102
(c) Number of deaths and rates per 1,000 births classified according to age groups and causes of death—See Table XII., Statistical Tables and Charts.				

2. Births.

(a) Number registered (corrected)	....	....	3,486
(1) Legitimate	....	....	3,221
(2) Illegitimate	....	....	265
(b) Number notified	....	....	3,556
(c) Number classified according to nature of attendance (doctor, midwife, &c.) :—			
Doctor	....	....	463
Doctor and Midwife	....	....	95
Midwife	....	....	1,489
Maternity Hospital	....	....	1,259
Maternity Home	....	....	43
Parents	....	....	119
Other Sources	....	....	88
(d) Number of Stillbirths (births of dead children)	....		166

3. Maternal Mortality.

(a) Number of deaths resulting from miscarriage or childbirth	....	....	....	23
(b) Number of deaths resulting from Puerperal Sepsis				10

BIRTHS IN AREA OR DISTRICT.

DUNDEE, 1929.

Total No. of Births during 1929 (uncorrected).	Total No. of Deaths of Newly-Born Children during 1929 (within 10 days).	Actual No. of Births Attended by Midwives during 1929	Actual No. of Deaths of Newly-Born Children occurring in the Practice of Midwives during 10 days of Birth).	Actual No. of Cases not attended at Birth by a Doctor or Midwife during 1929.
3633	103	1491	26	0

CASES OF OPHTHALMIA NEONATORUM.

Total No. of Cases during 1929.	Actual No. of Cases occurring in the Practice of Midwives during 1929.	Actual No. of Cases occurring where Confinement was not attended by a Doctor or Midwife during 1929.
91	46	0

CASES OF PUERPERAL SEPSIS.

Total No. of Cases in 1929.	Total No. of Deaths in 1929.	Actual No. of Cases in the Practice of Midwives during 1929.	Actual No. of Deaths occurring where Confinement was not attended by Doctor or Midwife during 1929.
32	10	Cases. 9	Cases. 0
		Deaths. 3	Deaths. 0

Note.—One of the above deaths was of a case notified in 1928. Two Deaths included were notified as Puerperal Pyrexia.

CASES OF PUERPERAL PYREXIA.

Total No. of Cases in 1929.	Actual No. of Cases occurring in the Practice of Midwives during 1929.	Actual No. of Cases occurring where Confinement was not attended by Midwife or Doctor.
22	3	0

CASES OF STILLBIRTH.

Total No. of Cases during 1929.	Actual No. of Cases occurring in Practice of Midwives during 1929.
166	30

CASES OF EMERGENCY.

Total No. of Cases of Emergency, in which Medical Practitioners have been called in under Section 22 of the Act, during 1929, distinguishing the different cases of emergency.	Post-Natal.	Infant
	63	133
	Ante-Natal. 151	
	Labour. 204	

MIDWIVES (SCOTLAND) ACT, 1915.

4. Report under Midwives (Scotland) Act, 1915.

The following is a list of Midwives who, during January, 1930, intimated their intention to practise Midwifery in the City of Dundee :—

Anderson, Mrs Isabella—197 Princes Street	....	2,863	Trained.
Andrews, Miss Dora B.—4 Boyd Place, Broughty Ferry	....	8,253	Trained.
Angus, Mrs Clementina—96 King Street, Broughty Ferry	....	3,057	Bona fide.
Arnott, Miss Jean—36 Dundonald Street	....	1,182	Bona fide.
Bowman, Mrs Jessie—10 Hilltown	....	4,958	Trained.
Brodie, Miss Chrissie—Craigie Nursing Home, Ferry Road	....	7,947	Trained.
Cartmill, Mrs Ann—11 Gardner Street	....	3,373	Bona fide.
Craig, Mrs Margaret—10 Albert Street	....	6,994	Trained.
Dobson, Mrs Rachel H.—6 Glamis Drive	....	4,423	Trained.
Duffus, Miss Mary—36 Victoria Street	....	2,507	Trained.
Gouk, Miss Margaret R.—10 Tofthill	....	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.
Low, Mrs Helen—44 Ann Street	....	5,186	Trained.
Lowe, Mrs Jane E.—2 Brown Street	....	432	Trained.
Masson, Mrs Jane—3 Tayview Buildings, Broughty Ferry	....	3,122	Bona fide.
M'Donald, Miss Catherine A.—8 Garland Place	....	7,116	Trained.
M'Donald, Mrs Helen—8 Garland Place	....	410	Trained.
Neill, Miss Jane—12 Brown Constable Street	....	7,434	Trained.
Ramsay, Mrs Ann C.—4 Ogilvie's Road	....	733	Trained.
Rickard, Miss Helen M.—29 Step Row	....	6,453	Trained.
Smith, Mrs Jamesina—73 Church Street	....	1,553	Bona fide.
Tulloch, Mrs Isabella M.—20 Corso Street	....	6,231	Trained.
Bateman, Miss Ethel—(S.A.H.) Clement Park	....	8,643	Trained.
Clelow, Miss Rhoda J.—(S.A.H.) Clement Park	....	8,034	Trained.
Derbyshire, Miss Ellen E.—(S.A.H.) Clement Park	....	8,255	Trained.

(1) In January, 1929, 30 Midwives notified their intention to practise Midwifery in Dundee. During the year 5 Midwives gave notice of their intention to practise in Dundee. 4 left town.

(2) This leaves on the local roll of Midwives at the end of December, 1929, 31 names. 23 of the 31 are actually practising as Midwives.

(3) The Midwives attended a total of 1,491 births (including 170 cases where the Midwife acted as a Midwife though a Doctor was in attendance)—that is 41 per cent of the total births occurring in the City during the year, including stillbirths.

(4) The extent of the individual practice of the Midwife varies, one Midwife having 238 cases, another only attended 3 cases. The average to each Midwife in practice is 65 cases.

(5) 97 visits were paid by the Inspector of Midwives and her Assistant to the Midwives' homes, and 4 visits were paid to cases attended by Midwives.

(6) 3 lectures were given to Midwives on special subjects connected with their work, and they also attended the lectures in connection with the College of Nursing.

(7) The general working of the Act has again been very good, all the Midwives showing a real interest in their work. They have again sent over 150 mothers to Ante-natal clinics for advice and supervision, which indicates the real interest they take in the Ante-natal welfare of their patients. There have been 2 complaints against Midwives by Doctors, but in both cases on investigation satisfactory explanations were made. There were no infringement of rules.

(8) Two midwives were suspended, one for two periods of 4 and 2 days respectively and the other for 5 days to allow of investigation into a series of cases of Puerperal Sepsis occurring in their practice.

Notifications.

610 notifications have been received from Midwives as follows :—

(1) Application for medical assistance—(a) Mother	....	....	418
(b) Child	....	....	133
(2) Notification of Death—(a) Mother	....	....	0
(b) Child	....	....	8
(3) Notification of Stillbirth	....	....	30
(4) Notification of Liability to be a source of Infection	....	....	19
(5) Notification of Laying out a dead body	....	....	2

Classification of application for Medical Assistance, 551 cases :—

Ante-Natal, 151 cases.

Examination	....	....	84
Pain (various)	....	....	15
Feeling ill	....	....	9
Excessive sickness	....	....	7
Cloudy urine	....	....	6
Vaginal discharge	....	....	6
Albuminuria	....	....	5
Abortion	....	....	3
Varicose veins	....	....	3
Oedema	....	....	3
Haemorrhage	....	....	2
Threatened abortion	....	....	1
Irritation (vagina)	....	....	1
Cough	....	....	1
Frequency of micturition	....	....	1
Rash	....	....	1
Previous confinements premature	....	....	1
Carious teeth	....	....	1
Headache giddiness	....	....	1

Labour, 204 cases.

Ruptured Perineum	....	....	79
Prolonged Labour	....	....	75
Abnormal Presentation	....	....	22
Ante-partum Haemorrhage	....	....	10
Post-partum Haemorrhage	....	....	6
Adherent Placenta	....	....	2
Funis Presentation	....	....	2
Obstructed Labour	....	....	2
Collapse	....	....	2
Placenta Praevia	....	....	2
Rigors	....	....	1
Nervousness	....	....	1

Post-Natal, 63 cases.

High Temperature	....	....	19
Pains (various)	....	....	14
Debility	....	....	7
Collapse	....	....	4
Swelling (Axilla)	....	....	2
Sore throat	....	....	2
Cough	....	....	2
Phlebitis	....	....	2
Insomnia	....	....	1
Cracked Nipples	....	....	1
Mastitis	....	....	1
Examination	....	....	1
Perineum Sloughing	....	....	1
Loss of Power	....	....	1
Unhealthy Placenta	....	....	1
Irregular Menstruation	....	....	1
Prolapse of Uterus	....	....	1
Worms	....	....	1
Varicose veins	....	....	1

Infant, 133 cases.

Discharging eyes	....	....	39
Feeble Infants	....	....	29
Stillbirths	....	....	27
Congenital Deformities	....	....	15
Rash	....	....	3
Sudden Death	....	....	3
Cyanosis	....	....	3
Birth injuries	....	....	2
Vomiting	....	....	2
Illness (various)	....	....	3
Haemorrhage (eye)	....	....	1
Icterus Neonatorum	....	....	1
Engorged breasts	....	....	1
Pemphigus	....	....	1
Enlarged pupil (right eye)	....	....	1
Umbilical Polypus	....	....	1
Swelling Axilla	....	....	1

PUERPERAL DEATHS.

During 1929 an inquiry was made into 33 deaths of women occurring at childbirth or within 28 days after or later if illness originated during pregnancy, childbirth, or puerperium :—

Attended by Doctor	....	....	....	5
Attended by Doctor and Midwife	....	....	....	5
Attended by Maternity Hospital I.P.	....	....	....	12
Attended by Maternity Hospital O.P.	....	....	....	4
Attended by Midwife	....	....	....	4
Attended by Eastern Poorhouse Hospital	....	....	....	1
Attended by Nursing Home	....	....	....	1
Transfer from another town	....	....	....	1

CLASSIFICATION OF NOTIFIED CAUSES OF DEATH (33 cases).

(a) Deaths from emergencies and other causes directly due to Parturition :—

1. Puerperal Sepsis	....	....	....	8
2. Puerperal Sepsis with Broncho Pneumonia	....	....	....	1
3. Puerperal Sepsis with Peritonitis	....	....	....	1
4. Placenta Praevia with Myocardial degeneration	....	....	....	1
Mitral incompetence, Ceasarian Section	....	....	....	1
5. Placenta Praevia Concealed Accidental Haemorrhage	....	....	....	1
6. Placenta Praevia (profuse sudden fatal haemorrhage)	....	....	....	1
7. Placenta Praevia Septicaemia (Bacillus Welchii)	....	....	....	1
8. Ruptured Uterus and Bladder during Parturition,	....	....	....	1
General Peritonitis	....	....	....	1
9. Pregnancy Contracted Pelvis Obstructed Labour	....	....	....	1
(forceps delivery) Post Partum Haemorrhage	....	....	....	1
10. Cardiac Failure	....	....	....	1
11. Cardiac Failure after birth of twins	....	....	....	1
12. Toxaemia of Pregnancy Post Partum Eclampsia	....	....	....	1
13. Syncope after Embolism	....	....	....	1
14. Complicated Labour Albuminuria	....	....	....	1

(b) Causes of Death not directly connected with Parturition :—

1. Broncho Pneumonia	....	....	....	2
2. Broncho Pneumonia, Influenza, Debility after Con-	....	....	....	1
finement	....	....	....	1
3. Pulmonary Tuberculosis	....	....	....	2
4. Pulmonary Tuberculosis with acute Pulmonary Con-	....	....	....	1
gestion	....	....	....	1
5. Generalised Tuberculosis	....	....	....	1
6. Cardiac Failure Mitral Stenosis	....	....	....	1
7. Parturition Tricuspid Failure	....	....	....	1
8. Specific Disease Acute Nephritis Acute Myocarditis	....	....	....	1
9. Cerebral Embolism	....	....	....	1

(c) Cause of Death associated with Pregnancy but not with Parturition :—

1. Nephritis Uraemia	1
----------------------	------	------	------	---

PUERPERAL SEPSIS, 32 CASES.

	Notified.	Primipara.	Multipara.	Admitted to Hospital.	Admitted to Nursing Home.	Nursed at Home.	Recovered.	Died.	Total.	Total No. of Births Attended in 1929.
Doctors	28	6	2	4	—	4	5	3	8	828
Doctor and Midwife	—	3+1a	4	4+1a	—	3	6	1+1a	7+1a	95
Midwives	—	—	10	9	—	1	8	2	10	1,491
Maternity Ward—										
In-patient	3	3	2+1b	5+1b	—	—	4	1+1b	5+1b	1,290
Out-patient	—	—	1	—	—	1	1	+1c*	1	
Eastern Poorhouse										
Hospital	1	—	—	—	—	—	—	—	—	20
Maternity Home	—	1	—	1	—	—	1	—	1	43
	32	13+1a	19+1b	23+2	—	9	25	7+3	32+2	3,767
				a & b				a, b, & c	a & b	

NOTE.—1a and 1b cases notified cases as Puerperal Pyrexia and admitted to King's Cross, Hospital where they subsequently died of Puerperal Sepsis.
1c* case notified in 1928.

PARTICULARS OF PUERPERAL SEPSIS CASES (32).

	RECOVERED.		DIED.	
	Primipara	Multipara.	Primipara.	Multipara
Where Delivered :—				
Home	6	14	3	3
Maternity Ward	2	2	1	+1b
Salvation Army Home	1	—	—	—
Nursing Home	—	—	—	—
Where Treated :—				
Home	3	5	1	—
D.R.I.	1	—	1	—
King's Cross Hospital	5	10	2+1a	3+1b
Eastern Poorhouse				
Hospital	—	1	—	—
Home Conditions :—				
Good	8	11	4+1a	3+1b
Bad	—	4	—	—
Unknown	—	—	—	—
Institution	1	1	—	—
	9	16	4+1a	3+1b

PARTICULARS OF CASES.

PRIMIPARA.

				Recovered.	Died.	Total.
1.	Normal Confinement	....	....	3	1	4
2.	Normal Confinement with Ruptured Perineum	....	....	2	1	3
3.	Instrumental Delivery	....	....	—	1	1
4.	Retained Membranes and P.P.H.	....	....	1	—	1
5.	Adherent Placenta	....	....	—	1	1
6.	Breech Presentation	....	....	1	—	1
7.	Impacted Breech Ruptured Perineum	....	....	1	—	1
7a.	Instrumental Delivery and Ruptured Perineum (notified as Puerperal Pyrexia)	....	....	1	1	2
						<u>14</u>

MULTIPARA.

1.	Normal Confinement	....	....	11	2	13
2.	Normal Confinement with Adherent Placenta	....	....	1	—	1
3.	Instrumental Delivery	....	....	2	—	2
4.	Breech Presentation	....	....	2	—	2
5.	Breech Presentation with Induced Labour	....	....	—	1	1
5b.	Incomplete Abortion (notified as Puerperal Pyrexia)	....	....	—	1	1
						<u>20</u>

PUERPERAL PYREXIA, 22 CASES.

	Notified.	Primipara.	Multipara.	Admitted to Hospital.	Admitted to Nursing Home.	Nursed at Home.	Recovered.	Died.	Total.	Total No. of Births Attended in 1929.
Doctor	6	1	4	—	—	5	4	*1	5	828
Doctor and Midwife	—	2	1	2	—	1	2	*1	3	95
Midwives	—	—	2	—	—	2	2	—	2	1,491
Maternity Ward—										
In-patient	14	6	4	10	—	—	10	—	10	1,290
Out-patient	2	1	1	1	—	1	2	—	2	
Eastern Poorhouse	—	—	—	—	—	—	—	—	—	20
Hospital	—	—	—	—	—	—	—	—	—	43
Salvation Army Home	—	—	—	—	—	—	—	—	—	
	<u>22</u>	<u>10</u>	<u>12</u>	<u>13</u>	<u>—</u>	<u>9</u>	<u>20</u>	<u>*2</u>	<u>22</u>	<u>3,767</u>

*Included under Puerperal Sepsis.

PUERPERAL PYREXIA.

PARTICULARS OF CASES.

Recovered

Primipara :—

1. Normal Confinement	....	....	....	5
2. Normal Confinement with Ruptured Perineum	....	....	....	1
3. Normal Confinement Vaginal Lacerations	....	....	....	1
4. Instrumental Delivery, Adherent Placenta	....	....	....	1
5. Breech Presentation, Adherent Placenta	....	....	....	1

Multipara :—

1. Normal Confinement	....	....	....	....	3
2. Normal Confinement with Ruptured Perineum				....	1
3. Instrumental Delivery	....	....	....	....	2
4. Cæsarian Section	....	....	....	....	1
5. Post Partum Hæmorrhage		....	....	....	1
6. Abortion	....	....	....	....	3

RECOVERED.

Primipara.

Multipara.

Where Delivered :—

At Home	....	....	1	6
Dundee Royal Infirmary	....		8	5

Where Treated :—

At Home	....	....	1	3
Dundee Royal Infirmary		....	7	7
King's Cross Hospital	....	....	1	1

Home Conditions :—

Good	....	....	....	8	8
Bad	....	....	....	1	3

OPHTHALMIA NEONATORUM.

		Doctors.	Midwives.	Maternity Ward.		Doctor and Midwife.	Handy Woman.	C.W. Dept.	Eye Institution.	Eastern Poorhouse Hospital.	Mat. Home.	Total.
				In-Pat.	Out-Pat.							
By whom Notified	....	25	23	—	3	14	—	23	3	—	—	91
By whom Attended	....	14	46	10	16	1	—	—	—	1	3	61
Total No. of Births attended in 1929	....	828	1,491	1,290		95	—	—	—	20	43	3,767

Treated in Institutions.

King's Cross Hospital	11	} 16	75	13	78	89	2	1	3	87	1,232
Dundee Royal Infirmary ..	1										
In D.R.I.	1										
In Maternity Home	3										

13 cases of the severe type were attended at birth as follows :—

Doctor	....	....	....	....	2
Midwife	....	....	....	....	4
Doctor and Midwife	....	....	....	....	2
Maternity Ward—In-Patient	....	....	....	....	1
Out-Patient	....	....	....	....	3
Maternity Home	....	....	....	....	1

12 of these cases were admitted to Hospital, in one case the result was loss of vision of left eye (Infant died later of Marasmus). The other case was treated at home, this Infant has a corneal opacity on both eyes, but there is every prospect of a fair amount of vision later.

Smears were taken in 67 cases :—

59 were negative.
5 were positive.
3 were suspicious.

In 14 cases smears were not taken from eyes as they were clear at first visit.

6 cases were admitted to Hospital.
2 cases were in Maternity Home.
2 refused to allow smear to be taken.

STILLBIRTHS.

166 Stillbirths were notified during 1929.

30 of these occurred in the practice of Midwives :—

19 were full time infants.
11 were premature infants.

Of the 19 full time infants :—

8 were cases of macerated foetus.
6 were due to complicated labour or congenital deformities
5 were unclassified.

Of the 11 premature infants :—

5 were cases of macerated foetus.
1 was due to complicated labour.
5 were unclassified.

5. Home Visitation.

	Number Visited.	Total Visits.
Infants	3,108	15,532
Children (1-5 years)	6,281	18,121
Expectant Mothers	4	8
	9,393	33,661

6. Voluntary Health Visitor's Report—None.

7. Ante-Natal Consultations.

REPORT BY MARGARET FAIRLIE, M.B., CH.B.

1 Weekly Session of 2 Hours.

(a) Total number of Expectant Mothers attending	....	....	280
(b) Total number of attendances	....	....	503
(c) Classified summary of conditions found :—			
Advice only	....	....	183
Conditions due to pregnancy	....	....	28
Ante-partum Haemorrhage	....	....	9
Vomiting	....	....	5
Albuminuria	....	....	10
Oedema	....	....	2
Hydramnios	....	....	2
Conditions aggravated by Pregnancy	....	....	20
Varix	....	....	7
Constipation	....	....	3
Discharge	....	....	3
Various	....	....	7
Conditions complicating Pregnancy	....	....	26
Retroversion	....	....	5
Contracted Pelvis	....	....	4
Malpresentations	....	....	14
Various	....	....	3
(d) Number of Cases :—			
		New Cases.	
(1) Referred to Ante-Natal Ward	....	....	16
(2) Referred to Family Doctor	....	....	16
(3) Treated at Clinic	....	....	225
			<hr/> 257
		Revisits.	
(1) Referred to Ante-Natal Ward	....	....	4
(2) Referred to Family Doctor	....	....	1
(3) Treated at Clinic	....	....	241
			<hr/> 246

8. Post-Natal and other Consultations.

New Cases.

Post-Natal	....	....	....	....	49
Not Pregnant	....	....	....	....	8
Classified summary of conditions found :—					
Advice only	....	....	....	P.N. 21	N.P. 4
Displacements	....	....	....	11	1
Constipation	....	....	....	4	0
Menorrhagia	....	....	....	5	0
Discharge	....	....	....	2	0
Sterility	....	....	....	0	3
Various	....	....	....	6	0
				<hr/> 49	<hr/> 8

New Cases.				
(1) Referred to D.R.I.	....	P.N.	15	N.P. 8
(2) Referred to Family Doctor	....	"	9	" 0
(3) Treated at Clinic	....	"	25	" 0
			<hr/> 49	<hr/> 8
Revisits.				
(1) Referred to D.R.I.	....	P.N.	0	
(2) Referred to Family Doctor	....	"	0	
(3) Treated at Clinic	....	"	5	
			<hr/> 5	

9. Child Welfare Consultations.

Seven weekly sessions of $2\frac{1}{2}$ hours each have been held in Dundee as in previous years. In Broughty Ferry a weekly weighing centre lasting $2\frac{1}{2}$ hours with monthly consultations by the Medical Officer was continued until March, since when a weekly session with a Medical Officer in attendance has been substituted.

(a) Number of cases attending :—

(1) Children under 1 year of age	....	....	1,194
(2) Children over 1 year of age	....	....	1,154
(3) Mothers—Ante-Natal	....	....	3
Post-Natal	....	....	28
			<hr/> 2,379

(b) Total number of attendances :—

(1) Children under 1 year of age	....	....	10,953
(2) Children over 1 year of age	....	....	13,918
(3) Mothers—Ante-Natal	....	....	4
Post-Natal	....	....	85
			<hr/> 24,960

(c) Illnesses recorded on admission to the Child Welfare Clinics :—

(1) Children under 1 year of age :—Of the 904 children under 1 year of age admitted to the five principal Clinics, 35 (3·8 per cent.) shewed no disease or congenital defect. The remaining 869 shewed 2,603 diseases or defects classified as follows :—

Diseases of the digestive system	....	....	1,176
Diseases of the respiratory system	....	....	240
Diseases of Nutrition :—			
Rickets	....	....	18
Other disorders of Nutrition	....	....	11
			<hr/> 29
Diseases of the skin	....	....	310
Diseases of the Nervous system	....	....	2
Diseases of the eye	....	....	79
Diseases of the ear, nose, and throat	....	....	19
Congenital defects	....	....	653
Surgical conditions	....	....	27
Various	....	....	68

(2) Children 1-5 years :—Of the 169 children between one and five years of age admitted to the five principal Clinics, 10 (5·9 per cent.) shewed no disease or congenital defects. The remaining 159 shewed 403 diseases or defects, classified as follows :—

Diseases of the digestive system	....	....	....	50
Diseases of the respiratory system	....	....	....	64
Diseases of Nutrition :—				
Rickets	....	....	....	86
Other disorders of Nutrition	....	....	....	10
			—	96
Diseases of the skin	....	....	....	32
Diseases of the nervous system	....	....	....	7
Diseases of the eye	....	....	....	10
Diseases of the ear, nose, and throat	....	....	....	49
Congenital defects	....	....	....	50
Surgical conditions	....	....	....	21
Infectious diseases (Surgical Tuberculosis)	....	....	....	1
Various	....	....	....	23

Special Information with regard to Rickets.

Eighteen children under 1 year shewed clinical signs or commencing rickets, of which particulars are as follows :—

Under 6 months of age—3 cases.

2 were entirely breast fed.

1 was fed on fresh cow's milk.

Age 6-12 months—15 cases.

5 were entirely breast fed.

1 had been breast fed for the first 3 months.

6 had been fed on fresh cow's milk.

3 (2 twins) had been fed on artificial food for a few months and later on fresh cow's milk.

Of the 169 children admitted between 1 and 5 years of age, 86 (50 per cent.) shewed some signs of clinical rickets on admission.

The ages of these children on admission were as follows :—

1-2 years 51 out of a total of 83.

2-3 years 22 out of a total of 41.

3-4 years 7 out of a total of 35.

4-5 years 6 out of a total of 10.

Enquiries as to the feeding in the first year of life elicited the following information :—

Breast fed for less than 1 year	....	....	29 out of a total of 72
Breast fed for over 1 year	....	....	16 out of a total of 29
Partly breast fed (for a few months only)	....	....	19 out of a total of 33
Mixed feeding	....	....	1 out of a total of 1
Fresh cow's milk	....	....	13 out of a total of 23
Artificial food	....	....	6 out of a total of 9
No particulars	....	....	2 out of a total of 2

10. Special Treatment Centres.

Teeth—

REPORT BY H. GORDON CAMPBELL, L.R.C.P. & S.E., L.D.S.

(a) Number of attendances :—

(1) Mothers	....	....	....	....	138
(2) Children	....	....	....	....	82

(b) Classified summary of conditions remedied :—

(1) Mothers—Dental Caries, 60 ; Alveolar Abscess, 1 ; Gingivitis, 1 ; Pyorrhoea, 1 ; Periodontitis, 2 ; Vincent's Angina, 3 ; Repairs to Dentures, 1.

(2) Children—Dental Caries, 33 ; Alveolar Abscess, 13 ; Gingivitis, 2 ; Deciduous Teeth, 1.

(c) Number of Dentures supplied, 2.

(d) Nett cost of Dentures supplied, £3. 14s. 0d.

(e) Classified summary of treatment carried out :—

(1) Mothers—Advice, 18 ; Extractions, 163 ; Fillings, 42 ; Scalings, 31 ; Dressings, 60 ; Aconite and Iodine Treatment, 8 ; Special Gum Treatment, 11 ; Impressions for Dentures, 8 ; Alteration to Dentures, 3.

V.D. Clinic—

REPORT BY ANNIE A. FULTON, M.B., CH.B., D.P.H.

Classified summary of conditions :—

NEW CASES.

	[Syphilis.	Gonorrhoea.	Mixed Infections.	Not suffering from Venereal Disease.	Total.
Babies	3	—	—	18	21
Children	2	1	—	3	6
Mothers, A.N.	—	4	2	2	8
P.N.	2	1	—	17	20
	7	6	2	40	55

Classified according to age and sex :—

MALES.

	Syphilis.	Gonorrhoea.	Mixed Infections.	Not suffering from Venereal Disease.	Total.
Under 1 year	2	—	—	8	10
1-5 years	1	—	—	2	3
	3	—	—	10	13

FEMALES.

	Syphilis.	Gonorrhoea.	Mixed Infections.	Not suffering from Venereal Disease.	Total.
Under 1 year	1	—	—	10	11
1-5 years	1	1	—	1	3
5-15 years	—	—	—	—	—
15-25 years	—	1	1	2	4
25 years and over	2	4	1	17	24
	4	6	2	30	42

Number of attendances :—

	Syphilis.	Gonorrhoea.	Mixed Infections.	Not suffering from Venereal Disease.	Total.
Babies	10	—	—	44	54
Children	3	1	—	8	12
Mothers, A.N.	14	167	99	6	286
P.N.	78	69	29	33	209
	105	237	128	91	561

Number of Injections given—Intravenous and Intramuscular :—

Neokharsivan	28
Kharsulphan	8
Bismuth	61
	97

Number of specimens sent for examination :—

Wassermann Tests	72
Gonococcal Complement Fixation Tests	11
Smears	54
	137

Ultra-Violet Light Clinic—

(a) Number of attendances :—Babies, 532 ; Children, 2,045 ; Mothers, 28 ; Total, 2,605.

(b) Number of cases :—

Babies— New cases	22
Attending from 1928	2
	24
Children—New Cases	102
Re-admissions	9
Attending from 1928	26
	137
Mothers—New cases	0
Attending from 1928	1
	1
	162

(c) Note on conditions treated and results obtained :—

(1) BABIES—24 CASES.

	Marked Imp.	Slight Imp.	No Imp.	Died.	Did not Attend.	Still under Treatment.	Total.
Incipient Rickets	5	—	—	1	1	2	9
Clinical Rickets	2	2	—	—	—	—	4
Marasmus	1	—	—	—	—	—	1
Not thriving	3	1	—	—	2	—	6
Bronchitis	—	—	—	—	2	—	2
Anaemia	—	1	1	—	—	—	2
	11	4	1	1	5	2	24

(2) CHILDREN—137 CASES.

	Marked Imp.	Slight Imp.	No Imp.	Died.	Did not Attend.	Still under Treatment.	Total.
Rickets	22	20	—	1	25	9	77
Slight Rickets	2	5	—	—	1	2	10
Rickets & Bronchitis	—	1	—	—	—	—	1
Rickets & Dactylitis	1	(in general condition—local condition not improved)					1
Rickets & Epilepsy	—	1	—	—	—	—	1
Marasmus	—	—	1	—	2	—	3
Not thriving ...	7	2	—	1	1	—	11
Debility	6	5	—	—	6	2	19
Anaemia	1	—	—	—	3	—	4
Bronchitis	3	—	—	—	1	—	4
Nervous	1	1	—	—	2	—	4
Abscess hand	1	(in general condition—local condition not improved)					1
Old Infantile Paralysis	1	—	—	—	—	—	1
	45	35	1	2	41	13	137

(3) Mothers.

One mother, suffering from asthma made 28 attendances, but there was no definite improvement at end of course.

11. Day Nurseries.

(a) Number of attendances :—

(1) Under 1 year of age	....	....	....	4,669
(2) Over 1 year of age ....	....	....	....	16,606

(b) Charges made :—

4s. 6d. for 5½ day week for each child, with a reduction of 1s. in the case of two members of 1 family, and 2s. a week if 3 members of the same family are attending at the same time.

12. Food and Milk.

- (a) Number of persons in respect of whom applications were made for food or milk :—

(1) Mothers	....	....	....	....	9
(2) Children	....	....	....	....	435

Number of persons who received free food or milk :—

(1) Mothers	....	....	....	....	9
(2) Children	....	....	....	....	308

- (b & c) All these cases were certified on medical grounds as requiring extra food or milk, and all were in necessitous circumstances.

- (d) Gross cost—£855. 4s. 11d.

- (e) Milk substitutes :—

Sold at cost price at Clinics :—Bengers, 1 lb. ; Glaxo, 399 lbs. ;
Ostermilk, 193 tins ; Prescription Glaxo, 2 tins ;
Total, 595.

Other Assistance :—1 baby was admitted to a Day Nursery free for 2 weeks, and 2 children were admitted free for 1 week.

13. Measles.

(a) Number of cases intimated to the Public Health Department	....	....	....	....	72
(b) Number of Deaths	....	....	....	....	1
(c) Number of cases removed to hospital	....	....	....	....	3
(d) Number of special domiciliary visits	....	....	....	....	79

14. Whooping Cough.

(a) Number of cases intimated	....	....	....	....	208
(b) Number of deaths	....	....	....	....	7
(c) Number of cases removed to hospital	....	....	....	....	14
(d) Number of special domiciliary visits	....	....	....	....	211

15. Ophthalmia Neonatorum.

- (a) Number of cases notified :—

(1) By Doctor*	....	....	....	....	39
(2) By Midwife	....	....	....	....	23
(3) By Institution	....	....	....	....	29

*14 by Doctor and Midwife.

- (b) Number of cases in which infection is gonococcal (if known),
5 positive, 3 suspicious.
- (c) Number treated in residential institutions 16
- (d) Number of cases in which there was appreciable loss
of vision 2

16-21. None.

22. Educational.

In addition to the usual lectures to the probationers at the Day Nurseries, in preparation for the examination of the National Society of Day Nurseries, three lectures have been given to Midwives by special lecturers. The subjects were as follows :—

- “ Difficulties occurring in Right Occipital Presentation.”
- “ Ante-Natal Complications.”
- “ Venereal Diseases in the Pregnant Woman.”

Weekly Sewing Classes were held in connection with three of the Centres which were fairly well attended.

23. Dundee Voluntary Health Workers' Association.

As in past years the Department has been much indebted to the Dundee Voluntary Health Workers' Association for the continued assistance of their members who have provided garments for the children, conducted sewing classes, and assisted at the clinics.

Of the 885 garments supplied to the clinics, 221 were sold at cost price, 29 at half cost price, 558 at quarter cost price, and 77 were given free by the Association on the recommendation of the Medical Officer.

During the year 500 knitted and 700 sewn garments were made for the clinics and 399 were provided for the Day Nurseries.

The following Voluntary Institutions are also associated with the Scheme, and receive an annual grant from the Dundee Town Council :—

SALVATION ARMY HOME.

Number of expectant mothers admitted in 1929	....	49
Number of babies dealt with during 1929	....	41

LOCHEE DAY NURSERY.

New cases admitted in 1929 :—		
Babies	....	42
Children	....	109
	—	151
Total attendances :—		
Babies	....	2,430
Children	....	8,348
	—	10,778

NURSERY SCHOOL.

Number of children admitted in 1929	....	31
Readmitted from 1928	....	27
Average number on Roll	....	30
Total number of attendances in 1929	....	5,155

24. Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations (Scotland), 1929.

- | | | |
|--|------|-----|
| (1) Total number of cases of (a) Puerperal Fever | .... | 34* |
| Total number of cases of (b) Puerperal Pyrexia | .... | 20 |
- *Final diagnosis in 2 cases Puerperal Fever, not notified as such.
- | | | |
|--|------|----|
| (2) Total number of cases removed to Infectious Diseases Hospital :— | | |
| (a) Puerperal Fever | .... | 23 |
| (b) Puerperal Pyrexia | .... | 2 |
| (3) Total number of Deaths | .... | 10 |
| (4) Number of cases of (a) Puerperal Fever following instrumental delivery | .... | 5 |
| Number of cases of (b) Puerperal Pyrexia following instrumental delivery | .... | 3 |
| (5) Number of deaths occurring in cases included under (4) :— | | |
| (a) Puerperal Fever | .... | 1 |
| (b) Puerperal Pyrexia | .... | 1 |
| (6) Number of cases of Puerperal Fever and Puerperal Pyrexia where the Local Authority provided assistance on the request of medical practitioners for :— | | |
| (i) Consultant Service | .... | 0 |
| (ii) Bacteriological Examinations | .... | 0 |
| (iii) Skilled nursing at home | .... | 0 |
| (iv) Hospital treatment | .... | 25 |
| (7) Notifications were sent promptly and in the majority of cases the opportunity of removal to Hospital for treatment was taken advantage of immediately. | | |

Health Visitors' Work.

Total number of homes visited, 26,109.

(a) Ordinary.		
Babies	....	15,227
Children, 1-5 years	....	9,158
Mothers, A.N.	....	8
Mothers, P.N.	....	7
(b) Infectious Diseases and Special Diseases :—		
Measles—		
Babies	....	5
Children	....	66
Whooping Cough—		
Babies	....	36
Children	....	175
Chicken Pox—		
Babies	....	23
Children	....	51
Special Visits (Throat Swabs)	....	7
Ophthalmia Neonatorum	....	1,319
Puerperal Sepsis	....	20
Maternal Deaths	....	7

Total number of cases visited, 33,668.

(a) Ordinary :—

	1st Visit.	Re-visits.	Total.
Babies	3,172	12,360	15,532
Children, 1-5 years	24	18,097	18,121
Mothers, A.N.	4	4	8
Mothers, P.N.	4	3	7

(b) Infectious Diseases and Special Visits, 1,798 :—

	1st Visit.	Re-visits.	Total.
Measles—			
Under 1 year	4	1	5
Under 5 years	25	5	30
Over 5 years	42	2	44
Whooping Cough—			
Under 1 year	25	15	40
Under 5 years	93	46	139
Over 5 years	80	12	92
Chicken Pox—			
Under 1 year	20	6	26
Under 5 years	43	14	57
Over 5 years	10	2	12
Special Visits	6	1	7
Ophthalmia Neonatorum	87	1,232	1,319
Puerperal Sepsis	16	4	20
Maternal Deaths	7	—	7

Of the 3,172 infants visited for the first time :—

106 were premature.
3,066 were full-time births.

HOUSING.

Of the 3,120 homes of the newly born visited for the first time the home conditions were as follows :—

325 very good.
1,615 good.
1,034 medium.
146 bad.

Information regarding feeding of 3,172 infants visited for the first time :—

(a) Breast ....	....	....	....	2,606
(b) Partly Breast ....	....	....	....	102
(c) Mixed feeding ....	....	....	....	72
(d) Artificial ....	....	....	....	155
(e) Stillborn ....	....	....	....	139
(f) Dead at first visit ....	....	....	....	98
				<hr/> 3,172

Special information as to the feeding of infants for the first six months of life was obtained in 1,782 cases :—

(a) Breast ....	....	....	....	....	814
(b) Partly Breast ....	....	....	....	....	341
(c) Mixed feeding ....	....	....	....	....	205
(d) Artificial ....	....	....	....	....	422
					<hr/> 1,782

Infant Death Statistics, 1929.

157 deaths occurred in children over one year and under five years of age. 355 deaths occurred in children under one year distributed as follows :—

1st week	2nd week	3rd week	4th week	1-3 months	3-6 months	6-9 months	9-12 months	Total.
88	24	15	15	51	84	39	39	355

Of these 124 were breast fed.

23 were partly breast fed.

21 were mixed feeding (breast and artificial feeding).

97 were artificially fed.

In 50 cases feeding was not commenced due to prematurity.

38 cases were not visited.

In 2 cases no particulars were obtained.

Regarding the feeding, the ages at which those infants died were as follows :—

	1st mth.	2nd mth.	3rd mth.	4th mth.	5th mth.	6th mth.	7th mth.	8th mth.	9-12 mths.	Total.	Feeding not commenced.	N.V.	N.P.
Breast	56	13	6	8	6	8	4	4	19	124			
Partly Breast	1	2	0	2	6	1	3	1	4	20			
Mixed	1	0	4	5	5	0	1	1	7	24			
Artificial	16	13	10	10	10	11	7	1	19	97			
<hr/>													
	74	28	20	25	27	20	15	7	49	265	50	38	2

HOUSING.

In the 315 deaths in which particulars were obtained :—

87 occurred in houses of one room, in which there were 343 occupants.

200 occurred in houses of two rooms, in which there were 969 occupants.

23 occurred in houses of three rooms, in which there were 132 occupants.

5 occurred in houses of four rooms, in which there were 29 occupants.

FAMILY HISTORY.

(a) The family history showed that in these families 681 children were still alive, but 533 had died, and of these no fewer than 473 had died in the first year of life.

(b) In 315 cases in which particulars were obtained, 154 mothers were engaged in work outside their own homes, and 161 were not thus engaged.

In 14 cases the mothers left work one week or under before confinement.

5 cases the mothers left work two weeks before confinement.

3 cases the mothers left work three weeks before confinement.

29 children who died were illegitimate.

38 children who died were twin births.

90 deaths were due to prematurity.

Deaths from Diarrhoea.

Special inquiry into deaths due to diarrhoea :—

41 deaths occurred from diarrhoea during 1929 :—

11 were breast fed.

8 were partly breast fed.

1 was mixed feeding (breast and other food).

19 were artificially fed.

2 cases were not visited.

	1st mth.	2nd mth.	3rd mth.	4th mth.	5th mth.	6th mth.	7th mth.	8th mth.	9-12. mths.	Total.	N.V.
Breast	3	1	1	4	1	0	0	0	1	11	
Partly Breast	0	1	0	0	2	1	1	0	3	8	
Mixed	0	0	0	0	0	0	0	0	0	0	
Artificial	1	0	0	5	4	2	2	2	4	20	
Totals	4	2	1	9	7	3	3	2	8	39	2

FAMILY HISTORY.

The family history showed that in these families :—

80 were still alive.

63 had died, and no fewer than 55 had died in the first year of life.

11 mothers had worked during pregnancy, and 28 were not engaged in outside employment.

HOUSING.

Of the 39 deaths from diarrhoea in which particulars were obtained :—

15 occurred in houses of one room, in which there were 58 occupants.

22 occurred in houses of two rooms, in which there were 113 occupants.

2 occurred in a house of three rooms, in which there were 11 occupants.

**Particulars of Births Notified and Registered in Dundee
during 1929.**

Number of births taken from Registrars' Weekly Returns (includes transfers out and also transfers in) ....	....	3,633
Difference between Notification and Registration (1928-29 and 1929-30) ....	....	1
		<hr/> 3,634
Less : Number transferred into Dundee ....	....	33
		<hr/>
(1) Number of Live Births occurring in Dundee ....	....	3,601
Number of Stillbirths ....	....	166
		<hr/>
(2) Total number of births occurring in Dundee ....	....	3,767
(3) Number of births notified in accordance with the Act— i.e. 94·4 per cent. of total number of births (3,767) ....	....	3,556
(4) Number of live births notified—i.e. 94·1 per cent. of live births (3,601) ....	....	3,390

Classification of Notifications.

By whom Notified.	Notified.	Unnotified.	Total.	Total cases attended.	Percentage of total births attended.
Doctors	463	158	621	828	22%
Doctor and Midwife	95	—	95	95	2·5%
Midwives	1,489	2	1,491	1,491	39·6%
Mat. Ward D.R.I.	1,259	31	1,290	1,290	34·3%
E. Poorhouse Hospital	—	20	20	20	·5%
Parents	119	—	119	—	—
Other Sources	88	—	88	—	—
Out of Town	—	33	33	—	—
S.A.H.	43	—	43	43	1·1%
	<hr/> 3,556	<hr/> 244	<hr/> 3,800	<hr/> 3,767	<hr/> 100%

VENEREAL DISEASES SCHEME.

Dr. Averill's Report.

While the working of the Venereal Diseases Scheme was carried out along the usual lines, 1929 marked the first complete year of the new premises in the Public Health Institute. As was expected the enhanced facilities offered to the public fully justified the new clinic, and judging from the attendances the Public Health Institute, as far as V.D. is concerned, is fulfilling its purpose very satisfactorily.

Except for a small clinic for nursing mothers and their babies, held on Friday afternoons at the Child Welfare Centre, Nelson Street, all cases of V.D. are attended to at the Public Health Institute.

During the year 1,075 new patients were examined, 668 males and 407 females, an increase of respectively 90 and 95 over the previous year. These figures represent new cases only. In addition to these, a further number, approximately 687 cases, who had not completed their treatment at the end of the previous year were carried forward. During the year, therefore, 1,762 cases were under treatment.

A maintained feature of interest with regard to the actual new cases was the number found to be free from any form of venereal disease. Of such patients 165 men and 124 women sought advice during 1929, as compared with 157 men and 104 women in 1928.

The total attendance for the twelve months were as follows :— male 17,909, female 14,086. Compared with 1928, these show an increase of 3,913 male and 1,307 female.

In-patient treatment is now much more satisfactory, particularly with regard to the male section. Female patients are still treated at King's Cross Hospital. The in-patient days for 1929 were respectively 1,641 for males and 275 for females. For the previous year these were respectively 341 and 123.

Of patients suffering from gonorrhoea 30 per cent. reported in the early stage of their infection, while in the remaining 70 per cent. the disease was well established ere advice was sought at the clinics. From these percentages it will be seen that considerable room for improvement still exists. Treatment of this condition is still along much the same lines as during the previous year.

With regard to the new cases of syphilis reporting during 1929, an analysis shows them to be made up as follows :—

With " Dark Ground " positive but Wassermann reaction still negative	9%
With " Dark Ground " positive and Wassermann reaction positive	11%
Suffering from secondary syphilis	34%
In the tertiary phase of syphilis	31%
Cases showing involvement of central nervous system (Tabes Dorsalis and General Paresis included)	15%

No apology is necessary for once again drawing attention to the extreme importance of patients reporting at the first appearance of any form of venereal sore. How highly important it is to be given the opportunity of diagnosing syphilis microscopically and before the Wassermann reaction has become positive, scarcely appears to be yet fully appreciated.

With regard to the treatment there is nothing fresh to report. Reliance is still placed chiefly upon an arsenobenzol compound and a metal. The metal chiefly in use is still bismuth.

A course of each is given simultaneously, and no patient receives less than two courses. Once again I wish to draw attention to the fact that less is of absolutely no value. Not only is it of no value but frequently it gives rise to a degree of resistance on the part of the *Treponema* to antisppecific treatment which is difficult to gauge. How far insufficient treatment lends itself to the onset or at least earlier onset of serious post primary syphilitic lesions is at present a sufficiently important subject to merit attention.

The number of specimens examined by Professor Tulloch and his staff on behalf of the V.D. Clinics is herewith appended. To the staff of the Bacteriological Department I am deeply indebted for much valuable advice and assistance without which the successful working of the scheme would be well nigh impossible.

Wassermann reaction	2,124
Special Wassermann	217
Gonococcus Complement Fixation Test	781
Dark Ground examinations	36
Urines	36
Smears	2,091
Total	5,285

To the various members of the staff I tender my sincere thanks for assistance throughout the year.

NEW CASES.

DUNDEE.—Males.

	Syphillis.	Gonorrhœa.	Mixed. Infections.	Other V D.	No V.D.	Total.
January	6	10	1	9	10	36
February	8	14	1	4	10	37
March	8	15	1	5	13	42
April	8	12	0	3	13	36
May	11	22	2	9	16	60
June	6	18	1	2	13	40
July	1	14	0	2	10	27
August	11	19	2	8	6	46
September	9	21	1	1	11	43
October	12	33	3	7	10	65
November	10	23	3	3	14	53
December	8	28	0	4	13	53
Totals	98	229	15	57	139	538

OTHER AREAS.—Males.

	Syphillis.	Gonorrhœa.	Mixed. Infections.	Other V.D.	No V.D.	Total.
January	6	5	0	1	4	16
February	2	4	0	1	0	7
March	1	4	1	2	0	8
April	3	5	1	1	3	13
May	1	7	0	1	1	10
June	1	2	1	0	1	5
July	1	5	0	0	2	8
August	2	5	0	0	3	10
September	1	9	0	0	0	10
October	2	6	1	1	5	15
November	3	5	0	0	3	11
December	6	5	1	1	4	17
Totals	29	62	5	8	26	130
Grand Total	127	291	20	65	165	668

TOTAL—New Cases—Males 668

NEW CASES.

DUNDEE.—Females.

	Syphilis.	Gonorrhœa.	Mixed Infections	Other V.D.	No V.D.	Total.
January	13	4	1	0	8	26
February	13	5	0	0	9	27
March	14	6	6	0	7	33
April	11	4	2	0	13	30
May	12	12	4	0	8	36
June	6	12	5	0	10	33
July	7	5	3	0	5	20
August	9	9	4	0	3	25
September	15	3	1	0	9	28
October	11	13	2	0	6	32
November	25	7	3	0	18	53
December	9	7	4	0	20	40
Totals	145	87	35	0	116	383

OTHER AREAS.—Females.

	Syphilis.	Gonorrhœa.	Mixed Infections.	Other V.D.	No V.D.	Total.
January	0	0	0	0	0	0
February	1	0	0	0	0	1
March	0	0	0	0	3	3
April	0	0	0	0	0	0
May	1	1	0	0	2	4
June	0	0	0	0	0	0
July	1	1	1	0	0	3
August	0	0	0	0	0	0
September	0	0	1	0	3	4
October	1	3	0	0	0	4
November	1	0	0	0	0	1
December	1	3	0	0	0	4
Totals	6	8	2	0	8	24
Grand Total	151	95	37	0	124	407

Females—407=1,075.

AGE PERIODS.—Males.

		Syphilis.	Gonorrhœa.	Mixed Infections.	Other V.D.	No V.D.
Under 1 year	....	3	0	0	0	9
1-5 years	....	4	0	0	0	6
5-15 years	....	10	0	0	0	5
15-25 years	....	24	97	4	27	46
25 years and up.	....	86	194	16	38	99
Totals	....	127	291	20	65	165
Grand Total	....			668		

ATTENDANCES.

DUNDEE.—Males.

		Syphilis.	Gonorrhœa.	Mixed Infections.	Other V.D.	No V.D.	Total.
January	....	246	969	109	59	43	1,426
February	....	197	828	93	20	32	1,170
March	....	247	794	27	10	38	1,116
April	....	280	675	49	22	46	1,072
May	....	323	825	69	17	41	1,275
June	....	309	862	83	35	42	1,331
July	....	287	839	85	15	23	1,249
August	....	286	924	97	32	37	1,376
September	....	263	925	179	19	51	1,437
October	....	331	1,132	136	16	46	1,661
November	....	401	1,137	151	35	42	1,766
December	....	383	1,183	148	20	48	1,782
Totals	....	3,553	11,093	1,226	300	489	16,661

OTHER AREAS.—Males.

		Syphilis.	Gonorrhœa.	Mixed Infections.	Other V.D.	No V.D.	Total.
January	....	55	55	3	5	7	125
February	....	56	19	0	3	3	81
March	....	59	20	3	5	1	88
April	....	77	66	0	2	0	145
May	....	46	64	24	1	3	138
June	....	31	60	0	0	4	95
July	....	28	40	0	0	0	68
August	....	22	48	3	0	1	74
September	....	22	54	1	0	0	77
October	....	27	41	0	0	4	72
November	....	39	78	0	2	0	119
December	....	66	79	3	13	5	166
Totals	....	528	624	37	31	28	1,248
Grand Total	4,081	11,717	1,263	331	517		17,909

TOTAL ATTENDANCES—Males 17,909

Females.

	Syphilis.	Gonorrhœa.	Mixed Infections.	Other V.D.	No V.D.
Under 1 year	3	0	0	0	6
1-5 years	8	3	0	0	10
5-15 years	36	3	3	0	30
15-25 years	27	38	22	0	31
25 years and up.	77	51	12	0	47
Totals	151	95	37	0	124
Grand Total			407		

ATTENDANCES.

DUNDEE.—Females.

	Syphilis.	Gonorrhœa.	Mixed Infections.	Other V.D.	No V.D.	Total.
January	434	329	155	0	50	968
February	350	317	159	0	52	878
March	391	395	165	0	77	1,028
April	478	419	182	0	70	1,149
May	494	476	175	0	74	1,219
June	430	512	181	0	65	1,188
July	341	446	185	0	33	1,005
August	370	491	218	0	46	1,125
September	384	529	197	0	83	1,193
October	439	570	222	0	96	1,327
November	396	442	206	0	87	1,131
December	493	414	203	0	91	1,201
Totals	5,000	5,340	2,248	0	824	13,412

OTHER AREAS.—Females.

	Syphilis.	Gonorrhœa.	Mixed Infections.	Other V.D.	No V.D.	Total.
January	35	14	0	0	0	49
February	16	8	0	0	0	24
March	25	12	0	0	3	40
April	19	10	0	0	2	31
May	19	9	0	0	7	35
June	14	39	0	0	2	55
July	19	19	0	0	3	41
August	17	28	4	0	0	49
September	19	34	9	0	5	67
October	24	23	24	0	6	77
November	14	36	13	0	2	65
December	60	67	11	0	3	141
Totals	281	299	61	0	33	674
Grand Total	5,281	2,639	2,309	0	857	14,086

Females—14,086=31,995.

SPECIAL TREATMENT ADMINISTERED.

Number of Intravenous and Intramuscular Injections given:—

		Neokharsivan					Kharsulphan		
		·15	·3	·45	·6	·075	·15	·3	·45
January	....	11	90	24	28	5	18	69	1
February	....	13	62	46	33	5	23	41	2
March	....	5	62	47	55	7	19	42	4
April	....	3	91	46	60	12	19	82	0
May	....	1	98	32	73	13	13	98	0
June	....	1	74	31	71	13	9	92	0
July	....	0	94	16	49	11	4	45	0
August	....	6	97	28	53	3	8	43	0
September	....	5	100	50	65	0	10	70	0
October	....	2	80	43	55	7	18	89	6
November	....	6	95	39	68	5	12	87	3
December	....	3	110	50	48	4	26	119	5
		56	1,053	452	658	85	179	877	21
Totals	....	2,219					1,162		

		Bismuth.		Other Drugs.	
		·2	·3	·4 gm.	
January	....	120	105	33	56
February	....	88	104	48	50
March	....	78	0	190	53
April	....	123	1	209	70
May	....	83	151	94	61
June	....	62	95	80	67
July	....	54	61	69	54
August	....	55	74	59	66
September	....	88	73	91	65
October	....	85	115	69	69
November	....	106	117	84	103
December	....	135	148	82	108
		1,077	1,044	1,108	822
		3,229			822
					Other Salvarsan Substitutes. 216

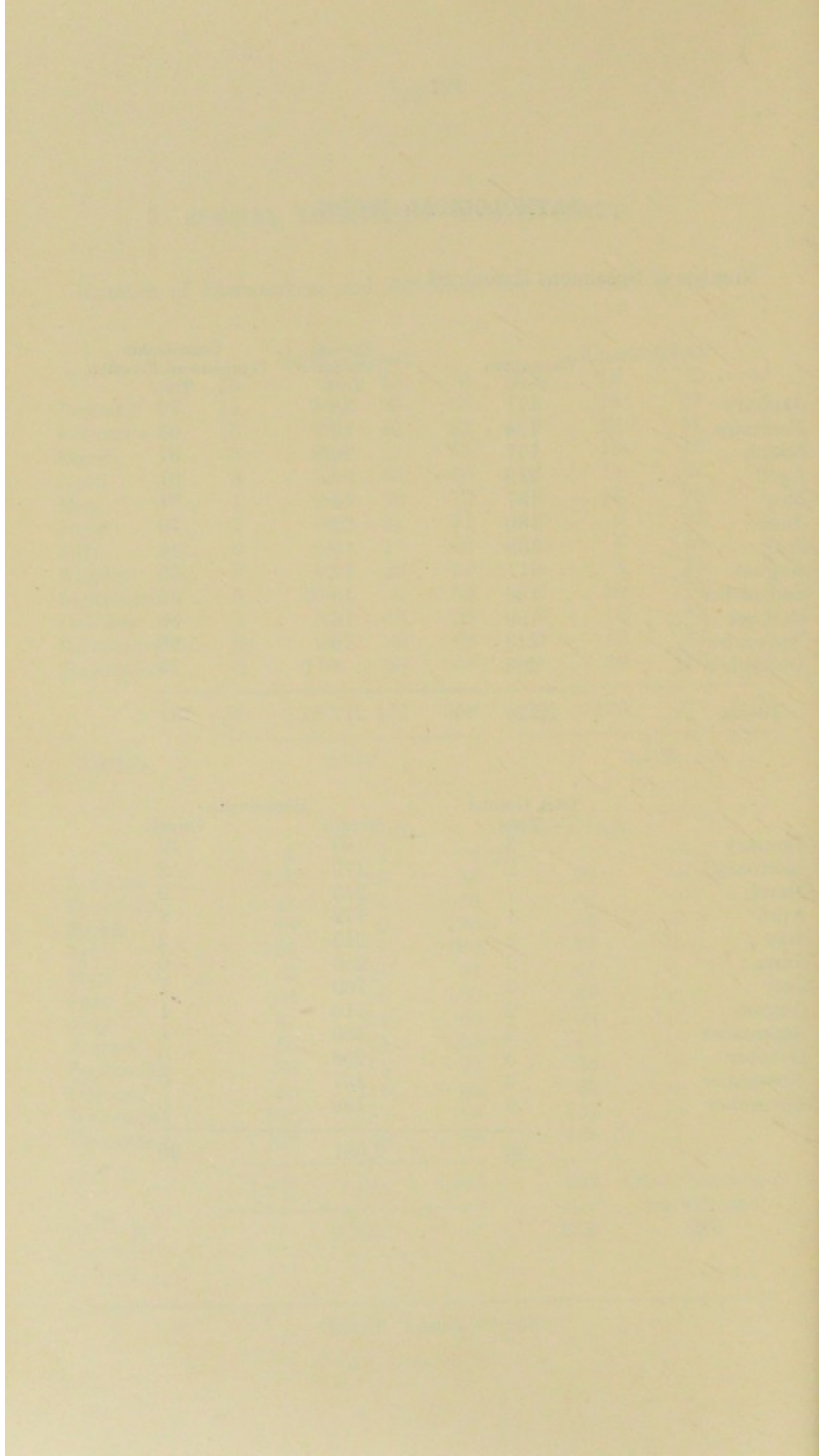
GRAND TOTAL—7,648

PATHOLOGICAL WORK.

Number of Specimens Examined :—

	Wasserman Test.	Special Wasserman Test.	Gonococcus Complement Fixation Test.
January	171	35	70
February	134	13	63
March	177	20	67
April	219	29	61
May	157	14	61
June	180	22	70
July	139	15	44
August	171	19	55
September	156	10	58
October	199	16	89
November	213	16	68
December	208	8	75
Totals	2,124	217	781

	Dark Ground Tests.	Microscopic, Smears.	Urines.
January	3	180	12
February	2	173	2
March	7	213	9
April	1	172	8
May	2	213	2
June	2	210	0
July	2	160	1
August	2	116	1
September	2	159	1
October	5	208	0
November	3	157	0
December	5	130	0
	36	2,091	36



BACTERIOLOGICAL REPORT.

Professor Tulloch's Report.

BACTERIOLOGICAL REPORT

Report of the

REPORT OF WORK CARRIED OUT IN THE DEPARTMENT OF
BACTERIOLOGY, UNIVERSITY COLLEGE, DUNDEE, ON
BEHALF OF THE DUNDEE PUBLIC HEALTH AUTHORI-
TIES, FROM 1ST JANUARY 1929 TO 31ST DECEMBER 1929.

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

During the year under consideration there has been a notable development of the measures for controlling and investigating puerperal sepsis, and in this connection the laboratory service has been considerably extended. The laboratory investigation of cases of puerperal sepsis has become a routine procedure, and therefore the sub-section dealing therewith has been transferred from section III. (Special investigations) to section II. (routine investigations) of this report.

I. CONTROL OF VENEREAL DISEASES.

(a) Control of Syphilis.

1. Dark Ground Examinations.
2. Wassermann Reactions (Routine).
3. Special Wassermann Reactions.
4. Examinations of cerebro-spinal fluids.

(b) Control of Gonorrhoea.

1. Microscopical examination of discharges and urines.
2. Gonococcus Complement Fixation tests.
3. Supply of vaccine.

II. CONTROL OF OTHER COMMUNICABLE DISEASES.

(a) Diphtheria.

1. Throat swabs from cases and contacts.
2. Virulence tests.

(b) Enteric Fever.

1. Widal Reactions.
2. Examinations of faeces in convalescents.
3. Blood cultures.

(c) Tuberculosis.

(d) Puerperal Sepsis.

III. SPECIAL INVESTIGATIONS.

- (a) Examination of Milks for contamination.
- (b) Examination of Milk for grading.
- (c) Routine examination of Milks for tuberculosis.
- (d) Examination of milks for tuberculosis under the Tuberculosis Order.
- (e) Food Poisoning.
- (f) Primary meningitis, and secondary meningitis.
- (g) Faeces for amoebic dysentery.
- (h) Bacillary dysentery.
- (i) Examination of crusts for smallpox.
- (j) Prophylaxis of anthrax.
- (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 1929 36 examinations were made for the presence of *T. Pallidum* in suspected syphilitic sores. This number is a very slight increase upon that of the previous year, but is much too small, and as only 2 of these were from private practitioners, it appears probable that there is still 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 that 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.

The importance of early diagnosis and early active treatment cannot be over-emphasised.

2. Wassermann Reactions.

The improvements in the technique for conducting the Wassermann reaction, elaborated during 1926-27, continue 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 total number of tests carried out was 3,790, of which 2,124 were from the clinic, 294 from private practitioners, and 1,372 from institutions other than the clinic.

To the total number there must be added 167 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 3,957 for 1929.

3. Special (Quantitatives) Wassermann Tests.

The special quantitative Wassermann reaction elaborated in 1925 continued in use during 1929 in order to control the treatment of cases attending the clinics.

It has proved extremely valuable 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 220, all but three being from the clinic, so that the grand total of Wassermann reactions for the year under consideration was 4,177.

4. Examination of Cerebro-spinal fluids.

During 1929 the complete investigation of cerebro-spinal fluids from cases of suspected neuro-syphilis was continued, the examination in each instance being as complete as possible.

In addition to the ordinary Wassermann test and reinforced Wassermann test, a complete chemical and cytological examination was performed, while the Lange gold test was employed as a routine. Of the 167 investigations, 27 were carried out on material submitted for examination by the venereal diseases officers, and 140 on material sent by consultant physicians.

(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 1929 2,478 microscopical examinations of material for the diagnosis and control of gonorrhoea were carried out. These are distributed thus :—

	Discharges, including urine after prostatic massage.
From the Clinic	2,162
From private practitioners	88
From institutions other than the clinic	228

2. Investigation of cases of Gonorrhoea by the Complement Fixation Reaction.

During 1929 823 complement fixation tests have been carried out with a view to the control of treatment or diagnosis of gonorrhoea. These were distributed thus :—

From the clinic	781
From private practitioners	15
From institutions other than the clinic	27

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

Dark Ground examinations	36
Wassermann reactions (ordinary)	3,790
Special quantitative Wassermann reactions	220
Special examinations of cerebro-spinal fluids	167
Microscopical examinations of discharges and urines	2,478
Gonococcus complement fixation tests	823
	<hr/>
	7,514

This is practically the same figure as that for the previous year.

3. Gonococcal Vaccine.

During 1929 the laboratory has continued to supply both male and female clinics with gonococcus vaccines upon a large scale.

II. EXAMINATIONS FOR THE CONTROL OF OTHER COMMUNICABLE DISEASES.

(a) Diphtheria.

1. Cultural examination of throat swabs.

Although during 1929 there has been no notably serious outbreak of diphtheria in Dundee, nevertheless a considerable number of cases have occurred, and the total number of swabs examined was 1,488.

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. 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*. 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.

In all, during 1929, 12 tests have been made to determine the virulence of diphtheria bacilli present in the throats of suspected carriers and of convalescents, all 12 were from patients in King's Cross Hospital. As in the previous years, these tests have proved of value in expediting the discharge of patients from the Isolation Hospital.

(b) Control of Enteric Fever.

In the early months of 1929 there occurred in an Institution in Dundee a small outbreak of enteric fever due to bacillus paratyphoid beta and because of the circumstances in which this outbreak developed it was necessary to examine a large number of persons to be assured that no mild cases remained undiagnosed and no carriers unidentified.

This outbreak was responsible for the notable increase in the numbers of tests carried out for the control of enteric fever during the year 1929.

It is worthy of note that all the cases of enteric fever which occurred in Dundee during the year under consideration were due to infection with bacillus paratyphoid beta.

1. Widal Reactions.

In all, 228 tests were carried out on 114 specimens of blood. The duplicate test against both typhoid and paratyphoid beta continues to be employed as a routine.

2. Blood Cultures.

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, but each year sees an increased number of such investigations in cases of continued fever in which diagnosis on clinical grounds may be difficult to make, and during 1929 blood culture, as a means of establishing an early diagnosis of this disease, was used in 25 cases.

3. Examination of faeces, urines, etc., from Enteric Convalescents.

During 1929 93 specimens of faeces from convalescent cases of enteric fever or from possible carriers of the disease were examined. In addition, 8 specimens of urine, one vermiform appendix removed at operation, and one gall-bladder also removed at operation, were also fully investigated from this standpoint.

One additional case because of its interest deserves special comment, viz. :—a case which clinically appeared to be an ordinary empyema was found to be one in which the organism invading the pleura was definitely a paratyphoid beta bacillus. The discharge from the pleura was examined on three occasions, and on two of these the enteric bacillus was demonstrated. This micro-organism was made the subject of very extended examination as infection of the lungs and pleura with the Aerttrycke bacillus—a micro-organism which is remarkably like bacillus paratyphoid beta—occasionally occurs and was indeed the condition to which the term "psittacosis" was first applied.

The condition which is now known by that name has apparently no relation to the "paratyphoid—food-poisoning" group of bacteria.

(c) Control of Tuberculosis.

302 specimens of sputum were examined from cases in Dundee during 1929, practically the same figure as for the previous year. The ratio of negative to positive findings remains much as before.

Research on Tuberculosis still continues to occupy the staff of the laboratory, and encouraging results are being obtained in the use of a new method of prevention. Much work will, however, still have to be done before certain technical difficulties are overcome, and the value of the method assessed with accuracy.

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 nature that it is necessary to exclude tuberculosis. During 1929 178 such specimens have been investigated, comprising :—

Urines	....	....	....	....	53 specimens.
Cerebro-spinal fluids	....	....	....	....	53 ,,
Pus	....	....	....	....	38 ,,
Pleural fluid	....	....	....	....	21 ,,
Fluid from joints	....	....	....	....	3 ,,
Miscellaneous	....	....	....	....	10 ,,
					<hr/>
					178

(d) Puerperal Sepsis.

During 1929 the arrangements for the investigation of puerperal sepsis by laboratory methods were completed, and this is the first whole year during which specimens from cases of this nature have been examined.

In all, 82 investigations have been made comprising 38 blood cultures and 44 cultures from intra-uterine swabs.

The investigation of these cases has again shown unequivocally that the micro-organism responsible for the more severe cases of puerperal infection is streptococcus haemolyticus.

In addition to the investigation of suspected cases of puerperal sepsis the laboratory has been used to determine whether midwives, in whose practice severe cases of sepsis had occurred, were or were not carriers of the streptococcus haemolyticus. Examinations for this purpose were carried out eight times during the year under consideration.

III. SPECIAL INVESTIGATIONS.

(a) Examination of milks for contamination.

During 1929 73 specimens of milk were examined to determine the degree of bacterial contamination and the presence of organisms

of faecal origin. Of the 73 specimens, 9 were specially examined for grading.

The results of these examinations in 73 specimens are as follows :—

1. Test for presence of B. Coli.

B. Coli test positive in .001 c.c. or less—Unsatisfactory	8
B. Coli test positive in .01 c.c. negative .001—Doubtful	12
B. Coli test positive in 0.1 c.c. negative .01 —Good	14
B. Coli test positive in 1 c.c. negative 0.1 —Very Good	10
B. Coli test negative in 1 c.c. —Excellent	29
	73

So far, then, as the B. Coli test is concerned, 53 of these milks are up to the standard of Grade A. milk, while 39 pass the more severe test for certified milk.

2. Total number of micro-organisms.

(a) Over 5,000,000 per c.c.	0
(b) Over 3,000,000 but less than 5,000,000 per c.c.	1
(c) Over 1,000,000 but less than 3,000,000 per c.c.	2
(d) Over 700,000 but less than 1,000,000 per c.c.	1
(e) Over 500,000 but less than 700,000 per c.c.	0
(f) Over 300,000 but less than 500,000 per c.c.	3
(g) Over 200,000 but less than 300,000 per c.c.	4
(h) Over 100,000 but less than 200,000 per c.c.	9
(i) Over 50,000 but less than 100,000 per c.c.	9
(j) Over 30,000 but less than 50,000 per c.c.	6
(k) Over 10,000 but less than 30,000 per c.c.	18
(l) Over 5,000 but less than 10,000 per c.c.	13
(m) Less than 5,000 per c.c.	7

Therefore, from the standpoint of total content of all micro-organisms, 66 of these 73 specimens are really very clean indeed, while 38 have a bacterial content so low that in this respect they would qualify as certified milks.

(b) Examination of Milks for Grading.

Included in the above figures are 9 specimens in which the special examination for grading and certification was carried out. The investigation in such circumstances is conducted according to a standard method advised by the Scottish Dept. of Health, these milks being submitted by dairies in Dundee for grading under the Milks (Special Designations) Order, 1928, and Amendment Order (Scotland) 1928. Of the nine milks seven were remarkably clean, in that bacillus

coli could not be demonstrated even in 1 c.c., while a total bacterial count of each is as follows :—

	Total Count per c.c.	
Colon test negative in 1 c.c.	3,500	} February.
Colon test negative in 1 c.c.	2,200	
Colon test negative in 1 c.c.	48,000	} May.
Colon test negative in 1 c.c.	74,000	
Colon test positive in .01 c.c.	74,500	June.
Colon test positive in .001 c.c.	1,060,000	} August.
Colon test negative in 1 c.c.	11,750	
Colon test negative in 1 c.c.	23,000	} November.
Colon test negative in 1 c.c.	16,700	

It will be observed that in two instances the content of bacillus coli was too high, and in one the total count of micro-organism was excessive.

(c) Routine Examination of Milk for the presence of Tubercle Bacilli.

During the year 1929 24 routine specimens were submitted for special examination with a view to the demonstration of tubercle bacilli in milk. None were found to contain tubercle bacilli.

(d) Examination of Milks for Tuberculosis under the Tuberculosis Order.

During 1929 one specimen of milk was investigated for the presence of tubercle bacilli under the Tuberculosis Order.

(e) Food Poisoning.

One small outbreak of food poisoning due to *B. Gaertner* occurred in Dundee in 1929. This outbreak was very circumscribed, and of a mild nature. Some time elapsed before the nature of the condition was appreciated, and the food responsible for the infection was not traced.

This outbreak involved the examination of 14 specimens, three being blood cultures, 4 agglutination tests with the recognised micro-organisms of *Salmonella* food poisoning, and 7 examinations of faeces.

There were also examined at the laboratory two oysters which were from a consignment suspected as being responsible for a few cases of gastro-enteritis ; nothing of the nature of disease-producing micro-organisms were recovered from these molluscs.

A fatal case of illness, which was possibly, from the clinical standpoint, one of food poisoning, occurred during the year under consideration. The organs removed post-mortem from this case were made

the subject of most minute bacteriological investigation, but no evidence of bacterial food poisoning was obtained.

(f) Primary Meningitis.

During 1929 13 cases of such nature that they might be primary meningitis occurred in Dundee, and all were made the subject of extensive bacteriological examination. Of these, 6 proved to be cases of true cerebro-spinal (meningococcal) meningitis, each of which was examined several times during the progress of the illness. Seven cases proved to be primary pneumococcal meningitis; while in addition there were six cases of secondary streptococcal meningitis.

The number of cases of meningococcal meningitis is a little higher than in the previous year, and although the number is small, it should be noted that sporadic cases continue to occur, and in view of this, it would be well to bear in mind the possibility of the re-appearance of this malady in our population.

(g) Amoebic Dysentery.

During 1929 14 specimens of faeces from 6 suspected cases of amoebic dysentery were submitted to the laboratory for examination. These were fully examined both for the presence of the amoeba and for the presence of dysentery bacilli, and the following results obtained:—

- (i.) In two patients the disease proved to be true amoebic dysentery, *entamoeba histolytica* or its cysts being definitely demonstrated.
- (ii.) In one case *entamoeba coli* only was demonstrated.
- (iii.) In the three remaining cases although both amoebic and bacillary dysentery was excluded, a definite diagnosis was not established by laboratory examination.

(h) Bacillary Dysentery.

Small sporadic outbreaks of bacillary dysentery due to bacilli of the Flexner group continue to occur in the City, and these are usually mistaken for food-poisoning.

During 1929 three outbreaks of a limited nature occurred in Dundee and one case from a somewhat larger outbreak was brought to Dundee for treatment.

All except the last were caused by bacilli of the Flexner group. The single case was of considerable interest as it was due to a micro-organism known as the Sonne III. bacillus, which had not so far been encountered in Dundee.

The investigation of bacillary dysentery involved during 1929, twenty-one examinations of faeces and two very extended series of serological tests.

(i) Examination of Crusts by the Variola-Vaccinia Flocculation Test.

In the period under consideration only one case of suspected variola occurred in Dundee. Crusts from this case were examined by the flocculation test and gave a negative result ; this negative finding was fully corroborated by the subsequent history of the case.

During 1929 intensive investigation of smallpox has been pursued in the laboratory by Dr. James Craigie, who is in receipt of a wholtime grant from the Medical Research Council.

A report to that body by Dr. Burgess, Medical Officer of Health of the City, Professor Tulloch, and Dr. Craigie was published by H.M. Stationery Office during the year under consideration. The reference of this report is "Medical Research Council Special Report Series No. 143," and in it the value of the Flocculation reaction as a clinical diagnostic method is fully discussed.

Further investigation of the value of the test has been made on material submitted for examination by Local Authorities in England, and the validity of our previous findings was fully corroborated thereby.

Opportunity has been taken in the examination of this material to improve the technique of the reaction so that its application may present less difficulty to the inexperienced worker. The method elaborated by Dr. Craigie, with this end in view, makes the test one of extreme delicacy and of great simplicity.

Certain other aspects of the smallpox problem are at present being investigated, and an attempt is being made by us to produce vaccinia lymph so prepared that both the inconvenience of undue local disturbance at the site of vaccination and the occurrence of serious, though infrequent, sequelæ may be eliminated.

This work has met with success experimentally, and it remains to be seen whether the procedure elaborated is applicable upon a large scale.

(j) Prophylaxis of Anthrax.

As in the past, a supply of Sclavo's anti-anthrax serum has been available in the laboratory for the prevention and treatment of Anthrax.

During 1929 two cases of suspected Anthrax in persons were fully investigated, but fortunately neither proved to be cases of that disease.

The serum was used prophylactically in one instance, the patient being exposed to infection in handling the carcase of an animal that had died from Anthrax. As one or two small wounds were present on the man's hands a large dose of the serum was given ; Anthrax did not develop.

(k) Miscellaneous Investigations.

In addition to the work categorised under the above headings, a number of miscellaneous tests, preparation of vaccines, etc., have been undertaken on behalf of the Public Health Authority of Dundee; while the less frequently used therapeutic sera have been available and supplied at short notice to the various hospitals when required. Among these miscellaneous investigations are the following:—

Special investigations from King's Cross Hospital, Ashludie, &c.

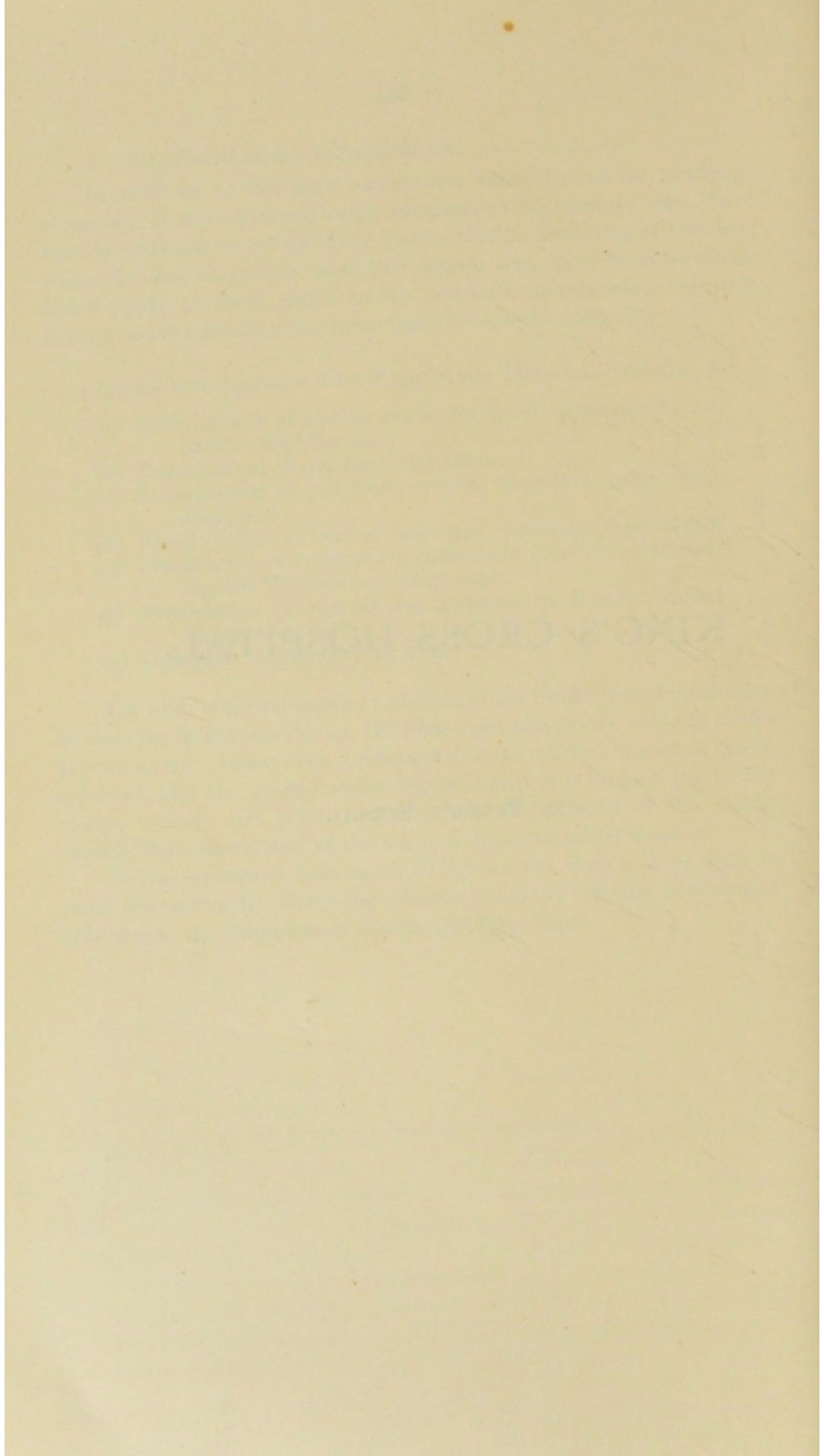
(a) Examination of throat swabs for micro-organisms other bacillus diphtheriae	....	....	....	....	....	1
(b) Examination of pus from empyema	....	....	....	....	....	3
(c) Examination of pus from surgical conditions other than empyema	....	....	....	....	....	4
(d) Blood culture in case of suspected scarletinal septicaemia	....	....	....	....	....	1
(e) Preparation of vaccines for patients in Ashludie or attend- ing the Tuberculosis Dispensary	....	....	....	....	....	3
(f) Preparation of vaccine for patients in Dundee Infant Hospital	....	....	....	....	....	1
(g) Complete examination of urine	....	....	....	....	....	2

The work of the laboratory on behalf of the Public Health Authority of the City of Dundee during 1929 has been almost the same as in the previous year. It has been a pleasant duty to conduct the work herein reported, and the success which has attended it is largely due to the ready, willing, and helpful co-operation of the staff of the Public Health Department and of the various clinics attached thereto.

This co-operation does much to lighten the work and to make it more interesting by increasing efficiency and by offering educational facilities to the Department and its ancillary clinics.

KING'S CROSS HOSPITAL.

Dr. Petrie's Report.



During 1929, 1,276 cases of ordinary infectious diseases and 114 cases of tuberculosis were admitted to the Hospital.

The average daily number in cases of ordinary infectious diseases was 83·37 and in cases of tuberculosis 53·7.

The highest daily number of all patients in Hospital was 177 on October 27th, and the lowest was 102 on August 12th.

Below is a table of all patients treated in Hospital during the past year :—

Disease. (Provisional Diagnosis on Admission)				In Hospital on Dec. 31st, 1928.	Admitted during year.	Discharged during year.	Died during year.	Remaining in Hospital on Dec. 31st, 1929.
Diphtheria	....	....	....	36	386	383	14	25
Scarlatina	....	....	....	14	482	456	4	36
Erysipelas	....	....	....	2	61	56	6	1
Broncho-pneumonia	(all							
causes)	....	....	....	16	226	179	47	16
Lobar Pneumonia	....	....	....	2	8	7	3	—
Puerperal Fever	....	....	....	7	37	31	11	2
Enteric Fever	....	....	....	—	16	14	2	—
Venereal Disease	....	....	....	—	14	11	1	2
Measles	....	....	....	—	4	4	—	—
Whooping Cough	....	....	....	—	1	1	—	—
Mumps	....	....	....	—	3	3	—	—
Chickenpox	....	....	....	1	5	6	—	—
Ophthalmia Neonatorum	....	....	....	—	12	10	1	1
Cerebro-Spinal Meningitis	....	....	....	—	8	1	7	—
Dysentery (Bacillary)	....	....	....	—	1	1	—	—
Dysentery (Amoebic)	....	....	....	—	2	2	—	—
Food Poisoning (Gaertner)	....	....	....	—	2	2	—	—
Rheumatic Endocarditis	....	....	....	—	1	1	—	—
Suspected Smallpox	....	....	....	—	2	2	—	—
Scarlet Fever and Chickenpox	....	....	....	—	1	1	—	—
Diphtheria and Scarlet Fever	....	....	....	—	4	4	—	—
Total Infectious Diseases	....	....	....	78	1,276	1,175	96	83
Tuberculosis	....	....	....	52	114	69	46	51
Total	....	....	....	130	1,390	1,244	142	134

The case mortality for the ordinary infectious diseases was 7·55 per cent. and for tuberculosis 40 per cent.

Diphtheria.

397 cases were discharged from the register during the year. In 103 cases the provisional diagnosis of diphtheria was not confirmed, the final diagnosis in the majority of these being follicular tonsillitis.

26 per cent. of the total discharges were thus not confirmed as diphtheria, which seems to show an increased tendency on the part of medical practitioners to admit doubtful cases to hospital without waiting for bacteriological confirmation. Combined with the immediate administration of antitoxin to such cases not admitted, this one factor does much to lower the case mortality since the patient's chance of recovery decreases rapidly in inverse ratio to the number of days ill before the use of the specific serum. This is shown in the following analysis of the cases of diphtheria discharged :—

Day of illness on admission.	Total number of cases admitted.	Total units antitoxin administered.	Average dose in units.	Number of deaths.	Care Mortality %.
1st	40	379,000	9,500	—	—
2nd	75	904,000	12,000	2	2·66
3rd	70	938,000	13,500	2	2·86
4th	43	721,000	17,000	2	4·65
5th and over	66	992,000	15,000	7	10·6
Total	294	3,934,000	13,500	13	4·39

The case mortality in patients admitted before the fifth day of illness was 2·63 per cent. Three cases died within 24 hours of admission, seven within 48 hours, and the remaining six after the fourth day, of whom one died of generalised paralysis on the forty-sixth day. As in previous years the majority of deaths occurred in cases where the parent or guardian had delayed having the patient examined by a physician.

The above analysis also shows that the dose of antitoxin required increases directly as the number of days ill before admission. In the group of patients admitted after the fifth day, a number showed a good reaction to the infection and required a comparatively small dose of serum, while others were so ill that even a large dose proved useless. The minimum dose in this group was 6,000 units and the maximum 96,000 units. The average dose of serum given to cases in which the diagnosis was not subsequently confirmed was 4,508 units. An endeavour is made to estimate on admission the amount of serum required for the treatment of each case and to administer it intramuscularly in a single dose. In only ten cases was a second dose required.

The following table shows the case mortality in relation to the site of the diphtheria membrane :—

Site of Membrane.	Number of cases.	Number of deaths.	Case Mortality %.
Fauces	238	6	2.5
Fauces and Nose	18	4	22.2
Fauces and Larynx	22	—	—
Nose and Larynx	1	—	—
Larynx	14	3	21
Ear	1	—	—

Laryngeal Diphtheria.

There were 37 cases of laryngeal diphtheria and of these 3 died, a mortality of 8 per cent. Four cases required tracheotomy and of these 3 died and 1 recovered. Laryngeal obstruction was found to be much relieved by the use of steam and the administration of aspirin. (Children under 3 years were given $2\frac{1}{2}$ grains and up to 7 years 5 grains, repeated eight hourly until relieved). Under the combined influence the patient soon became quiet and was allowed sleep. Tracheotomy was delayed until obstruction was almost complete, but was seldom required. Cases treated in this way were found to have a much better chance of recovery, and after relief of the obstructions to have a shorter stay in hospital than when tracheotomy was performed early. The disadvantage of the method is that constant vigilance is required and the medical officer must be prepared to perform the operation at a moment's notice.

COMPLICATIONS.

Below is a list of the complications which had occurred in the cases discharged :—

	Cases.
Cervical adenitis	34
Cardiac failure	13
Cardiac irregularity	13
Paralysis :—	
Palatal	4
Ocular	1
Combinations of paralysis :—	
Cardiac failure and Palatal paralysis	4
Cardiac failure, Palatal paralysis and Ocular paralysis	2
Cardiac failure, Palatal and Facial paralysis	1
Cardiac failure, Palatal, Ocular, and Facial paralysis	1
Palatal and lower limbs	2

CONTACTS.

Nose and throat swabs were taken of all immediate contacts of cases admitted, and a prophylactic dose of diphtheria antitoxin administered to children under eight years of age. 97 contacts received

1,000 unit doses and none developed diphtheria. Contacts of cases obviously not suffering from diphtheria were not given antitoxin, but active immunisation was advised.

DICK TEST IN DIPHTHERIA.

During the past four years patients have been Dick Tested on admission to the Diphtheria Wards as a routine measure in the control of cross infection with Scarlet Fever. The following is a short analysis of the results obtained :—

Year.	Males.			Females.			Both Sexes.		
	Total Tests.	No. +	Per cent. +	Total Tests.	No. +	Per cent. +	Total Tests.	No. +	Per cent. +
1926	192	83	43.23	315	144	45.7	507	227	44.77
1927	334	172	51.6	377	154	40.85	711	326	45.85
1928	232	115	49.57	279	144	51.61	511	259	50.68
1929	149	93	62.41	241	131	54.35	390	224	57.43
Four Years	907	463	51.05	1212	573	47.28	2119	1036	48.89

Age Group.	Males.			Females.			Both Sexes.		
	Total Tests.	No. +	Per cent. +	Total Tests.	No. +	Per cent. +	Total Tests.	No. +	Per cent. +
Under 1	22	8	36.4	9	4	44.4	31	12	38.7
1-5	331	201	60.7	291	174	59.8	622	375	60.3
5-10	368	195	53	450	226	50.2	818	421	51.5
10-15	95	33	34.7	190	67	35.3	285	100	35.1
15 and Over	91	26	28.6	272	102	37.5	363	128	35.3

Scarlet Fever.

Towards the end of the year an epidemic of Scarlet Fever became prevalent in the city, and the Hospital accommodation for this disease was fully required. In order to make full use of the available beds for the treatment of acute cases, convalescent patients were discharged at an earlier stage than has hitherto been our custom. Towards the end of August a number of cases was being discharged in the 24th day of disease. This very much reduced the average stay in Hospital per completed case. The routine administration of Scarlet Fever Antitoxin to all cases of the disease admitted has been continued, and as before it has been found to reduce almost to nil the occurrence of the more serious complications, including suppurative cervical adenitis and mastoiditis. It has, however, little or no effect on the occurrence of rhinorrhoea, the commonest cause of lengthy stay in Hospital. It was observed that in a number of convalescents rhinorrhoea started after the 21st day of disease, when the patient was up and going about the Ward, simply undergoing isolation until the customary 28th day of disease (the condition presumably being infectious). By discharging

patients, otherwise well, before this dangerous period it was hoped to prevent the occurrence of rhinorrhoea, and in practice this policy met with considerable success. Such patients were subsequently kept under observation at home. There was no increase in the number of return cases, which in any case is very low.

SCARLET FEVER DEATHS.

Four cases admitted as Scarlet Fever died during the year ; the following notes are extracts from their case sheets :—

1. K. W. Female, age $1\frac{9}{12}$ years. Scarlet Fever following a burn on the left forearm ; type anginous ; admitted on the fourth day of illness in a moribund condition, and died within 24 hours. Complications—Broncho-pneumonia and Cardiac Failure.
2. M. W. Female, age 41 years. Final diagnosis, septicaemia. Developed a scarletine form eruption following an operation for peritoneal abscess. On admission had a dirty discharging abdominal wound and a profuse blood-stained vaginal discharge. Scarlet Fever was not confirmed.
3. E. N. Female, age 20 years. Scarlet Fever type septic. History of previous attack, when she was extremely ill. Four days ill before admission. Scarlet Fever antitoxin 30 c.c. administered ; died on 12th day. Complications—Cellulitis of leg, Cardiac Failure.
4. B. G. Female, age 11 months, marasmic infant with Scarlet Fever and Chickenpox. Recovered from Scarlet Fever, but died on 36th day from marasmus.

COMPLICATIONS.

The following complications had occurred in the patients discharged :—

Rhinorrhoea	....	....	47
Rhinorrhoea from admission	....	....	23
Arthritis	....	....	3
Acute Otitis Media	....	....	4
Cervical Adenitis	....	....	12

Puerperal Fever and Puerperal Pyrexia.

During the year 29 cases were discharged recovered ; 2 were transferred to Dundee Royal Infirmary for operation, and 11 died—a case mortality of 26·2% among the total of 42 cases.

Particulars of the cases admitted are as follows :—

	From Own Homes.	From Institutions.	Totals.
From Dundee	26	7	33
From other Areas	8	1	9

Two of the cases, however, admitted from an institution in Dundee, were confined in their homes in areas outside Dundee, and were admitted to the institution on account of a morbid condition ensuing after birth.

The case admitted from an institution outside Dundee was confined in her home (not in Dundee), and one case admitted from her home in Dundee was confined in a local institution sometime previously.

The cases, therefore, can be classified so far as "place of confinement" is concerned as follows:—

		Confined in Own Home.	Confined in Institution.	Total.
From Dundee	....	25	6	31
From other Areas	....	11	—	11

The number of days elapsing between the birth of the child and the first symptom of morbidity is given in the following table:—

		1 Day.	2 Days.	3 Days.	4 Days.	5 Days.	6 Days.	7 Days.	8/14 Days.	Doubt- ful.
No. of Cases	....	2	4	7	8	4	1	3	7	5
Deaths	....	2	1	2	2	1	—	1	2	—

Note.—One case has been excluded as being irrelevant—a re-admission suffering from unhealed mammary abscess.

From this table it does not seem obvious that the date of onset bears any relation to the severity of the infection. More light could perhaps be thrown on this question if practitioners would kindly send accurate history with their patients.

The number of days elapsing between the first symptom and admission to King's Cross Hospital is shown as under:—

		Same Day.	1 Day.	2 Days.	3 Days.	4 Days.	5/7 Days.	8/14 Days.	15 and over Days.	Not known
No. of Cases	....	6	7	4	6	5	2	3	3	5
Deaths	....	2	—	1	2	3	1	1	1	—

In those cases (23) admitted before the fourth day there were 5 deaths; while among the 13 cases admitted on or after the fourth day there were 6 deaths.

In our series, therefore, there is an indication that early hospital treatment is more effective than when the septic condition has been present for several days before admission. The number of cases is so small, however, that too much importance cannot be placed on this finding.

The series of cases may be divided into four groups (the case of mammary abscess is again excluded):—

(1) Those who suffered from toxæmia from a septic process localized in the uterus and external organs of generation.

In this group there were 20 cases with 2 deaths—both, as it happened, from pneumonia.

(2) Those (still non-septicaemic) cases where the infective process spread to the adnexa.

In this group there were 5 cases with 1 death.

(3) Those cases (still non-septicaemic) where the infective process spread to the general peritoneal cavity.

In this group there were 2 cases with 2 deaths.

(4) Those cases (septicaemic) where the infection reached the blood stream.

In this group there were 14 cases with 6 deaths. In 9 of the 14 septicaemic cases the infection appeared to be localized to the uterus (3 deaths); in 3 cases the adnexa were affected (1 death); and 2 cases had general peritonitis (both died).

The prognosis then, in a case of puerperal infection, becomes very much worse when there is evidence of septicaemia. In generalized peritonitis, whether the case is septicaemic or not, it is very grave indeed.

The bacteriological investigation of blood and uterine discharges was done by Prof. Tulloch, and the following is an analysis of the results obtained:—

Uterine Smears.—39 uterine smears were cultivated in connection with 36 cases with the following results:—

(a) Streptococcus hæmolyticus	.....	15
(b) Streptococci and viridan	.....	6
(c) Staphylococci	.....	14
(d) Diphtheroids	.....	11
(e) No growth	.....	7
(f) Protens	.....	3

Blood Cultures.—32 blood cultures were cultivated in connection with 31 cases with the following results:—

(a) Streptococcus hæmolyticus	.....	8
(b) Contaminated	.....	2
(c) Diphtheroids (?). Contamination	.....	1
(d) Sterile	.....	20

I. Results in connection with cases where both uterine smear and blood culture was done :—

<i>Uterine Smear.</i>	<i>Blood Culture.</i>
A. Streptococcus hæmolyticus, Staphylococcus Diphtheroids. Streptococcus hæmolyticus. Streptococcus hæmolyticus. Streptococcus hæmolyticus. Streptococcus hæmolyticus, Staphylococcus Diphtheroids, and Proteus. Streptococcus hæmolyticus. Staphylococcus, and Proteus. Streptococcus hæmolyticus.	Streptococcus hæmolyticus. Streptococcus hæmolyticus. Streptococcus hæmolyticus. Streptococcus hæmolyticus. Streptococcus hæmolyticus. Streptococcus hæmolyticus. Streptococcus hæmolyticus.
B. Streptococcus hæmolyticus. Streptococcus hæmolyticus. Streptococcus hæmolyticus. Streptococcus hæmolyticus. Streptococcus hæmolyticus. No growth.	Streptococcus hæmolyticus. Sterile. Sterile. Sterile. Sterile. Sterile. Streptococcus hæmolyticus.
C. Streptococcus Viridan and Staphylococcus. Streptococcus Viridan. Staphylococcus Viridan. Staphylococcus and Diphtheroids. Staphylococcus and Diphtheroids. Staphylococcus alone. Staphylococcus and Diphtheroids. B. Proteus. No growth. No growth. No growth. No growth.	Sterile. Sterile. Sterile. Sterile. Sterile. Sterile. Sterile. Sterile. Sterile. Sterile. Sterile. Sterile. Sterile.

II. Cases where blood culture alone was carried out numbered 4 and all were sterile.

III. Cases where uterine culture but no blood culture was made :—

Streptococcus Viridan, Staphylococcus, and Diphtheroids.
Diphtheroids only.
Staphylococcus and Diphtheroids.
No growth.
Streptococcus hæmolyticus.
No growth.
Streptococcus hæmolyticus and Staphylococcus.
Staphylococcus and Diphtheroids.
Streptococcus Viridan, Staphylococcus, and Diphtheroids.

The importance of the streptococcus, especially the haemolytic variety, in causing a severe type of puerperal infection cannot be overestimated. When the haemolytic streptococcus reaches the blood stream the outlook is grave indeed. Of the 7 cases of this type only one recovered, and she only after a stay of 132 days in hospital.

Damage to Soft Parts.—In 18 cases there was damage of a gross nature to the soft parts, as follows :—

Perineal tear ....	....	8 cases (4 died).
Cervical lacerations ....	....	8 „ (1 „).
Vaginal and perineal damage ....	....	2 „ (2 „).

Stay in Hospital.—The average stay in the cases that recovered was 38 days—the longest stay was 132 days and the shortest was 12 days.

In the fatal cases the average stay was 10 days—the longest 22 days and the shortest 3 days.

Connection with other Diseases.—One patient had erysipelas on admission, and another, who showed the symptoms of scarlet fever (about the 5th day), died. One woman was in contact with cases of scarlet fever.

Treatment.—There is little new to say under this head. The routine local treatment has been by lymph-drainage by intra-uterine injections of glycerine, and general treatment was by injections of anti-streptococcus serum in large doses, or by intravenous injections of organic arsenical preparations. The results of treatment may be described as very encouraging.

Ten operations were performed. Only three cases recovered, but in practically every case that died operation was undertaken as a last resort with little hope of success. Particulars of the operations are as follows :—

Laparotomy, drainage ....	....	3 cases (all died).
Laparotomy, drainage, caecostomy	1 „	(died).
Incision of breast abscess	2 „	(recovered).
Removal of infected tubo-ovarian mass ....	....	1 „ (died).
Posterior calpatomy, drainage	1 „	(died).
Incision of multiple abscesses	1 „	(recovered).
Drainage of empyema	1 „	(died).

These findings bear out already existing views on the subject of puerperal infection. There is still room for much interesting research, however, and in 1930 an improved system of case taking was introduced, so that fuller details will be available in the future.

Broncho-pneumonia.—179 cases of broncho-pneumonia were discharged cured and 47 died, a case mortality of 20·8%. The numbers include primary broncho-pneumonia and cases secondary to measles and whooping-cough. The following complications were noted :—

Empyema ....	....	....	4
Acute otitis media ....	....	....	4
Pneumococcal meningitis ....	....	....	2
Enteritis ....	....	....	3
Abscesses of thigh ....	....	....	3

The new policy in the treatment of scarlet fever has increased the available accommodation for broncho-pneumonia, and this has been used chiefly for cot cases from the poorer parts of the city. Increased staff is required for the nursing of infants and young children, and the number that can be treated is now limited by the available accommodation for nurses. This part of the hospital work is of the greatest value to the city, and could with advantage be still further increased.

Tuberculosis.—114 cases were admitted to the sanatorium wards ; 69 were discharged and 46 died, a case mortality of 40%. The number of cases of non-pulmonary tuberculosis admitted has increased, and the consulting surgeon, Mr Anderson, now makes a monthly visit to the ward to advise treatment. The X-Ray apparatus in the Public Health Institute is available for such cases and has been used to advantage.

Accommodation.—The variety of conditions the Local Authority is now called upon to treat, makes it increasingly difficult to find accommodation, giving due regard to the prevention of cross infection. As the table of cases treated shows, twenty-two varieties of infectious disease were accommodated in the hospital during the past year. In addition to this, sick members of the staff have to be treated in the wards, there being no special accommodation for them. The provision of a block of cubicle wards would solve the present problem and may soon be an absolute necessity.

Bacteriological Laboratory.—During the year the following investigations were carried out in the Hospital Laboratory.

Cultural investigations of throat and nose swabs :—

In-patients ....	....	....	4,617
Contacts ....	....	....	434
Total ....	....	....	5,051

Specimens of sputum examined microscopically, 371.

REPORT

OF

Mr Ferrier, Veterinary Inspector.

REPORT

of the

DAIRIES.

During the year 236 visits of inspection were made by me to Dairies, and 4,250 cows and 108 other animals were examined.

The general conditions and cleanliness of the cattle were very satisfactory.

The quality of hay, straw, and turnips has been exceptionally good throughout the year.

17 cows were slaughtered under the T.B. Order, 1925, 11 of which were subjected to the Tuberculin Test, and found Tuberculous on post-mortem examination.

6 cows were slaughtered under the T.B. Order, 1925, after clinical examination, one of which was reported to be suspected of being infected with Tuberculosis and Emaciation was found free from Tuberculous on post-mortem examination.

4 cows suspected of having Tuberculosis of the udder were subjected to the Tuberculin Test, but failed to re-act, thus showing that they were free from Tuberculosis and their milk appeared to be normal.

List of Dairies holding graded milk licences in respect of tubercle-free herds.

Name and Address.	Average number of herd.	Estimated number of Gallons produced per annum.
<i>Certified—</i>		
Messrs Alex. Keay & Sons, 11 Forthill Road, Broughty Ferry.	7	9,855 gallons.
<i>Grade "A" (T.T.)—</i>		
Messrs Alex. Keay & Sons, 11 Forthill Road, Broughty Ferry.	7	9,855 gallons.

There were no samples of milk submitted for biological examination during the year, but in the course of inspection I have drawn milk from cows suffering from Septic Mastitis. In all cases I advised the owners to have them sent to the Slaughter-House for slaughter on account of their milk being dangerous, and as it would take some considerable time for them to recover. This course, besides being the easiest way of minimising the loss, would place beyond all doubt the question of any of their milk being used for human food.

The regulations under Sections 13 and 14 of the Milk and Dairies (Scotland) Act, 1914, are being duly complied with in this district, and there has been no occasion which demands special comment.

Meat Inspection at Slaughter-Houses and Dead Meat Market.

During the year 59,063 carcasses were inspected.

The number of cases of Tuberculosis detected during the year was 2,169, an increase of 309 cases as compared with 1928. Of the aforesaid number 678 were cows, an increase of 107 as compared with 1928.

The total amount of meat seized under this Head during the year was 118,173 pounds, a decrease of 5,468 pounds as compared with 1928.

The number of carcasses 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
1925	87	602	14	550	2	....	88	1,343
1926	94	812	19	520	....	....	72	1,517
1927	113	908	16	429	....	....	86	1,552
1928	170	943	16	571	2	....	158	1,860
1929	168	1,198	31	678	2	....	92	2,169

Other Diseases.

The detections under this Head during the year amounted to 1,487, an increase of 95 cases as compared with 1928. The total amount of meat seized being 53,288 pounds, a decrease of 1,464 pounds as compared with 1928.

Animals Slaughtered at Public Slaughter-Houses.

The number of detections of disease during the process of slaughter for the year was 4,991, an increase of 985 cases as compared with 1928.

Carcases Dressed and Undressed Brought to the Slaughter-Houses.

The number of detections of disease in consigned carcasses during the year was 381, an increase of 7 cases as compared with 1928.

Numerous carcasses are still consigned to the Dead Meat Market here from different towns and districts outwith the City, which are evidently animals slaughtered in emergency. Some of them bear traces of slight examination, yet they are often accompanied by a certificate from the District Meat Inspector certifying them to be fit for food. In many cases there is little or no attempt to carry out the provision of the Regulations of Meat Inspection to the extent necessary to arrive at a final decision, and some carcasses come here with no offal or internal organs, which makes it more difficult to come to a decision. In many of these cases a great deal of time is taken up daily in completing the examination of carcasses which ought to be done by the inspectors of the district from which they come before they are released, thus making it very apparent that we are still a very long way from having a uniform system of meat inspection.

Cattle, Sheep, and Pig Organs.

During the year 13,639 cattle, sheep, and pig organs were seized and condemned, as compared with 12,575 during 1928, an increase of 1,064 organs for the year,

The following is a synopsis of the organs seized and condemned during the year :—

<i>Cattle Organs.</i>		<i>Sheep Organs.</i>		<i>Pigs' Organs.</i>	
Cows' Udders	.... 715	Livers	.... 53	Udders	.... 26
Livers	.... 1,729	Plucks	.... 425	Plucks	.... 83
Lungs	.... 2,168	Kidneys	.... 599	Kidneys	.... 82
Hearts	.... 835	Lungs	.... 1,002	Livers	.... 28
Kidneys	.... 2,226			Lungs	.... 14
Heads	.... 725	Total	.... 2,079		
Tongues	.... 745			Total	.... 233
Skirts	.... 2,184				
Total	.... 11,327				

Tinned and Frozen Meat.

During the year 140 pounds of Frozen Meat, 72 pounds Frozen Ox Livers, and 31 pounds Tinned Meat were seized for Decomposition.

Cattle Market.

The Cattle Market was visited by me every market day (Tuesday), and all the cattle, sheep, and pigs exposed for sale inspected for the purpose of preventing animals showing symptoms of disease, and which are ultimately intended for human food, being sold. The Superintendent of the Market and I seize all suspicious animals exposed for sale in the fat stock market, under powers conferred by Section 43 of the Public Health (Scotland) Act, 1897, which renders the owners of the animals so seized liable to prosecution. The owners of such animals are given the option of sending them to the Slaughter-House to be killed. There the carcasses undergo a minute inspection, and are dealt with on their merits. In the event of the owner of such failing to comply with our request, the animal can be seized and the owner prosecuted under the Act above mentioned.

During the year one pig and one ox were seized in the Cattle Market with the owners' consent as suspicious animals and sent to the Slaughter-Houses to be slaughtered.

Throughout the year licences were granted for the movement of 69 Irish cows sold in the Cattle Market.

Anthrax.

There were no cases of this disease during the year.

Swine Fever.

There were no cases of this disease during the year.

Parasitic Mange.

During the year 50 visits were made to one mare infected with Parasitic Mange. It was reported to the Ministry of Agriculture and Fisheries, and fifty weekly reports were forwarded to them. A Restriction of Movement Notice was served on the owner preventing the

mare from working and thus coming into contact with other horses. A copy of the Notice was sent to the Local Authority, Chief Constable, and the Ministry of Agriculture and Fisheries.

One visit was made to Pony reported to be suffering from Parasitic Mange, but on examination no Mange was found.

Foot and Mouth Disease.

There has been no outbreak of this disease in the City during the year.

Importation of Animals Act, 1922.

Under this Order 2,313 Irish and Canadian cattle were admitted into the City accompanied by licence, necessitating 301 visits of inspection ; a decrease of 373 imported cattle as compared with 1928.

Transit of Animals Order, 1927.

Under this Order all trucks, railway and motor vehicles used for the conveyance of live stock must be washed, scrubbed, thoroughly cleansed, and thereafter disinfected before they can be again used for this purpose or for the purpose of carrying food, litter, or any other thing intended to be used by or coming in contact with animals.

During the year 903 motor floats bringing in cattle, sheep, and pigs to the Market were washed, scrubbed, and disinfected at the Slaughter-Houses.

From periodical visits made by me to the various Railway Stations it was observed that the Railway Authorities are adhering to this Order.

Veterinary Attendance on Horses belonging to the Corporation.

During the year 9 horses and 2 cobs were examined for soundness before being purchased by the Horse and Provender Committee for the Cleansing Department.

The attendance during illness of horses belonging to the various departments necessitated 44 visits during the year.

The whole stud is in a satisfactory state of health and are in good working condition.

Other Work.

One visit was made to horse at Caird Park.

One visit was made at the request of the Police to lame horse.

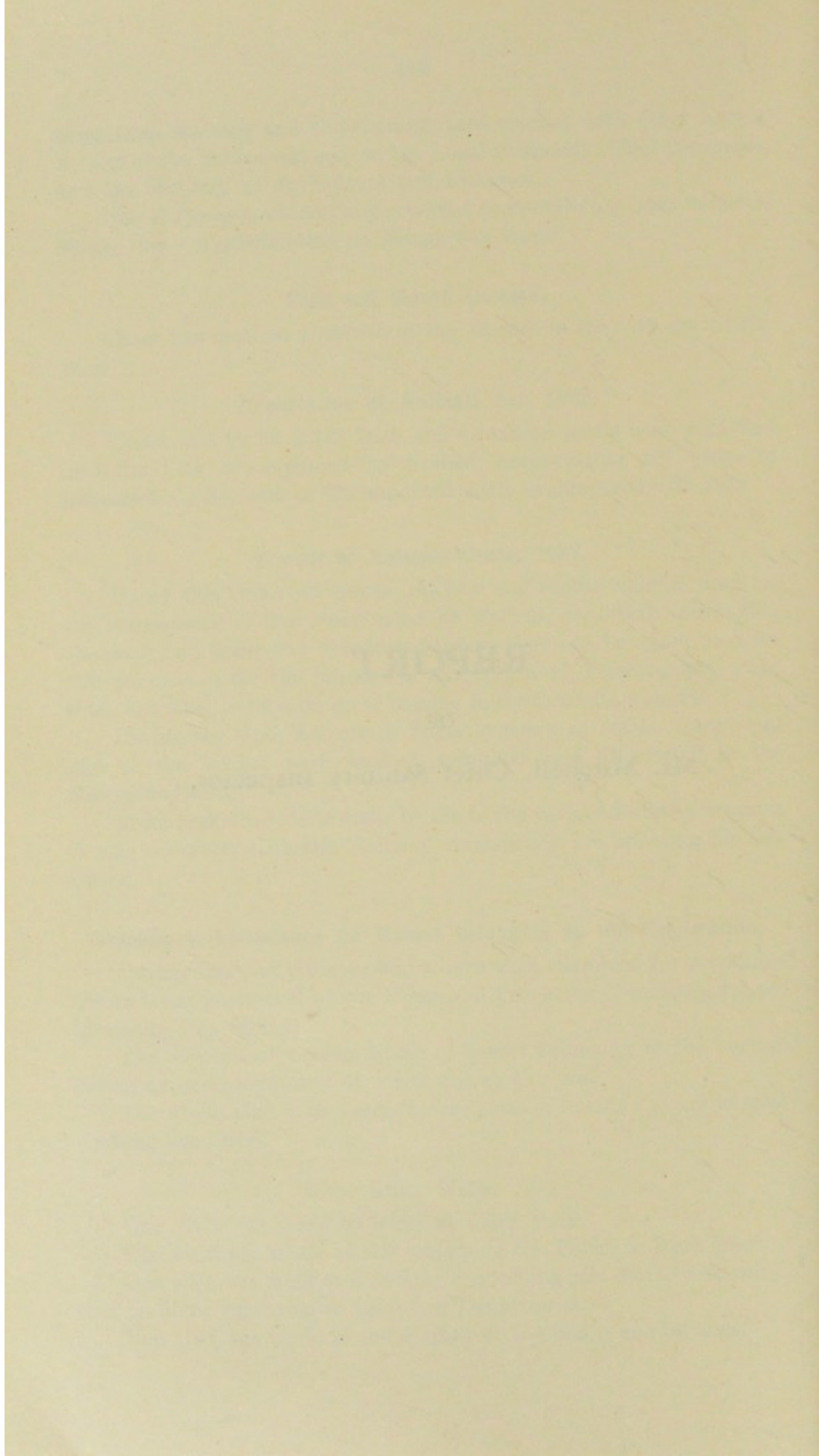
One visit was made to Knackery conducting post-mortem examination on horse belonging to Cleansing Department.

One visit was made to the dipping of 154 lambs and 89 hogs.

REPORT

OF

Mr. Mitchell, Chief Sanitary Inspector.



SANITARY DEPARTMENT,
WEST BELL STREET,
DUNDEE, 16th May 1930.

*To the Department of Health for Scotland ; and
the Lord Provost, Magistrates, and Councillors—
the Local Authority of the City of Dundee.*

GENTLEMEN,

I have the honour to submit my Annual Report showing the work of the Sanitary Department during the year 1929. The Report has been prepared in accordance with the circular of the Department of Health for Scotland dated 27th December last.

Introductory.

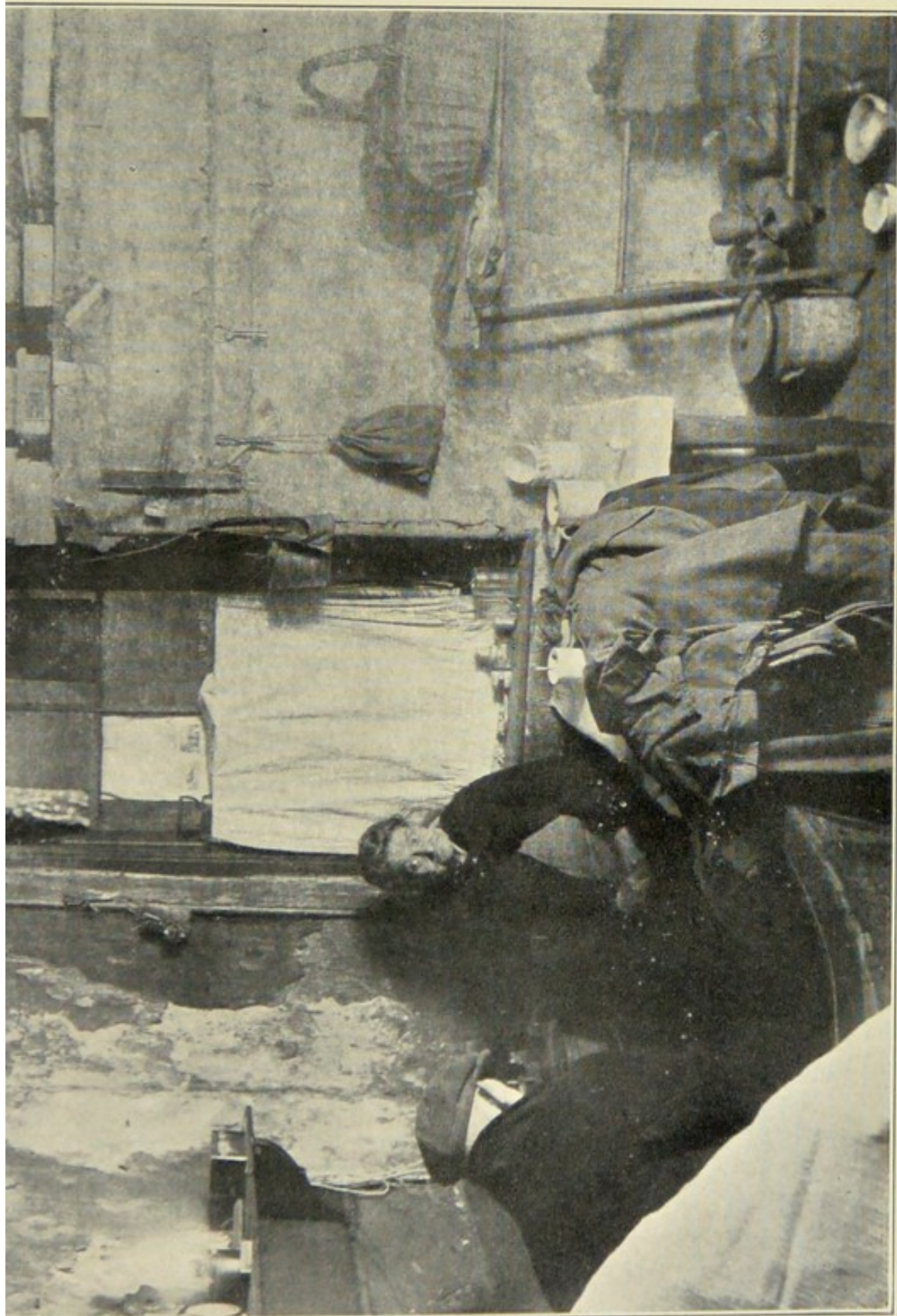
The work of the Department has, throughout the year, been well maintained and many important improvements for the benefit of the health of the community have been effected—the home, and in many cases the work, environment being supervised. Where anything was discovered antagonistic to the health of the citizens steps were immediately taken to have a remedy applied.

The Housing of the people has for many years now received prominent attention, and the particulars under this head given later herein will indicate the amount of good work done in the provision of houses “fit for the people to live in.” Yet, although much has been done in the providing of new houses and the restoration of dilapidated and insanitary houses throughout the City, a great deal still awaits attention. One difficulty staring us in the face, and as bad to-day as when the “Housing Schemes” were started by the Corporation, is the educating of the people living in “Clearance Schemes,” etc., to leave the old haunts in the centre and move to the outskirts of the City where the majority of the new schemes are. The cry still is for houses in or near to the centre—in close proximity to the works. Now it can be quite well understood that all the people cannot be housed even approximately in that area. The Corporation before starting on their Housing Schemes gave that subject due consideration. In the first place every inch of ground is utilised for various kinds of buildings, including dwelling-houses. Again, the tendency is to open up the more congested parts of the City, and these are mainly found in the centre—breathing or lung spaces go hand in hand with housing to-day ; it matters not how good and well-equipped the houses are

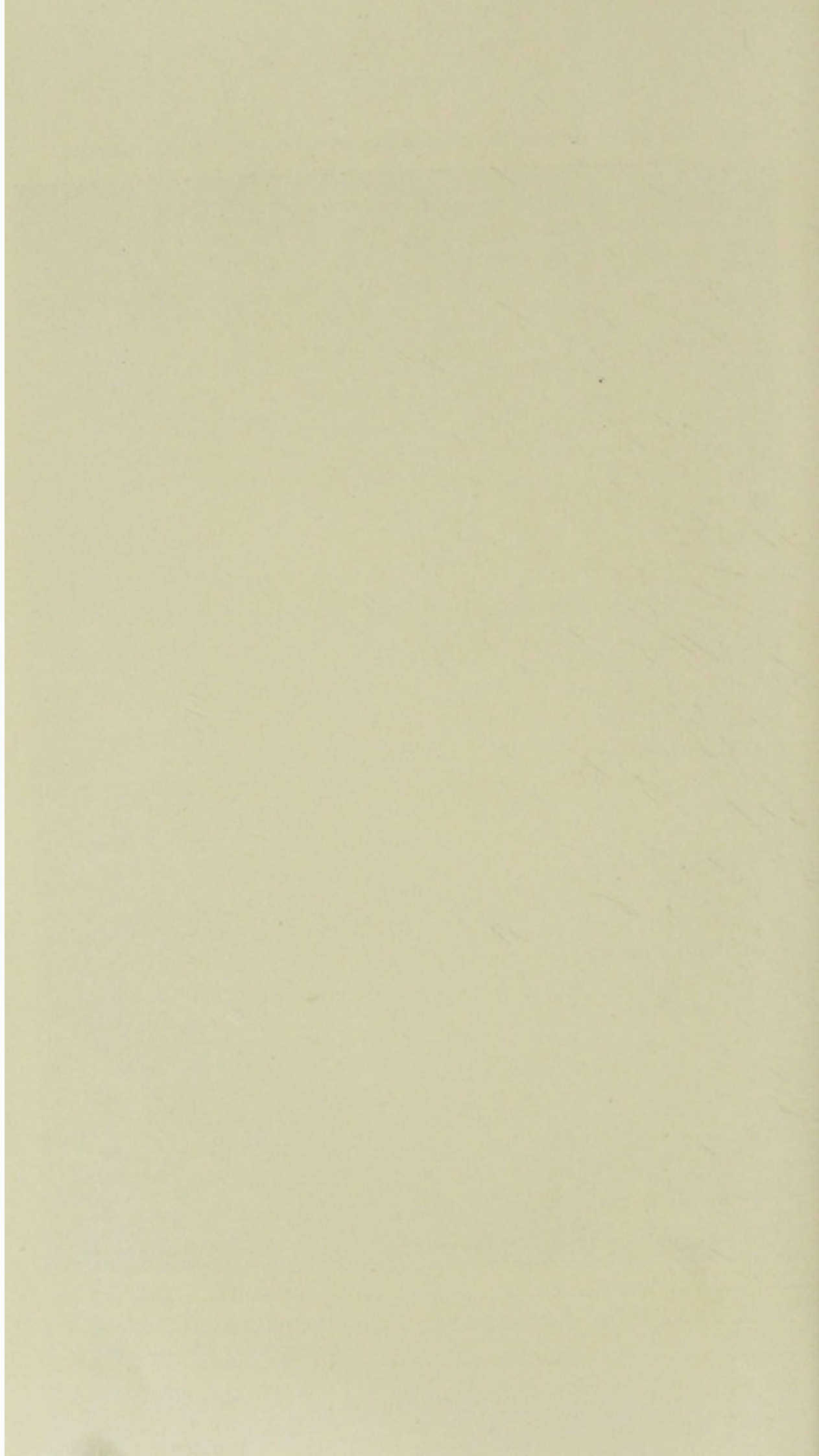
if there is no liberty for the free circulation of pure air. The new houses built on the outskirts answer all these requirements, and if the people would only look upon the housing problem from this view-point the question would give the Corporation far less vexatious thought and spur the work on to a quicker and satisfactory termination. But it is the old story, generation after generation have lived in the crowded centre of the City and what was good enough for their forefathers is good enough for them. There are, however, many of the people rising to the occasion and going to the new houses, but others again sit tight on whom argument is of no avail. As a rule these people are the leading grumblers on their housing conditions. They may have just cause for grumbling, but their stubbornness makes at times the work appear hopeless when every effort for their good is being strained. Let us look at it from a view other than the provision of new housing schemes.

We take an area of, say, three-quarters of a mile from the Old Town House, west, east, and north. Within that area there are thousands of houses—many of them splendid homes, fully equipped with all that goes towards comfort, but there are likewise many others which are on the verge of decay, crumbling away internally and externally, minus even adequate or decent sanitary accommodation, and on these buildings extremely little has within recent years been spent in restorative work. The result is that in a few years these houses will fall under the definition of “unfit for human habitation” and have to be cleared away, which means less housing accommodation, and thus the work of providing new houses must perforce continue and makes one think that the house shortage problem is only in its infancy—and this doubtless applies all over the Country.

The Government have given us subsidies for new Housing Schemes, which so far as Dundee is concerned have been well taken advantage of. But the difficulty with a large portion of these older properties is that the owners have not the money to carry out the necessary improvements to bring these houses into a lasting condition “fit for human habitation” or “in all respects in a reasonable state of repair,” or at all events give them a longer lease as such. They are often relics of a past family inheritance now owned by many different members and out of which very little income is available for each, and at that, often their sole support. These people have no finance to spend on the buildings. Thus, under the present circumstances it is practically futile to order external and internal repairs to keep the buildings from passing into total decay.



An answer to "ability to pay." Income an Old Age Pension of ten shillings between the old couple.
From the Annual Housing Report (Dundee) for 1929.



In the Housing (Scotland) Act, 1925, provision is made whereby the Public Works Loan Commissioners (under certain conditions) may advance money on loan over a certain period of years for restoration or repair work of this nature. This source to provide funds for such work has not to my knowledge been taken much advantage of by property owners in Dundee, so as to prevent property from drifting into a condition of total uselessness for human habitation, whereas if taken in hand and restored outside and totally re-constructed internally they would still be available as acceptable and suitable housing for many years to come.

I simply bring forward this method of raising funds which has been placed at the service of property owners in need of such a convenience

To-day as much as ever—if not even more so—is the cry of “ability to pay” being kept in the forefront. A solution of that vast problem would solve many of the subsidiary issues following in its wake.

**Transferring Milk from one Milk Vessel to another in Public Streets
and using bottles belonging to other persons.**

Two rather important decisions were delivered by the Sheriff-Substitute relative to (a) transferring of milk from one milk vessel to another on the public streets, and (b) using milk bottles belonging to other persons without the consent of the owner of the vessel.

The contravention (a) was discovered by Police Officers in the course of their duties—a Purveyor of Milk transferring from off a van on the streets to another van. A case ordinary to what we have had on several previous occasions—convictions being recorded and fines imposed.

In this instance, however, the Sheriff held that as the parties to the transaction were Registered Purveyors of Milk the vans came within the meaning of “Registered Premises” and as such the Purveyors were legally entitled to thus transfer the milk in the manner in which they were doing. He therefore dismissed both the Purveyors with the decision of “Not guilty.”

The other case was “he used for the delivery of milk glass bottles belonging to other persons than himself, viz.:—four pint bottles belonging to . . . and six bottles belonging to . . . contrary to Regulation 12 of the Milk and Dairies (Scotland) Order, 1925.”

Regulation 12 is as follows :—

“No dairyman shall use any vessel that belongs to any other person for the collection of milk from or delivery of milk to any person other than the owner of the vessel, or keep in his possession such vessel, except in either case with the consent of the owner of the vessel.”

As the decision is a far-reaching one and of importance to those upon whom is placed the responsibility of carrying out the terms of the section I give the learned Sheriff-Substitute's judgment in fairly full detail.

“The facts as he held them to have been proved were as follows :—

Two Inspecting Officers of the Dundee Sanitary Department called at the milk shop at and asked for four bottles of pasteurised milk. They were supplied with four bottles for which they paid 2½d. each. Two of the bottles bore in embossed letters on one side the words “ Milk Coy., Ltd., Dundee.”

The Officers asked the assistant where she obtained these bottles and their contents, and she said they had been supplied by the accused. They then called on accused and he confirmed that he had supplied the milk to in bottles marked as above-mentioned.

On being asked if it was pasteurised milk, he said it was his own milk, and admitted he had not received authority or consent from either company to use their bottles.

Companies' System.

The Milk Co., Ltd., carried on the business of selling pasteurised milk to milk dealers in Dundee for retail sale. The Company sent out about 10,000 bottles per day. They expected their customers to return the empty bottles to them, and, in order more effectively to ensure their return, they exacted a charge or deposit of 1/- per dozen, the customer getting a corresponding credit on bottles returned. If there was a shortage in return the customer had to bear the loss by forfeiture of the charge or deposit.

The company reckoned that they lost about one bottle in thirty, their annual loss being from 70,000 to 80,000. The loss was largely due to breakages and otherwise to leakage of various kinds. Each bottle cost the company 2½d. to buy.

They got back every day a number of bottles marked with the name of the Dairy Co., Ltd. These were sorted out every day and sent back to the latter company. Until a few years ago the company used plain bottles only, but they found that they were unable to vindicate a right of property to them. It was for that

reason that they adopted the type of bottle now used, which they regarded as their property, and the right of ownership in which they endeavoured to vindicate and make effective by the methods mentioned.

The Dairy Co., Ltd., carried on a similar business. The annual cost to them for replacements of bottles was about £700 representing an annual loss in bottles of from 70,000 to 75,000. Their bottles bore the name of the company in embossed letters, but no special intimation was given to their customers that the bottles were their property or that they desired their return.

They made no charge for the bottles, and took no steps to ensure their return, except that they had once or twice asked a customer to return them. Neither company had ever authorised or consented to the use by accused of bottles bearing their name, and the Dairy Co., Ltd., through their manager had told him not to use their bottles, and had warned him against such use.

The shopkeeper, continued the Sheriff, got all her bottled milk from accused. It was pasteurised milk that she understood she was contracting for and buying from him, and that she understood she was getting. On each of the bottles there was a capsule with "Dundee Pasteurised Milk" on it, and she took it that she was getting that milk.

Accused did not deny that he supplied with milk in the bottles. His contention was that, in virtue of the circumstances under which the bottles were put into circulation and the necessary incidents of the trade, they ceased to be the property of the companies after being put into circulation, and that on coming into his (accused's) possession they became his property in virtue of the legal presumption that effective possession of movables implied ownership.

In the opinion of his Lordship the two sets of bottles fell under two different categories. In view of the words on the bottles of the Milk Co. the accused must be held to have known that these bottles could not become his property, and that they belonged to some other person.

On the other hand, he felt bound to hold that the mere embossing of the name " Dairy Co., Ltd., Dundee," on the Company's bottles was not enough to retain effectively their right of property in the bottles, and they did nothing further by intimation, charge, deposit, request for return or otherwise, to vindicate their right of ownership.

There was no difference between the Dairy Co., Ltd., bottles bearing their name and nothing else, and the paper bags bearing his name in which a grocer parcelled up goods which he sold. He ventured to suggest to the Dairy Co., Ltd., that in their

own interest, as well as for the better enforcement of the regulations in the public interest, they might gradually adopt a new type of bottle with notice or intimation similar in effect to that which the Milk Company's bottles bore.

The difficulty in the present case lay in the fact that in trying to achieve his purpose of preventing deceptive use of vessels by a dairyman, the draughtsman of the Act had made the test of what may or may not be used a property test. He might not use any vessel that "belongs to" any other person except with the consent of "the owner." The purpose, in the opinion of his Lordship, might have been achieved more effectively by using language of wider application, e.g., to have made the prohibition one against using vessels bearing a name other than that of the person using, or otherwise calculated to deceive the public as to the source of supply of the milk."

Sheriff Malcolm held that in so far as the accused's use of bottles bearing the name of the Dairy Co., Ltd., was concerned, he was not guilty of a contravention of the order. Under the first charge of the complaint he found accused guilty in respect of two bottles belonging to Milk Co., Ltd., and imposed a fine of 10/-.

Death-Rate : Density of Population and Acreage.

The death-rate per 1,000, as calculated and corrected by the Medical Officer of Health, for 1929, was 16·0, as against 15·1 in 1928 and 16·9 in 1927.

The population, as estimated to the middle of 1929 by the Registrar-General, is 167,109.

The acreage of the City, excluding foreshore, is 6,548. This works out at 25·52 persons to an acre.

Staff.

The number and composition of the staff are as follows :—

- 1 Chief Sanitary Inspector.
- 1 Superintendent.
- 1 Plumber Inspector.
- 1 Housing Inspector.
- 3 Housing Officers.
- 2 Food Inspectors and Sampling Officers—Food and Drugs Acts.
- 4 District Inspectors.
- 1 Epidemic Inspector.
- 1 Port Sanitary Officer.
- 4 District Officers.
- 2 Junior District Officers.
- 1 Epidemic Officer.
- 2 Clerks (one Certificated—ranks as Inspector).

Total 24

Rainfall.

The total rainfall in Dundee, as noted at the Eastern Necropolis and reported by the Superintendent of Cemeteries, was 26·79 inches, as against 35·53 inches last year. The figures for each month are as follows :—

					1929.
January	....	....	....	....	1·25 inches.
February	....	....	....	....	1·92 inches.
March	....	....	....	....	0·42 inches.
April	....	....	....	....	1·15 inches.
May	....	....	....	....	2·39 inches.
June	....	....	....	....	1·96 inches.
July	....	....	....	....	3·49 inches.
August	....	....	....	....	3·29 inches.
September	....	....	....	....	0·65 inches.
October	....	....	....	....	2·86 inches.
November	....	....	....	....	3·78 inches.
December	....	....	....	....	3·63 inches.
Total					26·79 inches.

This shows an average fall of 2·23 inches per month, as against 2·96 inches of the former year, and 2·90 inches in 1927.

Public Sewerage of the City.

Dundee is very happily situated for disposal of its sewage. It has direct discharge into the River Tay, thus obviating the vast expenditure which many inland towns have to bear when confronted with the problem of sewage disposal.

The work of constructing and maintaining sewers in the City is carried out by the Works Department under the City Engineer. During the past year approximately $\frac{1}{3}$ of a mile of new sewers were laid down, making the total length of sewers in the city 139·346 miles. In maintenance and repair the sum of £2,824 was spent.

Water Supply.

The Dundee Water Commissioners are responsible for the Water Supply of the inhabitants of the City.

The analyses undertaken at various times prove the water, so far as purity and wholesomeness are concerned, to be above suspicion and free from contamination, whilst its practically unlimited supply places the City head and shoulders above many other large cities and burghs.

The works are under the charge of Mr Geo. Baxter, jun., who provides the undernoted particulars :—

“ Practically the whole supply is drawn from Lintrathen Loch unless when one or other of the Lintrathen Trunk Mains is under repair, in which case the Monikie Reservoirs are drawn upon to augment the reduced quantity from Lintrathen.

The average quantities of water drawn daily from the various Reservoirs during the past year were as follows :—

Lintrathen	9,583,000 gallons.
Monikie	806,000 „
Crombie (for the supply of Carnoustie)	360,000 „
Total	10,749,000 „

This total is higher by 159,000 gallons than the figures for the previous year.

The above total represents a daily consumpt per head of 51·2 gallons for the population of the Water Area—approximately 210,000. Of this rate per head 14·5 gallons represents the Meter supply for trade and general Public Health purposes, including street and sewer flushing, leaving a balance of approximately 36·7 gallons per head for general domestic purposes. Although 36·7 gallons per head is the average consumpt in the City and District, the consumpt per head varies between exceedingly wide limits, and is least in those districts of the City where housing and congestion are worst, where it dwindles down to less than 10 gallons per head per day.”

Sinks and Water Supplies.

During the year 111 sinks were installed with all necessary pipes, traps, water-taps, etc.

Thirty-seven of these were installed in attic-flat houses, the tenants of which had previously obtained water from taps over sinks on the attic stair-landing—usually in a more or less undesirable condition, as being used in common it was apparently nobody’s business to see to their cleanliness.

Seven were introduced into work places ; 2 into sale shops ; 1 into a sports club ; and 64 into 33 other properties.

There are still a number of attic houses without internal water supplies or sinks. These are being gradually eliminated.

Water Supplies.

Fifteen properties at which the water supplies were insufficient have had these augmented by the introduction of larger main-service piping.

Scavenging and General Nuisances.

Scavenging.—The Scavenging and Cleansing of the City proper are in charge of a Cleansing Superintendent who is responsible to the Local Authority for the efficient performance of the work. With the exception of my attention being drawn to the methods (dilatatory) of emptying the bins in several districts no other complaint worth taking cognisance of has reached my Department regarding this section of the Public Health work.

General Nuisances.—The general kind of nuisance discovered differed little from the usual type such as choked drains, water closets, accumulations of filth and refuse, dirty passages and staircases, choked and leaky rhones, stairhead quarrels through the tenants neglecting to take their turn of cleaning stairs and passages, etc. Work of this nature entailed 59,793 visits. Where necessary, remedial steps were taken and nuisances abated.

An offensive smell at premises in Ireland's Lane was complained against. On investigation it was found to arise from drains under a timber floor, and dry rot occurring in the latter. It was further learned when the floor was lifted that a flagstone paved open court with three surface drain traps had existed there. The occupier simply covered this court over with timber flooring, the drains being left without attention. The drains were re-constructed; the flooring renewed and vented—thereafter the nuisance took end.

At Reform Street a complaint regarding dry rot was received. On investigation the condition was found to have been caused by a choked rhone outwith of view draining a quadrangle situated in the centre of the building. This rhone had apparently been running over for years, with the result that the fungus had travelled through the walls and flooring of five flats. The building was found to be in a seriously affected state and an Architect was engaged for the rooting out of the evil. The walls forming the quadrangle were razed to the ground; plaster removed; floors lifted and cleared away; the interior re-built in new brick work, woodwork, and plaster work. The fungus had spread to the property adjoining on the north side, and the same process of reformation is now in course there.

The tenants at Mortimer Place complained of having discovered a hole in the bleaching green—one of the tenants whilst hanging up the

clothes rope gradually slipped into the ground. This cavity was found on investigation to be an old water tank 4'×4'×5' placed three feet below the surface level, having timber sides, top and bottom, and the whole well finished inside with zinc lining of good workmanship. At one time it had been used for the storage of water (500 gallons). It appears this was one of several used for such a purpose prior to the Lintrathen Water Supply being introduced in 1875. An old lady residenter on the property remembers of these tanks, fitted with pumps, etc., presumably fed by small streams from the Law Hill. Monikie water supply was brought into Dundee in 1845 but its level only reached to the south side of Ann Street. The cavity was filled up with clean soil.

Whitewashing and Painting of Common Stairs and Passages.

In July, Property Owners and Factors received intimation directing their attention to the need of Whitewashing and Oil Painting of Common Staircases and Passages connected with tenemental buildings, and calling for same to be done within seven days.

Such advice of this requirement enables the recipients to get in touch with their tradesman right away, and the work, in the main, is put in hand forthwith.

For many reasons it is best to get work of this nature done early in the springtime, and more especially from a health viewpoint. Such renovation is bound to have a salubrious effect on the tenants making use of these properties, having clean, freshly done stairs and passages during the hot weather, where the atmosphere is sometimes not all that could be desired.

Delay occurred in some instances and 73 Notices were served upon those responsible for the management of the property giving them seven days to have this work carried out, in default of which Legal Proceedings would be instituted. While the work of whitewashing, etc., is going on the walls and ceilings of mutual Water Closets and Wash-houses generally receive the same treatment.

The work in many cases was postponed till the completion of repairs and also owing to the painters, etc., being fully occupied and executing orders in rotation.

3,906 whitewash brushes were given out on loan to the occupiers of dwelling-houses who were unable to buy such for the cleaning of some 7,308 rooms. Whiting and ochre were also given out to deserving cases recommended by the Inspectors.

Stables and Piggeries.

733 visits were made to 374 stables, the number of which is gradually diminishing owing to the motor becoming still more essential as a means of transport.

The owners or occupiers of these premises do their best to avoid official criticism and things are generally kept satisfactorily, which is as much as one can ask.

An excess of manure at some stable or other occurs from time to time, which, however, is promptly removed upon notification.

Occasionally the need for limewashing may arise, but a request for this is all that is necessary.

480 visits were made to *piggeries*, which number 86, and anent which there is very little to be said. They have generally with a few exceptions been conducted and kept in as proper a fashion as possible—an average of 634 pigs are usually accommodated therein.

Owing to complaints anent the manner in which the piggeries in Long Lane, Broughty Ferry, were kept as well as to the construction of the premises, the question of the removal of the animals was brought before the occupiers of the property. After prolonged negotiations it was agreed that all the pigs be removed and the buildings discontinued for such a purpose. This has now been done.

Back Courts, Areas, Footways, Etc.

To ensure the above being kept in good order 9,674 square feet of pavement flags, concrete or other impervious material, were laid down or lifted and re-laid in an efficient manner, with drainage provision for the effective disposal of storm or surface water, at various private properties throughout the City.

These Back Courts, etc., though hidden from the majority of the public, are by no manner of means neglected—out of sight out of mind does not hold good here. The employees of the Cleansing Department brush and flush these places regularly, and they are made as clean as it is humanly possible to do so, if they fail to retain their cleanliness long—then the onus is on the tenants using them, and not, as frequently averred, on the servants of the Town.

Schools.

A visit of inspection to any of the above would show there is no necessity for action on the part of the Sanitary Authority—the Education Authority take every precaution to ensure that the health of the scholars will not be endangered during school hours—the buildings

being clean, well lighted and ventilated. The sanitary fittings are all maintained in an efficient and proper state.

Complaints.

Apart from their other duties Inspectors find this section of the Department's work makes serious inroads on their time.

4,252 complaints reached the Office through the medium of the post, telephone, or personal call, and each received investigation.

These complaints might be sub-divided to show :—

(a) 4,059 which were genuine and requiring attention, and
(b) 193 which enquiry revealed to be without justification and frequently the culmination of a stairhead discrepancy, when after scrutiny, the complainer might actually be the delinquent.

This latter type of a complaint usually exacts a greater expenditure of time than a bona-fide grievance, but, as every Sanitary Inspector knows, such situation must, of necessity, be accepted with philosophic calm.

Last year complaints numbered 3,418.

The detection and removal of nuisances are greatly facilitated by the collaboration of the Departments of the Chief Constable and the Cleansing Superintendent—whose staffs report the existence of anything untoward they may come across in the course of the day's work.

Statutory Intimations or Notices.

Under the Public Health (Scotland) Act of 1897 ; Local Acts ; the Burgh Police (Scotland) Acts, and the Factory and Workshops Acts, &c., there were 9,305 notices or intimations, written or verbal, served upon the proprietors or agents of property or authors of nuisances. These have received or are now in the course of receiving attention.

Infectious Diseases and Disinfection.

Visits of inquiry numbered 8,228, whilst 1,323 patients were removed to King's Cross Hospital. Under Sections 50 and 53 of the Public Health (Scotland) Act, 3,065 notices were served upon householders directing their attention to the terms of these sections relative to the prevention of the spread of infectious disease. 1,179 intimations were sent to the Education Authorities, school teachers, &c., controlling the attendance of school children. Houses or premises dis-

infected numbered 352, whilst 1,718 sets of clothing, bedding, &c., were disinfected, or, where special authority was given by the owner, destroyed.

20 bales of jute and 52 bales of gunnies, for export to the Argentine, &c., were disinfected, and certificates to allow of exportation granted therefor.

Fuller details and statistics under this head are given in the Report of the Medical Officer of Health.

Plans Submitted to the Works Committee.

Plans of sanitary improvements on properties (for which this Department is primarily responsible) before being submitted to this Committee are examined by me.

Should occasion arise objections are lodged on stated grounds to the plans being passed as submitted.

Drainage and Structural Work.

The material used in additions and improvements to 149 properties throughout the City during the year consisted of :—

- 254 Water Closets.
- 111 Sinks.
- 10 Baths.
- 17 Wash Basins.
- 36 Wash Tubs.
- 119 Lead Traps.
- 6 Cast-Iron Traps.
- 4 Roof Lights.
- 25 Roof Ventilators.
- 40 Automatic Drinking Troughs.
- 3,645 feet W.C. Soil Piping.
- 1,326 feet W.C. Flush Piping.
- 6,394 feet Water Piping.
- 2,654 feet Waste Piping.
- 2,774 feet Ventilation Piping.
- 427 feet Cast-Iron Drain Piping.
- 801 yards Fireclay Drain Piping.
- 137 Drain Traps.
- 88 Drain Inspection Chambers.
- 198 W.C. Apartments.
- 3 New Washing-Houses.

1,753 visits were made by the Plumber Inspector whilst the work was in progress.

Water Closets.

254 Water Closets, new or renewed, have been installed during the year in 105 different properties.

146 were new additional W.C.s provided in houses, passages, staircases, etc. ; 8 W.C.s renewed in similar positions, 48 were installed in houses, and 22 renewed, 12 in work places (4 for females), 5 in sale shops for females, 3 in offices, and 10 were renewed in workplaces.

A large number of properties are yet without sufficient water closet accommodation, but these are being gradually reduced. It will take time, however, before it can be said that every property is satisfactory in this respect.

In connection with water closets the ideal as stated in previous reports is one for every house. As this is not practical however in a large number of existing properties the endeavour is to have at least one for every two households, and to have the conveniences placed as near to the households using same as possible, where experience proves they are much better looked after in regard to cleanliness, etc., than when a distance away.

Water Closets, Earth Closets, Privies, and Privy Middens.

The instructions contained in the circular, dated 1st September 1925, issued by the then Scottish Board of Health regarding particulars as to (1) the number of common water closets in use within the Burgh, showing separately the number serving 2, 3, 4, and 5 or more tenants respectively ; and the number of (a) dry closets ; (b) privy middens, and (c) ashpits, showing for each separately the number serving 2, 3, 4, and 5 or more tenants respectively, are being gradually given effect to.

The work of surveying Wards 2, 5, and 8 was completed during the year and the particulars submitted to the Local Authority. The following are the details :—

WARD II.

1. Number of common water closets in use, serving :—

2 Tenants.	3 Tenants.	4 Tenants.	5 or more Tenants.
282	127	120	86

2. Number of houses without water supply and sink inside the house
- | | | | | | | |
|------|------|------|------|------|------|-----|
| | | | | | | 240 |
|------|------|------|------|------|------|-----|

3. Number of (a) Dry Closets Nil.
 (b) Privy Middens Nil.
 (c) Ashpits, serving :—

2 Tenants.	3 Tenants.	4 Tenants.	5 or more Tenants.
Nil.	Nil.	2	57

In connection with the new survey of this Ward, I beg to submit further details which may be of interest.

The area is approximately 412 acres (excluding Magdalen Green, 20·1 acres).

The resident population is 11,690, or equal to 28·37 persons per acre.

The total number of houses, including 13 shop houses, is 3,196, as follows :—

Number of Houses of 1 room	....	....	454 and 10 shop houses.
Do. 2 rooms	....	....	1,252 and 1 shop house.
Do. 3 rooms	....	....	669 and 1 shop house.
Do. 4 rooms	....	....	290 and 1 shop house.
Do. 5 rooms	....	....	137
Do. 6 rooms	....	....	93
Do. 7 rooms	....	....	73
Do. 8 rooms	....	....	52
Do. 9 rooms	....	....	60
Do. 10 rooms	....	....	51
Do. 11 rooms	....	....	13
Do. 12 rooms	....	....	8
Do. 13 rooms	....	....	8
Do. 14 rooms	....	....	5
Do. 15 rooms	....	....	7
Do. 16 rooms	....	....	1
Do. 17 rooms	....	....	1
Do. 18 rooms	....	....	4
Do. 19 rooms	....	....	1
Do. 20 rooms	....	....	2
Do. 25 rooms	....	....	1
Do. 28 rooms	....	....	1
			<hr/>
			3,183 and 13 shop houses.

Number of houses per acre, not including shops or non-residential premises							7·75
Number of Shops							425
Number of other premises (including workshops, offices, etc.)							413

WATER CLOSETS.

Number of water closets for houses	....	....	....	....	1,931
Number of water closets for shops, etc.	....	....	....	....	385
					<hr/>
Total number of water closets	....	....	....	....	2,316

Allocation of water closets to dwelling-houses :—

	Number of Households.			
One household to one water closet	1,316	or	41%
Two households to one water closet	554	or	17%
Three households to one water closet	364	or	11%
Four households to one water closet	464	or	15%
Five or more households to one water closet		498	or	16%
		3,196	or	100%

WATER SUPPLY.

2,956 houses, or 92%, have water laid on within the house, leaving 240 dwellings, or 8%, to derive their supply from taps on stairs, landings, or back courts.

REFUSE DISPOSAL.

1. Ashpits.

987 of the houses, or 31%, are served by ashpits (66 in number).

7 houses have the sole use of one ashpit each.

In 59 instances two or more tenants have the use in common of one ashpit, and this may be sub-divided to show :—

2	Ashpits each used in common by	4	households.
23	Do.	Do.	5 to 10 Do.
21	Do.	Do.	11 to 20 Do.
7	Do.	Do.	21 to 30 Do.
2	Do.	Do.	31 to 40 Do.
4	Do.	Do.	41 and over households.

2. Ashbins.

1,280 houses, or 40%, are served by 420 ashbins.

219 households have the sole use of one ashbin each.

19 ashbins serve 2 households each.

20 ashbins serve 3 households each.

69 ashbins serve 4 households each.

93 ashbins serve 5 or more households each.

3. Daily Collections.

929 houses, or 29%, are served by Daily Collection, Bell Cart, &c.

WARD V.

1. Number of common water closets in use, serving :—

2 Tenants.	3 Tenants.	4 Tenants.	5 or more Tenants.
469	262	321	122

2. Number of houses without water supply and sink inside the house 145

3. Number of (a) Dry Closets serving :—

1 Tenant.	2 Tenants.	3 Tenants.	
12	6	3	21
(b) Privy Middens ....	....	....	Nil.
(c) Ashpits, serving :—			

2 Tenants.	3 Tenants.	4 Tenants.	5 or more Tenants.
6	3	2	243

In connection with the new survey of this Ward, I beg to submit further details which may be of interest.

The area is approximately 557·1 acres (excluding Caird Park (Den o' Mains), 278 acres).

The resident population is 23,955, or equal to 43·0 persons per acre.

The total number of houses, including 29 shop houses, is 6,558, as follows :—

Number of houses of 1 room	....	....	769 and 18 shop houses.
Do. 2 rooms	....	....	3,729 and 6 shop houses.
Do. 3 rooms	....	....	1,351 and 5 shop houses.
Do. 4 rooms	....	....	240
Do. 5 rooms	....	....	121
Do. 6 rooms	....	....	133
Do. 7 rooms	....	....	76
Do. 8 rooms	....	....	74
Do. 9 rooms	....	....	20
Do. 10 rooms	....	....	13
Do. 11 rooms	....	....	1
Do. 12 rooms	....	....	1
Do. 13 rooms	....	....	1
			6,529 and 29 shop houses.

Number of houses per acre, not including shops or non-residential premises	....	....	....	11·77
Number of Shops	....	....	....	347
Number of other premises (including workshops, offices, &c.)	....	....	....	204

WATER CLOSETS.

Number of water closets for houses	....	....	....	4,115
Number of water closets for shops, &c.	....	....	....	109
Total number of water closets	....	....	....	4,224

Allocation of water closets to dwelling-houses :—

	Number of Households.			
One household to one water closet	2,941	or	45%	
Two households to one water closet	924	or	14%	
Three households to one water closet	763	or	12%	
Four households to one water closet	1,239	or	19%	
Five or more households to one water closet	658	or	10%	
	6,525	or	100%	

NUMBER OF DRY CLOSETS	....	....	....	....	....	21
Each Serving—	1 House.	2 Houses.	3 Houses.			
	12	6	3		33 Households.	

WATER SUPPLY.

6,413 houses, or 98%, have water laid on within the house, leaving 145 dwellings, or 2%, to derive their supply from taps on stairs, landings, or back courts.

REFUSE DISPOSAL.

1. Ashpits.

3,653 of the houses, or 56%, are served by ashpits (269 in number).

15 houses have the sole use of one ashpit each.

In 254 instances two or more tenants have the use in common of one ashpit, and this may be sub-divided to show :—

6 Ashpits each used in common by	2	households.
3 Do. Do.	3	Do.
2 Do. Do.	4	Do.
103 Do. Do.	5 to 10	Do.
91 Do. Do.	11 to 20	Do.
37 Do. Do.	21 to 30	Do.
6 Do. Do.	31 to 40	Do.
6 Do. Do.	41 and over	households.

2. Ashbins.

2,897 houses, or 44%, are served by 1,062 ashbins.

482 households have the sole use of one ashbin each.

159 ashbins serve 2 households each.

178 ashbins serve 3 households each.

68 ashbins serve 4 households each.

175 ashbins serve 5 or more households each.

3. Daily Collections, &c.

8 houses are served by Daily Collection, &c.

WARD VIII.

1. Number of common water closets in use, serving :—							
2 Tenants.	3 Tenants.	4 Tenants.	5 or more Tenants.				
489	274	222	137				
2. Number of houses without water supply and sink inside the house							
....	....	....	....	....	....	....	144
3. Number of (a) Dry Closets serving :—							
1 Tenant.							
2	....	....	....	....	....	....	2
(b) Privy Middens							
....	....	....	....	....	....	....	Nil.
(c) Ashpits serving, :—							
2 Tenants.	3 Tenants.	4 Tenants.	5 or more Tenants.				
3	2	3	183				

In connection with the new survey of this Ward, I beg to submit further details which may be of interest.

The area is approximately 439·55 acres (excluding Victoria Park, Lochee Park, Balgay Hill, and Western Necropolis, 122·75 acres).

The resident population is 18,480, or equal to 42·04 persons per acre.

The total number of houses, including 17 shop houses, is 5,309 as follows :—

Number of houses of 1 room	....	....	1,030 and 9 shop houses.
Do. 2 rooms	....	....	2,789 and 5 shop houses.
Do. 3 rooms	....	....	1,080 and 3 shop houses.
Do. 4 rooms	....	....	181
Do. 5 rooms	....	....	107
Do. 6 rooms	....	....	56
Do. 7 rooms	....	....	18
Do. 8 rooms	....	....	19
Do. 9 rooms	....	....	3
Do. 10 rooms	....	....	4
Do. 11 rooms	....	....	1
Do. 12 rooms	....	....	2
Do. 15 rooms	....	....	2
			5,292 and 17 shop houses.

Number of houses per acre, not including shops or non-residential premises							
....	....	....	....	....	....	....	12·07
Number of shops							
....	....	....	....	....	....	....	258
Number of other premises (including workshops, offices, &c.)							
....	....	....	....	....	....	....	216

WATER CLOSETS.

Number of water closets for houses	....	....	....	....	2,992
Number of water closets for shops, &c.	....	....	....	....	97
Total number of water closets					3,089

Allocation of water closets to dwelling-houses :—

	Number of Households.			
One household to one water closet	1,870	or	35%
Two households to one water closet	966	or	18%
Three households to one water closet	799	or	15%
Four households to one water closet	853	or	16%
Five or more households to one water closet	819	or	16%
Totals		5,307	or	100%

WATER SUPPLY.

5,165 houses, or 97%, have water laid on within the house, leaving 144 dwellings, or 3%, to derive their supply from taps on stairs, landings, or back courts.

REFUSE DISPOSAL.

1. Ashpits.

2,897 of the houses, or 55%, are served by ashpits (199 in number).

8 houses have the sole use of one ashpit each.

In 191 instances two or more tenants have the use in common of one ashpit, and this may be sub-divided to show :—

8 Ashpits each used in common by	2 to 4 households.
84 Do. Do.	5 to 10 Do.
63 Do. Do.	11 to 20 Do.
25 Do. Do.	21 to 30 Do.
3 Do. Do.	31 to 40 Do.
8 Do. Do.	41 and over households.

2. Ashbins.

2,224 houses, or 42%, are served by 692 ashbins.

242 houses have the sole use of one bin each.

188 ashbins serve 2 households each.

16 ashbins serve 3 households each.

79 ashbins serve 4 households each.

167 ashbins serve 5 or more households each.

3. Daily Collections.

188 houses, or 3%, are served by a Daily Collection, Bell Cart, &c.

The carrying through of these surveys has naturally given a tremendous amount of additional work to the inspecting and clerical staffs. After all the particulars have been gathered by the Outside Staff they are then taken in hand and tabulated by the Inside Staff. The Outside Staff in property-to-property inspection have, during this year alone, put in 16,703 inspections. To thoroughly go over each building and obtain all the necessary information means a considerable time for each inspection.

LIST OF PROPERTIES SERVED BY PRIVIES, EARTH CLOSETS, &C.,
REFERRED TO ABOVE.

SITUATION.	NUMBER OF		TO SERVE.		
	Privies or Earth Closets.	Privy Middens.	No. of Households.	Persons.	
				M.	F.
Dighty Toll (East)	2	....	2	5	5
Dighty Toll House	1	....	1	3	5
Old Manse, Mains	1	....	1	3	4
Castle Mains (North House)	1	....	1	....	3
Claverhouse Dairy	....	1	1	2	3
Claverhouse (Cottage)	1	....	1	1	2
Balgray Farm House	1	....	1	....	1
The Manse (Lodge)	1	....	1	....	2
Kirkgate, Mains	1	....	1	1	2
Trottick N.W. Cottages	2	....	6	10	11
" N. "	2	....	6	9	11
" N.E. "	2	....	5	12	14
" N.E. "	1	....	1	2	3
" S. "	2	....	6	10	11
Balmuir Cottage	1	....	1	3	3
Balmuir Smithy	1	....	1	2	....
Magdalene's Kirkton, Cotton	1	....	1	2	4
West March Farm	1	....	1	2	5
Balmuir, Cotton	1	....	1	2	3
Harestane Mill	1	....	2	2	4
Harestane Cottage	1	....	1	....	1
South Baldovan Farm	1	....	1	1	2
East Pitempton	1	....	1	2	2
Pitempton Railway Cottages	2	....	2	1	3
Pitempton Cottage	1	....	1	1	1
517 Strathmartine Road	1	....	1	1	5
Station Cottage, Cox Street	1	....	1	4	2
458 Strathmartine Road	1	....	1	1	2
West Kirkton Cottages, Kirkton Road	2	....	5	9	10
Backhill of Balgay	1	....	3	6	9
King's Cross Cottar Houses	2	....	2	4	5
Hillside Farm	1	....	1	3	3
Blackness Nursery (Cottages)	†2	....	2	6	2
125 Ferry Road	2	....	2	2	2
Bingham Terrace (Gallowhill)	1	....	1	3	3
208-210 Arbroath Road	....	2	2	5	6
399 Arbroath Road (Craigie North Lodge)	1	....	1	1	4
Gotterstone Cottar Houses (North)	....	5	5	15	12
do. do. do. (South)	2	....	2	6	7
do. do. do. (Kennedy)	1	....	1	2	2
51 Forthill Road (Pullar)	1	....	1	2	1
52 do. do. (M'Quarrie's Houses)	3	....	3	6	5
Forthill Feus (Geekie)	1	....	1	1	1
Balgillo Road (Watt)	1	....	1	2	1
do. do. (Keillor)	1	....	1	3	3
do. do. (Grimmond)	1	....	1	2	1
East Balgillo Cottar House	1	....	1	3	1
do. do. do. do. (Grieve's House)	....	1	1	2	2
Barnhill Farm (Grieve's House)	1	....	1	1	2
434 King Street, Broughty Ferry	1	....	1	....	1

†Both houses under Closing Orders.

Ashpits and Ashbins.

The demolition of ashpits and substitution of ashbins policy is still being pursued—every opportunity of conversion is seized.

Throughout the year under review :—

86 Insanitary (or otherwise unsuitable, owing to dilapidation, etc.) ashpits were demolished and replaced by
221 modern ash or dust bins.
797 new bins were provided as replacements, and
14 bins were installed where hitherto there had been no such accommodation.

In former years the subject of ashpits and ashbins has been written on till it is pretty well threadbare.

However, this much may be said :—

There is no room for debate in the assertion that ashbin service is a vastly superior system as opposed to the archaic and unhygienic open ashpit.

During the past five years

715 pits have been removed, and
1,395 bins installed instead.

It is most gratifying and encouraging to a sanitarian to know the City thus possesses 715 fewer germ disseminating ashpits, and raises the hope that before a similar period of time elapses the transition will be complete and Dundee a 100% ashbin town.

Housing.

As a Designated Officer under the Housing Acts, I issued the Annual Report on Housing for the year 1929 under date 31st January 1930. It was circulated amongst the members of the Town Council, Press, &c., and contained all the data available as at 31st December 1929. Undernoted I give a few of the leading points and particulars therefrom.

The following figures show the number of houses which have been provided (by the Corporation and by Private Enterprise) during 1929 :—

	2 Rooms.	3 Rooms.	4 and over Rooms.	Total.
By the Corporation	240	310	—	550
By Private Enterprise	—	9	77	86
				<hr/>
Total				636

The figures for the previous year were :—

	2 Rooms.	3 Rooms.	4 and over Rooms.	Total.
By the Corporation	114	325	—	439
By Private Enterprise	—	12	114	126
				<hr/>
Total	....	....	....	565

During the last sixteen years (1914 to 1929 inclusive), a total of 4,630 Houses (3,381 by the Corporation, and 1,249 by private enterprise) have been erected, as follows :—

	2 Rooms.	3 Rooms.	4 and over Rooms.	Total.
By the Corporation	758	2,495	128	3,381
By Private Enterprise	3	508	738	1,249

giving an average of 289·37 separate dwelling-houses per annum.

FLEMING TRUST HOUSING SCHEME.

In the early part of the year Robert Fleming, Esq., LL.D., a son of Dundee, came forward with a magnificent contribution towards the elucidation of the Housing troubles in the City—a highly appreciated gift of some £155,000. The gift was originally of £130,000, equal to 400 separate houses. This was later increased by £25,000, making it possible to complete the scheme as one contract, which, when finished, will give to Dundee, free of all cost, the following houses :—

192 single-apartments.
158 two-apartments.
146 three-apartments.

a total of 496 houses.

Extensive progress has been made with the carrying through of the scheme. At the time of writing the work is well on the way, and it is hoped that by the end of 1930 a considerable number of the houses will be completed.

There will be provided for each one-roomed house a water closet, scullery, fully equipped, etc., along with the use of a bathroom for every four houses. For the two and three-roomed houses, there is a water closet, bathroom, fully equipped scullery, etc.

Electric light throughout, and ample washing-house accommodation for each house.

PETER GRAY HOUSING TRUST.

Another Trust which will, in its way, be of immense value and assist in solving a problem being felt throughout the City by the female section of the community. As a memorial of their parents, the family of the late Mr and Mrs Peter Gray, Dundee, have gifted to the City a block of 24 new houses to be *occupied by single women*.

A site for the houses has been granted by the Town Council at what is already known—and has been thus known for decades—as Gray Square, just at the top of the Hilltown.

There will be built 24 houses of one-room, all to be occupied by single women or widows.

There will be combined bath and wash-house for every four tenants, and in each house a water closet, scullery with sink and cooker, larder, bunker with press accommodation, and outside a bleaching green with drying poles.

It is hoped to rent these houses at a sum of £8 per annum, exclusive of rates.

THE SIR JAMES CAIRD LAND ACQUISITION FUND— MARRYAT BEQUEST.

The Town Council have agreed that the income accruing from the above Fund (£100,000) during the first ten years, be applied wholly to the acquisition of land in dense or slum areas, for the purpose of providing open spaces as playgrounds for children of such neighbourhood, and for the provision of playing fields for the benefit of young people in like circumstances—all to be suitably laid out.

The first property to be dealt with under this Fund is at No. 22 Rosebank Road, where the streets are very narrow, and there is an absence of suitable playgrounds for children. The ground to be thus acquired is some 44 poles in extent, presently covered by old and dilapidated buildings used as dwelling-houses, stables, disused byres, outhouses, and other buildings totally past repair.

The initial stages of the enquiry have been made, and the Officials responsible—the Medical Officer of Health, the Sanitary Inspector, the City Engineer, and the Superintendent of Parks, &c.—have reported in favour of the buildings being demolished and the ground acquired.

The subject has been further remitted to a Sub-Committee to bring up final recommendations. Under this Scheme it is hoped to

provide throughout the City breathing spaces and playgrounds for children in congested parts where the properties have served their day and generation.

HOUSING (SCOTLAND) ACT, 1925.

INSANITARY BUILDINGS.

Since the inauguration of the Post-War Housing Policy, adopted by the Town Council, for dealing with insanitary houses, buildings, and areas, 213 Representations have been made to the Local Authority for the Closing and Demolition of uninhabitable houses and buildings, the removal of Obstructive buildings, and the improvement or re-construction of houses and buildings not in a reasonable state of repair; and 2 Representations made for the improvement of insanitary and unhealthy areas and groups of areas.

The total number of houses involved is 1,649, and the following tables show, in detail, the position as it stood at 31st December :—

Year.	No. of Representa- tions.	REPRESENTED.				Total Houses.	No. of Other Premises.
		No. of Rooms.					
		1	2	3	4 and over.		
1924	1 (Blue Mountains Area)	59	45	4	1 =	109	21
1925	17	53	24	1	1 =	79	5
1926	45	81	96	8	11 =	196	6
1926	1 (Small's Wynd Areas)	139	147	26	3 =	315	64
1927	44	175	108	29	0 =	312	0
1928	44	138	132	5	5 =	280	0
1929	63	135	187	26	10 =	358	0
	215	780	739	99	31 =	1,649	96

Of the 1,649 houses Represented :—

373 were closed and demolished.

295 were closed and are standing empty.

44 were closed and are now used as business premises (permission being granted by Local Authority).

10 were closed and are now used as club-rooms (permission being granted by Local Authority).

2 were closed and converted into washing-houses.

183 have been repaired or re-constructed.

595 are closed by Order, and still in occupation.

147 are being dealt with by Repair Notices, and of these 70 are at present under repair or being re-constructed.

1,649

In addition to the above, two obstructive buildings have been demolished, and the sites cleared.

The Official Return submitted to the Department of Health for Scotland for the year ended 31st December 1929 is :—

(a) **Housing (Inspection of District) Regulations (Scotland), 1928.**

1. Number of dwelling-houses inspected	....	....	680
2. Number of dwelling-houses which, on inspection, were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation	....	....	230
3. Number of representations made to the Local Authority with a view to the making of closing orders	....		44
4. Number of dwelling-houses in respect of which closing orders were made	....	....	223
5. Number of dwelling-houses the defects in which were remedied without either the making of closing orders or the service of notices under Section 3 (1) of the Housing (Scotland) Act, 1925	....	....	143
6. Number of dwelling-houses which, after the making of closing orders, were put into a fit state for human habitation	....	....	4

(b) **Housing (Scotland) Act, 1925.**

1. Number of dwelling-houses in respect of which notices were served under Section 3 (1)	....	....	155
2. Number of dwelling-houses rendered fit for human habitation under Section 3 (1)	....	....	61
3. Number of dwelling-houses in respect of which closing orders were deemed to have become operative under Section 3 (1)	....	....	71
4. Number of dwelling-houses rendered fit for human habitation by the Local Authority under Section 3 (2)			Nil.
5. Number of cases where intimations were given under Section 20 (1) as to insufficient water closet accommodation :—			
(a) cases where requirement complied with by owner			These provisions do not apply in Burghs.
(b) cases where works carried out by Local Authority after failure of owners to do so	....	....
(c) cases still pending	....	....
6. Number of houses of (a) one-apartment, and (b) two-apartments for the erection of which the consent of the Local Authority has been given in terms of Section 111	....	....	(a) 24 (b) Nil.

(c) **Housing, Town Planning, Etc. (Scotland) Act, 1919.**

1. Number of cases where notices were served under Section 40 (1) to provide dwelling-houses with water supply :—
- | | |
|--|--|
| (a) cases where requirements complied with by owners | } These provisions do not apply in Burghs. |
| (b) cases where works carried out by Local Authority after failure of owners to do so | |
| (c) cases still pending | |

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 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 ashpit or ashbin accommodation; lack of facilities for the washing and drying of household and wearing apparel; and open spaces around buildings restricted.

Instances of overcrowding, fairly well all over the City, are frequently met with, and it may be said that overcrowding is still strongly in evidence. Efforts are made to cope with the situation by securing houses, suitable, if at all possible, for the occupiers of such overcrowded houses.

Under Section 5 of the Housing (Scotland) Act, 1925, 3,534 visits were made to insanitary buildings, or to properties where alterations and improvements were in progress following upon action taken by the Department.

The Rent and Mortgage Interest (Restrictions) Acts, Etc.

Applications made by tenants under the 1920 and 1923 Acts							
Granted	....	....	....	....	....	....	1
Refused	....	....	....	....	....	....	0
Applications made by Owners or Agents under 1920 and 1923 Acts							
Granted	....	....	....	....	....	....	1
Refused	....	....	....	....	....	....	0

It is an instruction of the Housing Committee, where dwelling-houses are Closed by Order or form the subject of a Repair Notice, "that the Town Clerk and Chief Sanitary Inspector apply to the Sheriff, in terms of the Rent and Mortgage Interest (Restrictions) Acts, 1920 to 1925, for a suspension of the increases to the rents of said dwelling-houses."

Under this heading 538 tenants have had their rents reduced to pre-war standard, plus 5·23%, and 83 tenants who were being charged illegal rents have had them corrected since 1927, when the above-mentioned instruction was first given.

Tents and Vans.

As in former years these have been in evidence generally all over the City, notably in Broughty Ferry ; Constable Park ; Balgray Farm ; Lamb's Lane ; Mid Road, &c.

The annual carnival was held in Gussie Park from 22nd July till 19th August, with some 40 to 50 vans gathered together. Strict supervision was kept during that period and I have to again record that all the occupiers very readily and willingly complied with our requirements so far as cleanliness and sanitation are concerned.

177 visits were made under this head throughout the year.

Housing of Seasonal Outworkers.

Within the boundaries of this city there is little trade done in regard to fruit growing, but a fair amount is done in potato culture. It is with the latter workers we have to contend. On the whole the terms of the Bye-Laws have been adhered to and carried out in as practicable a manner as the varying circumstances would permit.

Common Lodging-Houses.

The management of the above has been carried out throughout the past twelve months in conformity with the Bye-Laws governing them. The premises, beds and bedding were all cleanly kept, and 375 inspections by day and 16 by night were given to these houses.

This class of accommodation has not been patronised so fully of late, the prevalent Industrial Depression being in part responsible for this, also the navying or labouring trades are at a low ebb here, and consequently the Lodging-House Keeper's exchequer suffers.

They are situated as under and have accommodation as shown :—

55 Commercial Street	....	....	....	242 Lodgers.
2/3 Craig Street	....	....	....	137 „
19 Overgate	....	....	....	42 „
43 Overgate	....	....	....	39½ „
25 North Lindsay Street	....	....	....	56½ „
*130 Overgate	....	....	....	38 „
*77 Overgate	....	....	....	34 „
*97 Overgate	....	....	....	91 „

(Those marked * have accommodation for both male and female lodgers.)

The Seamen's Boarding House and the Salvation Army Home and Metropole for Women have both been kept in a capital condition and well patronised. The former has beds for 63 and the latter 180 persons.

Houses Let in Lodgings.

There are 99 of these on the Register, which may be said to represent the most of the main permanent Keepers of this class of house. Under this head 254 visits were made by day and 374 by night. With the exception of overcrowding and want of proper sex separation (items specially dealt with later on in this Report) the premises so far as cleanliness, &c., are concerned, called for little or no official interference, and may be written off as well conducted.

As I mentioned in my last Report the Child Welfare Visitors do a lot of good work in arousing the occupiers to take a substantial interest in the keeping of the premises clean and tidy—therefore it is valuable to have their co-operation as they seem to have special sway with the women folk.

Although I cannot say there is any increase in the amount of

Overcrowding and Mixing of the Sexes in Sleep

yet neither can I say it is on the wane.

Overcrowding has always been more or less with us even in the days before house shortage was ever spoken of, and it will, to a certain extent, be present no matter how the housing supply stands.

There are certain sections of our community in which crowding together is ingrained—it was the first recollection of their childhood and they simply live up to the tradition of “what was good enough for our forefathers is good enough for us.” What we are working at day and night is to get that idea removed, to endeavour to get them to rise away from the past and strike out for room, liberty, and space—away from the shackles of the past. In this I think we are making headway—it may be meagre and very slow, but if we are moving in the right direction it is encouragement. The main object is to get the people to spread out from the congested areas of the City; move to where the houses are being built and where fresh air and open spaces are in abundance, but with the industrial conditions, as existing at the moment, there does not seem to be any immediate prospects for such a transformation.

A very serious and urgent menace to the community is yet strongly in existence in the *mixing of adult sexes whilst in sleep*—occupying a single room. Fifteen years ago there was very little of this, the word “Decency” was worked out to its full meaning. Not to-day, when we find young unmarried men and women occupying not only the same room but the same bed—from which there can only be one result—immorality and a serious addition to illegitimacy, throwing a further drain on the finances of the City.

People who do not go into the real depths of the subject matter such as this may tell us we have law to prevent it—why not enforce it? That is only too true, but let us consider it along with the housing conditions prevailing to-day. If the householders state they cannot get housing of sufficient size at a rent to suit the purse the Law will consider they have ample excuse.

As in former years I give samples of a few of such instances met with in the ordinary course of inspection.

400 cubic feet is the standard for an adult.

Mill foreman, income £6. 4s. 7d. weekly. 1 room, 1,262 cub. ft. Rent 3s. 5d. weekly. Wife, six daughters aged 6, 9, 13, 14, 17, and 22 years respectively. Total 8 persons. Overcrowded 1,538 cub. ft. No sex privacy.

General labourer. Income £2. 17s. per week. 1 room, 1,485 cub. ft. Rent 4s. 4d. per week. Wife, four sons aged $4\frac{1}{2}$, 7, 15, and 17 years, and one daughter aged 10 years. Total 7 persons. Overcrowded 915 cub. ft.

Labourer. Income approximately £6 per week. 2 rooms, ticketed house. 2,400 cub. ft. Rent 5s. 10 $\frac{1}{2}$ d. per week. Wife, three sons 25, 19, and 17 years; three daughters 14, 12, and 10 years, and one female grandchild 8 $\frac{1}{2}$ years. 9 persons. Overcrowded 1,000 cub. ft.

Labourer. 1 room, ticketed house, 1,400 cub. ft. Rent 4s. 5d. weekly. Wife, two sons 22 and 13 years respectively, and 1 daughter 16 years. Income approximately £2. 12s. per week. 5 persons. Overcrowded 600 cub. ft. No privacy.

General labourer, on Health Insurance Benefit. 2 rooms 2,571 cub. ft. Total income £4. 11s. 6d. per week. Rent 25s. 3d. per month. Four sons aged 15, 13, 9, and 7 years respectively. Wife, 6 daughters 24, 22, 20, 16, 11 and 6 years respectively. Total persons 12. Overcrowded 1,629 cub. ft.

General labourer. Income £4 per week. 1 room 1,188 cub. ft. Rent 4s. 9d. per week. Wife, two sons aged 2 and 3 years, and five daughters aged 7, 10, 14, 16, and 17 years respectively. The boy two years old was removed to Eastern Hospital fully one year ago suffering from Bronchial Pneumonia and is still there. Total persons 9. Overcrowded 1,812 cub. ft.

Labourer (unemployed). 2 rooms 1,993 cub. ft. Total income £2. 2s. per week. Rent per week 4s. 5d. Wife, six sons 13, 11, 9, 8, 5, and 3 years, and three daughters 6, 2 years, and 7 months, 11 persons. Overcrowded 1,007 cub. ft.

Wife—Husband general labourer (unemployed). 1 room 946 cub. ft. Rent 3s. 2d. per week. Income £1. 10s. Parish Relief. 1 son aged 5 years, five daughters aged 12, 10, 7, 2 years, and 7 months respectively. Total 8 persons. Overcrowded 1,454 cub. ft.

Jute Preparer. Income £5. 10s. per week. Rent 4s. 7d. 2 rooms 2,076 cub. ft. Wife, four sons 20, 18, 14, and 11 years, and 4 daughters 21, 12, 5, and 3 years respectively. Total 10 persons. Overcrowded 1,524 cub. ft.

Jute Preparer. Income £4. 5s. Rent 18s. monthly. Room and Closet 1,755 cub. ft. Three sons 15, 14, and 9 years, two daughters 18 and 16 years respectively. Son aged 14 in Ashludie Sanatorium. Total 6 persons. Overcrowded 445 cub. ft. No proper sex separation.

Lift Attendant. Wife. Income £4. 15s. 4d. Rent 4s. 5d. per week. 2 rooms 2,417 cub. ft. Two sons aged 27 and 14 years, and 1 daughter 16 years. The two sons and 1 daughter sleep in one room. The difficulty here is sex separation. Total 5 persons.

Husband, wife, and 4 children ages 7 months to 5½ years. One female lodger and her two children ages 2 and 4 years. Cubical contents of house 948 cub. ft. Cubical space required 2,400 cub. ft. Deficiency 1,452 cub. ft. One room. Rent 3s. 9d. per week. Total income 7s. 3d. per week plus the small earnings of the husband buying and selling rags and the income from the female lodger working 3 days per week. No sex separation.

Factories and Workshops.

The usual routine system of inspection, which was well kept up throughout the year (798 visits being made), brought to light nothing with the exception of petty irregularities or nuisances which we always expect and these were quickly put right. A few intimations or notices of the existence of nuisances were received from H.M. Inspector of Factories and Workshops discovered by him in the course of his inspections. These were promptly attended to.

Taking them all over it may be said these places of employment are generally found in quite a satisfactory state. The occupiers are always willing to carry out the requirements of the Inspectors relative to the cleansing and limewashing.

The following Workshops, &c., are upon the Register at 31st December 1929 :—

TRADE OR BUSINESS.				
	Workshops	Domestic Workshops	Homework	Workplaces.
Basket Makers, Feather Dressers, and Bedding Manufacturers	1	0	0	0
Blacksmiths, Cartwrights, and Carriage Builders	23	0	0	0
Boot Repairers	83	8	0	0
Brush Makers	1	0	0	0
Cabinetmakers, Joiners, and French Polishers	64	0	0	0
Cycle and Motor Mechanics, Enamellers, and Vulcanisers	21	1	0	0
Dental Mechanics	34	4	0	0
Dress, Mantle, and Corset Makers	46	35	1	0
Engineers	4	0	0	0
Electro-Platers, Wire Workers, Blind Makers, and Bellhangers	5	0	0	0
Florists	0	0	0	10
Furriers	4	1	0	0
Glaziers	3	0	0	0
Granite and Marble Cutters and Masons	0	0	0	33
Hairdressers and Wigmakers	1	1	0	105
Hosiery and Knitters	1	2	0	0
Hotels and Restaurants	0	0	0	41
Laundries	0	4	0	0
Milliners	34	1	0	0
Painters	0	1	0	51
Photographers	15	0	0	0
Piano and Gramophone Repairers	8	0	0	0
Picture Framers, Carvers, and Gilders	5	0	0	0
Plasterers	0	0	0	15
Plumbers and Tinsmiths	49	1	0	0
Saddlers and Leather Cutters	15	0	0	0
Sewing Machine and Wringer Repairers	2	0	0	0
Slaters	0	0	0	22
Stamp Cutters, Engravers, and Ticket Writers	3	0	0	0
Sugar Boilers	10	0	0	0
Tailors	62	10	1	0
Umbrella Makers and Repairers	4	0	0	0
Underclothing, Baby Linen, and Blouse Makers	35	0	1	0
Upholsterers and Carpet Sewers	15	1	0	0
Waste, Rag, and Metal Merchants	0	0	0	14
Watch and Jewellery Repairers and Opticians	37	3	1	0
Weighing Machine and Scale Makers	3	0	0	0
Miscellaneous, i.e., Gut Manufacturer, Mica Makers, Clay Pipe Makers, Paper Bag Makers, Bottlers, Potted Meat Manufacturers, Oil Refiners, Manufacturing Chemists, Sack Repairers, &c.	44	1	0	24
Totals	632	74	4	315

Bakehouses.

The following bakehouses are upon the Register :—

Occupied factory bakehouses	....	....	....	58
(Included in this number are 7 underground.)				
Occupied workshop bakehouses	....	....	....	38
(Included in this number are 4 underground.)				
Workshop bakehouse empty but fit for occupation				1

The whole of the bakehouses have received stringent and regular inspection throughout the whole year, and they may be accepted as coming within the requirements of the Law thereanent—950 visits having been made to them. They have been oil painted, or varnished, or white washed as deemed essential—or in the event of the oil painting or varnish being in good condition, washing down with water was deemed sufficient.

Two intimations came from H.M. Inspector of Factories and Workshops anent bakehouses requiring limewashing. They were immediately cleaned on the subject being brought to the notice of the occupier.

Dairies, Cow-Sheds, and Milk-Shops.

At the end of the year the Register stood as follows :—

Dairymen or Cow-Keepers	....	....	....	48
Retail Purveyors of Milk	....	....	....	844

made up as under :—

Purveyors from shops	....	....	....	734
Producers (dairymen or cow-keepers)	....	....	....	48
Purveyors from vans	....	....	....	41
Purveyors resident outwith the City but registered to Purvey milk within it from vans on streets				25
Purveyors from shops or milk-houses together with vans on streets	....	....	....	44

and under the Milk (Special Designations) Order (Scotland), 1923, there are registered :—

2 Producers of Pasteurised Milk, and
214 Retail Sellers,
A total of 216, as against 214 last year and 172 in 1927 ;

and under the same Order :—

1 Producer of Grade A. (T.T.) and Certified Milk, and
3 Dealers in Grade A. (T.T.) and Certified Milk.

Within the 48 byres there are 736 cows housed.

In former annual reports I have mentioned how we were gradually overhauling the various *Cowsheds* with the view of bringing those which require improvement and re-construction into conformity with the new Bye-Laws which came into force at the end of 1926.

This is work requiring both opportunity and time. Several of the dairy [premises are presently being dealt with, and I trust during 1930 a considerable fillip will be given to this work. Not by any means are they distinctly bad or defective, but there is room for considerable improvement in the older premises.

Each year sees a diminishing of the number of the cows being kept within the City for the purpose of milk production—thus the Citizens of Dundee must rely more and more for the supply from outside the City, of which premises we have no direct supervision or control.

At *Balfield Farm*, which has been dairying premises for many years, a start was made with the re-construction and improvement of the buildings to eliminate several outstanding defects. Unfortunately the occupier—who undertook the work himself—died in the middle of the operations and the work came to an end. The herd of cows—a valuable one—has been dispersed, and the premises discontinued for the purpose of raising milk.

Improvements are presently being carried out at the old dairy at No. 142 Hilltown.

The dairy premises at No. 22 Rosebank Road has been discontinued for the use as such.

At No. 176 Liff Road, Lochee, the north byre has been entirely removed from the register, and provisional registration till August 1930 has been granted for the south byre.

At No. 216 Strathmartine Road a Wembley Boiler has been installed for the scalding and cleansing of appliances and utensils.

At West Balgillo, Broughty Ferry, certain improvements have been carried out on one of the byres. Better ventilation has been effected; the walls smoothed with cement; the wall-heads filled in, whilst certain other improvements are to be given effect to during the coming summer when the cows are on the grass.

At Mains of Balgay Farm the light and ventilation has been much improved and the wall-head has been filled in.

Forty double automatic drinking bowls have recently been installed in various cow-sheds. These appliances are fixed at the head of the stalls over the feed troughs and are supplied with water from a common cistern to regulate the pressure which otherwise would be too great

from off the public main. By simple pressure from the cow a fresh supply when desired by the animal can be obtained—this saves the labour of water carrying.

Taking the byres as a whole they have been kept in a satisfactory manner and have given little cause for adverse interference.

The *Milkshops* from where the milk is sold by retail have been kept under a steady system of inspection, and where necessary instruction given for cleansing of premises. Little cause, however, for complaint has been found.

Cleanliness personally on the part of workers at byres, dairies, or where milk is stored or sold from have been insisted upon and advice in this direction given, and to the keeping of vessels containing milk covered in shops or other premises.

To dairies there have been 611 visits and 3,058 to shops or premises of Purveyors of milk.

THERE ARE 9 COW-SHEDS WHERE MILK COWS ARE KEPT TO THE NUMBER OF 42 EXEMPTED 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."

SO FAR AS WE ARE ABLE TO ASCERTAIN FROM SYSTEMATIC INSPECTION THE REQUIREMENTS OF ARTICLES 5 TO 16 OF THE MILK AND DAIRIES (SCOTLAND) ORDER, 1925, ARE GENERALLY BEING COMPLIED WITH WITH THE EXCEPTION OF THE PROSECUTIONS MENTIONED SPECIALLY IN THE INTRODUCTORY PARAGRAPH TO THIS REPORT.

Food Inspection.

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 of 78,423 tons 19 cwts. 0 qrs., as against 65,708 tons 8 cwts. 2 qrs. last year, and 47,461 tons 13 cwts. during 1927.

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, &c., during 1929 :—

	Tons.	Cwts.	Qrs.
Albumen	0	6	1
Bacon and Ham	30	8	2
Butter	156	1	3
Cakes, Shortbread, Biscuits, &c.....	2	6	3
Cereals	380	11	2
Cheese	459	9	1
Chemical Food	10	15	2
Cocoa and Cocoa Beans	100	12	3
Cocoa Butter	28	3	3
Cocoanuts, Cocoanut Stearine and Des- sicated Cocoanut	52	3	2
Coffee	33	0	2
Confectionery	491	13	0
Cordials	0	12	2
Cream of Tartar	17	0	2
Custard Powder	5	8	1
Eggs	2	2	2
Eggs (Dried and Liquid)	0	4	2
Fish (Dried)	4	2	3
Fish (Tinned)	188	2	1
Flour	6,040	12	1
Fruit	1,200	4	3
Fruit (Dried)	684	12	2
Fruit (Pulp)	56	3	1
Fruit (Tinned)	504	12	3
Glucose	370	18	3
Honey and Jam	0	15	1
Lard and Lard Compound	654	19	0
Macaroni	8	0	2
Margarine	745	6	0
Meat Extract	6	1	3
Meat (Tinned)	421	10	2
Milk (Dried)	8	4	2
Milk (Tinned)	356	16	2
Nuts	40	10	2
Peas, Beans, &c.	171	10	1
Pickles, Spices, Condiments, and Sauces	40	1	2
Preserves	109	8	0
Rice	137	4	3
Salts (Fruit)	1	2	0
Sago	1	6	0
Semolina	0	18	2
Sugar	3,927	15	2
Syrup	543	14	3

						Tons.	Cwts.	Qrs.
Tapioca	....	....	....	....	....	17	12	1
Treacle	....	....	....	....	....	379	5	1
Vegetables	....	....	....	....	....	799	4	2
Vegetables (Tinned)	....	....	....	....	....	45	17	1
Vinegar	....	....	....	....	....	48	9	1
						19,286	4	3

TABLE No. II.

Shows the amount and kind of foods arriving direct from abroad, for the year ending 31st December 1929.

						Tons.	Cwts.	Qrs.
Bacon and Ham	....	....	....	....	....	11	8	3
Butter	....	....	....	....	....	19	1	0
Cereals	....	....	....	....	....	53	16	2
Cheese	....	....	....	....	....	135	14	0
Cocoa and Cocoa Beans	....	....	....	....	....	9	3	2
Cocoa Butter	....	....	....	....	....	20	0	0
Cocoanuts	....	....	....	....	....	95	5	1
Confectionery	....	....	....	....	....	57	3	0
Cream (Tinned)	....	....	....	....	....	0	6	2
Flour	....	....	....	....	....	9,446	15	1
Fruit	....	....	....	....	....	60	6	1
Fruit (Pulp)	....	....	....	....	....	237	13	1
Fruit (Tinned)	....	....	....	....	....	11	5	0
Glucose	....	....	....	....	....	495	0	0
Lard	....	....	....	....	....	77	13	2
Margarine	....	....	....	....	....	5	5	0
Meat (Tinned)	....	....	....	....	....	16	9	2
Milk (Tinned)	....	....	....	....	....	358	13	0
Peas, Beans, &c.	....	....	....	....	....	234	17	0
Rice	....	....	....	....	....	140	8	2
Sugar	....	....	....	....	....	46,897	4	2
Tapioca	....	....	....	....	....	44	16	1
Treacle	....	....	....	....	....	1	5	0
Vegetables	....	....	....	....	....	564	8	2
Vegetables (Tinned)	....	....	....	....	....	143	15	1
						59,137	14	1
Total for Home Ports (Table I.)	....	....	....	....	....	19,286	4	3
						78,423	19	0

On no occasion was it found necessary to deal with or seize any of the food arriving in the City by waterway.

Public Slaughter Houses and Meat Inspection.

The above, including the Clearing House System, are under the charge of a special Superintendent who is responsible for the whole management and conduct thereof. He is a qualified Meat Inspector, and acts in this capacity in conjunction with the Veterinary Inspector. There are also two Detention Officers all under the Public Health (Meat) Regulations (Scotland), 1924.

Under the Clearing House System all butcher meat intended for consumption within the City has first to be taken to the Dead Meat Market, thereafter going through a thorough inspection by the Meat Inspectors before allowed out for sale to the public in the retail shops.

Public Health (Meat) Regulations (Scotland), 1924, Article 12.

There is one certificate of approval under the above Article in operation for persons who sell or offer for sale any meat or meat food product from any cart or other vehicle, &c. The certificate in operation applies to the Dundee Ice and Cold Storage Coy., Ltd.

Agricultural Produce (Grading and Marking) Act, 1928—Cold Storage Registration.

An application was received from the Dundee Ice and Cold Storage Coy., Ltd., 39 Trades Lane, to have the premises at that address registered under the above Act for the chilling and storing of eggs.

The Local Authority granted registration for room No. 2 at above address under Section 4 (1) of this Act and Article 7 of the Agricultural Produce (Grading and Marking) (Eggs) (Scotland) Regulations, 1929—the premises being quite suitable for the purpose.

Fish Inspection at the Fish Market, Carolina Port.

This Market is under the supervision of a specially appointed Superintendent, who visits in the mornings when the trawlers arrive and during the auctioneering process. This Department has an arrangement with him that whenever fish exposed or offered for sale by auction are not above suspicion he communicates by telephone with our Inspectors. Pending the arrival of a Food Inspector, the fish is withdrawn and laid aside.

A Food Inspector of this Department also visits in the early mornings once a week—oftener if deemed necessary—to examine the catches as they arrive off the trawlers and prior to being offered for sale.

The fish handled during 1929 were as follows :—

Fresh Fish	....	....	....	7,412,762 lbs.
Cured Fish	....	....	....	695,366 „
Total	....	....	....	8,108,128 lbs.

against 7,146,496 lbs. last year and 7,162,176 lbs. in 1927.

Food Inspection (Shops, Stalls, Barrows, Etc.).

On 45 occasions it was necessary to seize food as unfit for the consumption of man. The undernoted table indicates the nature and quantities of the food :—

ARTICLES OF FOOD SEIZED.

Articles.	Where Seized.	Quantities or Weights.				Reasons for Seizure.
		Tons.	Cwts.	Qrs.	Lbs.	
Meat (tinned)	Shops or stalls, or barrows on streets, or food stores, or railway stations.	0	7	3	12	Decomposition, etc.
Fish (tinned)		0	0	1	18	
Fruit (tinned)		0	3	3	13	
Vegetables (tinned)		0	4	1	5	
Ham (tinned)		0	0	3	1	
Mutton		0	1	1	17	
Soup (tinned)		0	4	2	24	
Poultry		0	1	0	2	
Fruit		0	10	0	14	
Fruit (dried)		0	0	0	24	
Eggs (chilled)		0	0	2	0	
Vegetables		2	2	2	0	
Spice and Condiments		0	0	3	8	
Veal (jellied)		0	0	1	20	
Tongues (tinned)		0	0	3	20	

The condition as to cleanliness of the premises and vehicles was also supervised—9,197 visits having been made.

Butter and Margarine.

40 Samples of Margarine and 14 Samples of Butter were examined and found to be genuine. The amount of water permitted is 16·00 per cent., the highest was 15·81 per cent. in a Margarine, the undernoted are the frequencies.

				Butter.	Margarine.
8.00 to 8.99	....	....	....	—	2
10.00 to 10.99	....	....	....	—	7
11.00 to 11.99	....	....	....	2	7
12.00 to 12.99	....	....	....	2	9
13.00 to 13.99	....	....	....	2	4
14.00 to 14.99	....	....	....	2	9
15.00 to 15.99	....	....	....	6	2
				—	—
				14	40

Food and Drugs Acts.

Undernoted I give a statement of the number of samples purchased under these Acts during the last twenty-seven years :—

		Purchased.	Genuine.	Certified to be Adulterated.
1903	....	144	130	14
1904	....	200	170	30
1905	....	199	170	29
1906	....	201	169	32
1907	....	215	184	31
1908	....	257	234	23
1909	....	304	274	30
1910	....	455	414	41
1911	....	445	415	30
1912	....	435	411	24
1913	....	484	449	35
1914	....	607	566	41
1915	....	615	588	27
1916	....	619	590	29
1917	....	610	578	32
1918	....	629	598	31
1919	....	607	582	25
1920	....	602	578	24
1921	....	663	629	34
1922	....	671	650	21
1923	....	669	634	35
1924	....	684	659	25
1925	....	693	661	32
1926	....	666	645	21
1927	....	675	640	35
1928	....	669	637	32
1929	....	674	630	44

The following is a 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	203	188	15
Do. (Pasteurised)	10	10	0
Do. (Sterilised)	5	5	0
Do. (Certified)	4	4	0
Do. (Grade A.T.T.)	1	1	0
Margarine	14	14	0
Coffee	8	8	0
Whole Rice	11	11	0
Ground Rice	6	6	0
Ground Cinnamon	9	6	3
Sago	1	1	0
Lard	6	6	0
Sausages	16	13	3
Sausages (Lorne)	7	5	2
Sausage (Pork)	1	0	1
Mince	22	12	10
Black Pepper	2	2	0
White Pepper	10	10	0
Barley	7	7	0
Cream of Tartar	7	6	1
Ground Ginger	10	5	5
Baking Soda	1	1	0
Tapioca	8	8	0
Total	369	329	40

II.—The following samples were taken in terms of Section 8 (1) (c) of the 1928 Act.

	Taken.	Genuine.	Adulterated
Sweet or Fresh Butter	4	4	0

III.—The undernoted “ test ” samples were purchased or taken :—

	Purchased or Taken.	Certified to be	
		Genuine.	Adulterated.
Sweet Milk	6	6	0
Do. (Pasteurised)	2	2	0
Do. (Grade A.T.T.)	22	22	0
Milk (Tinned)	31	31	0
Tapioca	8	8	0
Margarine	26	26	0
Coffee	11	11	0
Whole Rice	13	12	1
Ground Cinnamon	10	9	1
Lard	9	9	0
Sago	9	9	0
White Pepper	28	28	0
Barley	16	16	0
Cream of Tartar	17	17	0
Ground Ginger	9	8	1

				Purchased or Taken.	Certified to be Genuine.	Adulterated.
Baking Soda	....	....	....	11	11	0
Ground Rice	....	....	....	12	12	0
Vinegar	....	....	....	7	7	0
Flour	....	....	....	11	11	0
Oatmeal	....	....	....	11	11	0
Sweet or Fresh Butter	....	....	....	1	1	0
Salted Butter	....	....	....	9	9	0
Syrup of Figs	....	....	....	2	2	0
Whole Ginger	....	....	....	3	2	1
Extract of Malt and Cod Liver Oil	....	....	....	1	1	0
Hydrogen Peroxide	....	....	....	1	1	0
Olive Oil	....	....	....	4	4	0
Castor Oil	....	....	....	8	8	0
Camphorated Oil	....	....	....	2	2	0
Turpentine	....	....	....	1	1	0
Total				301	297	4
Add Table I.	....	....	....	369	329	40
Add Table II.	....	....	....	4	4	0
Total				674	630	44

With a population of 167,109 this works out to 4.03 samples for every 1,000 persons, as against 3.88 last year.

The lowest milk fat recorded this year in official samples was 1.61 (as against 1.50 per cent. last year), and the highest 4.74 (as against 12.40 per cent. last year), whilst the average milk fat was 3.50 (as against 3.62 per cent. in 1928). The number of samples with milk fat below 3 per cent. was 10, and the number with milk fat of 4 per cent. and over, 19.

The average milk fat of the **official samples** taken each month was as follows :—

	No. of Samples Purchased.	Average Fat.
January	15	3.66
February	18	3.34
March	16	3.23
April	19	3.18
May	20	3.51
June	28	3.66
July	14	3.60
August	20	3.66
September	20	3.64
October	16	3.61
November	17	3.51
December	20	3.41
	223	3.50

Only one prosecution for selling adulterated milk was instituted, the seller being found guilty and fined £2.

One of the Sampling Officers, under Food and Drugs (Adulteration) Act, in the course of his duties asked for a sample of Pasteurised Milk and was supplied with same in the usual bottle. On being analysed it was found to be ordinary sweet milk. The seller was charged with the contravention under Section 3 (1) (a) and (b) of the Milk and Dairies (Amendment) Act, 1922, and fined forty shillings.

Mr Andrew Dargie, B.Sc., A.I.C., Public Analyst, kindly supplies the following interesting figures :—

Note.—The figures given by the City Analyst are for a year from November, whilst the figures of the Sanitary Inspector are for a year from 1st January.

“ The average quality of the public milk supply for the City of Dundee for 1929 as deducted from the analyses of 253 samples taken under the Food and Drugs Acts is as follows :—

Water	87.63
Total Solids	12.37
Fat	3.56
Non-Fatty Solids	8.81
	<hr/> 100.00

The frequencies for Fat and Non-Fatty Solids were distributed thus :—

Fat.	Frequencies.	Non-Fatty Solids.	Frequencies
Up to 2.79%	6	Up to 7.99%	1
2.80—2.89	3	8.00—8.19	4
2.90—2.99	1	8.30—8.39	2
3.00—3.09	11	8.50—8.59	43
3.10—3.19	20	8.60—8.69	29
3.20—3.29	14	8.70—8.79	53
3.30—3.39	18	8.80—8.89	44
3.40—3.49	38	8.90—8.99	34
3.50—3.59	31	9.00—9.09	23
3.60—3.69	24	9.10—9.19	15
3.70—3.79	33	9.20—9.29	4
3.80—3.89	17	9.30—9.39	1
3.90—3.99	10		
4.00—4.09	11		
4.10—4.19	3		
4.20—4.29	5		
4.30—4.39	3		
4.40—4.49	2		
4.60—4.69	2		
4.70—4.79	1		
	<hr/> 253		<hr/> 253

It will be observed that 10 samples were below the presumptive standard for Butter Fat and 7 below 8.50 per cent. Non-Fatty Solids. The average quality keeps up and compares favourably with the results of the past 25 years.

	Fat.	N.F.S.		Fat.	N.F.S.
1903-04	3.26	8.81	1916-17	3.50	8.77
1904-05	3.36	8.85	1917-18	3.49	8.74
1905-06	3.30	8.78	1918-19	3.46	8.75
1906-07	3.32	8.62	1919-20	3.49	8.76
1907-08	3.36	8.66	1920-21	3.49	8.73
1908-09	3.43	8.66	1921-22	3.60	8.77
1909-10	3.35	8.71	1922-23	3.61	8.75
1910-11	3.39	8.72	1923-24	3.58	8.73
1911-12	3.46	8.79	1924-25	3.48	8.78
1912-13	3.36	8.73	1925-26	3.58	8.80
1913-14	3.39	8.75	1926-27	3.55	8.79
1914-15	3.49	8.75	1927-28	3.59	8.76
1915-16	3.51	8.77	1928-29	3.56	8.81

Average—3.54% Fat and 8.76% N.F.S.

It is interesting to point out that the average for the war and pre-war period is noticeably less than that for the post-war period.

	Fat.	N.F.S.
The average for years 1903-1918 is	3.40%	8.73%
The average for years 1919-1929 is	3.54%	8.76%

It would be inferred from these figures that there is a tendency to produce higher class milk as the result of educating the general public and the Dairy Farmer to the benefits of a sound and wholesome milk supply. Milk recording would certainly claim a share of the honours.

Full Cream Condensed Milks.

All these conformed to the Regulations. The results were as follows :—

Fat per cent.	Total Milk Solids per cent.
10.89	35.26
9.52	37.86
9.28	33.32
9.20	34.80
10.05	33.92
10.24	36.94
9.48	35.61
Average—9.81	Average—35.39

Unsweetened.

9.04	32.17
9.60	31.80
9.71	31.34
9.49	31.10
9.41	32.36
<hr/>	
Average—9.45	Average—31.75

Machine Skimmed Sweetened Condensed Milks.

19 Samples were submitted for analysis. The Total Milk Solids ranged from 26.99 per cent. to a maximum of 31.25 per cent. The lowest Fat was 0.10 per cent. and the highest 0.69 per cent. No preservative was found and all otherwise conformed to the Regulations. The results were as follows :—

Fat per cent.	Total Milk Solids per cent.
0.53	31.09
0.61	31.15
0.67	29.76
0.43	31.25
0.46	30.62
0.51	29.28
0.29	30.71
0.22	30.22
0.17	30.17
0.10	28.99
0.69	29.43
0.46	30.20
0.54	26.99
0.52	27.93
0.30	28.51
0.33	28.89
0.17	28.89
0.19	30.12
0.16	27.30
<hr/>	
Average—0.38	Average—29.55

Spices.

Ground Cinnamon—19 samples—of these 5 were found to contain over 2.00 per cent. of sand and siliceous matter. One contained as much as 5.10 per cent. of sand, which is really excessive. As a result of the experiments which were mentioned in last year's report it was found that the old system of grinding these spices, by means of granite stones, accounts for the large percentage of sand.

White and Black Pepper.

During the past year a few samples of White Pepper have been examined privately and found to contain not less than 50 per cent. rice flour. These peppers have the pungency of the genuine article having apparently been doped by the additions of the natural constituents found in the outer husks of the berry. Such peppers are not finding a ready sale in grocers' shops as all 40 samples analysed were found genuine. Butchers may be buying these peppers for spicing purposes.

Root Ginger.

Prior to the Preservatives in Foods Regulations, many Root Gingers were treated with a bleaching agent as a protection against the ravages of Insects. Sulphur Dioxide was a common agent, and of the three samples examined one was found to contain 259 parts per million of that chemical.

Preservatives in Foods.

The following table gives a summary of the amounts of Sulphur Dioxide found in Sausages and Mince.

SO ₂ in Parts per million.				Sausages.	Mince.
Absent	....	....	....	2	6
50 to 99	....	....	....	3	1
100 to 199	....	....	....	6	2
200 to 299	....	....	....	5	3
300 to 399	....	....	....	—	2
400 to 450	....	....	....	2	2
500 to 599	....	....	....	2	3
600 to 699	....	....	....	3	1
700 to 799	....	....	....	—	1
above 800	....	....	....	1	1
				—	—
				24	22

The maximum amount of SO₂ permitted is 450 parts per million. Six Mince and six Sausages exceeded that amount. One of the Sausages contained 1612 parts. During June, July, August, and September Mince may contain the maximum amount of SO₂, but during the remainder of the year it is prohibited, consequently there were other four contraventions with respect to Mince.

Loss of Sulphur Dioxide in Minced Meat.

Since the date of last Report a number of experiments have been conducted to ascertain the rate of loss of SO₂ in samples kept in the

usual manner. The results are rather striking. A known amount of Sulphur Dioxide was added to Mince, thoroughly mixed and minced again and divided into portions. Immediately after mixing—there was a loss of 39.0 per cent. of SO_2 .

3 hours after mixing—a loss of 44.0 per cent. of SO_2	
1 day after mixing —a loss of 48.0	„
3 days after mixing —a loss of 52.0	„
7 days after mixing —a loss of 69.6	„
14 days after mixing —a loss of 73.2	„

In minced meats Sulphur Dioxide shows a progressive loss ; even immediately after mixing the loss is considerable, and in 14 days three-quarters of the preservative has disappeared. As there is no accurate method of determining the original content of preservative after the lapse of time, the seller ought to have his part analysed without unnecessary delay.

Sausage Meat.

Sausage Meat is defined in the First Schedule of the 1925 Regulations as containing raw meat, cereals, and condiments—no limits are prescribed. There is therefore nothing to prevent a butcher adding a pinch of starchy material and condiments to minced meat and selling it either as sausage meat or mince. Even the addition of as small an amount as 2 per cent. of farinaceous material would enable him to add Sulphur Dioxide up to the maximum amount, and by so doing evade the Regulations during the months when it is prohibited in Mince. It would, therefore, be in the public interests to have a standard for farinaceous material in sausage meats.

Red Wines (Red Biddy).

Red Wines have recently received public notice as a result of cases of drunkenness attributed to their use and also by reason of questions raised in Parliament. No authoritative statement has been made that ill effect would ensue after partaking of these wines. The composition of Red Wine varies according to the district or country of origin and no fixed standards have been made or suggested. Comparisons with normal wines are made, and if the analytical results are in conformity with these, the samples may be passed as a genuine article provided no harmful ingredient is present as an adulterant or preservative.

Samples which have been submitted to the public analyst have yielded results similar to the genuine article. No harmful material was found in any of the wines. One can't dogmatise on the results

of a few analyses, but it would appear that no fault rests with the Wine Merchants. The specific consumer of depraved taste can impart the necessary 'kick' to the wine by the addition of Methylated Spirit, and no doubt this is the *modus operandi*."

We are assured the sale of Methylated Spirit is now restricted in a hard and fast manner—it cannot be freely obtained. One wonders!

A sample of "Red Biddy" enforced with the desired "kick" would make a very interesting experiment for an Analyst. I do not think the mystery of its hidden power would remain long unsolved.

The Public Health (Preservatives, Etc., in Food) Amendment Regulations (Scotland) 1927.

For selling sausages (2 samples) and mince (2 samples) contrary to the above Regulations four butchers were reported for prosecution. Three were fined 40/- each and one 60/-.

Any other instance of the illegal use of preservatives was dealt with by the seller being severely warned.

The Public Analyst reports a few samples of ground ginger mixed with SO_2 and several samples of cinnamon mixed with sand or siliceous matter. The sellers in these instances were warned.

Any other cases of adulteration met with were of a slight nature and calling for no drastic action. Including cases of this kind the number of certified adulterations is a little larger than last year—44, as against 32—the increase being mainly on sweet milks.

Food and Drugs (Adulteration) Act, 1928.

Section 8 (1) (b).

Butter and Margarine.

The persons registered in terms of this section as wholesale dealers in Margarine or Margarine Cheese are as follows:—

Registered during the year	....	....	....	2
On register at 31st December 1929	....	....	....	41

There were 453 inspections made to these registered premises. They were found in a satisfactory condition and call for no comment.

Section 8 (1) (c).**Re-Worked Butter.**

At the end of the year there were three certificates in operation under this head. During the year 4 samples of re-worked butter were taken and certified by the Public Analyst to conform to the Law. The premises are suitable and satisfactory.

Milk or other Foods for Bacteriological Examination.

Samples were purchased or taken by the Food Inspectors for bacteriological examinations as follows :—

Sweet Milk	....	....	....	....	....	47
„	(Pasteurised)	....	....	....	....	16
„	(Grade A, T.T.)	....	....	....	....	6
„	(Certified)	....	....	....	....	4
						<hr/>
						73

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.

Interments.

UNDER SECTION 69 OF THE PUBLIC HEALTH (SCOTLAND) ACT, 1897.

39 applications were made for the burial of bodies of destitute persons whose friends or relatives declared they were unable to meet the cost of the funeral. After careful inquiry into the financial circumstances of each applicant 36 were granted. £10. 2s. 10½d. was refunded by relatives or societies and handed over to the City Collector.

Of the 36 interments carried through, 13 were adults and 23 juveniles.

Burial Grounds.

No material change has taken place on these as when referred to in my Report of last year. They have been well and satisfactorily kept.

The following interments were made in each :—

Eastern Necropolis	....	....	....	1,459
Western Necropolis	....	....	....	1,107
Western Cemetery (Perth Road)	....	....	....	186
Barnhill Cemetery	....	....	....	177
Parish Church Burying-Ground (Broughty Ferry)	....	....	....	10
Constitution Road Burying-Ground	....	....	....	1
St. Luke's Episcopal Church, Downfield	....	....	....	—
New Mains Cemetery	....	....	....	23
Old Mains Cemetery	....	....	....	1
Total	....	....	....	2,964

Smoke Nuisance.

Viewed from a point of vantage such as the Law, Balgay Hill, or the Fife side of the River Tay, Dundee at once impresses the spectator by the Smoke Stacks from Factories, Mills, &c., which are legion. I hardly think there will be many cities of our size afflicted with such a large number of these necessary evils.

During the year a regular visitation has been kept up to the generating plants of the principal works, and there is no doubt that this supervision has been very effective in some cases. In other cases, however, the plant is assuredly carrying its maximum load, and, if for any reason a boiler has to be put out of commission, the emission of black smoke is at once noticeable. One large works has installed electrical power, thereby doing away with the need for boilers. When industry as a whole adopts this method, then the Smoke Nuisance will be greatly eased—eased, but not cured, for the domestic chimney is not altogether free from blame.

A few of the large works in the north-east end of the City have recently been installing mechanical soot extractors to the flues of the boilers, and where this is the case one has always to be on the alert for a very objectionable atmospheric nuisance.

In connection with Factories, &c., there were 70 observations taken throughout the year.

69 of these were of one hour's duration each, and

1 was of 45 minutes' duration.

In connection with these 70 Observations 40 warning letters were addressed to the Factory, &c., owners calling their attention to the nuisance, requesting their immediate action for abatement, and in future, the adoption of prudent steps to guard against further annoyance.

Letters expressing regret are usually received from the offenders. The lapse is frequently attributed to inferior coal which the coal merchant is called upon to remove and replace with better fuel, careless firing, or the regular fireman being indisposed or off duty.

Another highly and unpleasant contribution to the Smoke Nuisance comes from Steam Wagons. As they proceed through the City heavy smoke is frequently belched from their funnels, which, apart from being as stated above, highly unpleasant, adds, through rendering visibility obscure, still another element of peril to our already congested streets.

Five observations of this class of offence were taken. In relation therewith 4 Warning Letters were dispatched, and in one instance a call was made upon the owner of the wagon in question.

Advice relative to the proper procedure for effective firing is always to be had by firemen for the asking—Inspectors being ever willing to elucidate any problems which may perplex those in charge of the boiler house.

Shops Acts and the Closing Orders made thereunder.

Under this head the usual kind of contraventions were met with, generally of a trivial nature such as the omission of the occupier to exhibit the necessary notices in connection with the Assistants' Half-Holiday ; or, where the shop being a "mixed" one—displaying goods for sale which may be governed by a Closing Order, or not making sufficient effort to "cover up," as required by the Act. There were 161 contraventions discovered, out of which 10 were reported for prosecution with the following results :—

7 were fined 15/-
2 were fined 10/-
1 was fined 7/6

All the shops coming under the Acts and the Closing Orders were visited throughout the year. Some difficulty was experienced with the mixed stall-holders in the City Arcade and Shore Terrace with the result that several had to be severely warned. Again the night after the Lady Mary Fair certain of the traders who come into the City for that week elected to ignore the Acts. They were called upon and warned that their action would not be tolerated. As a result the friction ended and the conditions of the Closing Orders were respected. The work in this connection occupied 80 hours of street patrol duty—mostly in the evenings when the ordinary Departmental work was finished, whilst there were 4,263 visits made to Shop premises.

The work of supervising

Places for Public Refreshment,

of which there are 253 is also placed upon this Department. These have been regularly inspected to assure they are internally in structural accordance with the Bye-Laws, etc.

Theatres and Cinemas.

Periodical inspections numbering 159 were made to the above buildings throughout the year to see that the Regulations (so far as coming under the jurisdiction of the Department) were being complied with. Such items as ventilation, provision of sufficient water closet and lavatory accommodation, both for the patrons and performers, general cleanliness of the building, &c., receiving particular attention.

Any small improvement that was considered necessary was promptly carried out on notification being given to the occupiers, but they have given little or no cause for official interference.

Rag Flock Act.

During the year 7 samples of rag flock were taken in the premises of bedding factories, &c., and submitted to the Public Analyst, who reported all the samples to be within the standard of 30 parts of chlorine per 100,000 parts of flock.

The figures as reported by the Analyst on the samples submitted are as follows :—

One sample yielded	....	....	....	8.00 parts.
One sample yielded	....	....	....	8.00 parts.
One sample yielded	....	....	....	10.00 parts.
One sample yielded	....	....	....	5.00 parts.
One sample yielded	....	....	....	8.60 parts.
One sample yielded	....	....	....	8.30 parts.
One sample yielded	....	....	....	8.30 parts.

Rats and Mice (Destruction) Act.

No special Rat Week effort was made during the year, it being considered unnecessary, as our activities in this direction endured from January to December.

Complaints received relative to Rat Infestation throughout the year were negligible—surely the best tribute payable to our offensive, which is unrelenting, as it must needs be, if the results are to justify the labour.

When I say there were few complaints received I do not want to create the erroneous idea that we have no rats in Dundee, but where rats do exist summary treatment retards the spread of these pests.

When complaints were received the occupants of the premises, &c., were given advice as how best to get rid of, and prevent further trouble from these vermin.

Only in one case was there any call for special measures, and it is satisfying to write the lines adopted by the Officers of the Department proved highly successful. The premises, a large shop in the north-east end of the City, were freed from the invasion.

The engaging of professional rat catchers is becoming more frequent by property owners and factors. This is a very commendable line of defence, and in the long run proves to be both economical and effective—prevention being much cheaper than having to face the expense of ridding a large building of these dangers to health and property alike.

Offensive Trades.

The registered premises are situated as follows :—

Old Air Station, Stannergate Road—Tallow melter.

Marine Parade—Tanner.

1 Park Street—Tanner.

At Public Slaughter-Houses, East Dock Street—Gut Cleaner.

At Public Slaughter-Houses, East Dock Street—Hide Factors
(2).

At Public Slaughter-Houses, East Dock Street—Slaughterer of
Cattle (Corporation).

At Public Slaughter-Houses, East Dock Street—Tripe Cleaner.

and to them 23 visits were made. The businesses have been conducted in a manner quite compatible with the nature of the trade, and no official action was found necessary.

The business of Tallow Melters formerly carried on at No. 62 East Dock Street was transferred to the Old Air Station, Stannergate Road. This application for sanction to establish the business under Section 32 (2) of the Public Health (Scotland) Act, 1897, at the new premises was duly advertised in accordance with the Law thereanent but no objections to the Local Authority giving their sanction were received and the application was accordingly granted,

Port Inspection.

During the year 1929 the total number of ships arriving at the Port of Dundee was 1,121, an increase on the figure for 1928. Of these, 322 came from foreign ports, and 827 visits were paid to them. The number of vessels arriving direct from foreign ports was 125, whilst 197 called at ports in this country before reaching Dundee. In 92 cases vessels came from infected ports, 8 direct and 84 indirect.

The cargoes consisted of timber and flax from the Baltic Ports, food-stuffs and pitch from America, food-stuffs, fancy goods, and steel plates from the Continent, and jute, gunnies, linseed, hemp, cotton seed, and tea from India, &c. There were no consignments of Canadian cattle during 1929.

During 1929 nine cargoes of sugar for refining purposes were imported. This trade, which was started in 1928, continues to grow and gives every prospect of becoming a regular feature of the harbour work. All the sugar was of excellent quality and in good condition on arrival.

During the inspection of vessels arriving from foreign ports, 207 nuisances and defects were brought under the notice of the Officers in charge of the ships, all of which were remedied here.

Rat Notices to the number of 102 were issued to the Officers in charge of ships. Tar and canvas or rat guards were placed on the moorings of all vessels coming from infected ports. The fumigation of ships was found to be of frequent occurrence, and the use of traps was urged in any case where rats were reported.

During the year 4 cases of sickness were reported. Of these, 3 were removed to the Royal Infirmary and 1 was sent home for treatment.

Total Number of Verbal Intimations	....	....	....	....	174
Total Number of Special Rat Notices Issued	....	....	....	....	102
Total Number of Visits to Ships	....	....	....	....	827
Total Number of Ships from Infected or Suspected Ports	....	....	....	....	92
Total Number of Ships from Infected or Suspected Ports (direct)	....	....	....	....	8
Total Number of Ships from Infected or Suspected Ports (indirect)	....	....	....	....	84

Total Number of Nuisances or Defects attended to	....	....	207
Viz. :—Forecastles Cleaned Out	....	....	18
Mess-rooms Cleaned Out	....	....	16
Galleys and Store-rooms Cleaned Out	....	....	32
Accumulations of Food Refuse	....	....	25
Dirty W.C.s	....	....	48
Choked or Defective W.C.s	....	....	18
Discharge of Foul Water on Quay	....	....	43
Dirty and Defective Baths	....	....	7
In addition the following work was carried out while the vessels were in Port :—			
Fresh Water Tanks Cleaned Out	....	....	24
Forecastles Washed or Repainted	....	....	8
Bathrooms or Wash-places Painted	....	....	12
W.C.s Painted	....	....	10
Galleys Washed or Painted	....	....	15
Ships disinfected	....	....	1

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.
663	10,401	4,556

General Prosecutions.

The prosecutions for the year were as under :—

Preservatives in Food (sausages).	Preservatives in Food (Mince).	Food and Drugs Acts (Milk).
2	2	2
Shops Acts.	Dairies, Cowsheds and Milkshops.	Total.
1	2	18

Detailed particulars of each are given under the various heads.

I am, Gentlemen,

Your obedient Servant,

ROBERT MITCHELL,

Chief Sanitary Inspector.

