[Report 1920] / Medical Officer of Health, Edinburgh City.

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

Unable to display this page

With
Dr Williamson's
Compliments.

ANNUAL REPORT

of the

Public Health Department and
various Sub-Departments of the
City of Edinburgh

FOR THE YEAR 1920

CONTENTS.

DIAGRAMS.

REPORT OF SANITARY DEPARTMENT.

REPORT OF VETERINARY DEPARTMENT.

PUBLIC HEALTH DEPARTMENT,
CITY CHAMBERS,
EDINBURGH, *June* 1921.

MY LORD PROVOST AND GENTLEMEN,

I have the honour to submit my Annual Report on the health of the City and its Public Health Administration during the year 1920.

General Death-rate.

It is a pleasant introduction to at once record the fact that the lowest death-rate ever attained in the City has been reached during that year. During the past 20 years there has been a continued, although gradual, improvement in the health conditions in the City, and the latest records, compared with the earlier period, bear unmistakable witness to the success of the ever-increasing attention which this all-important branch of public service is claiming. Indeed, the most convincing argument in justification of the many enactments which are constantly being made in regard to public health matters would be a study of public health statistics during a series of the past 20 or 30 years.

Several facts are readily deducible from such a proceeding. A slight fall in a death-rate from one year to another in an urban population like that of the City of Edinburgh may easily indicate the saving of something like a thousand lives. Thus, if the statistics applicable to 1919 be compared with those of the year now under report, it will be found that while during the former year the death-rate was 16·5 and the latter 13·2, the actual number of fewer deaths during the latter year represents 1,110. Thus, what is termed the "expectation of life" to the individual is being increased with every fall of the annual death-rate, while an untold amount of suffering, misery, and expenditure is saved to the individual citizen in proportion as the health conditions are improved. It is a matter, therefore, for the greatest possible satisfaction that the rate named falls to be recorded at this time.

Edinburgh has always occupied a foremost position in its health statistics as compared with other large centres of population in Scotland, and the year under report forms no exception to this very satisfactory fact.

Influence of Environment on Death-rates.

I have in former Reports frequently referred to the influence exercised by housing conditions on mortality rates, and I have often pointed out the constancy with which these rates year by year vary in the different wards in proportion to

the nature of the housing conditions represented in each. It may just be anticipated that the records of the year 1920 agree in this respect with those that have preceded it, but it is also to be borne in mind that as years pass, and as insanitary conditions continue in the worst classes of property in the City, only one result can eventually be expected to follow, viz., increased mortality rates in such districts where unsatisfactory housing conditions are allowed to persist. It is quite generally known that, largely due to the stress of circumstances, practically no work, or at least the very minimum, has for some years past been carried out in most of the property occupied by the working classes and the poorer sections of the population.

The reasons for this, of course, are obvious, and well understood by every one. If, however, this condition of matters is allowed to continue unduly, it may be regarded as of the nature of a certainty that unsatisfactory housing will speedily be followed by unsatisfactory health conditions and a reversion to the increasing death-rates of former years. There can be, of course, no doubt that the question of housing is a huge one,—so great, indeed, as by its very enormity to baffle immediate attempts towards its solution. Indeed, it is difficult to get people to realise that in the City of Edinburgh 37 per cent. of the population live in houses consisting of one or two rooms. It may be taken as a rule that it is very largely among just such a class of property that the most unhealthy conditions are found present, that the highest mortality rates occur, and that the greatest necessity for housing improvement exists.

Death-rates in Wards.

The extent to which housing conditions affect death-rates is convincingly proved each year by a study of the statistics applicable to each ward, and by keeping prominently in mind the conditions which are characteristic of each.

Thus, during the year 1920 the lowest general death-rate of 9·7 occurred in St Bernard's Ward, with its good-class residential property, its excellent tenement property, and its large share of open spaces. The rate gradually rises until in St Andrew's Ward, with its densely-packed streets and old tenement property, there is a jump to 14·6, while in St Giles Ward the rate reached 16·2, that ward representing the maximum rate, which it does with an almost monotonous regularity, due in very large measure indeed to the housing conditions, accompanied by many other attendant disadvantages which contribute towards this unenviable state of matters.

The very obvious deduction from the foregoing figures is that improved housing conditions are necessary if lower death-rates are to be expected. This may appear a very elementary truism, but it becomes constantly necessary to emphasise

it in a Health Report, as there is just a possible tendency towards encouraging the expectation that the improved health records which have attended the history of the past will be likely to continue during the years to come.

To continue the City's satisfactory health conditions I am definitely of opinion that serious and early attention must be given to housing conditions, beginning with those of the most urgent nature in the poorest districts of the City.

Provision of Habitable Housing Accommodation.

What is termed "the Housing Question" may readily be divisible into two parts. One implies the provision of accommodation for persons who are actually without such, including, of course, ex-service men who have returned home and others of like class. The Edinburgh Scheme thus far has in large measure been confined to this branch of the question.

There is the other totally different aspect of the question, however, implying improved housing conditions for those persons who occupy dwellings of such a nature as to be detrimental to health, and indirectly at least to imply a danger to the community. That branch of the subject, which in my opinion is not by any means the least important, continues to cry out clamantly for attention.

It is no doubt true that during the year some of the older class property in the poorer districts of the City has been reconstructed with excellent results. The number, however, is so small as to leave the great question involved still waiting on a satisfactory answer.

Of course the method of dealing on a large scale with houses of this description must necessarily be a somewhat heroic one, and indeed implies the carrying out of Improvement Schemes involving large tracts of property and extending over considerable areas of the City.

Improvement Schemes.

During the year I have directed attention to certain areas suitable for this purpose. It seems likely that in the near future good work will be commenced along these lines.

In connection with the promotion of Improvement Schemes, however, there exists an initial difficulty in providing accommodation for those occupiers whose houses are to be removed or improved. The acute housing famine in the City at present implies increased difficulty in procuring suitable alternative accommodation on a large scale, and I have always maintained the view that at least in selected districts the erection of some Block dwellings, largely on the Continental or London Peabody Dwelling principle, would be the best method of relieving

the situation, and would contribute largely towards satisfying the immediate requirements.

Infectious Disease. Notifications.

Over 4,000 cases of Infectious Disease occurring within the City boundaries have been notified to the Department during the year 1920, while 4,600 cases, including those from outside and suburban areas, and from naval and miscellaneous sources, have been under treatment during the year in the various City hospitals and sanatoria. This large record represents the all-important functions which are being discharged by these institutions, and the extent to which they are being taken advantage of by the citizens. It also conveys some idea of the almost inconceivable amount of relief from anxiety and expense attending home nursing which is rendered possible to the citizens through the existence of these magnificent institutions.

Hospital Finance.

The daily average of occupied beds in Colinton Mains Hospital has been 585, and the total annual cost per occupied bed £98, 10s. 4d. This amount indicates the very constant and careful supervision which is exercised over every department involving expenditure in that institution, as there is no doubt that, compared with other institutions of a similar size, the expenditure is remarkably low.

An additional factor which has a substantial bearing in calculating the cost per occupied bed lies in the fact that a somewhat unduly large proportion of the patients constantly under treatment at Colinton Mains are adults suffering from Pulmonary Tuberculosis. It is, of course, a well-known fact that the cost per bed of a sanatorium is much in excess of that applicable to an infectious disease hospital. The figure stated represents the average cost per patient throughout the whole hospital and sanatorium during the year.

Scarlet Fever.

Over 1,300 cases of this disease were removed to Colinton Mains Hospital for treatment during the year. Scarlet Fever is, of course, one of those diseases which is always present in a large urban population—its prevalence being greater in presence of a large proportion of young persons, as in this City to which so many are attracted by the existing educational facilities.

The number of cases, however, during the year has not been unduly large, and it is satisfactory to know that the case mortality has been the extraordinarily low one of ·9 per cent. That, of course, means that only one case has been fatal out of every 111 affected—a splendid result, which no doubt is, in part at least, attributable to the fact that over 97 per cent. of the sufferers have been treated in hospital.

It appears an elementary statement, but nevertheless requires to be repeated, that hospital treatment certainly diminishes the spread of the disease. In such a disease as this, where the convalescent period is proportionally so long, it is certain that home treatment is attended by such an amount of liberty during convalescence as to imply in the case of those resident in tenements and crowded districts, the possibility and indeed the certainty of its undue spread in the house or neighbourhood. The incidence of the disease in this City compares extremely favourably with that applicable to other large centres of population. During the year there has been a somewhat unusual freedom from outbreaks, which have during other years been by no means uncommon, traceable to milk infections or to undetected cases attending schools, works, or other places of common resort.

Measles.

This is not a notifiable disease, and the extent of its prevalence is gauged rather by the number of deaths occasioned by it than by a knowledge of existing cases. Judged by this standard, the disease has been much less prevalent during the year than in the one immediately preceding. Then there were 62 fatalities, now only 42 fall to be recorded. As is always the case, young children under 5 years of age are the chief victims of this disease, and indeed the younger they are the greater is the danger of a high Case Mortality. Thus while 38 deaths occurred under 5 years of age, 13 of these were infants under 1 year.

Although the number of deaths from Measles may, as stated, furnish an index of the extent of the incidence of the disease, it must not be concluded that the Authorities have no other sources of information or fail to take all the precautions that are necessary against its spread during the currency of an actual outbreak. Much useful information is obtained from the Education Authorities, as the perfect understanding between those bodies and the Public Health Department results in, among other things, immediate information being supplied to the latter regarding absentees from school, and the supposed cause of such. This information is immediately followed up and the necessary precautions at once adopted. In cases attended by a fatal result, the real cause of death is due in most cases to some form of complication—most commonly an affection of the lungs. That being so, an endeavour is constantly made to select the more urgently necessitous cases for hospital treatment. These include very specially children under 5 years of age, also all of those who are under conditions which suggest any difficulty in carrying out the constant nursing and attention that such cases require, and all complicated cases resident in the poorer districts of the City where anything like the necessary attention is impossible.

By adopting such a measure of judiciously selecting the cases for hospital treatment, there can be little doubt that the death-rate from this disease has been

markedly diminished, and indeed it may be claimed that one of the chief advantages in obtaining early notification regarding the existence of this disease lies in the possibility of selecting suitable cases for hospital treatment.

Whooping-cough.

Several of the infectious types of disease from which young children specially suffer recur in cycles of a few years' interval. Thus, there may be in one year a far-reaching epidemic of any of the diseases, resulting in a serious death-rate among the young population. A series of years may succeed before a recurrence of this condition. During the intervening years there may be a comparative lull, and this may last for probably a period of 3 or 4 years, until a succeeding number of young children have reached a susceptible age. This fact has been well illustrated during the year in the case of Whooping-cough.

The City has been wonderfully free from this disease during the year, and actually only 10 deaths have occurred throughout the whole period. When this is compared with 193 deaths in the year immediately preceding, point is given to the statement just made in regard to the occurrence of periodic outbreaks. It should be added that in regard to this disease the same careful selection is specially made of cases suitable for hospital treatment as applies in the case of Measles.

Smallpox and Vaccination.

During the year, and for some time previously, a somewhat serious outbreak of Smallpox existed in Glasgow, and appeared also to a somewhat alarming extent in other districts in England and Scotland. In view of the certainty of a large number of visitors from the West to the City, and particularly to Portobello during the holiday season, it became necessary to advise your Council that the time had arrived for the adoption of a system of free vaccination among the citizens. This precautionary measure was desirable not only on account of the intercommunication on so large a scale between the two cities, but also owing to the fact that for a number of years there has been an ever-increasing number of children unvaccinated owing to the parents taking advantage of the "Conscience" clause in the Act. These two factors, then, justified the precautionary measure which it was found necessary to recommend, and they were further justified by the eminently satisfactory results attained.

Several temporary Medical Assistants carried on a door-to-door vaccination. Centres for public vaccination were established at the various Police Stations and elsewhere throughout the City. Bills were freely circulated from door to door, setting forth the existing dangers and the comparative immunity possible as a result of vaccination. The response was magnificent, and, on a low estimate, over 80,000 persons were successfully vaccinated or re-vaccinated. There can be

little doubt that the freedom from an outbreak of Smallpox which this City enjoyed was in large measure due to this procedure, carried out as it was on so large a scale.

In addition to that, however, a strict watch was maintained over the occurrence of any case of illness in which there was the remotest chance of a subsequent development of the disease. In pursuing these precautions a considerable number of suspicious cases were at once removed for observation to hospital, and the resources at the Reception House were fully utilised for the detention of all contacts who might subsequently show symptoms of having contracted the disease. Apart from an outbreak which subsequently developed in Craiglockhart Poorhouse, and to which reference will be immediately made, there were altogether only three cases throughout the City. These, of course, were treated in the special Smallpox Hospital; all contacts were isolated and vaccinated, and in no single instance was there any second case resulting from contact infection. These results must be regarded as eminently satisfactory.

What might have led to a serious outbreak, affecting not only the City but different parts of the country, occurred in Craiglockhart Poorhouse during the middle of October. Two cases of Smallpox suddenly showed themselves and were immediately removed to hospital. An immediate examination of nearly 1,000 inmates revealed the presence of one or two suspicious cases who were also removed for observation. As the patients had freely moved about the institution, it was apparent from the first that the possibilities of a serious outbreak were very real, and it was determined to confine all of the inmates to the institution for observation purposes and to take steps to get in touch with those who had been discharged during the previous few days. The whole proceedings were most rigorously carried out; some of the contacts were found in Lodging-houses and removed to the Reception House, and the inmates were re-vaccinated to the number of about 900.

The subsequent course of the case showed that only 6 inmates, all of whom had had some communication with the original case, were affected by a modified attack of Smallpox, while all of the others remained free. The institution remained wholly isolated during a period of three weeks, and the result attained forms an additionally strong argument in favour of the efficacy of vaccination as a protective, even after exposure to existing infection.

Cancer.

In this Report it is possible to record the fact that the year 1920 shows record death-rates in practically every form of disease, viz.: a record general death-rate, phthisis rate, infantile mortality rate, and rates applicable to all

other conditions. Unfortunately, however, there is one outstanding exception, and that to a very marked extent indeed.

The history of Cancer is a black one, and its ravages continue to increase throughout the whole country almost without intermission year after year. It exacts a terrible toll, and the deaths caused by it are increasing in numbers to an alarming degree.

During the last 23 years the number of deaths in Edinburgh due to this disease has gradually increased from 267 to well nigh, though not quite, double that figure, the precise figure applicable to the year being 471.

One of the disquieting elements in connection with this increase lies in the fact that practically every year shows a definite increase in the number of fatalities. A conception of the extent and virulence of this disease may be gathered from a comparison between the deaths due to it and those due to such well known-diseases as, say, Phthisis and other Tuberculous diseases. Such a comparison reveals the somewhat startling fact that while Phthisis, Tubercular Meningitis, Abdominal Tuberculosis, and all other forms of Tuberculous disease accounted for 417 deaths in the City, 471 were due to Cancer.

A diagrammatic method of emphasising this truth is given on page 9, from which it is possible to recognise the importance of the various contributories to the total death-rate. It will at once be recognised that the arc of the circle represented by deaths from Cancer is greater than that due to Phthisis and all other forms of Tuberculous disease.

This disquieting state of matters is one which, of course, must exercise the minds of Public Health Authorities, and must most certainly continue to do so to an ever-increasing extent. After all, preventive measures are only possible in the presence of a knowledge of the precise cause of disease. In the present state of our limited knowledge in regard to the etiology of Cancer, precautionary measures are proportionally within limitation. The subject, after all, must, meantime, be left in the hands of those engaged specially in the work of scientific research, and this is now in active progress, unfortunately up to now with rather negative results. Research will in time, of course, be aided by a careful and critical study of statistics as well as by experimental and other forms of investigation.

The statistics of this City are no more gloomy than those applicable to the country generally. There are, however, one or two observations which

might be made in regard to them, and which like other factors must be kept in view while we grope in the dark for material that may help toward an ultimate discovery of the cause of this fell disease. Thus, one comment that falls to be made, based on the statistics of Edinburgh in reference to this disease during a long course of years, is that Cancer appears to be unaffected by environment, and constitutes indeed the only outstanding exception to the unvarying rule applicable to other diseases, which are so much associated with insanitary conditions, density of population, and poverty. Reference has again and again been made in this and former Reports to the inseparable link between such conditions and high death-rates. It is remarkable, then, that Cancer should prove the one exception to this general rule. It is actually found to exist to a greater extent in the districts occupied by the better working class, the middle, and more favoured, classes of the community, than in the poorer and slum districts.

Another observation that is probably worthy of note has reference to the seat of the disease in persons who suffer from it. In by far the largest number of cases the disease affects some part of what is known as the alimentary tract.

If these two factors be considered along with the alarming annual increase in the number of cases, there is at least suggested the possibility of some influence being exercised by present-day habits of feeding, and present-day class of food, in contrast to those of former years.

There are no doubt possibilities along these lines, and they must be considered not by Medical Officers of Health but by those engaged in research work, on whom primarily the Medical Officer must be dependent for such information as will enable him to adopt such measures as are found necessary towards the prevention of this rapidly increasing cause of death.

Diphtheria.

The year has shown rather an increase in the total number of notifications of this disease. The mortality rate, however, has been considerably lower, indicative of the generally milder type of disease. The increase in the number of cases is in part accounted for by the active pursuance of the method of swabbing the throats of contacts which was inaugurated here some years ago.

There can be no doubt of the efficacy of such a procedure in the interests of the contacts themselves, and as a decided step towards preventing, through them, the spread of this disease. After the occurrence of a case in a family,

some other members of it may, as a result of the examination of swabs, be found harbouring the organism of the disease although they themselves remain in a perfectly healthy condition. Quite unconsciously they may be the means of the spread of infection, and they themselves in some cases may become infected and subsequently require to be treated as true cases of the disease. The examination of swabs, while preventing the spread, makes possible the earlier treatment of cases destined to mature, and thus diminishes to a very great extent the possibility of evil results.

During the year, 103 positive swabs were obtained by the pursuance of this method. In all of these cases,—frequently, indeed, to the surprise of the person involved—removal to hospital became necessary, and as a rule after a short term of detention and treatment there, it was safe for the so-called "carrier" to again return to normal life. There have been some instances during the year of limited outbreaks of the disease occurring in institutions, and occasioned by an unsuspected disease carrier. Such an occurrence has always directed attention to the possible existence of carriers, and has been an indication to the Authorities to immediately investigate and remove any source of hidden infection. By the adoption of such methods a great deal can now be done in limiting the spread of this form of disease, and owing to the great advance which has recently taken place in the treatment of it, the number of true cases and the case mortality rate continue to show extremely satisfactory results. During the year 1918 the mortality rate was 9·5 per cent. of those infected; during 1919, 10·7 per cent., while during last year it fell to the satisfactory rate of 6·2 per cent.

Special Schemes.

The Special Sub-Departments of Public Health work which have been inaugurated during the past few years, and have since been carried out under special schemes applicable to each, have been pursued actively during the year. These schemes include, of course, special work in reference to Tuberculosis, Maternity and Child Welfare, and the Treatment of Venereal Disease.

The conduct of these three branches of special work has during the year represented an expenditure of £55,000, of which £26,000 represents outlay on Tuberculosis; £19,000 on Maternity and Child Welfare Service, and £10,000 on the treatment of Venereal Disease. Half of the approved outlay on the two former and 75 per cent. on the latter are recoverable from Government.

Tuberculosis.

If, as may fairly be claimed, the success of efforts towards the suppression of disease may be estimated by the death-rate, then unquestionably progress falls to be recorded in this particular branch of work. In this

instance also the lowest record of deaths ever attained in the City has been reached—the death-rate being 1·2 per 1000 of the population. The chief form of Tuberculous Disease, viz., Phthisis, has been the cause of 286 deaths, compared with 320 during the previous year. The occurrence of this disease continues, and will continue, to be more specially associated with the poorest and most overcrowded districts, and the number of cases notified from the different wards, judged by that standard, varies within very wide limits indeed. Thus in a good ward like Merchiston the notifications only number ·9 per 1000, while such wards as Calton, with a rate of 2·6 per 1000, and St Giles with 3 per 1000, may be considered as representing the acme of conditions which undoubtedly tend towards the cause and spread of this disease, which is so susceptible to environment.

Much has already been written in previous Reports in regard to this subject. There is nothing hidden or abstruse in connection with the origin and spread of Tuberculous disease. It is not necessary in this particular case to delay preventive measures pending further results in research. The cause being known, the steps necessary for prevention are quite apparent. As the disease is so intimately associated with evil housing conditions, and their accompanying dangers, the elementary indication is to remove the cause. Present efforts towards the cure of the disease, as every one knows, entail tremendous outlay. Sanatorium treatment, possible only for the comparatively few, is carried on at great cost, and there exists two distinct bodies of opinion as to the ultimate efficacy of it. Improvements there are in considerable number, but opinions regarding permanent cures effected are much divided. It is impossible to deny that there are some, but the great majority of those who are improved during a course of sanatorium treatment return to their old environment on discharge, and living under the old conditions most frequently results in the disease reasserting itself in the course of time.

Despite this view, there cannot be any doubt regarding the necessity for some accommodation being provided for the treatment of carefully selected early cases, and especially for those in the later stage, from which dissemination of infection is so frequent. In this City a very judicious investigation is made into each case prior to removal to the Sanatorium, and each is relegated to that particular institution or ward suitable for its reception and treatment.

On the financial side of the question, altogether apart from other considerations, there is abundance of material for serious consideration in determining the

question as to whether or not a very large expenditure on the housing conditions, inseparable from the genesis of this disease, would not in time be much more economical than the present large outlay associated with the upkeep of several hospitals and sanatoria for the treatment of persons already affected.

Non-Pulmonary Tuberculosis.

Pulmonary Tuberculosis became a notifiable disease 14 years ago, but recently the Scottish Board of Health have required the notification of all other forms of disease attributable to the same cause, and more recently still it has been urged upon the Local Authority to make arrangements for dealing with the latter forms with the same degree of efficiency as characterises in this City the treatment of the former.

In obedience to these requirements, your Public Health Committee have recently determined to provide hospital accommodation at Colinton Mains Sanatorium for suitable non-pulmonary cases, and have entered into an agreement with the Directors of the Royal Hospital for Sick Children for the use of a sufficient number of beds, to be occupied by sufferers from this disease—this number meantime not to exceed twenty. Mr Fraser, a Consulting Surgeon of repute in the City, has also been appointed by the Local Authority to exercise supervision over the treatment of all such cases as come under the cognisance and control of the Public Health Department. The scope of curative work under the Tuberculosis Scheme, therefore, is being largely increased, and without any doubt substantial progress has marked its efficient conduct during the past year.

Maternity and Child Welfare.

The infantile mortality rate during the year was 89 per 1000 births, being the lowest figure yet attained. It is true that Whooping-cough, which as a rule is a large contributory to infantile mortality, was almost negligible during this period, but it is no doubt equally fair to conclude that this record rate represents some return for the great efforts being made in this City with the special object of preserving child life. It has been urged by those who are unacquainted with all the facts that certain branches of Public Health expenditure are not justified by the results obtained. Without going through the whole of this Report to obtain a satisfactory answer to such an opinion, it may be claimed that it is, in part at least, possible to discover it in the statistics applicable to the infantile death-rate during the past 30 years. Thus, from 1890 to 1899 the average annual death-rate was 143 per 1000,—that is to say, of every 1000 infants born, 143 failed to complete their first year of life. During the following decade, from 1900 to 1909, the death-rate was 122 per 1000. During the third decade, from 1910 to 1919, it had fallen to 110, and now during the single year

under report the lowest figure yet attained has been reached, viz., 89 deaths per 1000.

It might be useful in this connection to add a few more figures and facts in order to show that each special effort within recent years made by the Corporation towards lowering the infantile death-rate has been almost immediately followed by results of the most satisfactory description. Thus, in 1897 the infantile mortality rate was 164 per 1000, and it became evident that some urgent steps must be taken in order to deal with this very serious condition of matters. A Sanitary Department was formed during the succeeding year, the specific duty connected with it, of course, being to ensure the highest possible degree of sanitation, particularly in the districts in which the maximum infantile mortality occurred. That work was actively carried out, and within 3 years the rate had fallen to 132, while 2 years later it fell to 119, and 4 years later to 112.

In 1907 the Notification of Births Act was passed, rendering it possible for the Public Health Authorities to obtain early intimation regarding every birth in the City; and in the following year a large body of voluntary lady visitors, along with an official health visitor, assumed the responsibility of supervising the upbringing of infants during the first year of their lives. This work was attended by excellent results, and very shortly was followed by an appreciable diminution in the death rate, until in 1916 it had fallen to 100 per 1000, in 1918 to 94 per 1000, and now has reached the satisfactory figure just recorded, viz., 89 per 1000.

The Child Welfare Scheme of to-day, however, includes within its scope not only the supervision of infants, but the provision of medical and other necessities for prospective and nursing mothers, and for children until they attain school age. Necessarily such a far-reaching responsibility entails a very large piece of machinery, with a consequent very considerable financial outlay. Various centres for curative and preventive purposes exist in convenient situations scattered over the City. These are usually represented by existing institutions, such as Dispensaries, which carry on this branch of work at the instance of the Local Authority. Official Nurses attend the various Clinics and visit the homes of the children in order to ensure that the prescribed treatment is actually carried into effect.

A supply of milk to necessitous children constitutes, of course, a very large expenditure, and the method of dispensing it is obviously liable to be criticised on the ground that the undeserving or unrequiring may share in the benefits.

While fully realising that such a possibility exists, it is still possible to ensure, by the very careful enquiries that always precede food distribution, that only the necessitous really obtain it. It would be possible, although unnecessary, to submit here a record of the outlay entailed in food provision throughout the different wards in the City, and if such were done a perusal would convince that the demand for assisted or free milk supplies for children is almost wholly limited to the poorer districts, where the association of poverty, frequent unemployment, and high cost of milk would certainly lead to cases of semi-starvation or worse among young children if the assistance granted under this splendid Scheme was not forthcoming.

When this has been said, however, there remains another aspect of the question which must constantly be kept in view. State legislation in recent times has laid upon Local Authorities the duty of making free provision along so many lines that there is just the possibility of matters being carried to an extreme under this Scheme. Already its ramifications are far-reaching, and there are from time to time frequent new suggestions for additions to its existing commitments. It would be wise meantime for the Local Authority to very carefully consider any new departure involving an addition to the present Scheme, which meantime appears quite sufficiently far-reaching.

The number of Visitors, official and other, is certainly sufficient for the needs. The same applies to the number of available Centres. The limit has probably been reached in regard to the necessary expenditure on milk for children and food for mothers, and the Convalescent Homes under the supervision of the Local Authority appear sufficient to accommodate the number of cases that should be regarded as suitable for such form of treatment. To enlarge the scope of this Scheme might conceivably have the tendency, at least in some cases, towards largely relieving the mother of the responsibility of the upbringing of her family, and might to an undesirable extent imply interference with the whole conduct of home life and influence, which after all should form the foundation of the welfare of the family.

Necessity for Medical Attendance at Homes of Patients.

I have found it necessary from time to time to make a suggestion to your Public Health Committee in favour of making an arrangement under which medical assistance may be available at several of the Clinics for the purpose of visiting the homes of the poorer persons whose children are not in a condition to be brought for advice or treatment to the Centre itself. This is a very important blank meantime in connection with the Child Welfare Scheme. At present the work at the Centres is excellent, but there are numerous occasions on which mothers have in vain to seek medical advice for their child who is suffering at home. The most urgent Centres

meantime for this much-needed addition towards more complete efficiency are in connection with Canongate and Gorgie Districts.

Illegitimacy.

The disposal of the illegitimate or unwanted child constitutes one of the greatest difficulties in connection with a Child Welfare Scheme. Suggestions are from time to time made in favour of establishing homes in which they may be brought up. Obviously this is an impossibility under any Scheme carried on by a Local Authority. As the children grow older, and as they are joined year by year by large numbers of newcomers, such a procedure would at an early stage be found impossible to continue within the limits of the administrative power of a Local Authority.

The problem, however, is a very real and urgent one. The proportion of illegitimate children in the City is as a rule about 10 per cent. of all births. During the year it was rather lower, being 8·3 per cent. In the great majority of these cases the child constitutes an incubus and a bar in the way of the mother's progress in life, and in time is destined to become the sufferer.

The death-rate among these unfortunate illegitimates is always enormously higher than is the case among legitimate children. Thus, during the year, while the death-rate of legitimate infants was 82 per 1000, it was almost doubled in the case of illegitimates, having reached the figure of 152 per 1000.

Any institution provided for the reception of such infants would be immediately assailed with applicants, and the mother would be freed from a responsibility which should properly attach to her. The alternative, however, leaves her in such a difficulty as is only eventually in many cases solved to the detriment of the interests of the child. Left to her own resources, the mother frequently resorts to the expedient of procuring a person who will relieve her of the whole responsibility of the child, and who in return for an immediate payment "adopts" the child as one of her own. That this system tends frequently to abuse of the most serious description cannot be doubted. The principle of adoption surrounded by the necessary safeguards may be quite satisfactory, and, indeed, in many instances might prove a proper solution of the difficulty, but, in order to be successful, these safeguards must necessarily be of a very much more complete nature than at present exist. Any person who at present adopts or boards a child must intimate the fact to the Parish Council, whose Visitors regularly keep the home and child under supervision. That is excellent so far as it goes. The difficulty lies in the fact that it does not go sufficiently far. It is always difficult to keep such a class under regular supervision. They move from place to place, and all trace of them in many cases is completely lost. There can be little doubt that many persons in real poverty accept the care of

a child, simply in order to procure the tempting ready-money premium for the purpose of relieving their own necessities, and without any idea of the future well-being of the child. Advertisements for persons to adopt a child in return for a premium, with the addition of the significant words "No after Claim," are so common as to shed some light into the real condition of matters as they at present exist. No doubt cases are known in which highly respectable persons willingly adopt as their own a child of poor or unknown parents. It is equally true, however, that persons occupying a poor station in life, with a family of their own for whom they can with the greatest difficulty make provision, accept in return for a money premium, one, two, or three additional members to their already overtaxed household.

Legislation is certainly necessary in order to prevent abuses of this description, and to ensure that no adoption in return for payment will be permissible unless the adopter be in such a position of life as to satisfy the Authorities as to his or her ability to do what is best in the interests of the young child for whom he or she becomes responsible.

A considerable number of facts and figures will be found in a later part of this Report in reference to the whole of the outworking of the Maternity and Child Welfare Scheme now in operation in the City.

Venereal Disease.

The last of the Special Schemes recently introduced is concerned with the treatment of Venereal Diseases. This Scheme was prepared and is now being carried out in obedience to a Government requirement that facilities for free treatment should be offered by Local Authorities to all persons suffering from any form of Venereal Disease. In the preparation of the Scheme which is now in force, arrangements were entered into whereby the resources of the Royal Infirmary were utilised as the main centre for treatment, and financial arrangements were also entered into with certain other institutions for the provision of bed accommodation and for the organisation of suitable Clinics so that the requisite treatment could be provided for men, women, and children alike. These additional institutions included the Royal Maternity Hospital and the Women's Hospital, Bruntsfield. It was further considered necessary that certain Clinics should be held at some of the Child Welfare Centres throughout the City, and such work is now being carried on at the Torphichen Street and Windsor Street Centres.

It may at once be stated that the records of the year's work indicate very considerable progress, if indeed it is justifiable to regard an increase in the number of patients treated as being in every sense progressive. It remains true,

however, that all of the Clinicians concerned in treating the various forms of this appalling disease have thrown their whole energies into the work and have most thoroughly dealt with every class of case which was in turn suitable for the particular institution to which it was relegated. It is needless to enlarge upon the ever-increasing demands which are made on the excellent organisation in the Royal Infirmary so ably carried on by Dr Lees. Nor is it possible to exaggerate the importance of the pre-maternity and subsequent work carried on by Dr Ballantyne at the Royal Maternity Hospital.

This branch of the work is appreciably diminishing the number of premature and diseased infants which in former times represented the offspring of venereally affected mothers. It is an excellent example of the triumph of medical treatment scientifically applied, rendering it possible for an expectant mother affected with Venereal Disease to be so treated as to result in a return to health in her own case, and to practically ensure the birth of a healthy child. This then constitutes the excellent work which is being carried on in the Royal Maternity Hospital.

The work at the Women's Hospital, Bruntsfield, entailing as it does the provision of a number of beds for women, and cots for children, and carried on under the supervision of Dr MacNicol, shows also continued advance in point of numbers and continued benefit in point of successful treatment.

The same remarks apply to the work in progress at the other Centres in the City.

So far as the Scheme permits then, there is much cause for satisfaction in the assurance that one of the worst forms of disease extant is now being seriously dealt with, and, by means of the application of the latest and best forms of treatment, is being cured.

It is not possible, however, to report on this subject without adding some criticisms and expressing some opinions regarding the inadequacy of the law, as it at present stands, to effect the purpose which it obviously has in view. That Local Authorities should be required to meet one-fourth of the financial outlay in making provision for the treatment of Venereal Disease, and that Government should supply three-fourths seems to be financially an equitable arrangement. From the citizen's point of view, however, the total cost which he must ultimately meet is a very substantial one, and the tendency will certainly be towards a substantial increase in the future. If such outlay implied some real hope of not only curing sufferers but of substantially limiting the incidence of this disease, all the cost incurred, even indeed if it were considerably greater, would be eminently justifiable.

Unfortunately, however, such hopes are, to say the least, modified when it is remembered that no form of compulsion is vested in the hands of any Authority. The Local Authority, in short, must make provision for treatment; must expend large sums of money, and must open institutions for treatment. Having made every preparation, the ultimate decision is then left to the sufferer as to whether or not he or she will take advantage of the facilities offered. The liberty of the subject is constantly talked about in this connection as being a justification for the extreme laxity that exists in regard to the treatment and prevention of this fearful form of disease. It may, of course, be pointed out that there are circumstances under which such liberty is already not recognised by law. There are conditions, for example, under which sufferers from various forms of infectious disease are legally liable to be compulsorily removed to hospital for treatment, and under which mere contacts with such may be compulsorily removed to a Reception House for detention during the infective period. These persons, be it added, are innocent sufferers from various forms of infectious disease, and have contracted it or come into contact with it unwillingly or unwittingly. Of course, it is at once admitted that there are sufferers from Venereal Disease who are equally innocent, but it must be as strongly asserted that the very great majority are not, and there is certainly no reason apparent to a Medical Officer of Health engaged in carrying out preventive work why such undue delicacy and leniency should be shown towards those affected with this class of disease. Indeed, it may be taken for granted that, far-reaching and satisfactory though the Venereal Scheme is in this City, it is leaving untouched probably the most virulent sources of the spread of infection.

For example, there are many of the lowest class of sufferers who are utterly careless of themselves, and more utterly careless of others, and who are spreading this disease as rapidly as opportunity offers. There are many others, both male and female, who still prefer to conceal the condition from which they suffer, and are not in the meantime particular as to their habits or course of life. All of these must be regarded, then, from the preventive point of view, as active sources of possible infection left to roam at large. Of course, it is quite apparent that the conception of compulsion implies a knowledge of the existence of the disease, and that again in turn might raise the whole question of its notification. Some of the arguments that have been used against this have some foundation, particularly the suggestion that such would possibly lead to a greater concealment of the disease. Even short of general notification, however, there are great numbers of cases, infective in nature, which come under the immediate notice of the Public Health Authorities, and in regard to which they have no power of interference. A form of legal procedure, however,—it might be the obtaining of a warrant from a Magistrate or a Sheriff,—should surely exist in

order that such cases could be effectively removed as dangers and subjected to efficient treatment. Indeed this is a question which ought not to be left to the decision of the individual, but rather to that of those Medical Authorities who are in a position to judge, not only what is best in the public interest, but also what is best in the interests of the individual, with a resulting improvement in health and a very probable saving of life.

There is another aspect of the question which, while it remains in its present position, entails upon a Local Authority a considerable expenditure without the attainment of any result whatever. Let it be supposed that a person suffering from a serious form of Venereal Disease elects to seek treatment at the Infirmary or other Centre. During the first attendance everything possible at that stage is duly carried out, and instructions are given in regard to the date of the next attendance. In a very considerable number of cases, however, the first visit proves to be the last, or it may be a second visit is paid and no more is heard of that patient. The actual outcome of such a procedure is that considerable expense has been entailed in the application of injections, drugs, &c., and no result whatever which can be regarded as permanent or beneficial has been attained. This, then, forms another instance of the clamant need for the existence of some form of compulsion, and it is necessary for me in reporting at this time to direct the attention of the Local Authority very specially to these matters, and to emphasise the fact again that a commensurate amount of benefit is not being attained, nor is likely to be attained, in proportion to the financial outlay, until some further powers are placed in the hands of those whose duty it is to safeguard the health of the citizens.

The Extension of City Boundaries.

Operations occasioned by the extension of the City boundaries commenced only in November, and therefore no special reference to them is contained in this Report. The inclusion of so wide an area, however, and very particularly that of the Burgh of Leith, necessitates much re-arrangement so that every branch of Public Health administration may be concentrated under one administrative head for the ultimate benefit of all.

One of the first matters which has already engaged attention is to so re-arrange the occupation of the several hospitals and sanitoria now under the control of the Local Authority as to obtain from them the best possible return in the interests of the whole of the extended area. A scheme has been prepared setting forth the details of such re-arrangements. This has been sanctioned by your Council, and is now awaiting the approval of the Scottish Board of Health. Under it considerable changes will be made in regard to the accommodation of patients suffering from all forms and in all stages of Tuberculous disease.

Thus, Pilton Hospital will be utilised for the treatment of the more advanced cases at present treated in wards at Colinton Mains. One of the pavilions at Pilton will also be used in order to afford some needful additional accommodation for Venereal cases, particularly among children.

The Royal Victoria Hospital, which for a considerable time has been sanctioned for the accommodation of 70 patients, has now received the approval of the Board of Health for the occupation of 130 patients. This institution, then, along with Pilton Hospital, will offord all the necessary accommodation for Pulmonary Tuberculosis. An active treatment of Non-Pulmonary forms of the disease will now be begun in earnest, and bed accommodation will be available in the Shelters and Huts at Colinton Mains as well as in the Royal Hospital for Sick Children, where cases requiring operative treatment will receive attention.

All Fever cases occurring in Leith will be removed for treatment at Colinton Mains. The two wards in that institution no longer required for Tuberculous cases will be utilised for the treatment of general Fevers and will thus contribute towards meeting the extra strain which has been laid on the institution, in consequence of the extension of the City's area.

The Child Welfare Home at Victoria Park House, Leith, will be re-opened in accordance with your Council's decision, and it is intended to receive there weakly children to a maximum of 20 in number. None of these will be cases of acute illness or such as require hospital treatment. The idea connected with the Home is rather, by very careful attention and feeding, to give a chance in life to the weaker members of families whose parents for the time being may find a difficulty in devoting such extra attention as is necessary, and to the more delicate member of the family whose chance of life and restored health will be vastly increased by a term of residence under such conditions and surroundings.

Port Sanitary Administration.

The extension of the boundaries has also required that a Scheme be prepared and carried out for Port Sanitary Administration affecting Leith and Granton. This Scheme has been completed and is now before your Council. Under it such steps will be taken as will ensure medical supervision over ships arriving both from home and foreign ports, and sanitary supervision over the condition of ships, with special reference to the important question of Rat Destruction. The whole question of Food Inspection is also provided for under the Scheme, and it is anticipated that, when sanctioned, the operations which will be carried on will meet all the requirements of a well ordered Port Sanitary Administration.

Inspection of Dairies and Workshops; and Administration of Shops Act.

In the body of the Report there will be found various details in connection with the inspection of Workshops and Bakehouses, which, under the Act, are specially placed under the supervision of the Medical Officer of Health, together with the supervision of the Milk Supply, and work connected with all the recent enactments regarding Shop Hours, which are all so intimately associated with Public Health Administration.

Conclusion.

In issuing this Report I wish to make my acknowledgment of the pleasant co-operation that exists throughout the whole Department, including all those in charge of Sub-Departments; the Medical Staffs and Matrons of the various Hospitals, and the whole of the staffs generally charged with the duty of Public Health Administration throughout its many ramifications. The Council may rest assured that each in his or her own sphere continues to discharge the various branches of work in a wholehearted and thoroughly efficient manner.

I am, my Lord Provost and Gentlemen,

Your obedient Servant,

A. MAXWELL WILLIAMSON, M.D., B.Sc.

SUMMARY OF STATISTICS

FOR THE YEAR 1920.

Population of Registration Area at Census, 1911	**320,769.**
Population Estimated to middle of Year (including Craiglockhart Poorhouse)	**336,923.**
Area of City	**11,416 Acres.**
or, excluding the Public Parks and principal Open Spaces, approximately	6,267 Acres.
Destiny of Population	**29·5 Persons per Acre over total Area.**
Houses Inhabited	**75,968.**
Ratio of Population to Occupied Houses at Census	**4·47.**
Marriages Registered	**4,483.**
Births Registered	**8,355, Birth-rate 24·7.**
Do. (Corrected for Country Births)	**7,774, Birth-rate 23·1.**
Deaths (Corrected for Country Deaths)	**4,442, Death-rate 13·2.**
Infantile Mortality	**688 Deaths under one year, or 89 per 1000 Births.**
Cancer Death-rate	**1·3 per 1000.**
Phthisis Death-rate	**·8 per 1000.**
Infectious Diseases Death-rate (excluding Phthisis)	**·5 per 1000.**

SUMMARY OF STATISTICS

FOR THE YEARS 1916, 1917, 1918, 1919, and 1920.

	1916	1917	1918	1919	1920
Population Estimated to middle of year (including Craiglockhart Poorhouse)	330,905	333,043	335,488	339,742	336,923
Area of City—Acres	11,416	11,416	11,416	11,416	11,416
Density of Population—Persons per acre	28·9	29·1	29·3	29·7	29·5
Houses Inhabited	73,583	74,010	74,593	75,526	75,968
Marriages Registered	3,413	3,154	3,777	4,690	4,483
Birth-rate	18·2	15·6	15·4	17·8	24·7
Do. (Corrected for Country Births)	17·4	14·7	14·3	16·6	23·1
Deaths (Corrected for Country Deaths)	14·5	14·8	15·1	16·5	13·2
Infantile Mortality	100	123	94	117	89
Cancer Death-rate	1·3	1·2	1·3	1·2	1·3
Phthisis Death-rate	1·1	1·1	·9	·9	·8
Infectious Diseases Death-rate (excluding Phthisis)	·6	1·5	·4	1·1	·5

Note.—Further detailed statistics for a series of years are shown in the Tables throughout this Report.

VITAL STATISTICS

AND

REPORTS RELATING TO CHILD WELFARE, TUBERCULOSIS, CITY HOSPITAL, AND VENEREAL DISEASES.

POPULATION.

The population resident within the City boundary in 1920, based on the number of occupied houses, was estimated at 334,942. This, of course, does not embrace the population in the areas affected by the Extension of Boundaries Act, which came into operation in November 1920. For statistical purposes, however, I have included the population in Craiglockhart Poorhouse and the Fever Hospital at Colinton Mains, numbering 1981, thereby increasing the population to 336,923, which is the figure upon which the rates in this Report are calculated. Prior to amalgamation, the institutions referred to were situated in the county area, but all deaths occurring in them were allocated to the City, and are included in the various tables in this Report.

My estimate of the population shows a decrease of 2,819 from that of the year 1919, and this despite the fact that the excess of births over deaths in 1920 amounted to 3,331. The explanation of the apparent diserepancy is to be found in the fact that the Registrar-General has deemed it advisable to make an adjustment of the estimate of the total population of Scotland in 1920 for deaths of Scottish troops occurring outwith Scotland during the War, the proportion applicable to Edinburgh being estimated at about 5,000.

[TABLE.

The following table, which has been supplied through the courtesy of the Burgh Assessor, shows the number of houses occupied as at Whitsunday 1920, with information regarding rentals :—

NUMBER OF DWELLING-HOUSES OCCUPIED AT WHITSUNDAY 1920.

Ward.		Under £5.	£5 and under £10.	£10 and under £15.	£15 and under £20	£20 and under £30.	£30 and under £40.	£40 and under £50.	£50 and upwards.	Total in each Ward.
I.	Calton . .	30	573	1,670	1,338	1,282	385	77	159	5,514
II.	Canongate .	140	1,505	1,546	1,170	805	192	70	20	5,448
III.	Newington .	19	1,228	407	573	1,080	450	334	1,525	4,616
IV.	Morningside .	...	59	76	360	1,188	2,073	1,008	1,491	6,255
V.	Merchiston .	1	60	409	793	2,368	981	320	779	5,711
VI.	Gorgie . .	17	368	1,978	1,360	787	103	38	51	4,702
VII.	Haymarket .	9	235	522	359	519	260	181	1,301	3,386
VIII.	St Bernard's .	75	515	407	540	951	285	122	738	3,635
IX.	Broughton .	11	267	730	912	1,058	583	169	223	3,953
X.	St Stephen's .	38	785	796	836	858	551	204	472	4,540
XI.	St Andrew's .	67	1,048	559	257	179	106	71	593	2,881
XII.	St Giles. .	104	2,238	1,301	632	538	121	45	72	5,051
XIII.	Dalry . .	6	458	2,860	1,388	494	39	2	4	5,251
XIV.	George Square .	60	1,079	1,166	988	1,009	445	169	192	5,108
XV.	St Leonard's .	133	2,335	1,891	653	498	221	85	12	5,828
XVI.	Portobello .	26	373	717	786	896	507	456	330	4,091
	Total	736	12,127	17,035	12,945	14,510	7,302	3,351	7,962	75,968

MARRIAGES.

The number of marriages registered in the City during 1920 was 4483, representing a rate of 13·4 per 1000 of the population This was the highest rate among the sixteen large towns in Scotland, and may be accounted for by the fact that a very large number of "irregular" marriages take place annually in the City. For the four quarters of the year, the figures were as follows :—

1st Quarter - - -	1000
2nd ,, - - -	1116
3rd ,, - - -	1363
4th ,, - - -	1004
	4483

The following Table gives a general survey of the increase which has taken place in the population since 1861, and at the same time shows the number of births and deaths each year since 1881, with the corresponding rate per 1000 of the population.

The figures throughout this Table have been adjusted to remove errors in estimating for intercensal years.

Years.	Population.	Deaths.	Rate per 1000	Births Registered.	Rate per 1000
†1861	170,444	3946	23·1	5694	33·4
†1871	196,979	5484	27·8	6874	34·8
†1881	228,346	4308	18·8	7360	32·2
1882	232,602	4292	18·4	7351	31·6
*1883	239,910	4275	17·8	6844	28·5
1884	242,802	4556	18·7	7481	30 8
*1885	245,447	4241	17·2	7372	29·9
1886	248,121	4555	18·3	7451	30·0
1887	250,824	4824	19·2	7641	30·4
1888	253,264	4374	17·2	7500	29·6
1889	256,318	4415	17·2	7414	28·9
*1890	259,110	4999	19·2	7177	27·6
†1891	261,225	5257	20·1	7382	28·2
1892	265,573	4746	17·8	7169	26·9
1893	269,105	4830	17·9	7434	27·6
1894	272,683	4350	15·9	7207	26·4
1895	276,309	5246	18·9	7402	26·6
1896	279,983	4275	15·2	7610	27·1
*1897	297,198	5782	19·4	7990	26·8
1898	301,305	5320	17·6	8097	26·8
1899	305,468	5396	17·6	8218	26·9
*1900	309,688	5396	17·4	8129	26·2
†1901	316,921	5633	17·7	7920	24·9
*1902	317,880	5113	16·0	7909	24·8
1903	318,219	4963	15 5	8112	25·4
1904	318,560	4995	15·6	7777	24·4
1905	318,777	4799	15·0	7741	24·2
1906	319,120	4868	15·2	7649	23·9
1907	319,464	4978	15·5	7504	23·4
1908	319,809	4690	14·6	7506	23·4
1909	320,282	5106	15·9	7410	23·1
1910	320,504	4651	14·5	7063	22·0
†1911	320,829	4652	14·4	§6507	20·8
‡1912	321,119	4701	14·6	6346	19.7
1913	321,645	4630	14·3	6243	19·4
1914	325,780	5025	15·4	6466	19·8
1915	328,493	5419	16·4	5851	17·8
1916	330,905	4812	14·5	5748	17·4
1917	333,043	4924	14·8	4913	14·7
1918	335,488	5090	15·1	4830	14·3
1919	339,742	5583	16·5	5612	16·6
1920	336,923	4442	13·2	7774	23·1

* City boundaries extended.

† Census year.

‡ Population of Craiglockhart Poorhouse and Colinton Mains Hospital included from this year onward.

The Births from this year onward are corrected for transfer births, *i.e.*, births to parents domiciled outwith the City are excluded, while births occurring to Edinburgh parents beyond the City are included.

DEATHS AND DEATH-RATE.

The number of deaths occurring in the City during 1920 was 4931, of which 978 represented persons who had come to the City to take advantage of treatment in one or other of the various institutions, and whose deaths were transferred to the districts in which they usually resided. The deaths of 489 Edinburgh citizens, on the other hand, occurred in Craiglockhart Poorhouse and districts outside the City, and as a result of the adjustment necessitated by these transfers, the net deaths allocated to the City numbered 4442. The death-rate for the year was 13·2 per 1000 of the estimated population, and is the lowest rate ever recorded in the City. The rate is 3·3 lower than that of the previous year, and 2·2 lower than the average of the preceding five years.

The table submitted below shows the allocation of deaths in the four quarters of the year, with the death-rates based on the net City deaths :—

Quarter.	Total Deaths Registered.	Transferred to other Districts.	Transferred from other Districts.	Nett City Deaths.	Death-rates per 1000.
1st .	1333	232	109	1210	14·3
2nd .	1275	261	133	1147	13·6
3rd .	1029	240	119	908	10·7
4th .	1294	245	128	1177	13·9
Total .	4931	978	489	4442	13·2

For the purpose of comparison, the following table shows the death-rates in large towns in the United Kingdom, the towns being arranged according to population :—

Town.	Rate per 1000.	Town.	Rate per 1000.	Town.	Rate per 1000.
London . . .	12·4	Newcastle . . .	13·8	Brighton . . .	12·0
Glasgow . . .	15·3	Hull	13·2	Derby	10·5
Liverpool . . .	15·7	Nottingham . . .	12·9	Southampton . .	11·5
Manchester . . .	13·0	Leicester . . .	11·5	Plymouth . . .	13·8
Birmingham . . .	12·6	Portsmouth . . .	11·1	Huddersfield . .	12·6
Leeds	14·3	Cardiff	10·7	Paisley	12·8
Sheffield . . .	13·2	Dundee	15·3	Leith	14·7
Bristol	11·7	Aberdeen . . .	14·6	Greenock . . .	16·9
EDINBURGH . .	13·2	Sunderland . . .	15·8	Perth	13·4
Bradford . . .	13·1				

Death-rate for Scotland 14·0 per 1000; England and Wales 12·4.

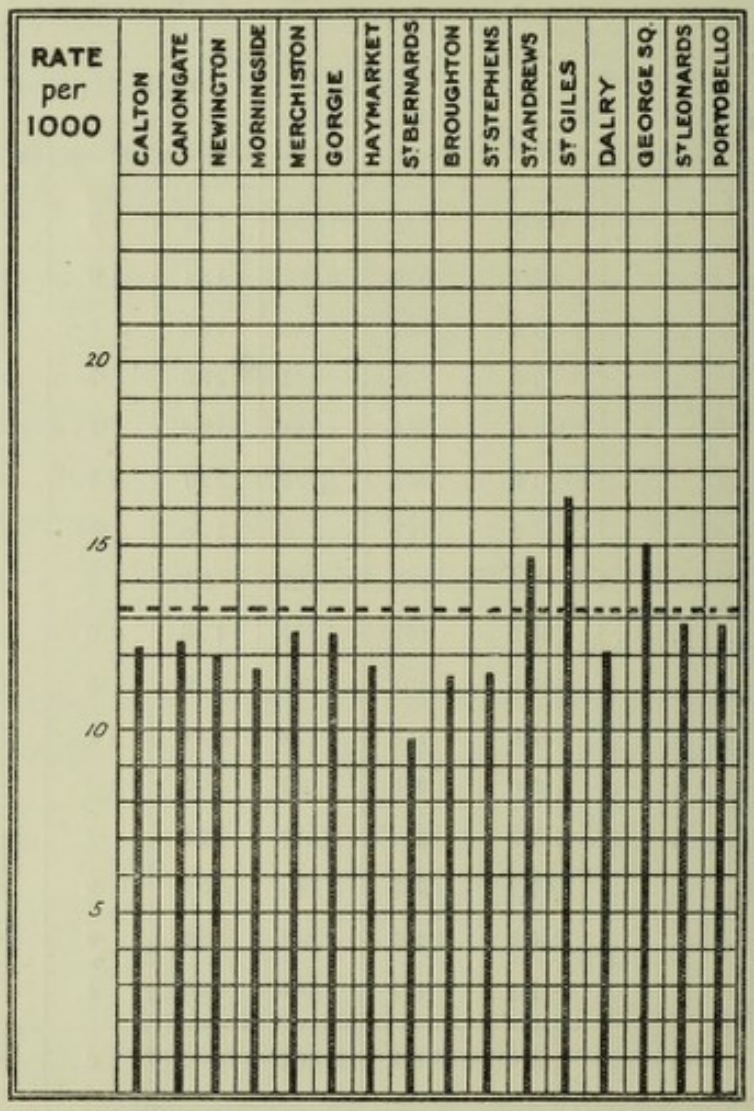
The following table contains a summary of the mortality rates in the various City Wards, together with the density of population and the number of one- and two-roomed houses in each Ward. The highest death rate was recorded in St Giles Ward, where the rate was 16·2 per 1000, and the lowest in St Bernard's Ward, with 9·7 per 1000. As regards the infantile mortality, it will be noted that the rate was highest in St Giles Ward, where there were 125 deaths under one year per 1000 births, as compared with a rate of 89 for the City as a whole. The remarkably low infant mortality rate of 35 was recorded in Newington Ward, and 49 in Merchiston Ward. Particulars relating to the Wards are more fully detailed in the Table on page 7.

Ward.	Density of Population per Acre.	Housing.		Death-rate per 1000.			Infantile Mortality.
		1 Room.	2 Rooms.	All Causes.	Phthisis.	Zymotic.	
Calton	106·1	238	1,830	12·2	·9	·6	96
Canongate	25·4	585	2,285	12·4	1·0	·6	91
Newington	21·8	122	462	12·0	·5	·1	35
Morningside	17·8	8	152	11·6	·7	·4	49
Merchiston	36·0	43	762	12·8	·4	·3	66
Gorgie	31·9	49	2,292	12·7	1·1	·2	84
Haymarket	15·7	127	460	11·8	·5	·1	89
St Bernard's	11·3	157	787	9·7	·3	·1	83
Broughton	35·2	163	1,103	11·6	·6	·6	73
St Stephen's	104·2	405	901	11·5	·5	·2	60
St Andrew's	57·8	715	728	14·6	1·1	·5	118
St Giles	95·0	1,340	1,817	16·2	1·2	·7	125
Dalry	127·5	224	3,193	12·0	·8	·5	91
George Square	97·1	633	1,564	15·0	·9	·5	111
St Leonard's	213·6	1,205	2,434	12·9	·9	·7	81
Portobello	7·3	121	1,045	12·9	·4	·9	81
City	29·5	6,135	21,815	13·2	·8	·5	89

The following line diagram is given for the purpose of providing a ready comparison between the death-rate in the Wards and that of the City as a whole.

DEATH-RATE—ALL CAUSES

PER 1000 OF POPULATION.



----- *Death Rate for City.*

Ward.	Estimated Population.	Area in Acres.	Density of Population per Acre.	Births.		Infantile Mortality.		Deaths.							
								Pulmonary Phthisis.		Other Infectious Diseases.		Other Causes.		All Causes.	
				Number.	Rate per 1000.	Deaths.	Rate per 1000 Births.	Number.	Rate per 1000.	Number.	Rate per 1000.	Number.	Rate per 1000.	Number.	Rate per 1000.
Calton . . .	24,207	228	106·1	551	22·7	53	96	23	·9	15	·6	259	10·6	297	12·2
Canongate . .	24,589	965	25·4	733	29·8	67	91	25	1·0	17	·6	263	10·6	305	12·4
Newington . .	19,497	891	21·8	285	14·6	10	35	11	·5	3	·1	220	11·2	234	12·0
Morningside . .	24,204	1,358	17·8	282	11·6	14	49	19	·7	10	·4	253	10·4	282	11·6
Merchiston . .	24,372	677	36·0	361	14·8	24	66	12	·4	9	·3	292	11·9	313	12·8
Gorgie . . .	21,571	676	31·9	615	28·5	52	84	24	1·1	6	·2	246	11·4	276	12·7
Haymarket . .	15,084	959	15·7	223	14·7	20	89	8	·5	3	·1	168	11·1	179	11·8
St Bernard's . .	17,340	1,524	11·3	287	16·5	24	83	6	·3	3	·1	160	9·2	169	9·7
Broughton . .	16,661	472	35·2	342	20·5	25	73	10	·6	11	·6	173	10·3	194	11·6
St Stephen's . .	19,812	190	104·2	397	20·0	24	60	10	·5	4	·2	215	10·8	229	11·5
St Andrew's . .	11,914	206	57·8	261	21·9	31	118	14	1·1	7	·5	154	12·9	175	14·6
St Giles . .	25,283	266	95·0	735	29·0	92	125	32	1·2	18	·7	362	10·3	412	16·2
Dalry . . .	23,856	187	127·5	707	29·6	65	91	21	·8	12	·5	254	10·6	287	12·0
George Square .	24,096	248	97·1	574	23·8	64	111	23	·9	14	·5	326	13·5	363	15·0
St Leonard's . .	25,340	104	243·6	770	30·3	63	81	24	·9	18	·7	287	11·3	329	12·9
Portobello . .	18,080	2,465	7·3	504	27·8	41	81	9	·4	18	·9	208	11·5	235	12·9
†Institutions . .	*1,017	...	...	147	...	19	...	14	...	5	...	136	...	155	...
Military Quarters .	...	...	...	...	...	...	...	1	...	...	...	7	...	8	...
Totals .	336,923	11,416	29·5	7,774	23·1	688	89	286	·8	173	·5	3,983	11·8	4,442	13·2

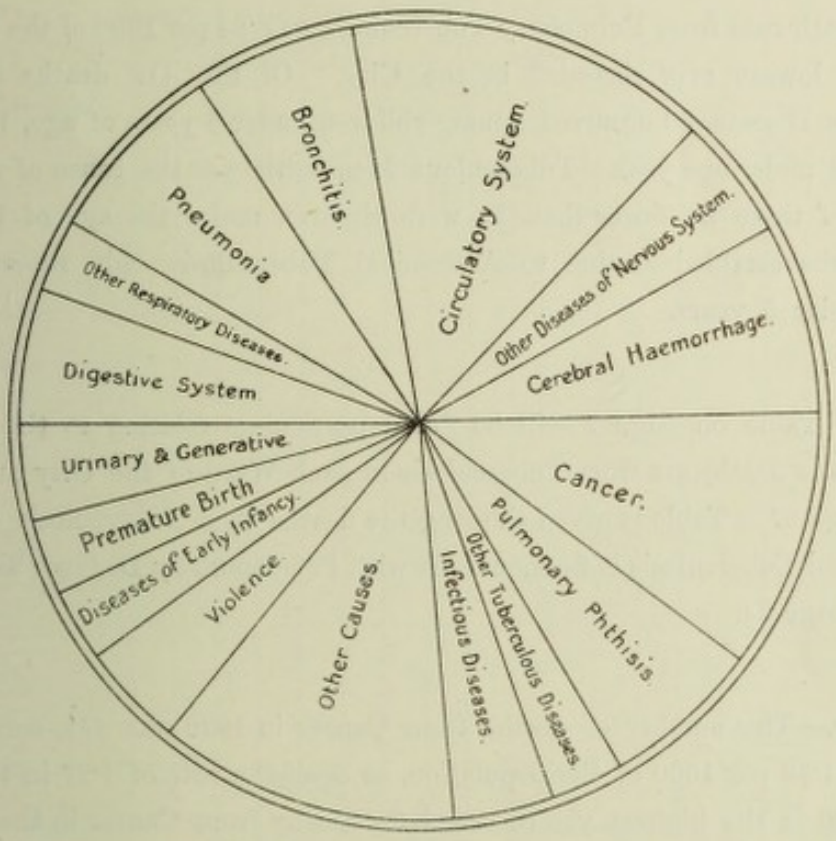
† Domicile not stated. * Population of Craiglockhart Poorhouse at 30th June 1920.

Table showing the number of Deaths (including Deaths transferred from other districts) and the Death-rates per 1000 of the Estimated Population during 1920 from all causes and from certain specified causes; also the Population, the number of Deaths and the Death-rates per 1000, at all ages and certain age-periods.

		Annual Death-rate per 1000	All Ages	Under 1 Year	1 and under 5 Years	Total under 5 Years	5 and under 10 Years	10 and under 15 Years	15 and under 25 Years	25 and under 35 Years	35 and under 45 Years	45 and under 55 Years	55 and under 65 Years	65 and under 75 Years	75 Years and upwards	Total above 5 Years
	Age Distribution of Population	...	336,923	6,026	24,539	30,565	30,521	29,930	64,188	57,749	46,963	35,113	23,428	13,566	4,900	306,358
	Deaths from all Causes	...	4,442	688	189	877	78	48	176	239	307	480	658	797	782	3,565
	Annual Death-rate per 1000	13·2	...	114·1	7·7	28·6	2·5	1·6	2·7	4·1	6·5	13·6	28·0	58·7	159·5	11·6
	Enteric Fever	...	2	...	...	...	...	...	1	...	1	...	...	...	...	2
	Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Measles	...	·12	42	13	25	38	3	...	1	...	...	...	...	...	4
	Scarlet Fever	...	·03	13	1	3	4	6	1	1	1	...	...	...	...	9
	Whooping-cough	...	·02	10	5	5	10	...	...	...	...	...	...	...	...	...
	Diphtheria and Croup	...	·18	64	9	32	41	18	4	1	...	..	...	...	...	23
	Influenza	...	·05	19	...	1	1	...	...	1	2	1	2	4	3	5	18
Septic Diseases.	Erysipelas	...	·05	20	1	1	2	1	...	2	1	4	...	3	4	3	18
Septic Diseases.	Gangrene	...	·04	14	1	...	1	...	...	...	...	...	...	3	4	6	13
Septic Diseases.	Other Septic Diseases	...	·09	33	6	2	8	...	1	1	4	2	4	5	3	5	25
	Puerperal Fever	...	·04	15	...	...	...	...	...	...	2	9	4	...	...	...	...	15
	Cerebro-Spinal Meningitis	...	·02	7	4	1	5	...	1	...	...	...	...	1	...	...	2
Tuberculous Diseases.	Phthisis (Pulmonary Tuberculosis)	...	·84	286	1	1	2	2	4	56	73	58	56	22	12	1	284
Tuberculous Diseases.	Tuberculous Meningitis	...	·11	38	11	15	26	6	2	2	1	1	...	...	...	...	12
Tuberculous Diseases.	Abdominal Tuberculosis	...	·08	30	1	9	10	2	2	3	1	4	5	3	...	...	20
Tuberculous Diseases.	Other Tuberculous Diseases	...	·18	63	6	6	12	6	4	9	7	4	9	7	1	4	51
	Cancer, Malignant Diseases	...	1·39	471	...	...	...	...	1	5	14	37	86	137	135	56	471
	Acute Articular Rheumatism (Rheumatic Fever)	...	·02	10	...	...	...	1	1	2	3	...	1	1	...	1	10
Diseases of Nervous System.	Meningitis (not Tuberculous)	...	·08	29	16	2	18	2	1	...	1	3	3	...	1	...	11
Diseases of Nervous System.	Cerebral Hæmorrhage	...	1·04	351	4	1	5	...	...	1	3	9	31	79	111	112	346
Diseases of Nervous System.	Other Nervous Diseases	...	·64	216	37	5	42	1	1	9	11	19	31	35	31	36	174
	Diseases of the Circulatory System	...	1·98	669	7	1	8	2	1	12	22	34	76	136	197	181	661
Digestive Diseases of Respiratory System.	Pneumonia (all forms, including Broncho-Pneumonia)	...	1·02	346	82	32	114	2	4	17	21	30	35	45	42	36	232
Digestive Diseases of Respiratory System.	Bronchitis	...	·87	296	44	5	49	3	1	...	6	9	16	43	73	96	247
Digestive Diseases of Respiratory System.	Other Respiratory Diseases	...	·21	73	14	3	17	1	2	5	1	4	10	7	13	13	56
Digestive Diseases.	Diarrhœa and Enteritis	...	·27	91	49	6	55	3	...	...	...	5	5	6	7	10	36
Digestive Diseases.	Other Digestive Diseases	...	·46	158	22	3	25	8	5	12	8	8	25	24	22	21	133
	Violence	...	·52	177	10	14	24	7	7	11	16	21	23	25	17	26	153
	Other Causes	...	2·66	899	344	16	360	4	8	22	34	49	69	77	101	170	539

CAUSES OF DEATH.

Particulars regarding the deaths occurring in the various disease groups are set forth on the preceding page. The relation of each group to the total deaths is clearly shown in the following diagram :—



Infectious Diseases.—The mortality under this heading was 173, being equal to a death-rate of ·5 per 1000 of the population, as compared with 399 deaths and a death-rate of 1·1 in the previous year. The substantial reduction was due chiefly to the fact that Whooping-cough and Measles were not prevalent in the City during 1920. Fuller details as to Infectious Diseases will be found on page 29.

Influenza.—There was fortunately no recurrence of the Influenza outbreaks experienced in 1918 and 1919. Only 19 deaths were registered as being

directly due to this cause, as compared with 112 and 111 in the two years immediately preceding.

Tuberculous Diseases.—The total deaths falling to be grouped under this heading numbered 417, being equal to a death-rate of 1·2 per 1000 of the population. The total was made up as follows:—Phthisis, 286 deaths; Tuberculous Meningitis, 38; Abdominal Tuberculosis, 30; Acute Miliary Tuberculosis, 8; Tuberculosis of Joints, 5; Tuberculosis of the Spine, 4, and of other organs 46.

The death-rate from Pulmonary Tuberculosis was ·84 per 1000 of the population, and is the lowest ever recorded in the City. Of the 417 deaths ascribed to Tuberculous Disease, 50 occurred among children under 5 years of age, 19 of whom were infants under one year. Tuberculous Meningitis was the cause of death in 38 cases, and of these no fewer than 32 were children under the age of 10, while of the 30 deaths certified as due to Abdominal Tuberculosis, only 10 were among children under 5 years.

In the Table on page 7 will be found particulars relating to the number of deaths and the death-rate from Tuberculosis in each Ward of the City during 1920, while on page 37 a Table is given showing the deaths from Tuberculosis since 1900. The subject of Tuberculosis is further dealt with in a report by Dr Guy, Tuberculosis Officer, on page 34.

Cancer.—The number of deaths from Cancer in 1920 was 471, corresponding to a rate of 1·39 per 1000 of the population, as against a rate of 1·27 in 1919. The rate for 1920 is the highest yet recorded for deaths from Cancer in the City, and shows an increase of 36 per cent. compared with the rate which prevailed in 1898. Since 1898 the number of Cancer deaths has been increasing year by year almost without exception, and it is worthy of note that even in 1920, when the general death-rate was the lowest yet recorded in the City, the increase in the Cancer figures is still maintained.

Although up to the present time it has not been possible to take any active measures to deal with the disease from a purely Public Health point of view, research is constantly being made as to the causation of the disease, but the only hopeful feature meantime appears to be the relief which scientific surgery is able to afford to sufferers.

Of the 471 deaths under the Cancer group, 289 was certified as "Carcinoma," 22 as "Sarcoma," and 160 as "Malignant Disease." The following Table gives an analysis of the deaths according to age, sex, and the organ affected :—

CANCER DISTRIBUTION.

SITE.	SEX AND AGE PERIODS.																				TOTALS.
	Under 15.		15-20.		20-25.		25-35.		35-45.		45-55.		55-60.		60-65.		65-75.		75 and upwards.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Brain	...	...	...	...	...	...	...	...	...	...	...	...	...	1	..	...	...	...	..	...	1
Jaw, Face, and Ear	...	...	...	1	...	...	...	...	...	...	1	...	3	...	2	...	2	...	...	1	10
Tongue and Mouth	...	...	...	...	...	...	...	...	.	...	2	2	4	...	2	...	7	...	...	...	17
Larynx, Pharynx, and Neck	...	...	...	...	...	...	...	1	1	1	...	...	3	...	2	..	3	...	2	2	15
Thorax and Lungs	1	...	...	...	...	...	1	1	1	1	2	3	2	4	1	...	1	2	1	...	21
Breast	...	...	...	...	...	1	...	1	...	1	...	13	...	8	...	7	...	10	.	3	44
Stomach and Oesophagus	...	...	...	...	...	...	1	...	4	5	8	6	10	5	5	3	15	7	3	6	78
Liver and Gall Bladder	...	...	...	...	...	...	...	...	1	1	3	5	4	5	7	5	11	7	2	6	57
Intestines and Rectum	...	...	...	...	...	...	1	3	4	2	8	6	3	6	7	9	10	15	4	11	89
Pancreas	...	...	...	...	2	...	...	...	1	...	4	...	...	1	1	1	1	2	...	2	15
Pylorus	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	..	1	...	...	1	5
Uterus	...	...	...	...	...	..	...	3	...	10	...	11	...	5	...	3	...	12	...	3	47
Ovaries and Vagina	...	..	...	..	...	...	...	1	...	1	...	2	...	...	...	1	...	1	...	2	8
Penis and Scrotum	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	3
Abdomen and Pelvis	...	...	...	...	...	...	...	1	...	2	1	4	...	3	2	2	2	7	1	5	30
Kidney	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	1	...	4
Prostate and Bladder	...	...	...	...	...	...	...	...	...	...	2	...	1	...	1	...	6	...	...	..	10
Bones	...	...	...	...	...	...	..	...	...	...	...	1	...	...	...	...	...	2	...	...	3
Ductless Glands	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	2	2	...	..	5
Not specified	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	3	1	3	...	...	9
Totals M.	1	...	1	...	2	..	3	...	13	...	32	...	32	...	32	...	64	...	14	...	194 } 471
Totals F.	...	...	...	1	...	1	...	11	...	24	...	54	.	39	...	34	...	71	...	42	277 }

The following Table shows the deaths and death-rates from Cancer in Edinburgh during the last 23 years :—

Year.	Male.	Female.	Total.	Rate per 1000 Living.
1898	104	163	267	·88
1899	112	164	276	·90
1900	116	181	297	·95
1901	110	183	293	·92
1902	127	185	312	·98
1903	130	186	316	·99
1904	125	206	331	1·04
1905	124	220	344	1·07
1906	132	198	330	1·03
1907	120	224	344	1·07
1908	123	230	353	1·10
1909	130	243	373	1·16
1910	167	220	387	1·20
1911	154	251	405	1·26
1912	139	261	400	1·24
1913	146	255	401	1·24
1914	172	277	449	1·37
1915	187	248	435	1·32
1916	190	256	446	1·34
1917	162	257	419	1·25
1918	189	265	454	1·35
1919	158	274	432	1·27
1920	194	277	471	1·39

Diseases of the Nervous System.—The deaths under this group numbered 596, of which 260 were males and 336 were females. As regards the age incidence, 65 deaths occurred among children under 5 years, and of this number 57 were under 1 year. 291, or 48 per cent. of the deaths registered, related to persons over 60 years. There were 351 deaths from Cerebral Hæmorrhage, while Convulsions accounted for 40 deaths and Meningitis for 29.

Diseases of the Circulatory System caused 669 deaths. These included 228 due to Valvular Disease of the Heart, and 290 to other diseases of the heart. Deaths from diseases of the blood vessels numbered 151, of which 63 were due to Cerebral Embolism and 55 to Arterio Sclerosis.

Diseases of the Respiratory System.—The deaths classified under this heading numbered 715, as compared with 1489 in 1919, 1341 in 1918, and 757 in 1917. The figures indicate that there has been in 1920 a return to the normal so far as deaths from respiratory diseases are concerned, the inflated figures of the two preceding years being due to the prevalence of Influenza.

Deaths from all forms of Pneumonia numbered 346, as compared with 937 in 1919, while Bronchitis was certified as the cause of death in 296 cases, as compared with 455 in 1919. As regards age incidence, among Respiratory Diseases, 180 deaths occurred among children under 5, no fewer than 140 of whom were infants under 1 year.

Diseases of the Digestive System accounted for 249 deaths. The principal causes of death were Diarrhœa and Enteritis 91 ; Hernia and Intestinal Obstruction 43 ; Appendicitis 24 ; Gastric Ulcer 15 ; and Cirrhosis of Liver 11. Of the deaths from Diarrhœa, 55 were children under 5, of whom as many as 49 were infants under 1 year.

Diseases and Accidents of Pregnancy.—Deaths in this connection occurred in 46 cases, and of this number 15 were certified as being due to Puerperal Fever.

Deaths by Violence.—These numbered 177, of which 107 were males and 70 females. Among the accidental deaths, 21 were due to falls and 21 to burns and scalds, while 11 were certified as due to accidents with motor vehicles. There were 27 cases of suicide, of which 22 were males and 5 females.

Ill-Defined Causes.—A total of 30 deaths were grouped under this head, 16 being ascribed simply to "Heart Failure" and 9 to "Syncope."

BIRTHS.

The births of 8355 children were registered in the City during 1920, and of this number 4242 were males and 4113 were females. Illegitimate births numbered 885, or 10·6 per cent. of the total.

Quarter.	Number of Births Registered.	Sex.		Legitimate.	Illegitimate.	Percentage of Illegitimate to Total Births.
		Males.	Females.			
1st .	2367	1200	1167	2126	241	10·1
2nd .	2201	1133	1068	1978	223	10·1
3rd .	1949	946	1003	1729	220	11·2
4th .	1838	963	875	1637	201	10·9
Total .	8355	4242	4113	7470	885	10·6

In the following Table the births are corrected for transfers, *i.e.*, births to parents whose domicile is outside the City are eliminated, while births to Edinburgh citizens occurring outside the City are included. As a result of these corrections, the births are reduced to 7774, which is equal to a birth-rate of 23·1 per 1000 of the population.

Quarter.	Total Births.	Legitimate.	Illegitimate.	Percentage of Illegitimate to Total Births.
1st .	2074	1904	170	8·1
2nd .	2216	2050	166	7·4
3rd .	1801	1643	158	8·7
4th .	1683	1533	150	8·9
Total .	7774	7130	644	8·3

The birth-rate is the highest recorded in the City since the year 1909, and the total births represent the largest annual addition to the population by birth since 1904. The rate is 6·5 per 1000 higher than that recorded in 1919, but the upward tendency appears to have reached its limit in the second quarter of 1920, from which period the number of births has been decreasing rapidly.

Among the Wards the highest birth-rates were recorded in the centres of industrial population, such as St Leonard's (30·3), Canongate (29·8), and Dalry (29·6). The lowest rates were returned in Morningside (11·6), Newington (14·6), and Haymarket (14·7). These figures are in keeping with the experience of the past few years, and the birth-rate for the City as a whole during the year has increased in much the same ratio as other large towns in Scotland.

There were 885 illegitimate births registered in the City, but when corrections are made for births to temporary residents in various institutions, the number is reduced to 644, or 8·3 per cent. of the total births to Edinburgh citizens. This is 1·9 per cent. lower than the rate in 1919.

The following Table contrasts the birth-rate in Edinburgh with other large towns in the British Isles in 1920 :—

Town.	Rate per 1000.	Town.	Rate per 1000.	Town.	Rate per 1000.
London	26·5	Newcastle	29·4	Brighton	22·7
Glasgow	29·7	Hull	29·2	Derby	25·8
Liverpool	31·2	Nottingham	25·9	Southampton	24·2
Manchester	25·5	Leicester	24·0	Plymouth	26·3
Birmingham	28·0	Portsmouth	25·9	Huddersfield	18·0
Leeds	25·6	Cardiff	24·7	Paisley	28·4
Sheffield	26·6	Dundee	27·4	Leith	29·9
Bristol	25·7	Aberdeen	29·5	Greenock	34·2
EDINBURGH	23·1	Sunderland	35·0	Perth	22·5
Bradford	20·7				

Birth-rate—England and Wales 25·4 per 1000; Scotland 28·1 per 1000.

INFANTILE MORTALITY.

The coincidence of a high birth-rate and a low death-rate in the City resulted in a remarkably low infantile mortality rate being recorded for the year. There were 688 deaths of children under 1 year, giving a mortality rate of 89 deaths per 1000 births—the lowest figure ever returned for the city of Edinburgh. Although undue stress should not be laid on the results of any one year, it is reasonable to assume that the efforts being carried on by the Child Welfare Department are having a considerable effect in safeguarding infant life. Since the adoption of the Notification of Births Act in 1907, when it became possible to supervise the whole of the infant life in the City, the infantile mortality rate has fallen by 32 per 1000. The enormous improvement effected in this rate during the last three decades is well illustrated by the following figures :—

	Average for 10 years.
1890-1899 . .	143 deaths per 1000 births.
1900-1909 . .	122 ,, ,, ,,
1910-1919 . .	110 ,, ,, ,,
1920 . .	89 ,, ,, ,,

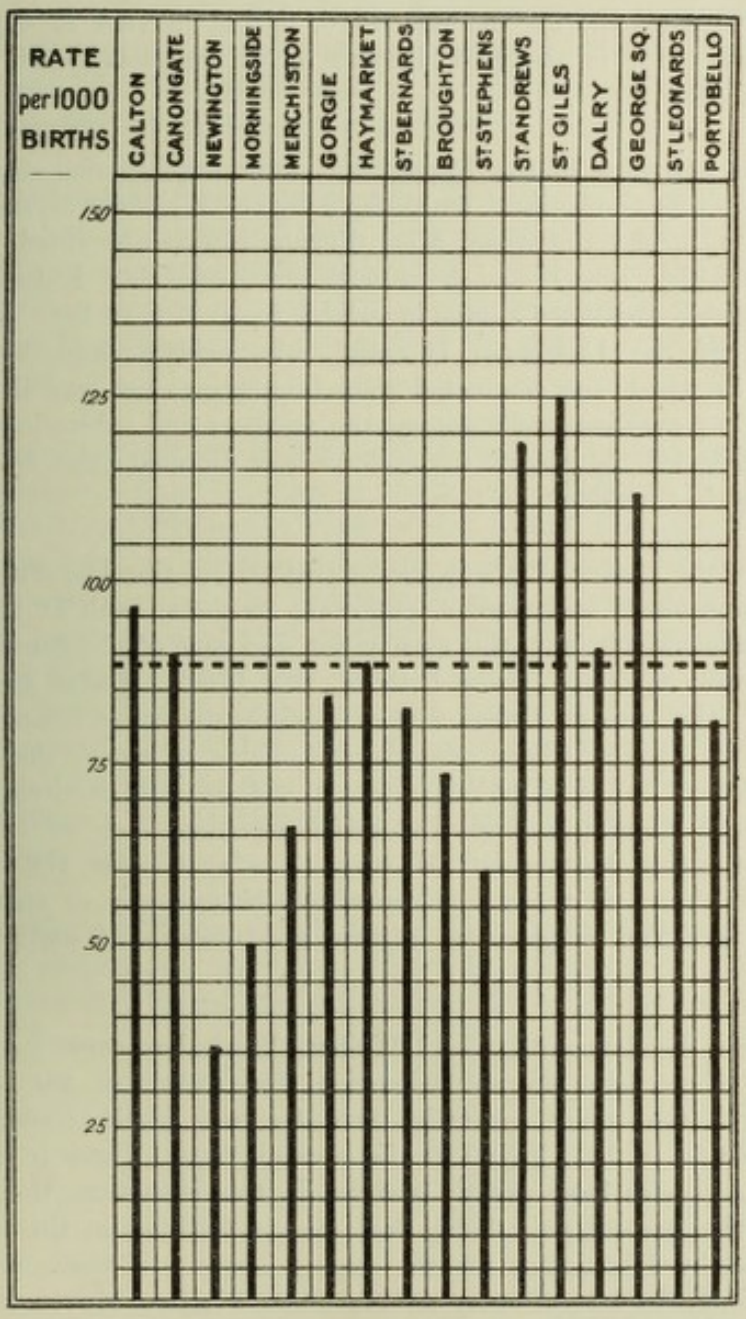
For the purpose of comparison, the infantile mortality rates in the eight large towns of Scotland are given :—

	Per 1000 Births.		Per 1000 Births.
Glasgow	107	Paisley	86
Edinburgh	89	Leith	101
Dundee	131	Greenock	104
Aberdeen	121	Perth	97

From the following line diagram the incidence of infantile mortality in each of the Wards of the City can be readily compared with the rate prevailing over the whole City.

INFANTILE MORTALITY.

Deaths per 1000 Births.



------ *Infantile Mortality Rate for City.*

MATERNITY AND CHILD WELFARE.

The following Report in connection with Child Welfare has been prepared by Dr T. Y. Finlay, who is in charge of this branch of the Department's activities :—

I have the honour to submit the Annual Report of the Maternity and Child Welfare Department for the year 1920, which, in view of my appointment during the year 1919, is the first Report for a complete year during which I have been in office.

The various activities of the Department have been carried on as in the past year,—with the same energy and enthusiasm by the various workers, both official and voluntary. During the year Miss Turnbull was appointed Lady Superintendent of Health Visitors, and it is with gratitude that I desire to put on record the invaluable assistance I have invariably received from her. Miss Turnbull, as late matron of the Deaconess Hospital, was held in high esteem for the successful way in which she conducted that Institution, and was also well known in the City for her excellent work among the mothers and babies in the Pleasance district, so that it will be readily understood how fortunate the Department has been in securing her services.

As regards the nature of the work carried on by the Department, this has included the supervision and care of expectant mothers, both at the Ante-natal Clinics and by home visitation; the supervision and care of the general health and feeding of children up to 5 years both at the Infant Health Centres and by home visitation; the cure of disease and of physical defects at the curative Clinics of children up to 5 years, whose parents are unable to secure the services of a general practitioner; the care of convalescent and delicate children of pre-school age at Gogarburn House; and all the social activities such as Day Nurseries, Toddlers' Play Centres, Mothercraft Meetings, Sewing Classes, and the making of baby clothes—in short, all those agencies which in one way or another assist in the promotion and the maintenance of the good health of mothers and their infants.

Like all new developments, Child Welfare Work has come in for its share of criticism by those who do not appreciate the extent of the work already accomplished, yet the infant mortality rate for the whole country has been reduced from 104·62 in 1914 to 80 in the present year. There is no doubt that Child Welfare Agencies have greatly assisted in this reduction, the total cost to the nation for the present year being less than a farthing in the pound on the total sums voted by Parliament for the supply services of the country. It has been stated recently by an authority on the Child Welfare Movement that there still exists "much ignorant talk and loose thinking on child welfare work in all its branches. It does not, perhaps, impede the progress of sound work, but, if only the energy thus employed were directed on informed lines, it is impossible to say how greatly it might assist."

It is gratifying to be able to report a reduction for the City of the infantile mortality rate from 117 for the year 1919 to 89 for the present year. This is the lowest rate ever reached for Edinburgh. In 1917, the year in which the City started its Child Welfare Scheme, the infant mortality rate was 123 per 1000 births. Granted that other causes may have had some influence upon this encouraging result, there can be no doubt that the efforts put forward by the municipality have in no small measure helped to bring about this fortunate reduction of 34 per 1000 in the infant mortality rate. It is important to note that deaths from congenital conditions show little reduction on the previous year; the improvement has been mainly from post-natal conditions. It is recognised that much more research work along ante-natal lines still requires to be done before we can hope to deal effectively with deaths from congenital disease, and, while not neglecting to carry on the crusade against post-natal diseases, the time appears to have been reached when intensive work along ante-natal lines should be encouraged in order further to reduce the wastage of infant lives.

The registered deaths from Syphilis were 30 as compared with 12 in 1919, and from Premature Birth, a number of which no doubt must have been due to Venereal Disease, were 144 as compared with 139 in 1919. Syphilis in the new-born is now an eminently curable disease, so that with the co-operation of the recently formed Venereal Diseases Department it is hoped that the deaths from this disease will be materially reduced.

More and more are mothers beginning to realise that healthy babies are an asset and unhealthy babies a liability; that is the impression borne in upon me in my experience at the Child Welfare Clinics, where I find that the information and education received by them for the ex-baby is now being applied to the new baby. Such a result is what one aimed at and hoped for from preventive work. Mothers will bring their babies to a preventive Clinic with what appears to them to be a trivial complaint and at a stage when they would never dream that the complaint was of sufficient importance to take them to a curative Dispensary or to their own doctor. There is little doubt that were it not for preventive Clinics many such symptoms would be allowed to develop into actual disease before medical attention was drawn to them. Public Health work is, and should always be, essentially preventive in character.

In the two following Tables, details are set forth (1) as to the deaths of all infants at different age periods and the causes of death, and (2) as to the deaths of all illegitimate infants at different age periods and the causes of death.

Causes of Death among Infants under One Year during 1920.

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 3 Months.	3, and under 6 Months.	6, and under 9 Months.	9, and under 12 Months.	Total under 1 Year.
Smallpox	...	...	...	...	...	...	...		...	...
Chickenpox	...	...	...	...	...	...	1	1	...	2
Measles	...	...	...	...	...	...	...	4	9	13
Scarlet Fever	...	...	...	...	...	...		1	...	1
Whooping-cough	...	...	...	...	...	2	...	1	2	5
Diphtheria and Croup	...	1	...	...	1	2	...	1	5	9
Erysipelas	...	...	...	...	...	1	...	...	...	1
Tuberculous Meningitis	...	...	...	...	...	1	4	1	5	11
Abdominal Tuberculosis	...	...	...	...	...	...	...	...	1	1
Other Tuberculous Diseases	...	...	..	...	..	1	1	2	2	6
Meningitis (not Tuberculous)	...	...	...	...	...	4	4	5	3	16
Convulsions	10	6	2	2	20	8	...	5	3	36
Pneumonia (all Forms)	2	2	2	1	7	21	19	16	19	82
Bronchitis	...	2	2	2	6	17	12	3	6	44
Laryngitis	...	...	...	...	...	1	1	...	1	3
Diarrhœa and Enteritis	...	1	...	...	1	12	22	10	4	49
Other Digestive Diseases	1	1	1	4	7	6	5	3	1	22
Congenital Malformation	9	4	2	3	18	8	6	...	...	32
Premature Birth	93	11	17	3	124	20		...	...	144
Atrophy, Debility and Marasmus	28	8	8	1	45	23	15	1	...	84
Atelectasis	3	2	1	1	7	2	...	...	...	9
Injury at Birth	13	...	1	...	14	...	...	...	...	14
Suffocation, overlaying	1	...	1	...	2	1	...			3
Syphilis	4	1	2	2	9	14	4	1	2	30
Rickets	...		...	1	1	...	...	1	...	2
All other Causes	20	2	6	4	32	14	14	2	7	69
Total	184	41	45	24	294	158	108	58	70	688

Causes of Death among Illegitimate Children under Five Years during 1920.

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 3 Months.	3, and under 6 Months.	6, and under 9 Months.	9, and under 12 Months.	Total under 12 Months.	12 Months and under 2 Years.	2, and under 3 Years.	3, and under 4 Years.	4, and under 5 Years.	Total under 5 Years.
Smallpox	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...
Chickenpox	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	...	...	...	...	...	...	...	...	2	2	3	...	...	...	5
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whooping-cough	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup	...	...	...	...	...	...	...	...	...	..	2	1	1	..	4
Erysipelas	...	...	..	...	...	...	...	...	...	...	...	...		...	...
Tuberculous Meningitis	...	...	...	...	...	...	...	...	...	...	1	...	1	..	2
Abdominal Tuberculosis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Meningitis (not Tuberculous)	..	...	...	...	...	...	1	...	...	1	...	...	...	...	1
Convulsions	...	...	...	...	...	...	.	1	...	1	...	...	...	...	1
Pneumonia (all Forms)	...	...	...	...	...	6	1	2	3	12	...	1	..	...	13
Bronchitis	...	...	...	..	...	3	2	1	1	7	...	...	...	...	7
Laryngitis	...	...	...	...	...	...		...	...	...	...	...	...	...	...
Diarrhœa and Enteritis	...	1	...	...	1	4	5	1	...	11	...	...	...	...	11
Other Digestive Diseases	...	...	...	...	...	...	1	...	..	1	...	...	...	...	1
Congenital Malformations	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Premature Birth	7	1	...	1	9	5		...	.	14	...	...	...	...	14
Atrophy, Debility, and Marasmus	4	3	...	...	7	6	5	1	..	19	...	...	...	...	19
Atelectasis	...	1	...	...	1	..	...	...	...	1	..	...	...	...	1
Injury at Birth	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...
Suffocation—Overlaying	...	...	...	...	...	...	..	...	...		...	...	.	...	...
Syphilis	3	...	1	1	5	6	1	...	2	14	...	...	...	...	14
Rickets	..	..	...	...	...	...	..		...	...	...	...	...	...	...
All other Causes	6	2	1	...	9	2	3	1	...	15	1	...	1	...	17
Total	20	8	2	2	32	32	19	7	8	98	7	2	3	...	11

The total number of deaths of children under 5 years during the year was 877. Of these 767 were legitimate and 110 were illegitimate. The great majority of these children died before they reached the end of their first year, thus of the 767 legitimate deaths 590 or 77 per cent. died under 1 year, and 177 or 23 per cent. between 1 and 5 years, and of the 110 illegitimate deaths 98 or 89 per cent. occurred under 1 year and 12 or 11 per cent. between 1 and 5 years.

The total number of births during the year was 7774, of which 644 were illegitimate. The percentage of deaths of legitimate infants under 1 year to the total legitimate births was 8·27, and the percentage of deaths of illegitimate infants under 1 year to the total illegitimate births was 15·21.

The total number of deaths of infants under 1 year was 688. In the case of the 590 legitimate infants the conditions causing the majority of deaths were respectively :

1. Premature Birth, accounting for 130 deaths or 22·03 per cent. of the total legitimate deaths.
2. Pneumonia, (all forms) accounting for 70 deaths or 11·86 per cent. of the total.
3. Atrophy, Debility and Marasmus, accounting for 65 deaths or 11·01 per cent. of the total.

On comparing these causes with those of the 98 illegitimate deaths, it is found that they also account for most of these deaths, thus :

1. Premature Births numbered 14 or 14·28 per cent. of the total illegitimate deaths ;
2. Pneumonia (all forms) numbered 12 or 12·24 per cent. of the total ;
3. Atrophy, Debility and Marasmus numbered 19 or 19·38 per cent. of the total ;

but, in addition, we have other two outstanding causes, namely, Syphilis, of which there were registered 14 deaths or 14·28 per cent. of the total as compared with 16 or only 2·71 per cent. in the case of legitimate infants, and Diarrhœa of which there were 11 deaths or 11·22 per cent. as compared with 38 or 6·44 per cent. in the case of legitimate infants.

If one now compares the legitimate and illegitimate deaths under 1 year according to age periods, as is shown in the following Table, some very important facts are brought out.

	Legitimate.		Illegitimate.	
	No.	Per Cent.	No.	Per Cent.
Under 1 week	164	27·79	20	20·40
1 and under 2 weeks . . .	33	5·59	8	8·16
2 and under 3 weeks . . .	43	7·28	2	2·04
3 and under 4 weeks . . .	22	3·72	2	2·04
Total under 4 weeks . .	262	44·40	32	32·65
4 weeks and under 3 months . .	126	21·35	32	32·65
3 and under 6 months . . .	89	15·08	19	19·38
6 and under 9 months . . .	51	8·64	7	7·14
9 and under 12 months . . .	62	10·50	8	8·16
Total under 12 months . .	590	...	98	...

It will be seen that the percentage of legitimate deaths under 1 week is actually a little higher than that of the illegitimate deaths, and for the total period of the first 4 weeks a similar result obtains; but if one compares the percentages of total deaths under 4 weeks with those between 4 weeks and 3 months the striking fact is shown that, whereas for the latter period the legitimate rate is only half that of the former, in the case of the illegitimate deaths the rate remains the same for both age periods and shows no such similar reduction. This table, therefore, brings into prominence two critical age periods for all infants under 1 year; first, the period under 1 week which affects the legitimate and illegitimate infants in somewhat similar proportions, and for causes which must necessarily be mainly ante-natal in origin; and second, the period over 4 weeks and under 3 months, in which the causes are mostly of post-natal origin and mainly disastrous to the illegitimate infant. This is the period during which most generally the mother loses intimate touch with her infant, who is too frequently handed over to the care of unsuitable guardians and is thus denied its natural food—breast milk. The problem of the illegitimate child's chances of survival can only be solved by keeping the infant in the care of its mother for at least three months, for after this period the dangers from weaning are largely minimised, as most infants can from this time onwards more easily tolerate and thrive upon the bottle. The number of illegitimate babies who died in institutions is shown in the following Table:—

City Hospital - - - -	8
Sick Children's Hospital - - -	6
Deaconess Hospital - - - -	1
Royal Maternity Hospital - - -	8
The Hospice - - - - -	2
Edinburgh Women's Hospital - -	6
Infant Homes - - - -	1
Craiglockhart Poorhouse - - -	33
Total - - -	65

The following Table shows the number of illegitimate infants who died in each of the Wards of the City.

I. Calton	4
II. Canongate	7
III. Newington	0
IV. Morningside	5
V. Merchiston	0
VI. Gorgie	4
VII. Haymarket	1
VIII. St Bernard's	1
IX. Broughton	1
X. St Stephen's	4
XI. St Andrews	1
XII. St Giles	5
XIII. Dalry	7
XIV. George Square	7
XV. St Leonard's	8
XVI. Portobello	4
Institutions (not allocated to Wards)	39
Total	98

Ante-natal Clinics.—Ante-natal Clinics have been held at the various centres and at the Royal Maternity Hospital. The number of expectant mothers attending again shows an increase on the past year. Especially is this the case at the Royal Maternity Hospital, where the Department is fortunate in having the services of Dr J. W. Ballantyne in charge. It is well known that Dr Ballantyne's reputation for ante-natal work is world-wide, so that the work of his Department is bound in time to favourably influence the death-rate from causes ante-natal in origin. Ante-natal Clinics were held at seven different centres in the City with a total attendance of 6494 women, of which 3444 were old cases and 3050 were new cases. In 1919 the total attendances were 2250. At the Royal Maternity Hospital the total attendances for 1920 were 4957, as compared with 1225 in 1919. The total number of Ante-natal Clinics held during the year was 587, of which 200 were held at the Royal Maternity Hospital.

The following Table gives the detailed figures with regard to the Ante-natal Clinics.

Centre.	Number of Clinics held.	Attendances.		
		New Cases.	Old Cases.	Total.
Cowgate	95	442	409	851
Gorgie	52	59	25	84
Grove Street	52	45	34	79
High Street	52	178	192	370
Marshall Street	44	46	56	102
Royal Maternity Hospital	200	2,257	2,700	4,957
Windsor Street	52	23	28	51
Total	547	3,050	3,444	6,494

Preventive Clinics.—The following Table shows the number of Preventive Clinics held at the various centres, with the number of attendances at each.

Centre.	Number of Clinics held.	New Cases.			Total Attendances.		
		Under 1 year.	Over 1 year.	Total.	Under 1 year.	Over 1 year.	Total.
Canongate	75	122	52	174	1,352	342	1,694
Gorgie	98	171	31	202	1,088	447	1,535
Grove Street	84	156	14	170	1,661	981	2,642
High Street	88	108	22	130	1,457	759	2,216
Pleasance	93	220	33	253	2,302	811	3,113
Windsor Street	103	293	47	340	3,026	861	3,887
Stockbridge	50	124	8	132	1,014	568	1,582
Totals	591	1,194	207	1,401	11,900	4,769	16,669

During the year 1919 there were 11,516 attendances, and the total number of new cases was 1072, of which 822 were under 1 year and 250 over 1 year. Extremely beneficial work continues to be carried out at the Preventive Clinics. At these Clinics the work is primarily educative. Mothers are shown how to feed their babies and how to keep them in good health. There is no doubt that many mothers wean their babies unnecessarily, so that one of the objects of these Clinics is to encourage breast feeding, and many an infant has been rescued from bottle feeding where the mothers have followed the advice given to them in regard to this matter. Compared with the breast-fed baby far greater difficulties arise in the case of the bottle-fed baby with far greater risks to the baby. Bottle-fed babies require careful supervision to guard against the bad effects of underfeeding or overfeeding. There

is much ignorance displayed by mothers in regard to this, and no amount of natural instinct can teach the lesson. The mother has to be taught when and how to modify and increase the feeds. Whilst the vast majority of cases seen at the Preventive Clinics are mainly dietetic in character, mothers are also advised as to the danger signals of disease, and the treatment of simple ailments. Thus by treating what to the lay mind may appear trivial symptoms, a vast amount of disease in the making is arrested and cured at its most hopeful stage.

Curative Clinics.—The following Table shows the number of Curative Clinics held at the various Centres and Dispensaries with the number of total attendances at each.

Centre.	Number of Clinics Held.	Total Attendances.
Canongate . . .	50	634
*Cowgate	95	2,671
Gorgie	51	513
*Grove Street . . .	50	335
High Street . . .	52	143
*Marshall Street . .	99	1,896
Portobello . . .	100	1,672
*Richmond Street . .	75	1,270
*Riego Street . . .	52	1,855
Windsor Street . .	51	442
Total . .	675	11,431

The Centres marked with an asterisk are Dispensaries which, with the exception of Richmond Street, are subsidised by the Corporation, the Clinics being conducted by Doctors on the regular staff of these Dispensaries.

Assistance.—Milk is distributed in necessitous cases either free or at a reduced rate. It cannot be too often insisted upon that milk distribution in connection with Child Welfare Schemes should be merely on grounds of medical necessity. Is the infant actually suffering from lack of nourishment which its parents are unable to provide or is it in danger of doing so?—should be the guiding question and not merely alleged necessitous circumstuances. In doubtful cases it is my practice to encourage the mother to bring her baby for a week or two to be regularly weighed and to satisfy myself that it is or is not tending to suffer from lack of nourishment. The chart facing page 26 shows graphically the milk distribution for the present year.

Dinners are provided for expectant and nursing mothers who show evidence of lack of nourishment. The mothers are given the dinner on the premises where it is cooked. They cannot take it home with them. In this way one is assured that there can be no misuse of the help given.

Health Visitors.—The big increase in the number of births during the year has entailed a large amount of extra work upon the existing staff of official Health Visitors and I cannot too highly praise the way in which they one and all have risen to the occasion and have carried through their arduous duties. The number of first visits paid by the Staff during the year was 7789—an increase of 1807 upon the previous year—and the number of subsequent visits was 63,309. In addition, 1061 special visits were paid to expectant mothers.

The members of the Voluntary Health Visitors' Association visited 2819 individual cases and during the year referred back 114 of these to the Department for reasons of illness or as requiring skilled supervision. This Association publishes an Annual Report of its own giving details of the work carried out by its members.

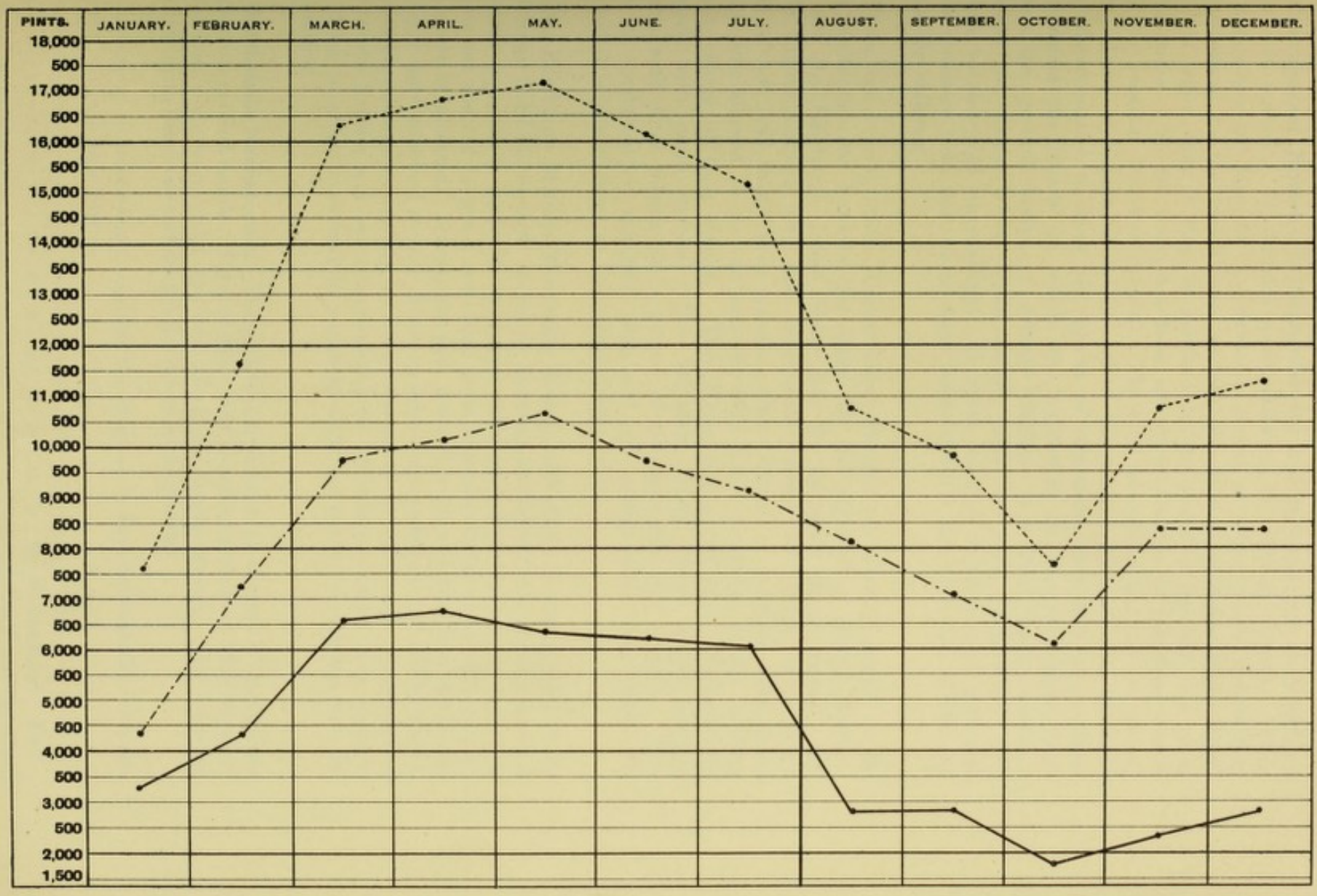
The Voluntary Committee of the Toddlers' Play Centres have continued to do useful work. The numbers of children attending have been well maintained and their general health has been good with few exceptions. The whole success of these Centres largely depends upon the personality of those superintending them, and the Committee are to be congratulated upon the devotion and enthusiasm of those ladies whose services they have had the good fortune to secure for this work.

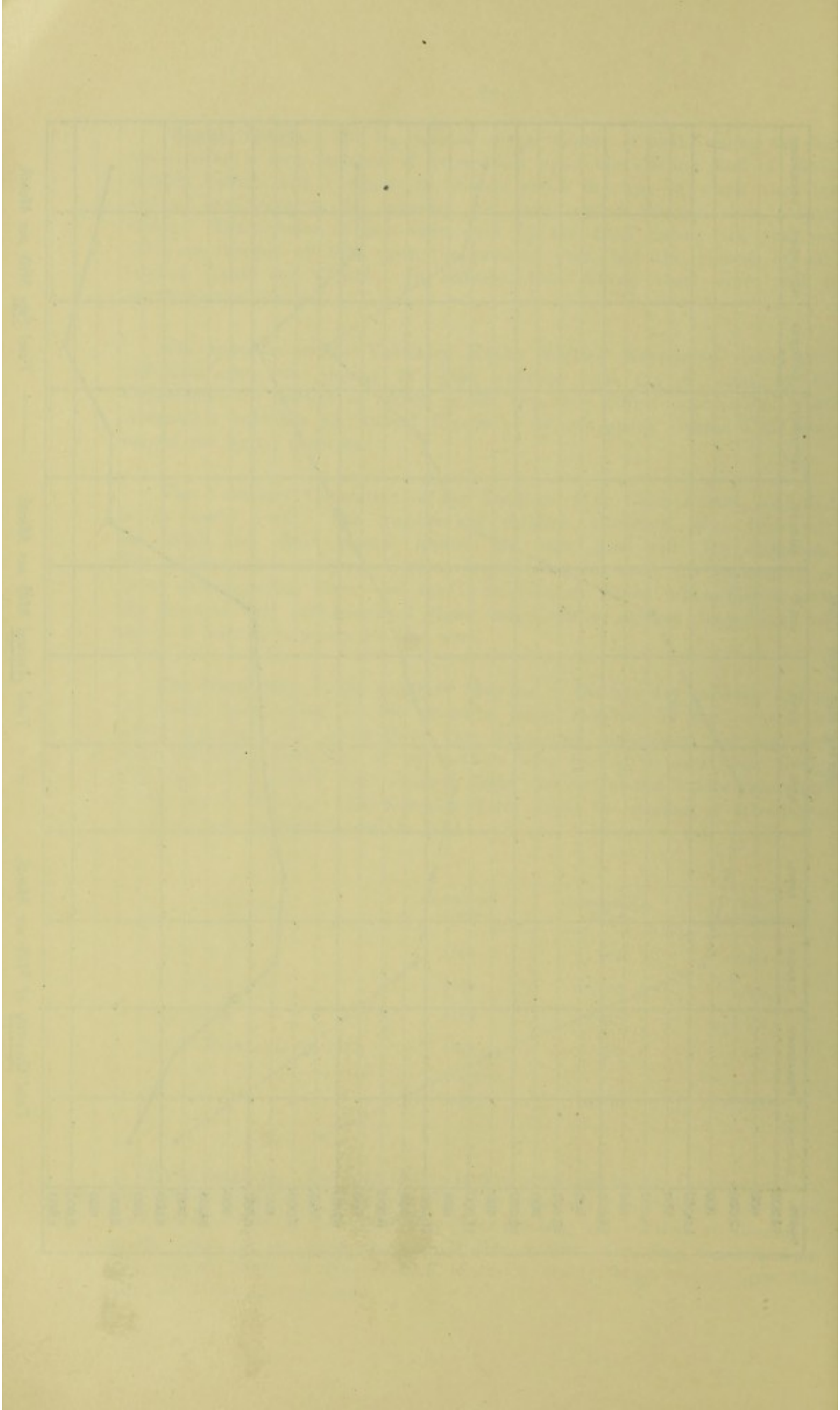
Day Nurseries.—In the month of May one of the four day nurseries had to be closed down owing to the premises being required by the owners for other purposes. The other three were kept open throughout the year and were well taken advantage of by mothers who, having to earn their living, were thankful to leave their children under the careful and kindly supervision of the various matrons. The following Table shows the number of attendances of infants and children during the year.

Day Nursery.	Attendances—Infants.	Attendances—Children.	Total Attendances.
Danube Street . . .	1,501	1,903	3,404
Dumbiedykes Road . .	3,476	6,130	9,606
Grove Street	2,179	2,242	4,421
Sciennes Road (up to May 1920)	389	703	1,092
	7,545	10,978	18,523

Child Gardens.—The four Child Gardens subsidised by the Corporation have been visited from time to time during the year and one becomes more and more impressed with the valuable and far-reaching effects that are bound to be the result of the early training of the children attending these schools. The general health of the children shows a steady improvement upon the standard of the previous year.

Chart showing Quantity of Milk per Month supplied either Assisted or Free from the Child Welfare Department during the Year 1920.





Convalescent Homes.—In September the new isolation hut at Gogarburn House was opened. It contains accommodation for fifteen children. Here new admissions are kept for a quarantine period of three weeks before they are transferred to the main house, so that should any infectious disease break out it is hoped that it may be confined to the isolation hut and not occur in the house. So far there has been an entire absence of infectious disease since the isolation hut was opened. The total admissions since the re-opening of the Home in September to the end of the present year was 69. It would be a simple matter to show big figures of admissions, but such a procedure would defeat the objects for which the Institution was opened, namely, to so improve the general health of delicate children that they would acquire a resistance to disease which would stand them in good stead when they returned to their old surroundings. To attain such an object a more prolonged stay is necessary than the two or three weeks which is the usual rule in Holiday Homes for children.

There are several other Homes which, though not directly carried on by the Corporation, are, however, subsidised by the payment of annual grants—such are the Edinburgh Infant Home and the Salvation Army Home. The former admits mothers with first illegitimate infants and keeps them for a period of not less than three months, after which, in suitable cases, some mothers are allowed to go out and do daily work, returning in the evening to take charge of their infants. This Home fills a real need, and carries on its work with much success. The Salvation Army Home admits nursing mothers with their infants for a period of not less than six months. This Home is conducted on admirable lines and one cannot praise too highly the skill and devotion of those in immediate charge of it.

The Edinburgh Medical Missionary Society have placed at the disposal of the Corporation five beds in their Home at Duddingston during the summer months, for which payment is made for each case admitted. Thus expectant or nursing mothers are enabled to get a rest from their domestic duties where the need for such a rest is indicated. During the year from June to October, 37 mothers and 43 infants were admitted to this Home on the recommendation of the Department. Another Home requires mention for the good work it is performing. It is situated in Polwarth Terrace and has accommodation for 12 infants without their mothers. This Home is carried on entirely by voluntary effort and receives no subsidy from the Corporation.

Ophthalmia Neonatorum.—During the year the number of cases of Ophthalmia Neonatorum notified was 66. Three of these were imported cases from other districts. Of the rest, some were under the care of private family doctors. The following facts bear upon those cases where particulars could be secured.

According to information received the interval in days between the birth and the onset of the disease was :—

Days .	1	2	3	4	5	6	7	8	9	10	11	14	21	No Particulars	Total
Cases .	17	4	7	1	3	0	1	0	3	5	1	2	1	18	63

The confinement was attended :—

In 37 cases by Doctor and Nurse.
In 1 case by Doctor and Grandmother.
In 19 cases by Nurses from Hospital.
In 3 cases the births took place in Hospital.
In 3 cases no reliable particulars could be got.

The treatment was carried out :—

At Home	in 22 cases.
At Home and at Welfare Centres . .	in 12 cases.
At Home and at Outpatient Department of Hospitals	in 13 cases.
In Hospital	in 5 cases.
No particulars	in 11 cases.

The duration of treatment of the 5 cases in Hospital was as follows :—

Uuder 2 weeks.	Under 3 weeks.	Under 4 weeks.	Over 4 weeks.	Total.
2	1	1	1	5

and in each case complete cure ensued.

In those cases which were visited by the official Health Visitor the child was seen :—

In 10 cases before it was 1 week old.
In 24 „ „ „ 2 weeks old.
In 7 „ „ „ 3 „ „
In 4 „ „ „ 4 „ „

271 special visits were paid by the official Health Visitors in connection with this disease.

During the past year the work of the Child Welfare Department has again been greatly helped by the co-operation of voluntary agencies, and I desire here to put on record my indebtedness for the assistance I have thus received from the following :—To the Council of Social Service and Miss Hepburn at the Children's Shelter who have investigated many cases for me; to both the members of the Infant Health Committee and of the Leith Voluntary Workers' Association whose help at the Infant Clinics has been invaluable and to the members of the Voluntary Health Visitors' Association for their co-operation in Home Visitation; to the Committee of the Day Nurseries for their untiring interest in these Institutions; also to the ladies who interest themselves with the work at the Play Centres, and to the members of the several work parties; to the Jubilee Nurses whose valuable work is already well known; to Mrs Stirling Boyd, the founder of Humbie Children's Village; and to all those other workers who both individually and collectively have given their help ungrudgingly for the benefit of mothers and their infants.

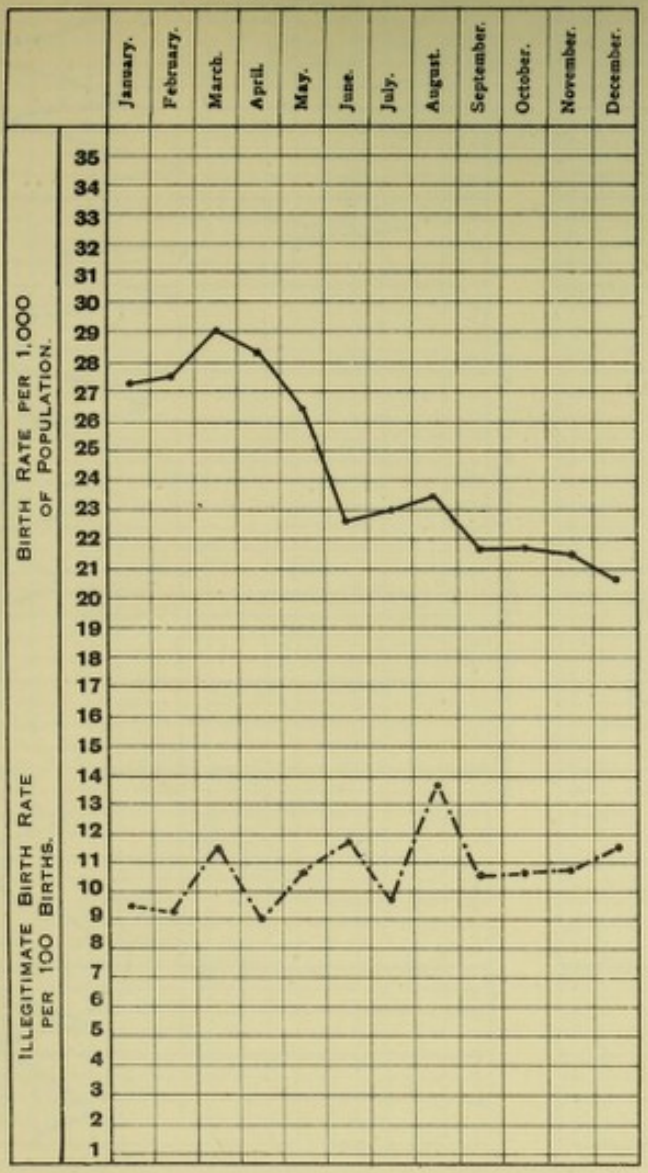
I have, Sir, the honour to remain,

Your obedient Servant,

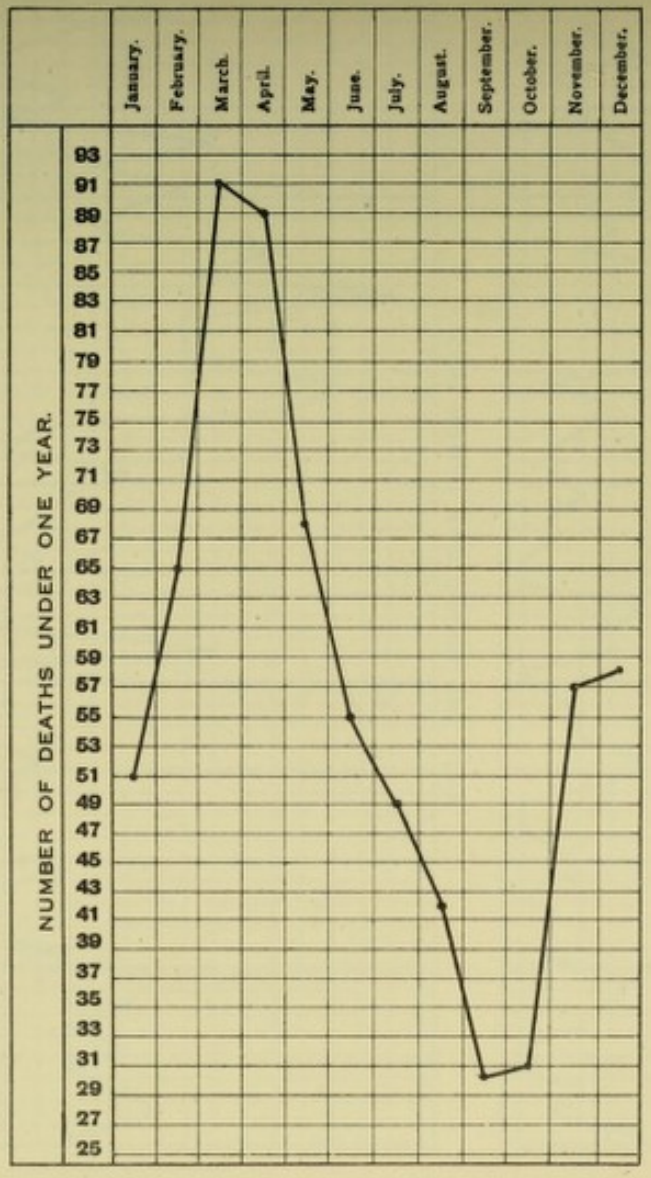
T. Y. FINLAY.

Birth Rate per 1,000 of Population.

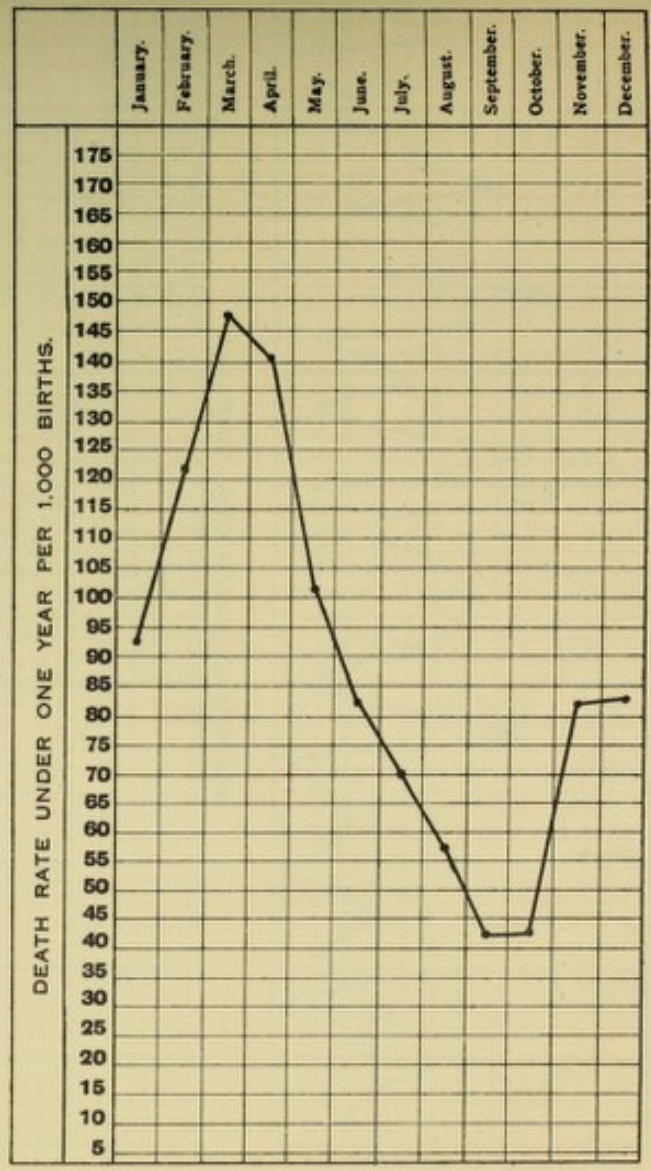
(Uncorrected).



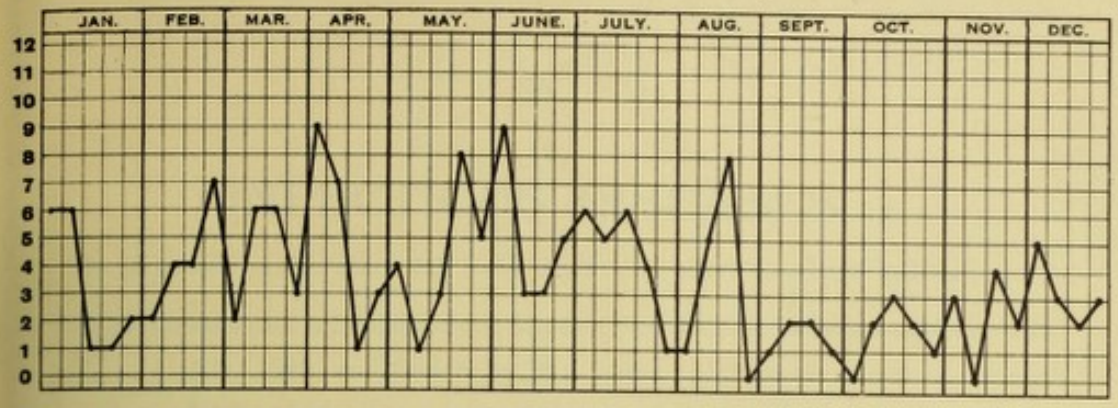
Deaths under One Year.



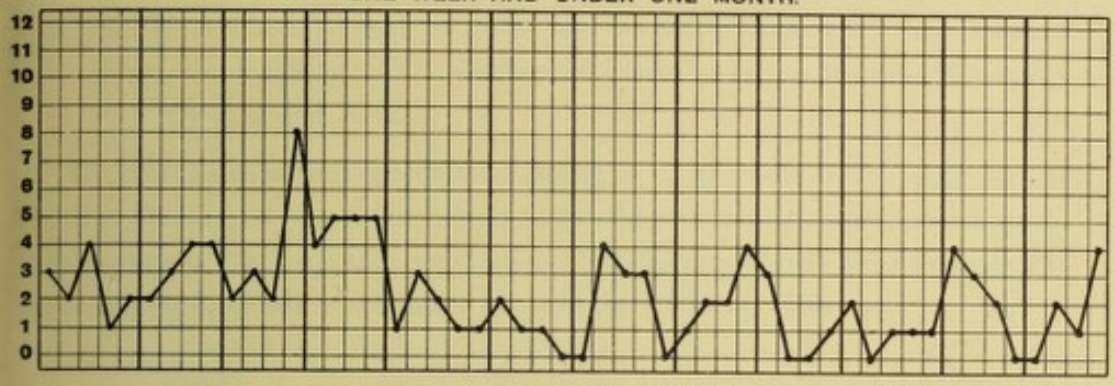
Infantile Mortality Rate.



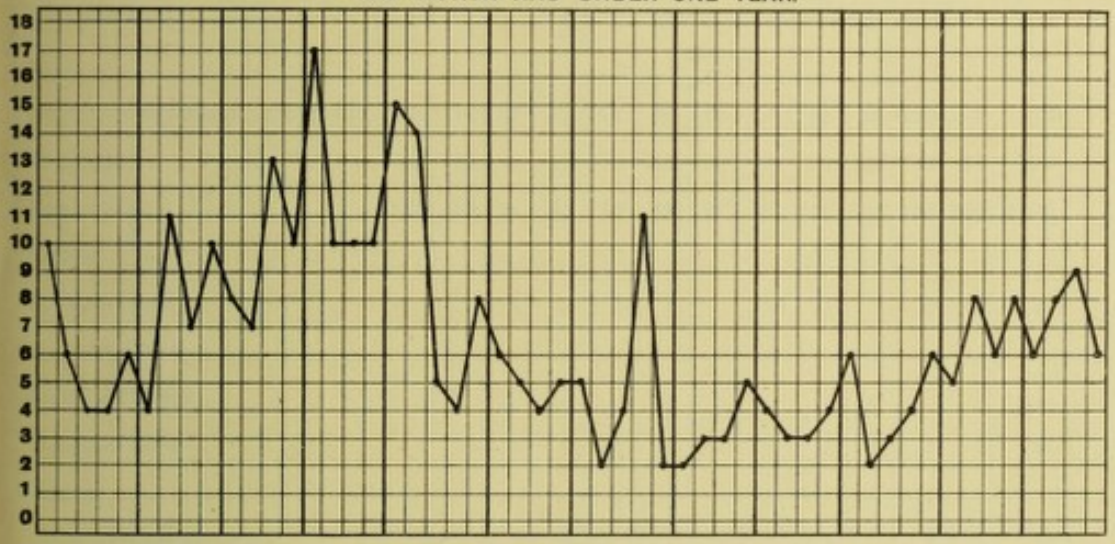
DEATHS UNDER ONE WEEK.—1920.



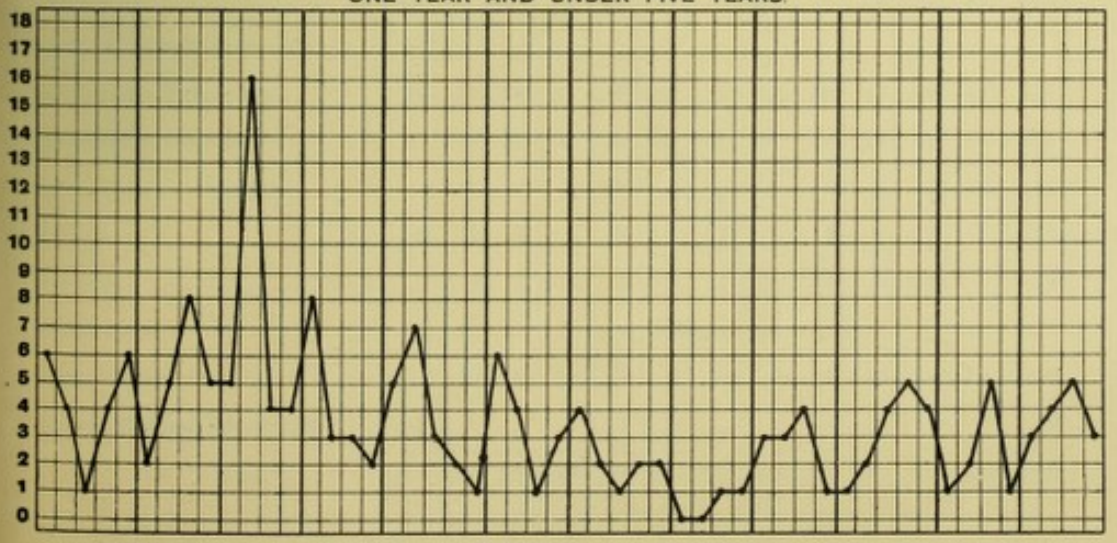
ONE WEEK AND UNDER ONE MONTH.



ONE MONTH AND UNDER ONE YEAR.



ONE YEAR AND UNDER FIVE YEARS.



INFECTIOUS DISEASES.

The various diseases which fall to be dealt with under this head include :—

(1) Those which are notifiable in terms of the Infectious Diseases Notification Act, 1899, and Orders by the Local Government Board or Scottish Board of Health (enumerated in the following Table); and

(2) Those which are **not** notifiable, and in regard to which no statistics as to the incidence of the disease are available, viz. :—Measles, Whooping-cough, and Mumps.

In consequence of the occurrence of Smallpox in Scotland in the early part of the year, Chickenpox was, on 22nd May, 1920, added to the list of notifiable diseases. In the course of the year, 4381 notifications of infectious disease were intimated to the Department, details of which are given in the following Table :—

Disease.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Smallpox	...	...	...	1	...	...	...	2	...	6	...	...	9
Cholera	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria and Membranous Croup	104	110	98	69	71	90	57	56	81	98	102	78	1014
Erysipelas	33	21	23	17	12	13	16	25	21	30	33	31	275
Scarlet Fever	131	97	81	63	73	89	77	97	146	198	184	184	1420
Typhus	...	...	...	...	...	...	...	...	...	...	...	...	...
Typhoid Fever	...	...	3	...	1	1	...	...	1	2	2	2	12
Relapsing Fever	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever	...	..	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever	6	5	1	1	2	1	1	3	1	2	2	1	26
Plague	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro-Spinal Fever	1	...	2	3	...	1	1	1	1	...	2	...	12
Chickenpox	...	...	...	...	43	75	35	22	14	63	69	34	355
Acute Anterior Poliomyelitis	...	...	...	...	...	..	...	...	...	...	...	...	...
Tuberculosis, Pulmonary	68	50	60	43	48	46	55	37	50	47	58	49	616
Tuberculosis, other forms	25	36	32	30	39	34	31	22	30	16	38	18	351
Ophthalmia Neonatorum	3	17	8	8	7	5	2	3	6	2	3	2	66
Malaria	5	4	3	4	3	8	7	4	3	4	7	1	53
Dysentry	...	4	1	3	4	1	1	1	1	1	1	...	18
Trench Fever	...	...	...	...	...	...	...	...	...	...	...	...	...
Acute Primary Pneumonia	17	10	10	20	13	9	5	5	6	13	16	18	142
Acute Influenzal Pneumonia	1	1	...	1	4	1	...	..	1	...	1	2	12
Total	394	355	322	268	320	374	288	278	362	482	518	420	4381

The following Table shows the number of patients who have passed through the various Hospitals under the control of the Public Health Department during 1920, and includes patients admitted from Leith and suburban areas, besides naval patients sent in from warships stationed at South Queensferry :—

Disease.	Remaining 31st December 1919			Year 1920.			Remained 31st December 1920.		
	Adults.	Children.	Total.	Admitted.	Discharged.	Died.	Adults.	Children.	Total.
City Hospital—									
Pulmonary Phthisis	163	18	181	685	538	160	153	15	168
Other Tuberculous Diseases	1	5	6	18	16	2	3	3	6
Smallpox	...	...	...	9	9	...	...	...	...
Typhus	...	...	..	...	...	...	...	...	...
Enteric, Relapsing, and Continued Fever	...	...	...	16	8	3	3	2	5
Puerperal Fever	1	...	1	19	12	7	1		1
Diphtheria, Membranous Croup	42	89	131	1049	972	63	51	94	145
Scarlet Fever	67	180	247	1374	1353	13	80	175	255
Erysipelas	7	.	7	162	139	16	11	3	14
Cerebro-Spinal Fever	..	...	...	13	3	9	...	1	1
Measles	3	15	18	279	260	13	2	22	24
Whooping-cough	...	3	3	18	17	2	...	2	2
Mumps	...	1	1	24	24	...	1	...	1
Chickenpox	...	1	1	52	52	...	...	1	1
Ophthalmia Neonatorum	...	...	...	7	5	1	...	1	1
Other Diseases and observation	7	10	17	768	727	35	13	10	23
	291	322	613	4493	4135	324	318	329	647
Portobello Hospital—									
Scarlet Fever	...	8	8	45	46	...	...	7	7
Royal Victoria Hospital—									
Phthisis	24	6	30	89	64	3	36	16	52
Polton Farm Colony—									
Phthisis	16	...	16	17	16	...	7	...	7
Total,	331	336	667	4644	4271	327	361	352	713

On page 31 are shown the notifications and deaths from various infectious diseases, arranged so that a ready comparison may be made between the respective Wards of the City. The Table also shows the case-rate per 1000 of the population for each disease, and the average rate for the previous 5 years.

The Table on page 32 shows the incidence of infectious disease in the City during the last 41 years, while the Table on page 33 gives particulars regarding the percentage of cases removed to Hospital. The figures in this last Table again emphasise the popularity that Hospital treatment has attained as compared with the conditions prevailing 30 years ago, and serve to show the confidence with which the citizens now regard the well-equipped institutions under the control of the Public Health Authority.

Table showing the Infectious Disease Notifications and Deaths (except Phthisis) in each Ward during the Year.

Wards.	Smallpox.		Typhus.		Enteric.		Puerperal.		Diphtheria.		Scarlet.		Erysipelas.		Cerebro-Spinal Fever.		Measles.		Whooping-Cough.		Total.	
	Notifications.	Deaths.	Notifications.	Deaths.	Notifications.	Deaths.	Notifications.	Deaths.	Notifications.	Deaths.	Notifications.	Deaths.	Notifications.	Deaths.	Notifications.	Deaths.	Notifications.	Deaths.	Notifications.	Deaths.	Notifications.	Deaths.
Calton	...	...	...	...	...	...	2	1	74	5	70	1	17	1	1	1	Notification not compulsory.	3	Notification not compulsory.	3	164	15
Canongate	...	...	...	...	...	...	1	...	61	5	82	...	22	3	2	2		6		...	168	16
Newington	...	...	...	...	1	...	...	...	62	2	64	...	4	...	...	...		...		1	131	3
Morningside	...	...	...	...	1	...	3	2	61	4	62	1	10	...	1	...		3		...	138	10
Merchiston	...	...	...	...	...	...	2	1	88	3	107	2	16	...	...	...		2		1	213	9
Gorgie	...	...	...	...	...	...	2	...	81	4	130	...	18	1	1	...		...		...	232	5
Haymarket	1	...	...	...	1	...	...	...	43	1	49	...	5	...	...	...		1		1	99	3
St Bernard's	...	...	...	...	1	...	1	...	73	...	81	...	6	...	...	...		2		...	162	2
Broughton	...	...	...	...	...	...	...	...	47	4	89	2	15	2	1	1		1		1	152	11
St Stephen's	...	...	...	...	...	...	2	...	58	2	105	1	7	1	1	..		...		...	173	4
St Andrew's	...	...	...	...	1	...	...	...	29	2	36	2	5	1	1	...		2		...	72	7
St Giles	...	...	...	...	...	...	2	1	47	5	57	1	35	3	...	...		8		1	141	19
Dalry	...	...	...	...	2	...	2	1	78	4	135	...	33	3	1	1		2		1	251	12
George Square	...	...	...	...	1	1	1	...	60	4	109	3	26	...	1	1		5		...	198	14
St Leonard's	1	...	..	...	1	...	5	3	45	4	64	1	30	1	1	1		6		1	147	17
Portobello	1	...	...	...	...	...	4	4	67	11	129	...	4	2	...	...		1		...	205	18
Public Institutions (staff & country patients)	6	...	...	...	3	1	3	2	37	3	51	...	21	2	3	3		...		...	124	11
Military Quarters	...	...	...	...	...	...	...	...	3	...	...	...	1	...	...	..		...		...	4	..
Total	9	...	...	...	12	2	30	15	1014	63	1420	14	275	20	14	10	...	42	...	10	2774	176
Case- and Death-rates (per 1000 population) for year 1920	·02	...	...	...	·03	·00	·08	·04	3·00	·18	4·21	·04	·81	·05	·04	·02	...	·12	...	·02	8·23	·52
Case- and Death-rates (per 1000 population) for the preceding 5 Years	...	...	...	...	·04	·00	·05	·02	2·19	·23	3·72	·10	·54	·02	·11	·06	...	·26	...	·36	6·69	·48

The deaths in this Table represent those actually occurring among the cases notified during 1920, although taking place after 31st December.

Table showing the number of Notifications and Deaths, together with Death-Rate per cent. of Cases of each Disease, during forty-one years, 1880-1920.

Year	Smallpox.			Typhus Fever.			Enteric Fever.			Puerperal Fever.			Diphtheria, Membranous Croup.			Scarlet Fever.			Erysipelas.			Cerebro-Spinal Fever.		
	Cases.	Deaths.	Percentage of Deaths to Cases.	Cases.	Deaths.	Percentage of Deaths to Cases.	Cases.	Deaths.	Percentage of Deaths to Cases.	Cases.	Deaths.	Percentage of Deaths to Cases.	Cases.	Deaths.	Percentage of Deaths to Cases.	Cases.	Deaths.	Percentage of Deaths to Cases.	Cases.	Deaths.	Percentage of Deaths to Cases.	Cases.	Deaths.	Percentage of Deaths to Cases.
1880	5	...	...	18	7	39·0	336	49	14·5	...	...	...	172	35	20 3	1897	338	17·8	...	...	...	...	...	...
1881	4	...	...	23	14	60·8	413	47	11·3	...	...	...	171	37	21·6	1904	257	13·4	...	...	...	...	...	...
1882	1	1	100·0	45	10	22·2	639	70	10·9	...	...	...	217	33	15·2	2161	88	4·0	...	...	...	...	...	...
1883	...	...	...	50	16	32 0	346	42	12·1	...	...	...	214	34	15 8	1817	85	4 6	...	...	...	...	...	...
1884	1	...	...	42	16	38·0	591	70	11·8	...	...	...	183	44	24·0	1423	72	5·1	...	...	...	...	...	...
1885	12	.	...	58	10	17·2	589	62	10·5	...	...	...	149	43	28·8	1087	28	2·5	...	...	...	...	...	...
1886	26	3	11·5	12	4	33·3	224	31	13·8	...	...	...	212	51	24·0	1306	42	3·2	...	...	...	...	...	...
1887	...	...	...	38	11	28·9	332	38	11·4	...	...	...	256	57	22·2	2587	145	5·5	...	...	...	...	...	...
1888	1	...	...	23	5	21·7	245	27	11·0	...	...	...	245	65	26·5	618	20	3·2	. .	...	...	...	...	...
1889	...	...	...	46	9	19·5	320	32	10·0	...	...	...	354	98	27·1	1255	29	2·3	...	...	...	...	...	...
1890	...	...	...	7	1	14·3	500	44	8·8	...	...	...	361	85	23·5	1197	46	4 0	...	...	...	...	...	...
1891	...	...	...	1	...	...	445	42	9·4	...	...	...	207	48	23·1	979	49	5·0	.	...	...	...	...	...
1892	8	...	...	18	3	16·6	238	28	11·7	...	...	...	203	42	20 6	1856	69	3·7	...	...	...	...	...	...
1893	51	1	1·9	6	1	16·6	274	36	13·1	...	...	...	251	62	24·7	1629	49	3·0	...	...	...	...	...	...
1894	537	56	10·4	3	1	33 3	310	38	12·2	...	...	...	362	86	23·7	1821	65	3·5	...	...	...	...	...	...
1895	109	16	14·6	...	..	...	417	54	12·9	...	...	...	314	65	20·7	2832	65	2·2	...	...	...	...	...	...
1896	...	...	...	10	3	30·0	328	36	10·9	...	...	...	251	52	20·7	2185	48	2·1	...	...	...	...	...	...
1897	...	...	...	3	1	33·3	254	24	9·4	...	...	...	214	44	20·5	2597	93	3 5	...	...	...	...	...	...
1898	7	...	...	79	9	11·2	241	27	11·2	...	...	...	269	38	14·1	2387	72	3·0	...	...	...	...	...	...
1899	...	...	...	12	3	25·0	289	39	13·4	...	...	...	279	28	10·0	1185	50	4·2	...	...	...	...	...	...
1900	5	...	...	35	3	8 5	249	25	10·0	...	...	...	483	52	10·0	991	27	2 7	...	...	...	...	...	...
1901	6	1	16·6	14	2	14 3	215	30	13·9	...	...	. .	542	58	10 7	892	26	2·9	...	...	...	...	...	...
1902	7	...	...	10	1	10·0	192	27	14·0	26	18	69·2	408	32	7·8	812	30	3·6	513	25	4·8	...	...	...
1903	5	1	20 0	1	...	...	237	22	9·2	7	3	42·8	575	59	10·2	1415	53	3·7	434	15	3·4	...	...	...
1904	168	15	8·9	6	...	...	196	22	11·2	14	11	78·5	752	63	8·3	1070	31	2·8	353	15	4·2	...	...	...
1905	2	...	...	1	1	100·0	210	20	9·5	11	9	81·8	674	61	9·0	832	15	1·8	291	25	8·6	...	...	...
1906	...	...	...	...	...	...	144	11	7·6	11	9	81·8	667	48	7·1	987	34	3·4	337	25	7·4	...	...	...
1907	...	...	...	1	...	...	103	11	10·6	19	10	52·6	635	32	5·0	1110	24	2·1	300	10	3·3	206	135	65·5
1908	20	...	...	...	...	...	68	6	8·8	13	3	23·0	389	16	4·1	1993	32	1·6	260	11	4·2	53	23	43·4
*1909	2	...	...	...	...	...	39	5	12·8	23	12	52 1	423	38	8·9	1522	50	3·2	207	10	4·8	28	16	57·1
*1910	...	...	...	...	...	...	45	6	13·9	19	7	36·8	511	60	11·7	1512	42	2·7	209	13	6·2	7	4	57·0
*1911	...	...	...	...	...	...	31	3	9·7	15	7	46·6	605	49	8·0	1075	24	2 2	241	12	4·9	3	3	100·0
*1912	...	...	...	...	...	...	29	4	13·7	8	5	62·5	426	29	6·8	893	10	1·1	239	10	4·1	4	4	100·0
*1913	...	...	...	...	...	...	45	10	22·2	18	11	61·1	448	35	7·8	1675	43	2·5	223	6	2·6	3	2	66·6
*1914	...	...	...	...	...	...	63	12	19·0	17	10	58 8	902	96	10·6	2270	36	1·5	278	11	3 9	6	2	33·3
*1915	...	...	...	...	...	...	21	3	14·3	16	8	50·0	900	107	11·8	1748	58	3 3	280	10	3 5	72	44	61·1
*1916	...	...	...	...	...	...	30	2	6·6	19	4	21·0	825	82	9·9	1411	31	2·1	171	4	2·3	42	23	54·7
*1917	...	...	...	...	...	...	6	2	33·3	22	12	54·5	584	65	11·1	748	16	2·1	160	12	7·5	45	18	40·0
*1918	...	...	...	...	...	...	14	1	7·1	10	5	50·0	627	60	9·5	852	26	3·0	126	5	3·9	30	11	36·6
*1919	...	...	...	...	...	...	6	...	...	19	9	47·3	734	79	10·7	1459	39	2·6	177	10	5·6	15	7	46·6
*1920	0	...	...	...	...	...	17	...	10·0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Became notifiable in 1902.

Became notifiable in 1907.

Table showing the number of Cases of the undermentioned diseases admitted to Hospital since the year 1890 and the percentage of admissions to total notifications in each year.

Years.	Smallpox.		Typhus Fever.		Enteric Fever.		Puerperal Fever.		Diphtheria, Membranous Croup.		Scarlet Fever.		Erysipelas.	
	Admissions.	Rate per cent. to Total Cases Notified.	Admissions.	Rate per cent. to Total Cases Notified.	Admissions.	Rate per cent. to Total Cases Notified.	Admissions.	Rate per cent. to Total Cases Notified.	Admissions.	Rate per cent. to Total Cases Notified.	Admissions.	Rate per cent. to Total Cases Notified.	Admissions.	Rate per cent. to Total Cases Notified.
1890	...	...	9	100·00	241	48·02			122	29·59	480	40·10		
1891	...	...	1	100 00	227	51 01			82	39·61	433	44·12		
1892	8	100·00	16	88 88	115	48·31			66	32·51	862	46·44		
1893	51	100·00	5	83·33	144	52·55			85	33·86	780	47·88		
1894	533	99·25	3	100·00	176	56·77			122	33·70	958	52·60		
1895	109	100·00	...	...	288	69·06			146	46·49	1519	53·63		
1896	...	...	10	100 00	233	71·03	Not N	otified	108	43·02	1381	63·20	Not N	otified
1897	...	...	3	100·00	175	68·89	until	1902.	109	50·93	1658	63·84	until	1902.
1898	7	100·00	78	98·73	143	51·03			111	41·26	1350	56·55		
1899	...	...	11	91·66	207	71·62			136	48·74	816	68·86		
1900	5	100·00	35	100 00	181	72 69			309	63·97	676	68·21		
1901	6	100·00	14	100 00	166	76 85			364	67·15	601	67·37		
1902	7	100 00	10	100·00	153	79·68	5	19·23	297	72·79	605	74·50	207	40·35
1903	5	100·00	...	...	214	90 29	...	...	429	74·60	1187	83·88	154	35·48
1904	170	100·00	6	100·00	174	88·77	1	7·14	579	76·99	942	88·03	136	38·52
1905	2	100·00	1	100·00	179	85·23	4	36·36	581	86·20	740	88·82	126	43·29
1906	...	...	...	...	132	91·66	7	63·63	589	88·30	880	89·15	146	43·32
1907	...	...	1	100 00	91	88·34	12	63·15	546	85·98	1026	92·43	152	50·66
1908	17	85·00	...	...	61	89·70	9	69·23	338	86·88	1882	94·43	133	51·15
1909	2	100·00	...	...	35	90·00	14	60·86	371	87·70	1442	94·74	108	52·17
1910	...	...	...	..	39	90 69	11	57 89	476	93·15	1423	94·11	91	43·54
1911	...	...	...	...	29	93·55	8	53·33	556	91·90	1007	93·67	131	54·35
1912	...	...	...	...	27	93·10	4	50·00	396	92·95	848	94·96	132	55·23
1913	...	...	...	...	41	91·11	8	44·44	416	92·85	1612	96·23	108	48·43
1914	...	...	...	...	56	88·88	12	70 59	856	94·90	2206	97·18	146	52·50
1915	...	...	...	...	19	90·47	8	50·00	883	98·11	1659	94·90	144	51·42
1916	...	...	...	...	28	93·33	10	52·63	797	96·84	1383	98·01	57	33·33
1917	...	...	...	...	5	83·33	11	50·00	567	97·08	727	97·19	74	46·25
1918	...	...	...	...	11	78·57	6	60·00	606	96·65	841	98·70	69	54·76
1919	...	...	...	...	6	100·00	7	36·84	716	97·54	1435	98·35	75	42·37
1920	9	100·00	...	...	10	83·33	13	50·00	981	96·74	1382	97·32	152	55·27

PHTHISIS.

The following Report has been prepared by Dr John Guy, Tuberculosis Officer :—

I beg herewith to submit my Annual Report on the Tuberculosis Department for the year 1920.

The most outstanding and encouraging fact at the close of the year was the diminished number of deaths from Pulmonary Tuberculosis. This year we finished with the remarkable number of only 286 deaths. Since records have been kept in this City we have never had such a small number recorded. In the year 1900 there were 548 deaths. In 1910 this number had decreased to 389, and in the year just closed to 286.

It would be too much to expect this diminution to go on uninterruptedly year by year, as, in the past, there have been occasional unexplained rises in various years. Likewise in the future we may expect a sporadic increase in some years, but I am hopeful that the fall in the rate taken over a long period will continue. I am sanguine enough to believe that in another 20 years—that is within one's lifetime as an official—Pulmonary Tuberculosis will be a comparatively negligible quantity amongst the various causes of death which at present make up our death-rate. That is, of course, assuming that there is no widespread social or economic disturbance.

I am viewing with considerable apprehension the present widespread unemployment with its consequent impairment of the family income. Nothing in my judgment will so adversely affect our progress in combating this disease as the diminished ability to purchase the amount of foodstuffs necessary for full physical welfare.

The prevention of Tuberculosis may be viewed from two points: first, the prevention of infection, and second, the resistance of the individual to that infection.

As the conditions of civilisation are at present, by far the greater proportion of the population is infected by the time early adult life is reached, so that it will necessarily be an indefinitely prolonged period before we have a non-infected people. Thus we are driven back to the second point, namely, the increasing of the resistance of the individual to the disease.

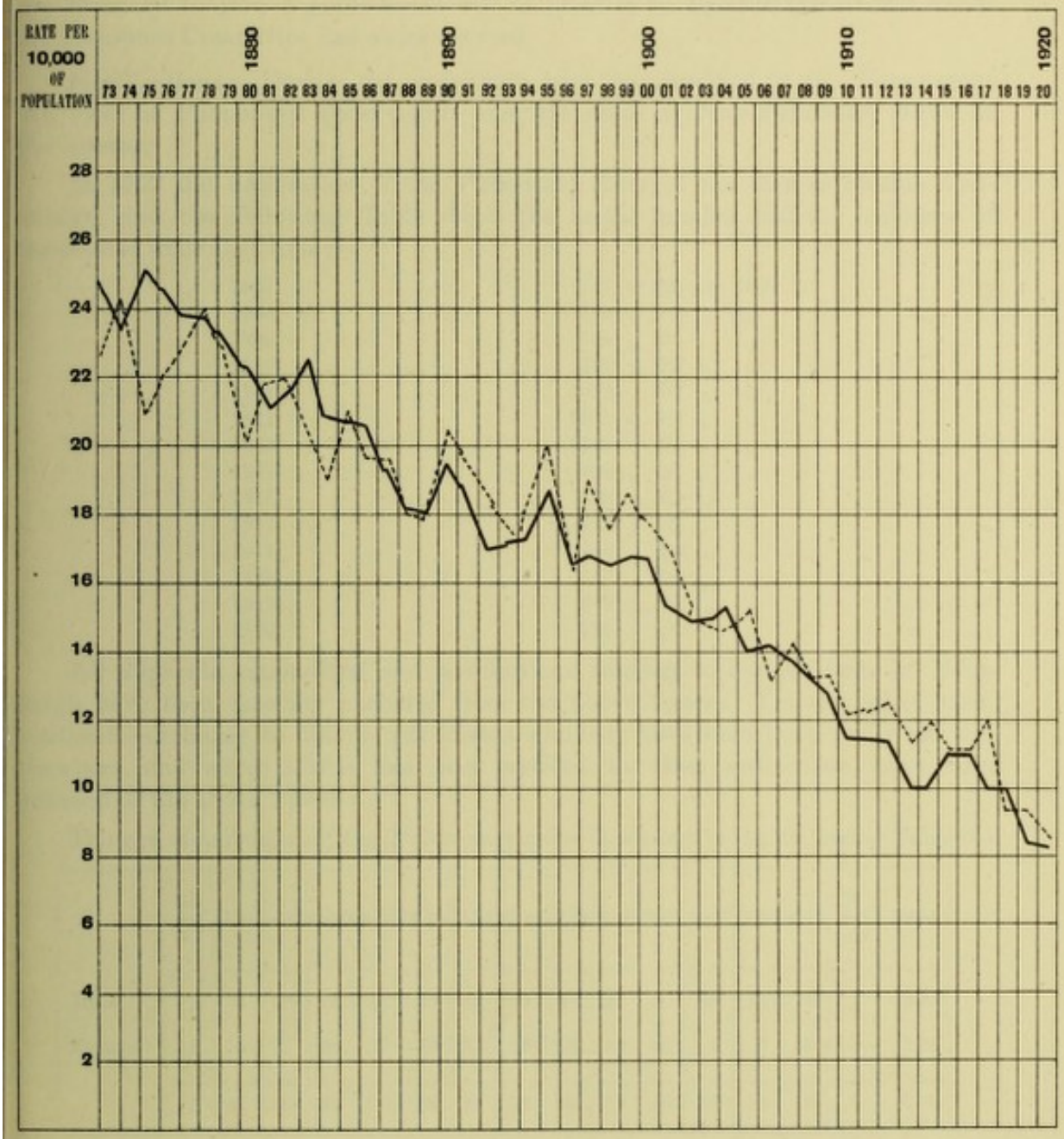
This resistance is built up by many factors, and of prime importance amongst them must be ranked an abundant supply of good food and and a healthy house conducted on hygienic lines.

The present widespread unemployment will cut deeply into these two factors. It will interfere gravely with the power of purchasing foodstuffs and tend to make for overcrowding in the homes. Because of this I am anticipating a slackening in the fall of the death-rate in the near future, which, however, I hope will only be temporary. The chart facing this page shows the steady decline in the Phthisis death-rate in Scotland and in Edinburgh since 1873.

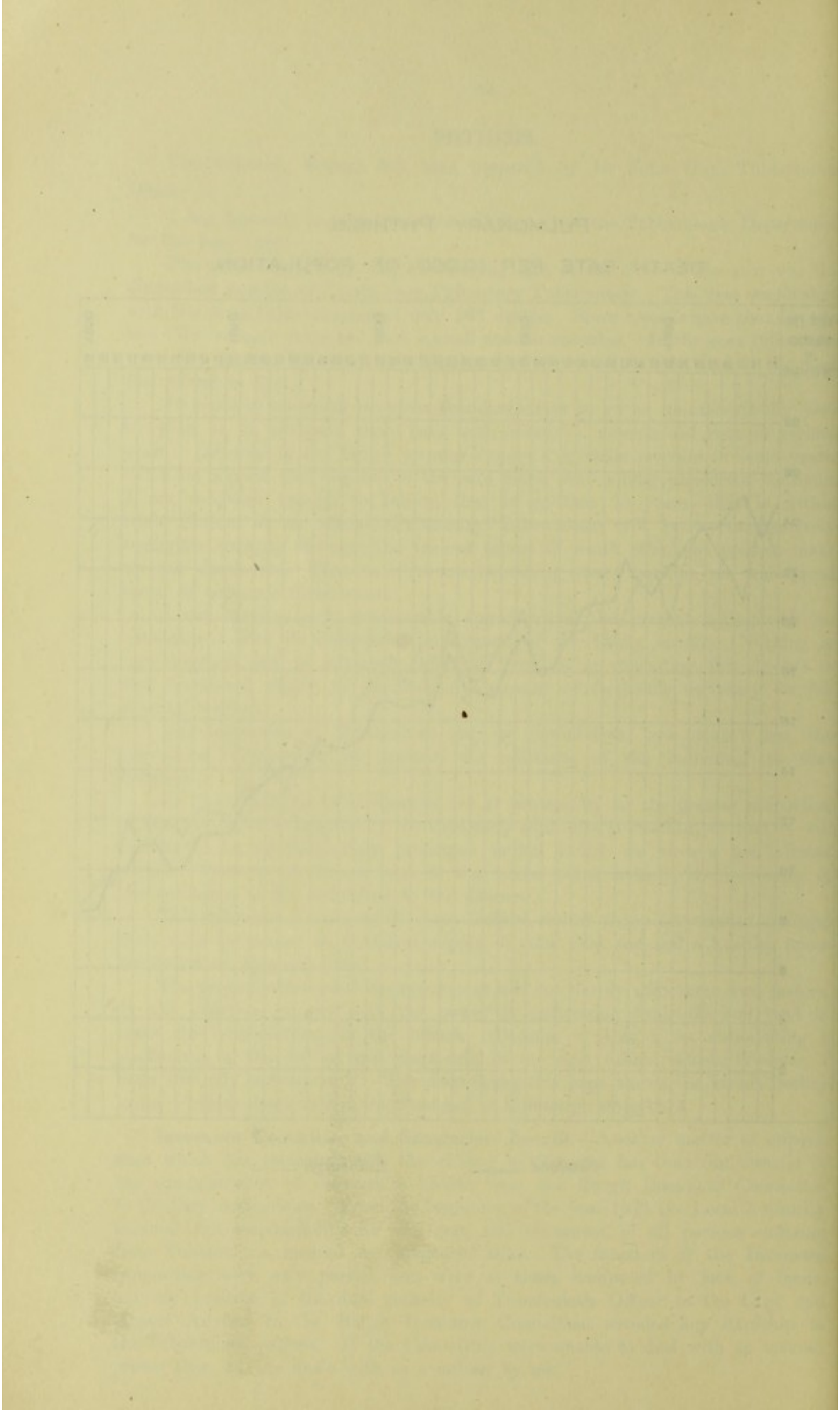
Insurance Committee and Sanatorium Benefit.—Another matter of importance which has coincided with the closing of the year has been the transfer of the administration of sanatorium benefit from the Burgh Insurance Committee to the City Authorities. From the beginning of the year 1921 the Local Authority assumes full responsibility for the care and treatment of all persons suffering from Tuberculosis, insured and uninsured alike. The functions of the Insurance Committee were only partial, and were at times hampered by lack of funds, but my position in the dual capacity of Tuberculosis Officer to the City, and Expert Adviser to the Burgh Insurance Committee, avoided any hardship to the Tuberculous patient. If the Committee were unable to deal with an insured person then he was dealt with as a citizen by me.

PULMONARY PHTHISIS.

DEATH RATE PER 10,000 OF POPULATION.



Scotland ——— *Edinburgh* .....



I should like to put on record my appreciation of the unfailing courtesy and sympathy of the Insurance Committee, and to note that the frequent meetings I had with them during the past 7 years were a stimulus and encouragement to me in the discharge of my duty. The Committee performed a useful function, but it appears to me that the time was ripe for its function being discharged by the Local Authority, thus avoiding a considerable amount of overlapping and duplicating. With the increased burden the City has now to undertake, it is proposed by the Treasury to give a grant which will in practice be equal to the amount which the Insurance Committee had at its disposal.

Notifications.—During the year there have been notified to the Department 616 cases of Pulmonary Tuberculosis and 351 cases of Non-Pulmonary forms of the disease.

In 1907 the notification of the Pulmonary form of the disease became compulsory, and the following Table shows the actual number and the incidence of the disease since that time :—

1907	651	or 2·0 per 1000
1908	713	„ 2·2 „ „
1909	744	„ 2·3 „ „
1910	763	„ 2·3 „ „
1911	1052	„ 3·3 „ „
1912	1255	„ 3·8 „ „
1913	1010	„ 3·1 „ „
1914	808	„ 2·4 „ „
1915	690	„ 2·1 „ „
1916	628	„ 1·9 „ „
1917	655	„ 1·9 „ „
1918	643	„ 1·9 „ „
1919	602	„ 1·7 „ „
1920	616	„ 1·8 „ „

All duplicate intimations and notifications relating to non-residents of Edinburgh have been carefully excluded from the above figures. On the other hand, notifications relating to Edinburgh citizens who may have been temporarily resident elsewhere, and whose illness had been notified to other authorities, have been included in the above Table.

The age distribution of the Pulmonary cases is set out in the following Table :—

	Under 5	5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70 and over	Total
Male . .	1	14	13	26	43	46	42	41	34	24	30	18	15	8	3	358
Female .	2	18	17	36	27	30	33	36	16	14	10	7	3	5	4	258
	3	32	30	62	70	76	75	77	50	38	40	25	18	13	7	616

The incidence of Phthisis in the several Wards of the City is shown in the following Table :—

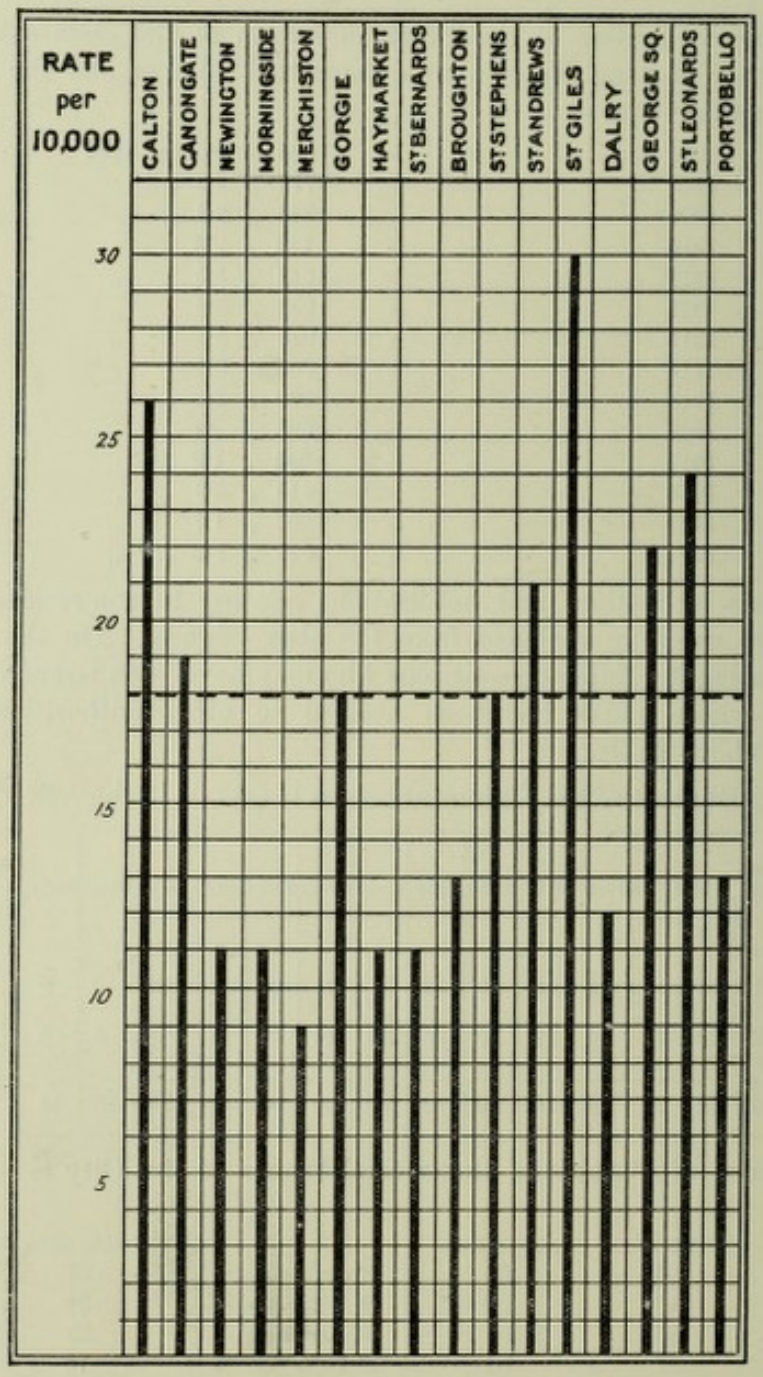
	Notifications.	Rate per 1000.		Notifications.	Rate per 1000.
Calton	63	2·6	Broughton	23	1·3
Canongate	48	1·9	St Stephen's	36	1·8
Newington	23	1·1	St Andrew's	25	2·1
Morningside	27	1·1	St Giles	76	3·0
Merchiston	24	0·9	Dalry	39	1·2
Gorgie	40	1·8	George Square	55	2·2
Haymarket	17	1·1	St Leonard's	61	2.4
St Bernard's	20	1·1	Portobello	24	1·3
Notifications from Institutions, not allocated to Wards				15	

The type of home from which patients are notified is always of interest. The following Table shows the notifications in relation to the size of the house :—

1-roomed house.	2-roomed house.	3-roomed house.	4 rooms and over.	Lodging-Houses.	Institutions.	Total.
50	215	166	137	22	26	616

PULMONARY TUBERCULOSIS.

NOTIFICATIONS PER 10,000 OF POPULATION.



----- *Notification Rate for City.*

Sanatorium Accommodation.—The total number of beds remains unaltered as compared with a year ago, and the number in the various institutions is as follows :—

Colinton Mains Sanatorium	132	ward beds.
Do. do.	99	open air shelters.
Royal Victoria Hospital	70	
Polton Farm Colony	22	
Total,	323	

Of the 616 cases notified during the year, 391 were removed to the various institutions. The ward space for advanced cases was fully utilised, but at times during the severe winter weather there were a considerable number of vacant beds in the open-air shelters—many of the patients finding the conditions there rather trying.

Deaths.—During the year there were 286 deaths from Pulmonary Tuberculosis, and 131 from the Non-Pulmonary form. The following Table shows the deaths from Tuberculosis in the City since the year 1900 :—

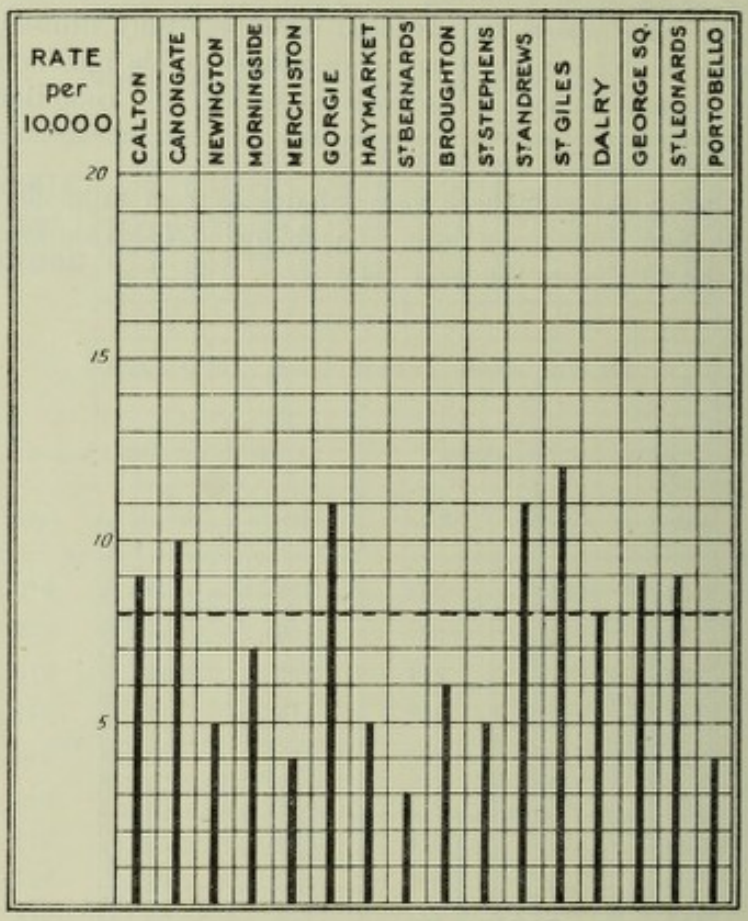
Deaths from Tuberculosis, 1900-1920.

Year.	Pulmonary Tuberculosis.			Other Tuberculous Diseases.			All Tuberculosis.
	Male.	Female.	Total.	Male.	Female.	Total.	
1900	302	246	548	141	129	270	818
1901	284	241	525	148	129	277	802
1902	262	215	477	120	95	215	692
1903	244	223	467	114	117	231	698
1904	223	185	408	121	125	246	654
1905	232	206	438	109	93	202	640
1906	193	180	373	108	110	218	591
1907	203	192	395	123	100	223	618
1908	197	198	395	123	92	215	610
1909	251	177	428	90	103	193	621
1910	223	166	389	82	83	165	554
1911	211	181	392	101	92	193	585
1912	226	180	406	93	87	180	586
1913	186	178	364	84	91	175	539
1914	213	166	379	89	101	190	569
1915	193	179	372	92	69	161	533
1916	198	158	356	81	82	163	519
1917	201	190	391	100	84	184	575
1918	141	180	321	74	89	163	484
1919	161	159	320	70	82	152	472
1920	161	125	286	69	62	131	417

The following line diagram shows in a graphic way the mortality experienced in each Ward, and in this way a comparison can at once be made with the death-rate for the City as a whole.

DEATH-RATE—PULMONARY TUBERCULOSIS.

Per 10,000 of Population.



------ *Death Rate for City.*

Age Distribution.—The following Table shows the age periods at which death took place and the distribution throughout the various Wards. The 286 deaths were distributed as follows :—Males, 161 ; Females, 125.

Table showing the Phthisis Mortality by Wards and age periods for the year 1920.

Wards.	Number of Deaths.	Rate per 1000.	Sex.		Age Periods.							
			Male.	Female.	Under 15 years.	15 and under 20 years.	20 and under 25 years.	25 and under 35 years.	35 and under 45 years.	45 and under 55 years.	55 and under 65 years.	65 years and upwards.
Calton . .	23	·9	16	7	...	1	1	6	5	9	...	1
Canongate . .	25	1·0	16	9	2	1	...	4	10	6	2	...
Newington . .	11	·5	4	7	...	...	1	3	1	3	1	2
Morningside . .	19	·7	11	8	...	...	2	6	3	3	3	2
Merchiston . .	12	·4	5	7	...	1	1	6	3	...	1	...
Gorgie . .	24	1·1	10	14	...	5	5	5	5	3	1	...
Haymarket . .	8	·5	4	4	...	1	2	1	1	3	...	...
St Bernard's . .	6	·3	1	5	...	1	2	2	1	...	...	...
Broughton . .	10	·6	5	5	...	1	1	4	1	...	3	...
St Stephen's . .	10	·5	8	2	...	1	2	1	1	4	...	1
St Andrew's . .	14	1·1	9	5	1	1	...	4	4	2	1	1
St Giles . .	32	1·2	20	12	...	6	2	12	2	4	4	2
Dalry . .	21	·8	9	12	2	3	1	5	4	6	...	...
George Square . .	23	·9	14	9	3	3	2	5	5	3	2	...
St Leonard's . .	24	·9	13	11	...	3	1	5	7	5	1	2
Portobello . .	9	·4	6	3	...	1	...	1	2	3	...	2
Institutions (other than Sanatorium) . .	14	...	9	5	...	2	1	3	3	2	3	...
Military Quarters . .	1	...	1	...	...	...	...	1	...	...	...	...
Total .	286	·3	161	125	8	31	24	74	58	56	22	13

Deaths in Relation to Notification.—The following Table is interesting as showing the time that has elapsed between notification and death :—

Notifications and deaths up to 31st December 1920 from Pulmonary Tuberculosis.

Year.	No. of Cases Notified.	No. of those known to have died.	Under 1 month.	From 1 to 3 months.	From 3 to 6 months.	From 6 months to 1 year.	From 1 to 2 years	Over 2 years.	Notified after Death.	Unknown.
1914	808	427	37	71	52	46	61	84	70	6
1915	690	384	36	64	25	31	61	52	101	12
1916	628	372	48	64	37	36	54	54	73	5
1917	655	361	44	56	27	40	73	40	70	11
1918	643	381	38	67	45	75	59	18	70	9
1919	602	258	59	57	41	29	17	...	54	1
1920	616	181	43	29	28	5	...	...	76	...

The following Table shows the deaths in 1920 in relation to notification :—

Year.	Under 1 month.	From 1 to 3 months.	From 3 to 6 months.	From 3 to 6 months.	From 1 to 2 years.	Over 2 years and under 3.	Over 3 years and under 4.	From 4 years upwards.	Notified after Death.
1920	35	47	26	39	30	16	8	9	76

Dispensary.—The work at this Centre, which is open every afternoon and every Thursday evening, continues unabated. The numbers attending during the year give a faint indication of the work done. The figures were as follows :—

	New Cases.	Old Cases.
Male . . .	714	4,734
Female . . .	598	2,961
Children . . .	870	3,392
Total, . .	2,182	11,087

Non-Pulmonary Tuberculosis.—During the year there have been 351 cases of Non-Pulmonary Tuberculosis notified. The age distribution is as follows :—

	Under 5.	5-10.	10-15.	15-20.	20-25.	25-30.	30-35.	35-40.	40-45.	45-50.	50-55	55-60.	60-65.	65-70.	70 and over.	Total.
Male . .	48	24	33	27	9	6	6	6	5	5	5	3	1	3	4	185
Female .	39	33	17	17	17	6	6	9	...	6	4	2	5	1	4	166
	87	57	50	44	26	12	12	15	5	11	9	5	6	4	8	351

As an indication of the economic status of the persons notified, I show the distribution of the cases as regards housing :—

1 Room.	2 Rooms.	3 Rooms.	4 Rooms and over.	Institutions.	Total.
11	140	99	98	3	351

The various regions affected amongst those notified during 1920 are shown in the following Table :—

	Notifications.		Notifications.
Glands—Cervical . .	57	Abdominal	52
Glands—other Glands . .	72	Meninges and Brain . .	50
Bone—(except Spine) . .	19	Kidney	8
Spine	18	General	40
Joints—Hip . . .	8	Skin	13
Joints—Knee . . .	3	Others	8
Joints—Ankle . . .	2		
Joints—Wrist . . .	1	Total . .	351

Provision for Hospital Treatment.—The arrangements during the year were quite inadequate for the treatment of Non-Pulmonary Tuberculosis, but with the re-arranging of the various hospitals, which are now available since amalgamation with Leith, it is expected that there will be approximately 100 beds set apart for the treatment of this form of the disease.

I am,

Yours faithfully,

JOHN GUY,

M.D., D.P.H. (Camb.), F.R.F.P. & S. Glas.,
F.R.C.P. Edin.

ENTERIC FEVER.

There were 12 cases of Enteric Fever notified during the year. Of this number two had been sent from other districts to the City for institutional treatment, suffering from an illness of an ill-defined nature, and on being subsequently diagnosed as cases of Enteric Fever, the notifications regarding them fell to be included in the City's statistics.

A reference to the table on page 32 shows the remarkable reduction in the incidence of this disease during the last 40 years, the decline being specially marked since 1908. This satisfactory state of affairs is due in large measure to the rapid strides made in sanitary science, and to the higher standard of cleanliness now enforced by public health supervision. Another factor contributing to the results of recent years has been the greater facilities for isolation and treatment in hospital, in which respect the City is very favourably placed.

Regarding the hospital statistics, which have been supplied by Dr Ker, the the Resident Physician, it is necessary to point out that in all cases the figures refer to all the patients admitted to the City Hospital. This includes patients from the Burgh of Leith, from the suburban areas of Midlothian, and from naval and military stations outwith the City boundary.

Of 30 cases admitted to hospital as "Enteric Fever" or as "observation" for that disease, there were 16 infected by one or other of the three enteric micro-organisms. Of these 9 were "Typhoid," 1 "Paratyphoid A," and 6 "Paratyphoid B," and the three fatal cases which occurred were all in the first of these groups. One patient suffered from Hæmorrhage, and there was one instance of relapse. Among the cases which proved to be other than Enteric Fever, there were two examples of Encephalitis Lethargica.

Table showing sex and age of Enteric Fever patients treated in hospital, (including those from other districts).

		0-5 yrs.	5-10 yrs.	10-15 yrs.	15-20 yrs.	20-30 yrs.	30-40 yrs.	40-50 yrs.	Totals.
Recovered	Males . . .	...	1	1	2	2	...	...	6
	Females . .	...	...	2	...	4	...	1	7
Died	Males . . .	...	...	...	...	1	1	...	2
	Females . .	...	...	...	...	1	...	...	1
		...	1	3	2	8	1	1	16

Hospital Mortality—18·8 per cent.

SMALLPOX.

While a considerable number of patients were admitted under suspicion of Smallpox, the majority suffered from Chickenpox and Pustular Eruptions due to various causes, and it was only found necessary to treat 12 cases in the Smallpox hospital, and of this number only 9 were ultimately diagnosed as Smallpox. Three were sporadic cases, the remaining six arriving together from Craiglockhart Poorhouse. It is interesting to remark that all these latter patients had refused re-vaccination earlier in the year.

Fortunately no patient suffered from a severe type of the disease. Four were classified as discrete Smallpox, the remaining five being examples of the modified type described as varioloid.

All were said to have been vaccinated in infancy, and seven presented more or less satisfactory marks. In one no marks could be found, and in another they were so indistinct as to be a matter of opinion. Only one patient had been re-vaccinated since infancy, and, although it was decided to regard him as a case of highly modified Smallpox, the diagnosis in his case could not be said to be absolutely certain.

Table showing sex and age of Smallpox patients.

		10-20 yrs.	20-30 yrs.	30-40 yrs.	40-50 yrs.	50-60 yrs.	60-70 yrs.	70-80 yrs.	Totals.
Recovered	Males . . .	...	1	..	..	1	2	1	5
	Females . .	...	1	...	...	...	1	2	4
		...	2	...	...	1	3	3	9

DIPHTHERIA.

There were 1014 notifications of Diphtheria during the year. The case-rate was equal to 3·00 per 1000 of the population, as compared with an average of 2·19 per 1000 for the preceding 5 years. While the cases are in excess of the number notified in 1919, the disease was generally of a somewhat mild type, the percentage of deaths to cases being only 6·2, as compared with 10·7 per cent. in 1919, and 9·5 per cent. in 1918.

Following the practice adopted some years ago, swabs were taken from no fewer than 2307 persons, who, although not showing any outward sign of the disease, had been in contact in their households with those who had been removed

to hospital suffering from Diphtheria. In 103 of the cases the swabs gave positive results, and the individuals concerned were at once isolated.

As a precautionary measure in connection with outbreaks of this disease, supplies of anti-diphtheritic serum are placed at the disposal of medical practitioners, and can be obtained without delay at various chemists throughout the City. It is found, however, that the privilege of getting supplies in this manner is not greatly taken advantage of, medical men preferring rather that patients should be removed to hospital. Early treatment in our splendidly-equipped hospital at Colinton Mains means much to the patient, and in a large measure accounts for the comparatively low death-rate from Diphtheria in the City.

The total number of cases admitted to the Diphtheria wards (including those from other districts) was 1332, and of these 1049 proved to be true Diphtheria. Of the remainder 10 were contacts, 152 carriers, and 119 other diseases such as Tonsillitis, Laryngitis, Broncho-Pneumonia, and Vincent's Angina. The death-rate was low, being almost exactly 6 per cent., as against 9·3 per cent. for 1919. The percentage incidence of post-Diphtheritic Paralysis was 5·2 per cent., also a very moderate figure. Rashes, the result of serum injections, complicated 11·7 per cent. of the cases.

Of the 100 cases in which the larynx was implicated 14 died, one third required operation, either tracheotomy or intubation, and of the 33 as many as 13, or 39.3 per cent., proved fatal, a not very satisfactory result when compared with previous years.

The importance of early treatment is once more emphasised by the fact that, whereas the death-rate of patients admitted on or before the third day was 4·2, those who came under treatment on the fourth day and after showed a case fatality of 8·7 per cent.

Table showing sex and age of Diphtheria Patients, including those from other districts.

		0-1 yr.	1-2 yrs.	2-3 yrs.	3-4 yrs.	4-5 yrs.	5-10 yrs.	10-15 yrs.	15-20 yrs.	20-30 yrs.	30-40 yrs.	40-50 yrs.	50-60 yrs.	60-70 yrs.	70-80 yrs.	Totals.
Recovered	Males.	4	10	17	32	35	165	85	35	26	5	3	...	...	...	417
	Females.	2	8	18	23	42	203	107	59	69	17	12	7	1	1	569
Died	Males.	6	5	7	2	0	11	1	1	0	0	0	...	...	...	33
	Females.	5	1	1	4	5	1	2	0	0	1	0	0	0	0	30
Totals . .		17	24	43	61	82	390	95	95	95	23	15	7	1	1	1049

Hospital death-rate, 6 per cent.

SCARLET FEVER.

There were 1420 cases of Scarlet Fever notified during 1920, as compared with 1459 in 1919. The notifications represent a case-rate for the year of 4·21 per 1000 of the estimated population, as compared with an average case-rate of 3·72 for the preceding 5 years. Of the cases notified, no fewer than 1382, or 97·3 per cent. of the total, were removed to hospital for treatment, and of these 42 were accommodated in the hospital at Portobello.

In all, 1449 cases (including those from other districts) were admitted to these wards, and 1374 of these were recognised as scarlet fever. The mortality was much lower than usual, being indeed the lowest recorded at the hospital, 0·8 per cent.

Of the principal complications, Arthritis occurred in 4·6 of the patients, Nephritis in 2·7 per cent., and Otorrhœa in 7·9 per cent. Rhinitis was, as last year, more frequent—13·3 per cent.

Table showing sex and age of Scarlet Fever patients in hospital (including those from other districts).

		0-1 yr.	1-2 yrs.	2-3 yrs.	3-4 yrs.	4-5 yrs.	5-10 yrs.	10-15 yrs.	15-20 yrs.	20-30 yrs.	30-40 yrs.	40-50 yrs.	50-60 yrs.	Totals.
Recovered	Males	3	20	33	40	57	232	108	34	35	7	4	0	573
	Females	5	21	26	45	83	307	138	76	63	19	4	1	788
Died	Males	1	1	...	...	1	...	1	...	...	...	...	...	4
	Females	...	...	...	1	2	4	1	...	1	...	...	...	9
	Totals	9	42	59	86	143	543	248	110	99	26	8	1	1374

Hospital mortality, 0·8 per cent.

ERYSIPELAS.

During the year 275 cases of Erysipelas were notified. The deaths in the City from this cause numbered 20, being equal to a rate of ·05 per 1000 of the population.

To the hospital wards 187 patients (including those from other districts) were admitted, of whom 162 were cases of Erysipelas, the remaining 25 suffering from Cellulitis Erythema, Dermatitis and similar conditions. The fatality-rate of the Erysipelas patients was again much above the average, and was almost exactly 10 per cent. Thirty-three patients, or about one-third of the whole, had suffered from previous attacks Only 4 relapses were observed, an unusually low figure. In 142 cases the inflammation primarily affected the face, ear, or scalp, in 16 the extremities, and in 2 the trunk.

Table showing age and sex of Erysipelas patients treated in hospital (including those from other districts).

		Under 5 yrs.	5-10 yrs.	10-20 yrs.	20-30 yrs.	30-40 yrs.	40-50 yrs.	50-60 yrs.	60-70 yrs.	70— yrs.	Totals.
Recovered	Males	4	4	2	10	12	18	7	7	0	64
	Females	3	3	16	17	13	9	13	6	2	82
Died	Males	...	...	2	2	4	1	1	...	...	10
	Females	1	...	...	...	...	1	...	3	1	6
Totals		8	7	20	29	29	29	21	16	3	162

Hospital death-rate, 10 per cent.

MEASLES.

Forty-two deaths from Measles were registered in the City, and of this number 31 occurred in the first 5 months of the year. Of the total deaths, 38 occurred among children under 5 years of age, of which 13 were under 1 year. There were three deaths between 5 and 10 years, and one death at 24 years of age. The deaths represent a mortality of ·12 per 1000 of the population. In all 298 patients (including those from other districts) were admitted to the Measles wards, and of these 242 proved to be suffering from Measles. Of these, 13 died, the mortality rate—5·3 per cent.—being somewhat lower than usual when allowance is made for the type of case admitted. Broncho-Pneumonia was the most frequent cause of death. The complications may be tabulated as follows :—

Broncho-Pneumonia.	27 cases, or	11·1	per cent.
Otitis	14 ,,	5·7	,,
Adenitis	7 ,,	2·8	,,
Purulent Conjunctivitis	16 ,,	6·6	,,

Table showing sex and age of Measles patients in hospital including those from other districts.

		0–1 yr.	1–2 yrs.	2–3 yrs.	3–4 yrs.	4–5 yrs.	5–10 yrs.	10–15 yrs.	15–20 yrs.	20–30 yrs.	30–40 yrs.	Over 40yrs	Totals.
Recovered	Males	14	11	8	8	6	30	5	5	3	...	1	91
	Females	6	5	10	7	11	37	16	14	23	8	1	138
Died	Males	1	4	...	...	...	1	...	...	...	...	...	6
	Females	3	2	1	...	...	...	...	...	1	...	...	7
Total		24	22	19	15	17	68	21	19	27	8	2	242

RUBELLA.

Table showing sex and age of Rubella patients in hospital, including those from other districts.

		Under 5 yrs.	5-10 years.	10-15 years.	15-20 years.	20-30 years.	30-40 years.	40-50 years.	Totals.
Recovered	Males . . .	8	5	...	1	2	1	...	17
	Females . .	4	7	...	2	5	2	...	20
	Total . . .	12	12	...	3	7	3	...	37

CEREBRO-SPINAL MENINGITIS.

Fourteen cases of Cerebro-spinal Meningitis were notified in the City during the year, and of these 12 were removed to hospital for isolation and treatment. The deaths numbered 7, of which 4 were under 1 year.

Thirteen sporadic cases of this disease (including one from another district) were treated in hospital, and only 4 of these recovered. This high mortality was largely due to the tender age of the majority of the patients, no fewer than 8 being under 2 years, and 6, indeed, being under 1 year. At such an early age there is very little hope of recovery. Several of the patients, moreover, had been ill more than a fortnight on admission. In addition 5 other cases of Meningitis, of which two were tubercular and two pneumococcal, were treated.

Table showing ages of Cerebro-spinal Meningitis patients treated in hospital, including those from other districts.

		0-1 year.	1-5 years.	5-10 years.	10-15 years.	15-20 years.	20-30 years.	30-40 years	40-50 years.	50-60 years.	Totals.
Recovered	Males . .	1	...	...	...	...	...	1	...	...	2
	Females . .	...	1	...	...	...	1	...	...	...	2
Died	Males . .	...	2	...	...	...	...	...	...	1	3
	Females . .	5	1	...	..	...	...	...	...	...	6
	Total . .	6	4	..	...	...	1	1	...	1	13

CHICKENPOX.

In the month of May the Scottish Board of Health issued a regulation whereby Chickenpox was placed temporarily on the list of notifiable diseases, this being considered necessary in view of the occurrence of Smallpox in certain parts of Scotland. In compliance with this regulation, 355 notifications of Chickenpox were made to the Department, and of this number 26 referred to children under 1 year, 73 between 1 and 5, and 233 between 5 and 15.

A certain number of the cases of Chickenpox admitted were sent in under suspicion of Smallpox. In all 57 patients were treated in the wards, and of these 52 suffered from Chickenpox.

Table showing sex and age of Chickenpox patients, including those from other districts.

		0-1 year.	1-2 years.	2-3 years.	3-4 years.	4-5 years.	5-10 years.	10-15 years.	15-20 years.	20-30 years.	30-40 years.	Totals
Recovered	Male	2	2	2	1	2	15	3	1	1	1	30
	Female	2	2	...	2	2	7	2	1	4	...	22
	Total	4	4	2	3	4	22	5	2	5	1	52

WHOOPING-COUGH.

The City was almost immune from Whooping-cough during the year, only 10 deaths being registered as due to this disease, as compared with 193 in 1919. The mortality is the lowest from this cause yet recorded in the City. As regards age, 5 of the deaths occurred in infants under 1 year, and 5 between 1 and 5 years.

Only 18 cases of this infection were admitted to hospital—2, or 11 per cent. terminated fatally. Complications were few, 2 of the children suffering from Broncho-Pneumonia, one from acute Tuberculosis, and one from Hemiplegia.

Table showing age and sex of Whooping-cough patients treated in hospital, including those from other districts.

		Under 1 year.	1-2 years.	2-3 years.	3-4 years.	4-5 years.	5-10 years.	10 and over.	Totals.
Recovered	Males	2	1	1	3	1	1	1	10
	Females	1	1	...	1	1	2	...	6
Died	Males	...	...	1	...	...	...	...	1
	Females	...	...	...	...	1	...	...	1
		3	2	2	4	3	3	1	18

Hospital death-rate, 11 per cent.

MUMPS.

There were only 26 patients admitted to these wards. Two suffered from simple glandular enlargements, the remaining 24 being instances of Mumps. There were no complications.

Table showing sex and age of Mumps patients.

		5-10 years.	10-15 years.	15-20 years.	20-30 years.	30-40 years.	40-50 years.	50-60 years.	60-70 years.	Total.
Recovered	Males	1	7	10	3	1	...	...	..	22
	Females	...	...	...	1	...	...	...	1	2
		1	7	10	4	1	...	...	1	24

OTHER DISEASES.

(Patients from other Districts included.)

There were 19 patients treated for Puerperal Septicæmia, and of these 7 terminated fatally. Seven children were admitted with Ophthalmia Neonatorum, and in one case death resulted. The eyes of the remaining 6 children were in quite a satisfactory condition when they were discharged from hospital. Ten patients, several of whom had been sent in as Cerebro-spinal Meningitis, Enteric Fever or Influenza, were treated for Encephalitis Lethargica—5 deaths occurred. Two of the cases were of the myoclonic type. Forty-eight patients suffered from Influenza, Pneumonia being present as a complication in the majority of the cases.

The following Table contains a summary of the Laboratory Examinations at the City Hospital by the Medical Staff there during the year 1920.

	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	To
Examinations for Diphtheria :—													
Total Examinations . .	1072	849	887	594	545	466	524	399	476	601	828	1305	85
Positive . . .	*446*	*300*	*266*	*139*	*142*	*112*	*124*	*73*	*92*	*139*	*217*	*522*	2
Negative . . .	*626*	*549*	*621*	*455*	*403*	*354*	*400*	*326*	*384*	*462*	*611*	*783*	5
Examinations of Blood for Widal's Re-action :—													
Total Examinations . .	...	1	2	...	3	2	4	...	1	3	9	9	
Positive . . .	...	...	*2*	...	*1*	*1*	*2*	...	*1*	*3*	*6*	*5*	
Negative . . .	...	*1*	...	...	*2*	*1*	*2*	...	...	...	*3*	*4*	
Examinations of C.S. Fluid for Meningococci :—													
Total Examinations . .	7	3	11	14	18	12	7	1	14	6	10	2	1
Positive . . .	*5*	*2*	*5*	*11*	*14*	*5*	...	...	*8*	...	*9*	*1*	
Negative . . .	*2*	*1*	*6*	*3*	*4*	*7*	*7*	*1*	*6*	*6*	*1*	*1*	
Examinations of Sputum for Tubercle Bacillus :—													
Total Examinations . .	192	232	213	214	283	288	219	252	220	187	253	169	27
Positive . . .	*92*	*136*	*108*	*110*	*136*	*141*	*102*	*109*	*117*	*86*	*122*	*76*	13
Negative . . .	*100*	*96*	*105*	*104*	*147*	*147*	*117*	*143*	*103*	*101*	*131*	*93*	13
Miscellaneous	5	3	8	6	5	9	7	7	5	8	9	23	
Total for the Year . . .													11,50

CITY HOSPITAL.

REPORT BY RESIDENT PHYSICIAN.

I have the honour to submit the Annual Report of the City Hospital for the year 1920. During the year there were admitted 4493 patients, which includes those from districts outwith the City. The greatest number in hospital on any one day was 702, and the daily average number was 529.

The health of the Staff was in every way satisfactory. A certain number of the nurses contracted various infectious diseases in the performance of their duties, but with one exception they had mild attacks and made excellent recoveries. I have, however, to report with great regret the death of a newly-joined probationer as the result of an exceptionally virulent attack of Diphtheria.

During the year 29 nurses, having passed successfully the required examinations, received the First Nursing Certificate of the Scottish Board of Health.

I conducted the usual classes for students. The crowded state of the University was reflected by the large numbers who had to be provided for. In all 307 students attended and were divided into 10 sections. The classes for the Diploma of Public Health also showed a great increase, 62 graduates attending the 3 classes arranged for them during the year. It seems probable that the current year will show even greater numbers, but it can hardly be expected that this inflation of the medical classes will persist for very long.

The outstanding feature of the hospital year was the appointment of an Otologist, Dr W. T. Gardiner, commencing his very useful work in the month of April. By his care of children suffering from discharging ears, he has already appreciably reduced the average period of their detention in hospital. He performed 44 major and minor operations on the ear, throat, or nose, including 9 mastoid and 32 tonsil and adenoid operations, and I have been much impressed by the excellence of his results.

I have as usual to express my thanks to the Matron and Nursing Staff, and to the Heads of the various Departments. Dr James has, as in former years, been very helpful in difficult and dangerous cases. I am also much indebted to Dr Forrest and Dr W. T. Benson, who occupied successively the post of Senior Assistant.

I have the honour to be,

Sir,

Your obedient Servant,

CLAUDE B. KER, M.D.

The following Table shows the cost per occupied bed per annum in the City Hospital during the last 7 years. The particulars apply in each case to the financial year to 15th May, and are based on the gross ordinary expenditure.

Year to 15th May.	Daily Average Number of Occupied Beds.	* Cost of Food.	† Cost of Maintenance.	Total Cost of Occupied Bed per annum.
1914	469	£21 12 6	£44 0 8	£65 13 2
1915	596	21 0 0	34 9 9	55 9 9
1916	557	24 8 11	36 15 9	61 4 8
1917	497	31 16 0	43 1 10	74 17 10
1918	471	37 14 8	47 10 9	85 5 5
1919	521	40 1 0	55 2 2	95 3 2
1920	585	39 10 4	59 0 0	98 10 4

* Includes food for Staff.

† Includes salaries, heating, lighting, upkeep of buildings and grounds, taxes, &c.

The expenditure for provisions is detailed below :—

Butcher Meat	£5,373 19 5
Fish, Fowls, &c.	2,264 3 5
Butter, Cheese, and Bacon	1,440 5 5
Eggs	2,074 19 8
Groceries	2,802 14 4
* Milk	6,166 9 3
Bread	1,722 18 11
Oatmeal and Flour	388 19 1
Potatoes and Vegetables	718 1 5
Aerated Waters, &c.	165 4 10
	£23,117 15 9

* The total quantity was 44,884 gallons, an average of 122 gallons per day, equal to 1⅛ pints per head per day.

The total cost of stimulants for the year amounted to £166, 12s. 6d., as against £138, 11s. 0d. in 1919, and was expended as follows :—

Diphtheria Patients	£92 10 6
Scarlet Fever Patients	26 6 0
Whooping-cough Patients	4 9 6
Measles Patients	19 4 0
Enteric ,,	5 14 9
Phthisis ,,	9 1 3
Cerebro-Spinal Meningitis Patients	2 4 0
Erysipelas Patients	5 5 6
Other Diseases	1 17 0
	£166 12 6

The cost of serums during the year amounted to £612, 16s. 11d.

VENEREAL DISEASES.

The following Report in regard to the Venereal Diseases Scheme has been prepared by the Clinical Medical Officer :—

I have the honour to submit a report of the work under the Venereal Diseases Scheme during the year 1920, and statistical returns with charts of the number of patients who have availed themselves of the facilities for treatment in the Department at the Royal Infirmary.

There has been a marked increase in the number of patients attending for daily routine treatment, the average being now over two hundred per day, while the number of new patients remains at a steady level

During the whole year an exceptionally severe strain has been put on the Surgical and Nursing Staff in dealing with such large numbers in premises badly arranged for treatment work and quite inadequate in size to meet the demands put on them. The new Out-patient Department for male patients is nearing completion, and alterations to both male and female wards are in progress, which when completed will enable the work to be carried out more expeditiously by the Staff, and with much more privacy to the patient.

The Staff at the Royal Infirmary has been increased by the appointment of an additional Clinical Assistant in February last, and in September by the appointment of two Pathologists to assist Dr Logan, who is in charge of the Pathological work in connection with the Department. The amount of Pathological work in a Venereal Department is necessarily large, and, during the year under review, 12,366 specimens have been examined as compared with 3209 in 1919. The work now being done in this Department, in the examination of films, in the preparation of autogenous vaccines, in the performance of the Wassermann and other tests of blood and cerebro-spinal fluid, is of a high standard and is of inestimable value in the diagnosis and treatment of patients.

Clinical diagnosis is considered of first importance, but is in all cases confirmed or otherwise by bacteriological or serological methods. This is particularly necessary in cases of suspected Syphilis, as the sole importance of an ulcer on the genitals depends on its being proved to be syphilitic or otherwise, as quickly as possible.

While every attempt is made to cut short the contagious period, in both Syphilis and Gonorrhœa—in the former by early intensive treatment and in the latter by abortive methods if the case is seen early—every case is kept under observation and treatment for a considerable period, in Syphilis for 2 years and in Gonorrhœa for 2 to 3 months after apparent clinical cure; the aim being certainty rather than rapidity of cure. A high standard of cure is aimed at in all cases rather than the rapid discharge of a patient who may still be infective, although having no apparent clinical signs of disease. It is unfortunate that the rapid disappearance of the gross clinical signs in both diseases tends to give a careless patient the impression that he or she is cured, and it requires on the part of those dealing with Venereal patients considerable tact to get them to continue attending. The proper atmosphere in the Clinic and the personality of the Staff

help also to impress on the patient the importance of keeping under observation and treatment for the requisite time. It will take at least another decade to inculcate this knowledge of the necessity for prolonged observation, no less among the medical profession than among patients. Fournier mentioned years ago that "the treatment of Syphilis and the treatment of its manifestations were vastly different matters," and this is as true to-day as it was in the pre-Salvarsan era. Mercury at intervals over a long period in the later stages of the disease is still an essential part of the treatment, and even if its action is not so rapid and spectacular as that of Salvarsan it is in many cases the more useful drug, much more lasting in its effects and is certainly much better tolerated.

There is no doubt that the amount of curative work being done will lessen the number of contagious people, but something more than this must be done to effectively deal with these diseases, and especially so with the 30 to 40 per cent. of those who fail to continue attending for treatment for a sufficiently long period. In the male sex half of this 30 per cent. consists of seamen who are homeless and workless if they lose their ships, and in other cases are under contract to sail and so have difficulty in completing the treatment. The other half belongs to that irresponsible class who do not care and who are often of such weak mental calibre as not to appreciate the importance of getting rid of their infection. In the female sex the number who cease to attend for treatment is rather larger, and especially so among young irresponsible girls who have fallen into disgrace at home, and who, on leaving hospital, have no place to go to and drift back to their old habits. There is little if anything done by rescue workers with this type of girl. In many cases, no doubt, rescue workers get the girl from the streets and the police court to come for treatment, but they do nothing to follow up this initial work, so that when these girls have completed hospital treatment there is no one to take them in hand and prevent them from returning to the gutter.

There is certainly a large and fertile field here for social workers. Hostel accomodation for this type of girl when she is fit to leave hospital is a clamant need, and healthy out-door occupations, under supervision, with facilities for periodic attendance at hospital, must be provided for them if the value of the initial curative work in hospital is not to be lost. If this type, both male and female, cannot be reclaimed by the efforts of social welfare workers, the Public Health Authority should have power to compulsorily detain them till they are completely cured. It is an anomaly in Public Health Administration that known sources of infection, both male and female, should be allowed with impunity to go about, a source of danger not only to themselves but to the community at large.

It is particularly noticeable in the appended returns that, of the cases coming for treatment to the Royal Infirmary, one-fourth only are women, and of these latter over 60 per cent. have inherited or acquired the disease innocently. These patients are often not aware of their unfortunate condition, and they should not be classed as Venereal, although they are suffering from diseases which go under this generic name.

In considering the disparity of numbers, it must be remembered that a considerable number of female patients are receiving treatment in the Ante-natal and Neo-natal Departments at the Royal Maternity Hospital, where, under the supervision of Dr Ballantyne, 113 new patients reported for treatment, 100 mothers were confined, and they and their children treated during

the puerperium, while a total of over 500 visits were made to the Out-patient Department for routine treatment.

Similarly, under Dr MacNicol at Bruntsfield Hospital and the various Dispensaries, close on 400 new patients were treated, and almost 4000 attendances were made during the year. These institutions are subsidised for this work by the Public Health Authority and are doing excellent work.

In all Departments the work has increased during the past year. In the Royal Infirmary, the number of new patients increased from 1656 in 1919 to 2297 in 1920 in the case of male patients, in that of female patients from 461 in 1919 to 573 in 1920, while the attendances in the Male Department increased from 9604 in 1919 to 61,373 in 1920, and in the Female Department from 3596 in 1919 to 7159 in 1920. The percentage incidence of the different conditions is interesting, Syphilis preponderating with 51·7 per cent., Gonorrhœa 42·3 per cent., Non-Syphilitic Sores 2·9 per cent., and Non-Venereal conditions 3·1 per cent.

The cases in many instances are still too late in reporting for treatment to ensure the attainment of a rapid and certain cure. The only remedy for this is the education of the general practitioner in the importance of early diagnosis and early treatment. It is hoped that the education of the present-day student, who must now pass an examination on the subject, as part of his final examination for his degree, will, in the course of time remedy this.

Short of preventive measures, the education of the people to report for treatment at the earliest possible moment, and of the profession to look on all suspected Venereal cases as cases for urgent and immediate diagnosis and treatment, is the method which is most likely to meet with success in lessening not only the incidence of these diseases, but also the many illnesses which follow in their train and of which they are often the precursor.

I must express my indebtedness to all the members of the Staff, both medical and nursing, who have worked under particularly trying conditions to make this new department a success, and without whose loyal help such a large amount of material could not have been efficiently dealt with.

DAVID LEES, M.A., M.B., F.R.C.S.,

Clinical Medical Officer, Edinburgh Corporation Venereal Diseases Scheme.

EDINBURGH CORPORATION VENEREAL DISEASES SCHEME.

ROYAL INFIRMARY CLINIC.

ANNUAL REPORT FOR THE YEAR ENDING 31st DECEMBER 1920.

Number of New Cases Attending :—

EDINBURGH.

	Males.	Females.	
January	107	28	
February	117	17	
March	133	26	
April	127	35	
May	106	29	
June	104	33	
July	99	36	
August	100	21	
September	87	34	
October	78	33	
November	144	38	
December	105	35	
	1307	365	= 1672

OTHER AREAS.

	Males.	Females.	
January	92	18	
February	105	18	
March	103	17	
April	81	19	
May	103	20	
June	79	14	
July	78	17	
August	74	17	
September	88	19	
October	65	23	
November	66	14	
December	56	12	
	990	208	= 1198

Total New Cases Attending :—

	Males.	Females.	
Edinburgh	1307	365	
Other Areas	990	208	
Totals	2297	573	= 2870

Of the New Cases Attending there were :—

EDINBURGH.—MALES.

	Syphilis.	Gonorrhœa.	Soft Sore.	No V.D.
January	34	62	1	10
February	38	64	13	2
March	60	73	6	6
April	49	64	7	7
May	50	42	8	6
June	50	47	3	4
July	52	41	4	2
August	48	46	3	3
September	38	47	...	2
October	37	36	2	3
November	75	65	2	2
December	40	59	3	3
	571	646	52	50

EDINBURGH.—FEMALES.

	Syphilis.	Gonorrhœa.	Soft Sore.	No V.D.
January	18	9	...	1
February	12	5	...	...
March	16	10	..	...
April	22	12	...	...
May	21	8	...	...
June	25	8	...	...
July	30	6	..	...
August	16	5	...	...
September	26	8	...	...
October	25	8	...	...
November	30	8	...	...
December	28	7	...	...
	269	94	...	1

OTHER AREAS.—MALES.

	Syphilis.	Gonorrhœa.	Soft Sore.	No V.D.
January	36	45	...	11
February	42	52	8	3
March	46	38	2	5
April	44	27	4	6
May	51	46	4	2
June	47	30	1	1
July	43	32	2	1
August	41	29	2	2
September	44	40	2	2
October	26	36	1	2
November	34	30	...	2
December	26	29	...	1
	480	434	26	38

OTHER AREAS.—FEMALES.

	Syphilis.	Gonorrhœa.	Soft Sore.	No V.D
January	12	6	...	...
February	16	2	...	...
March	13	4	...	...
April	19	1	...	...
May	16	4	...	...
June	13	1	...	...
July	15	2	...	...
August	12	5	...	...
September	12	7	...	...
October	16	7	...	...
November	11	3	...	...
December	12	...	...	...
	167	42	...	...

Admissions to Hospital :—

MALES.

	Edinburgh.		Other Areas.	
	Syphilis.	Gonorrhœa.	Syphilis.	Gonorrhœa.
January	9	4	8	5
February	8	1	9	9
March	6	7	5	2
April	10	5	4	9
May	10	2	10	6
June	6	6	8	4
July	3	1	3	2
August	1	...	6	...
September	3	6	6	4
October	3	2	5	4
November	9	7	3	2
December	5	3	10	4
	73	44	77	51

FEMALES.

	Edinburgh.		Other Areas.	
	Syphilis.	Gonorrhœa.	Syphilis.	Gonorrhœa.
January	3	...	3	4
February	4	2	3	1
March	3	2	5	4
April	2	3	3	...
May	6	1	6	2
June	5	2	6	1
July	5	2	3	1
August	2	2	1	1
September	7	3	4	2
October	3	1	2	2
November	4	2	3	...
December	8	1	4	...
	52	21	43	18

Total Cases admitted to Hospital :—

	Males.	Females.	
EDINBURGH	117	73	
OTHER AREAS	128	61	
	245	134	= 379

Discharges from Hospital :—

MALES.

	Edinburgh.		Other Areas.	
	Syphilis.	Gonorrhœa.	Syphilis.	Gonorrhœa.
January	8	2	9	3
February	8	4	7	9
March	4	4	7	4
April	6	8	7	6
May	11	2	11	9
June	6	4	7	4
July	7	3	6	3
August	2	1	4	1
September	3	2	5	3
October	5	5	4	1
November	9	6	3	2
December	5	6	6	6
	74	47	76	51

FEMALES

	Edinburgh.		Other Areas.	
	Syphilis.	Gonorrhœa.	Syphilis.	Gonorrhœa.
January	2	2	3	1
February	2	1	4	2
March	5	1	3	4
April	4	2	1	...
May	3	5	7	...
June	7	1	3	1
July	7	1	5	1
August	2	...	3	3
September	8	2	6	2
October	4	1	4	1
November	3	1	5	1
December	12	1	2	..
	59	18	46	16

Total Cases Discharged from Hospital :—

	Males.	Females.	
EDINBURGH	121	77	
OTHER AREAS	127	62	
	248	139	= 387

SPECIAL TREATMENT ADMINISTERED.

Number of Intravenous and Intramuscular Injections given :—

MALES.

	Novarsenobillon.							Sulpharsenol.			
	·2	·3	·6	·15	·45	·75	·9	12	24	36	42
January	...	15	276	...	207	...	69	...	...	...	...
February	...	42	256	1	207	...	91	...	...	...	...
March	...	19	331	...	203	...	53	...	...	...	...
April ...	...	43	318	1	189	1	...	...	...	...	...
May ...	2	78	308	...	219	1	...	...	...	...	...
June ...	...	37	374	8	199	...	...	...	...	...	...
July ...	...	66	321	23	161	...	...	...	...	...	...
August	...	61	272	16	166	1	...	11	...	...	...
September	...	48	217	12	128	...	...	57	...	...	..
October	...	86	223	12	136	...	...	9	29	17	...
November	...	131	196	19	236	1	...	...	6	10	...
December	...	142	287	26	193	...	...	15	5	1	...
	2	768	3379	118	2244	4	213	92	40	28	...

FEMALES.

	Novarsenobillon.							Sulpharsenol.			
	·2	·3	·6	·15	·45	75	·9	12	24	36	42
January	...	11	51	...	69	50	...	...	...	...	...
February	...	8	55	...	58	35	...	...	...	...	...
March	...	16	45	...	57	41	...	...	...	...	..
April ...	...	24	49	...	88	17	...	...	...	...	...
May ...	...	33	76	4	67	2	...	...	...	...	...
June ...	1	66	60	15	76	2	...	...	...	...	...
July ...	1	87	53	29	87	1	...	...	...	...	...
August	...	70	38	11	95	...	...	5	...	...	...
September	...	50	39	14	112	3	...	8	...	..	...
October	...	50	33	11	74	...	...	10	4	...	...
November	...	66	64	22	77	...	...	5	11	9	...
December	2	71	65	28	79	...	...	3	2	4	...
	4	552	628	134	939	151	...	31	17	13	

Total Injections :—

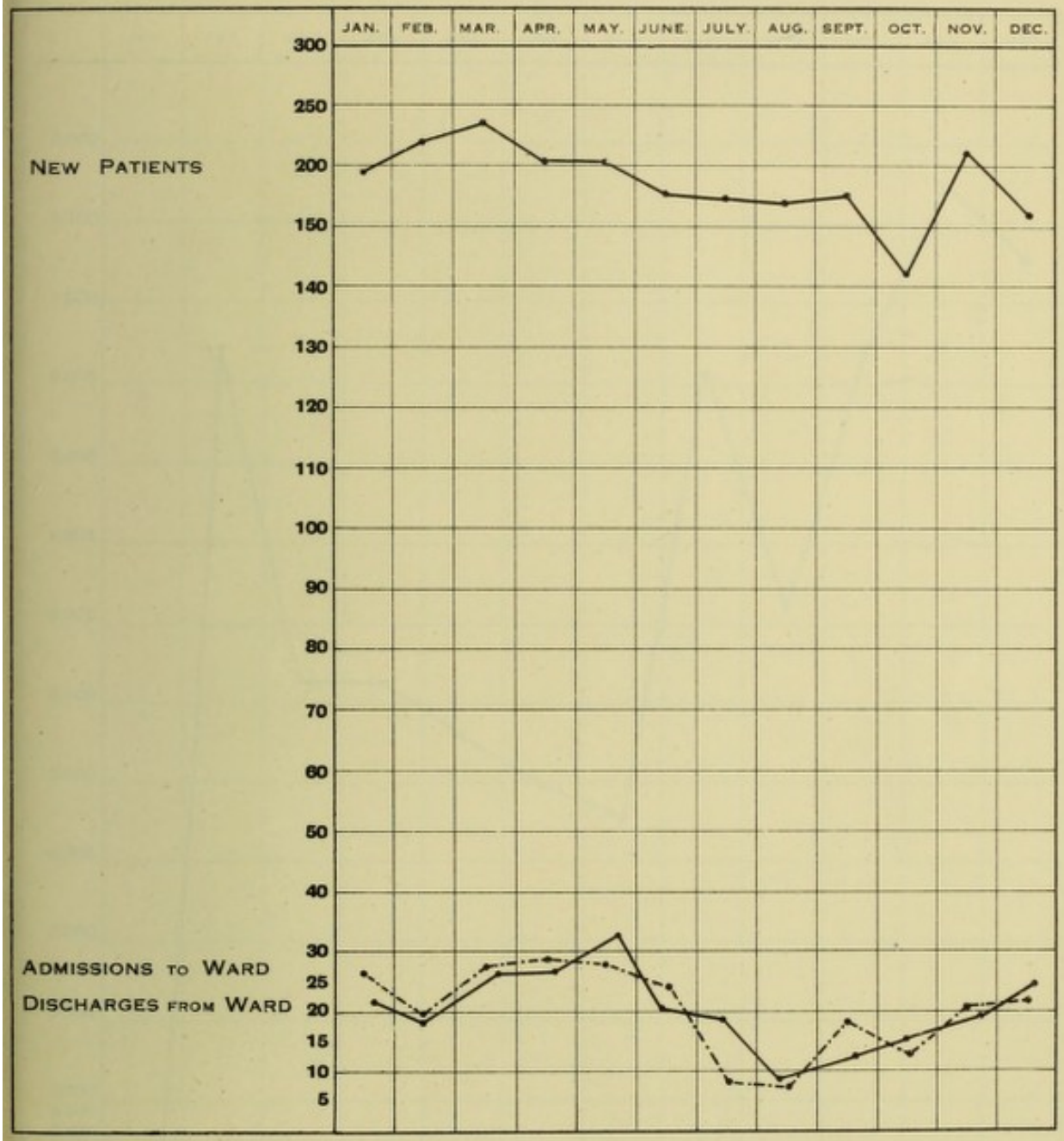
MALES	6888
FEMALES	2469
	9357

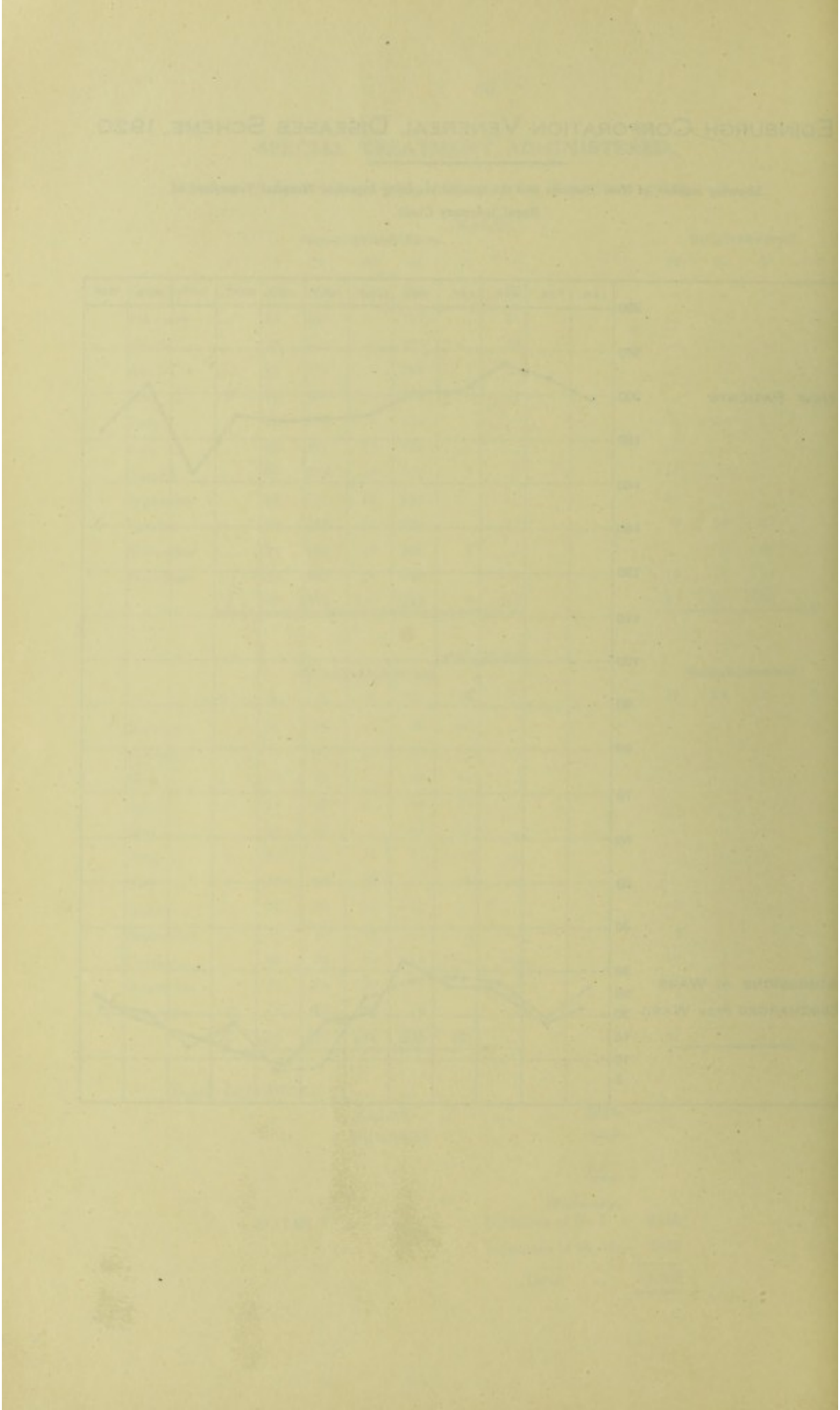
Mercury.

MALES	Injections of Gr. i	=	6836
,, ...	Injections of Gr. iss	=	3532
	Total. ...		10,368

Edinburgh Corporation Venereal Diseases Scheme, 1920.

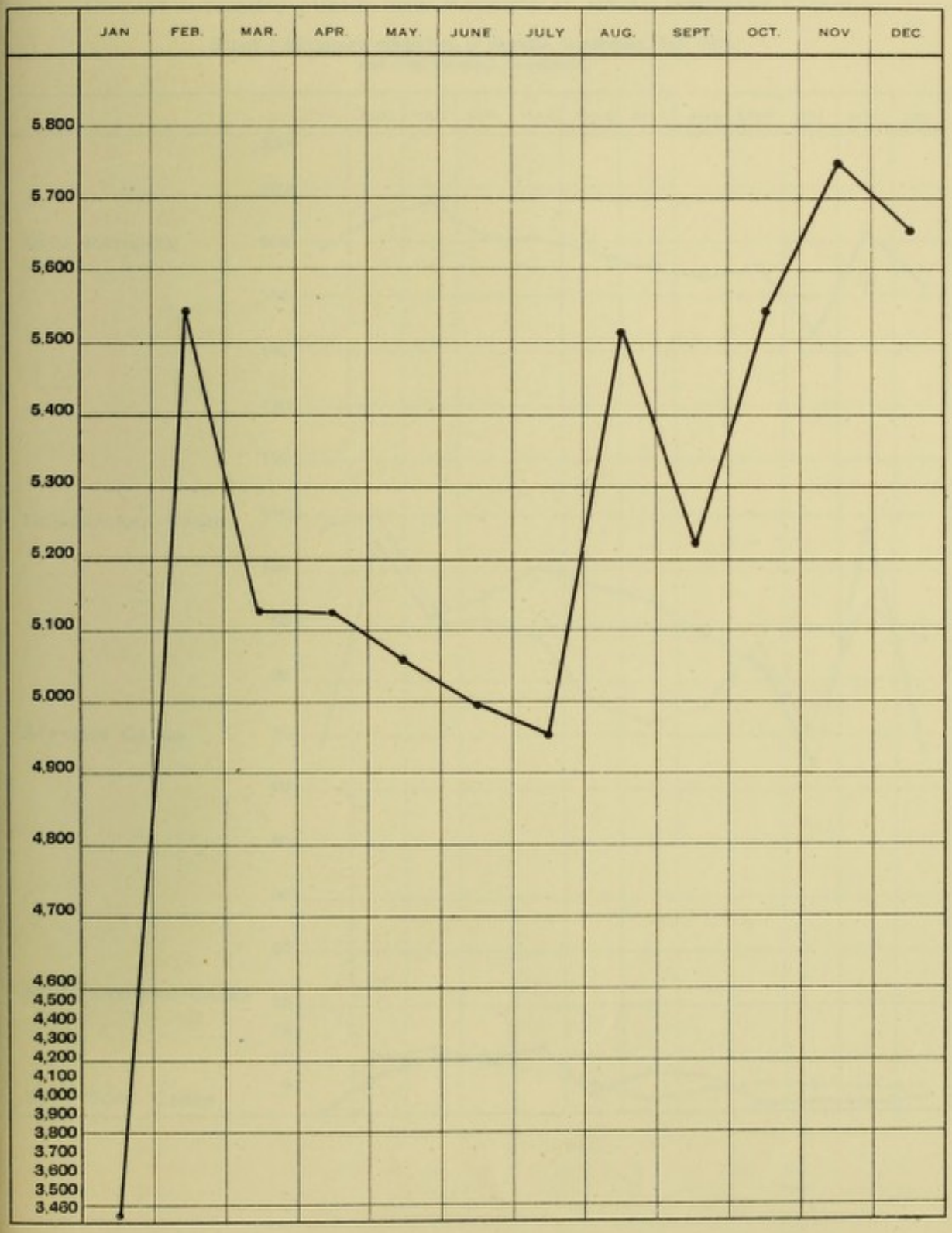
Showing number of New Patients and the number requiring Inpatient Hospital Treatment at Royal Infirmary Clinic.





Edinburgh Corporation Venereal Diseases Scheme. 1920.

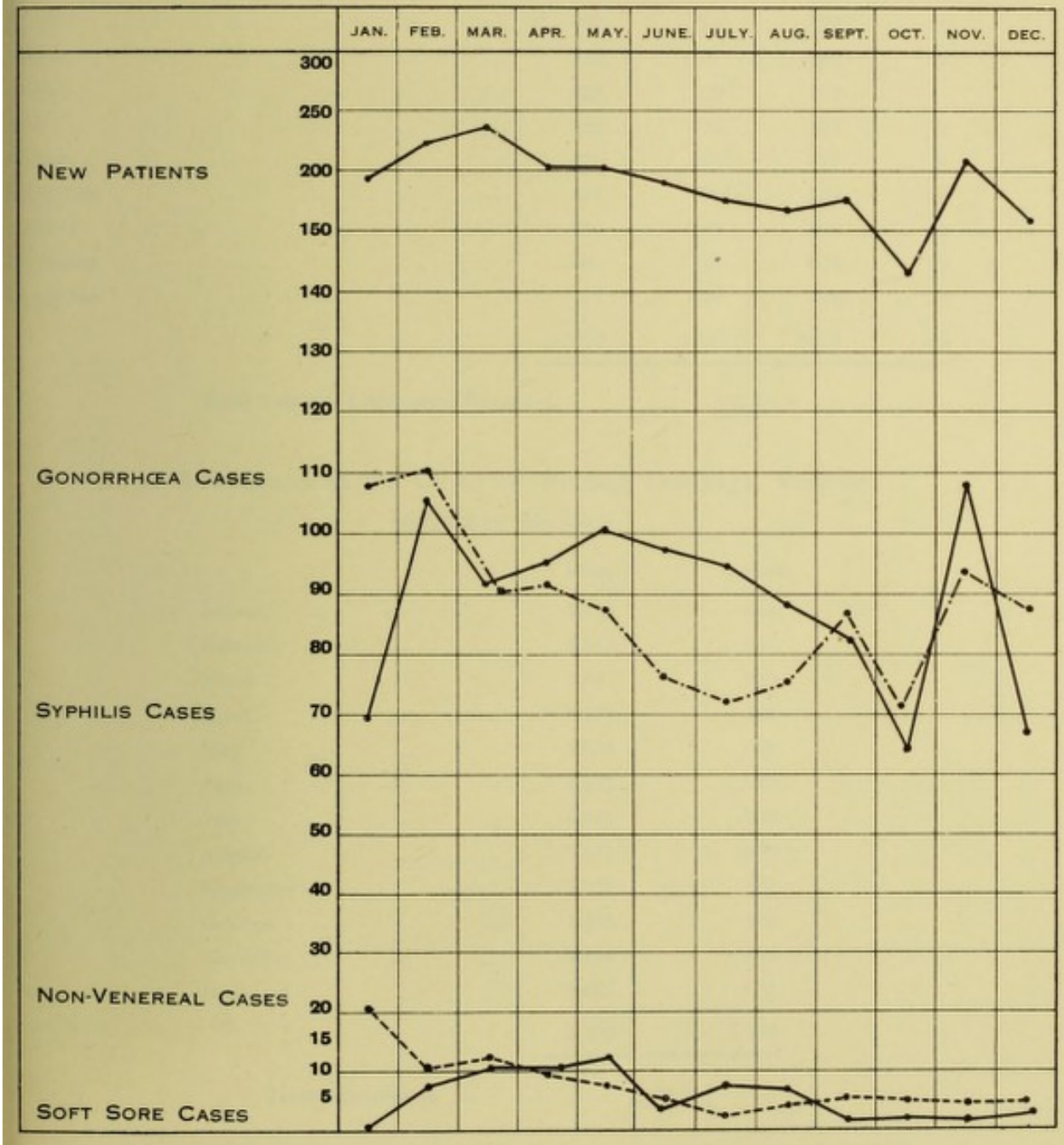
Total Attendances per Month at Treatment Centre, Royal Infirmary.

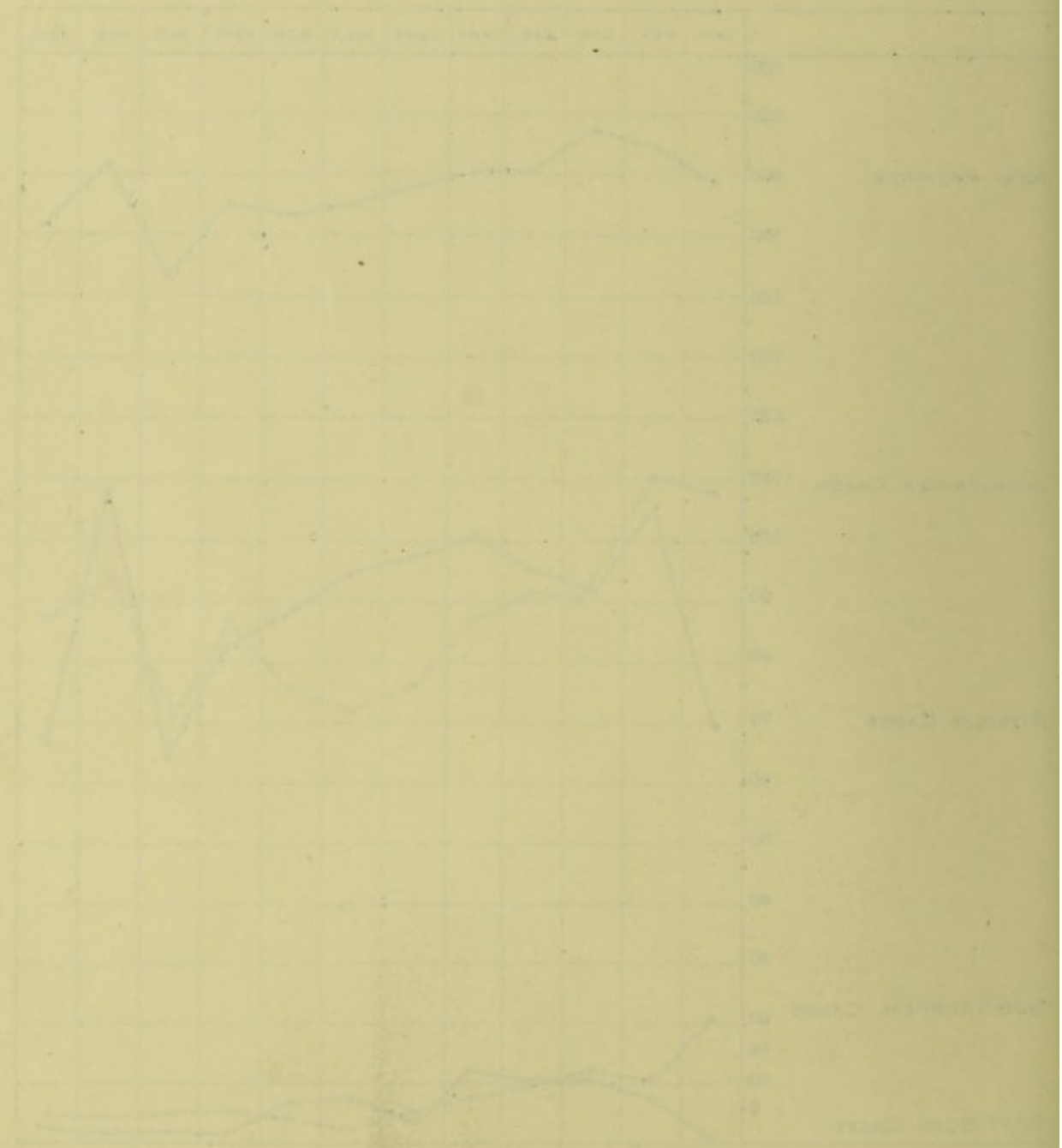


Edinburgh Corporation Venereal Diseases Scheme. 1920.

Disease Incidence among New Patients at Royal Infirmary Clinic.

Showing percentage comparison of Syphilis, Gonorrhœa, Soft Sore, and Non-Venereal Conditions.





PATHOLOGICAL WORK.

Number of Specimens Examined :—

	Wassermann Test.	Dark Ground Test.	Smears.	Others.
January	332	64	426	8
February	358	68	534	3
March	477	102	611	5
April	423	98	470	18
May	439	87	543	6
June	388	63	413	11
July	394	78	353	10
August	441	96	577	8
September	404	86	552	10
October	380	129	532	29
November	503	141	558	29
December	483	106	498	32
	5022	1108	6067	169

Total Number of Specimens Examined . . . 12,366

Total Attendances at the Clinic for Routine Dressings, Vaccines, Irrigation, &c. :—

	Males.	Females.
January	3,468	588
February	4,545	607
March	5,542	738
April	5,144	469
May	5,063	489
June	4,993	528
July	4,941	700
August	5,515	606
September	5,227	607
October	5,535	525
November	5,749	650
December	5,651	652
	61,373	7,159

Total Attendances 68,532

DAVID LEES, M.A., M.B., F.R.C.S.

Clinical Medical Officer, Edinburgh Corporation V.D Scheme.

BACTERIOLOGICAL EXAMINATIONS AT USHER INSTITUTE.

The following Table shows the number of specimens submitted for Bacteriological examination and reported on by the Usher Institute of Public Health under agreement with the University Authorities.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
For Tubercle :—													
Number of Examinations .	68	58	66	52	55	57	36	44	46	49	52	47	630
Positive . . .	*19*	*13*	*16*	*8*	*14*	*9*	*7*	*5*	*10*	*9*	*12*	*11*	*133*
Negative . . .	*49*	*45*	*50*	*44*	*41*	*48*	*29*	*39*	*36*	*40*	*40*	*36*	*497*
For Enteric :—													
Number of Examinations .	2	1	2	3	5	6	3	...	3	8	7	2	42
Positive . . .	...	...	...	...	...	*1*	...	...	...	*1*	*1*	*1*	*4*
Negative . . .	*2*	*1*	*2*	*3*	*5*	*5*	*3*	...	*3*	*7*	*6*	*1*	*38*
For Diphtheria :—													
Number of Examinations .	585	678	539	344	362	323	296	209	364	432	509	524	5165
Positive . . .	*64*	*83*	*67*	*52*	*39*	*46*	*38*	*35*	*60*	*63*	*77*	*58*	*682*
Negative . . .	*521*	*595*	*472*	*292*	*323*	*277*	*258*	*174*	*304*	*369*	*432*	*466*	*4483*
Other Specimens :—													
Negative . . .	*4*	*5*	*9*	...	...	*7*	...	...	...	...	...	...	*25*
											Total	-	5862

DISINFECTION.

Particulars as to the disinfection of dwelling-houses, hotels, &c., during the last three years are given in the Table below.

	1918		1919		1920	
	Number	Apartments	Number	Apartments	Number	Apartments
Dwelling-houses, Hotels, &c. :—						
After Tuberculous Diseases	960	1,203	827	945	766	824
,, other ,, ...	3,945	11,974	4,778	9,825	4,395	8,507

The articles removed last year from the above dwellings for steam disinfection are detailed in the next Table.

Description.	No. of Articles.		Description.	No. of Articles.	
	After Tuberculous Diseases.	After Other Diseases.		After Tuberculous Diseases.	After Other Diseases.
Mattresses and Palliasses .	697	4,534	Body Clothes	858	41,462
Blankets, Sheets, Quilts, &c.	3.379	26,018	Carpets and Rugs ...	23	666
Beds, Pillows, Bolsters, &c. .	1,973	12,149	Miscellaneous	107	14,298
Curtains, Table Covers, Wraps, &c. . . .	319	2,091	Destroyed by request...	6	9
Table Napery, Toilet Covers, Towels, &c. . . .	272	1,728	Total ...	7,634	102,955

RECEPTION HOUSE.

During the year it was found necessary to quarantine 66 persons in the Reception House as a result of their having been in contact with cases or suspected cases of Smallpox in the City or elsewhere. At the Disinfecting Station, adjoining the Reception House, 757 persons also attended for the purpose of getting baths and having their clothing disinfected. Of these, 236 adults and 36 children were verminous, and 33 adults and 452 children were treated for Scabies.

CITY MORTUARY.

During the year 114 bodies were removed to the Mortuary. In only a few cases was the Department called upon to conduct the removal, the expense to the Local Authority amounting to £3, 6s.

The following Table shows the number removed to the Mortuary during the last 7 years, together with the expenditure incurred in connection therewith.

Year.	Number.			Cost of Removal.
	Males.	Females.	Total.	
1914	98	52	150	£5 3 6
1915	96	51	147	7 8 6
1916	112	41	153	5 9 0
1917	90	55	145	10 12 0
1918	74	40	114	16 0 0
1919	82	44	126	12 9 0
1920	68	46	114	3 6 0

INTERMENTS UNDER THE PUBLIC HEALTH ACT.

Application was made in 47 instances where the relatives of deceased persons represented their inability to meet the expenses of burial. On inquiries being made by the Department as to the *bona fides* of the applicants, it was found that 2 of the deceased persons had been in receipt of parish relief; 4 of the other applicants had sufficient means; and in 2 cases the applications were withdrawn.

The funerals of the remaining 39 deceased persons—24 adults and 15 children—were provided for by the Department, at a net cost of £116, 9s.

Appended is a Table showing the total expenditure in connection with the removal of bodies and interments during the last 7 years.

Year.	Number.	Total Cost of Interments and Removals.	Sums Recovered from Relatives.	Net Expenditure.
1914	101	£126 0 0	£5 1 3	£120 18 9
1915	71	128 13 0	10 5 11½	118 7 0½
1916	61	132 6 0	23 8 6	108 17 6
1917	61	141 6 0	16 6 8	124 19 4
1918	72	201 6 6	14 1 0	187 5 6
1919	63	177 12 0	33 8 9	144 3 3
1920	39	124 7 0	7 18 0	116 9 0

DAIRIES.

The duty of supervising the dairies and milkshops throughout the City has been carried out with customary thoroughness and regularity. There were 356 dairykeepers on the register at the beginning of the year; 3 new occupiers were added; 7 businesses were given up, and 29 were transferred, leaving 352 names on the roll at the end of 1920. Altogether the Inspector made 1942 visits to dairy premises in the course of the year. A summary of the improvements effected as a result of these visits is shown in the Table which is appended.

The tendency in recent years has been for the milk-distributing trade to become vested in the hands of a few firms carrying on an extensive business, and there can be no doubt that, generally speaking, the handling of the milk by these firms is done in a manner that reduces the risk of contamination to a minimum. There are, however, still a large number of small shops in the City where milk is but one of many commodities retailed in small quantities. Regular inspection is made of such premises to ensure that cleanliness is maintained and that vessels containing milk are kept covered. All the milk-sellers observe the recommendation to possess covers, but that the covers are not always used was shown in a recent series of inspections, when in a number of shops the covers were found to be not in use. The favourite explanation was that "they were just being cleaned"—a plea that was justifiable in some cases, but obviously lame in others.

Attention was given to the condition of consignments of milk arriving at railway stations, and in this connection a considerable advance is noted as compared with the days when leaky cans were found to be stopped up with soap or tallow, and rain and dust were allowed to percolate through the lids. An improved type of milk can with a convex lid that prevents rain and dust accumulating is now coming into general use, and it is a rare occurrence for the inspector to find a damaged can, or indeed anything amiss with the condition of rail-borne milk.

Inquiry into the sources of the City's milk supply shows that larger quantities than ever are coming from country districts, and the Public Health Department's register of cowkeepers contains the names of 229 farms situated beyond the City boundary. Midlothian, of course, accounts for a large number of the names, but considerable quantities of milk are also imported daily from farms in the counties of Lanark, Linlithgow, Dumfries, and Peebles. Lesser quantities come in from such far-flung places as Ayrshire, Roxburghshire,

Kirkcudbrightshire and Wigtownshire. In all cases the cowherds are subjected to examination by the City's Veterinary Inspector, and tests for tubercle are made at frequent intervals.

Table showing the Distribution of Dairies, the Visits paid, and Results.

	I. Calton.	II. Canongate.	III. Newington.	IV. Morningside.	V. Merchiston.	VI. Gorgie.	VII. Haymarket.	VIII. St Bernard's.	IX. Broughton.	X. St Stephen's.	XI. St Andrew's.	XII. St Giles.	XIII. Dairy.	XIV. George Square.	XV. St Leonard's.	XVI. Portobello.	Total.
Dairy-keepers on Register at beginning of year	29	20	22	27	27	22	16	13	20	26	10	21	30	29	29	15	356
Number added . .	1	...	..	...	...	...	..	...	...	...	...	2	...	...	...	...	3
Number given up . .	1	...	...	...	...	...		...	...	2	...	...	1	2	1	...	7
Businesses transferred .	5	1	2	5	1	1	3	1	..	2	1	...	2	2	1	2	29
Dairy-keepers on Register at end of year . .	29	20	22	27	27	22	16	13	20	24	10	23	29	27	28	15	352
Other Dairy keepers registered from beyond the City . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	229
Number of visits paid .	155	120	125	134	140	120	87	70	113	128	60	152	145	149	154	90	1,942
Premises ordered to be papered and painted	10	5	4	6	7	6	4	1	...	7	...	8	5	4	6	2	75
Contraventions:—																	
Drying body clothing in Dairy . . .	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	1	3
Establishing communication with dwelling .	...	...	...	...	...	...	...	..	...	...	...	...	1	1	...	...	2
Water-Closets removed. .	1	...	...	...	....	...	...	...	1	...	...	...	...	...	1	...	3

ICE-CREAM SHOPS.

With the passing of war-time restrictions and the reduction in the price of sugar, the manufacture and sale of ice-cream has recovered some of its former popularity. It is satisfactory to note that the development in the trade has been attended by a distinct raising of the standard of shop where the commodity is retailed. The small dealer's saloon is gradually being eliminated in favour of large, well-equipped restaurants, the proprietors of which aim at an all-the-year-round trade in hot as well as cold refreshments. The cleanliness, bright appearance, and general comfort of many such places leave

little to be desired. Improvement is also taking place in regard to the method of making ice-cream. Compressed air instead of ice is being introduced for freezing purposes, and electrically-driven machines have superseded the hand-churn, the result being that the risk of particles of ice and other impurities reaching the ice-cream is obviated.

At the end of the year there were 86 ice-cream shops on the Department's register, being an increase of six over the previous year. The inspector made 416 visits, and in 24 instances—chiefly in small shops—he required painting and papering to be carried out. A few minor irregularities were also noted, particulars of which will be found in the Table which follows.

Inspections have been made of premises utilised by street-traders for making ice-cream. The dwellings of these traders have also been kept under observation, and in no case was it found that ice-cream was made in a dwelling-house.

Table showing the Distribution of Ice-Cream Shops, the Visits paid, and Results.

	I. Calton.	II. Canongate.	III. Newington.	IV. Morningside.	V. Merchiston.	VI. Gorgie.	VII. Haymarket.	VIII. St Bernard's.	IX. Broughton.	X. St Stephen's.	XI. St Andrew's.	XII. St Giles'.	XIII. Dalry.	XIV. George Square.	XV. St Leonard's.	XVI. Portobello.	Total.
umber of shops at beginning of year .	9	6	1	1	...	5	3	1	6	1	4	11	7	9	7	9	80
umber closed during the year . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
amber of premises opened during the year	...	1	...	...	...	...	...	...	...	...	...	1	...	3	...	2	7
usinesses transferred during the year . .	3	2	...	...	...	2	1	...	...	...	1	4	1	1	1	...	16
umber of persons on Register at end of year	9	7	1	1	...	5	3	1	6	1	4	12	7	12	6	11	86
umber of Visits . .	45	34	6	6	...	26	14	5	30	5	18	58	35	54	30	50	416
remises ordered to be papered and painted .	2	4	...	..	...	2	1	..	...	...	1	4	2	3	2	3	24
ontraventions :— Hanging body clothing to dry	...	1	...	...	...	...	...	1	1	...	...	...	1	1	1	...	6
Vater-closets removed .	..	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	2
remises not in a cleanly condition . . .	...	1	...	...	...	...	...	...	1	...	...	1	...	...	...	1	4

WORKSHOPS.

This part of the Report is compiled in pursuance of Section 132 of the Factory and Workshop Act, 1901, which requires the Medical Officer of Health to report specifically on the administration of the Act within his district.

The distribution of the workshops throughout the various Wards is shown in the Table which is appended, and particulars regarding nuisances discovered and dealt with in the course of inspection are also given.

At the close of 1920 there were 1170 workshop premises on the Register of the Department (exclusive of 89 workshop bakehouses). New workshops are always being discovered, and at the same time the occupation of premises on the Register is constantly changing. Extensive conversion of workshops into factories continues, this being due to the more general use of electricity for trade purposes. Small electric motors can be hung to ceiling joists, bracketed to walls, or placed in corners or under benches, economising space in a manner impossible in the case of other motive power, and the introduction of an electric motor down to the smallest unit converts premises into a factory.

Questions relating to the cleanliness and improvement of surrounding conditions which will best conduce to the personal health, efficiency, and welfare of workers have claimed a large measure of attention. While there are many progressive employers who take a keen interest in the conditions under which their employees work, there are some workshops where the general arrangements as to cleaning and upkeep of passages, lavatories, sanitary conveniences, &c., are not under any one definite person's direct supervision, unless it be the workroom overseer, who is content so long as no direct complaints are received. The result is that these workrooms, lavatories, &c., are not always well kept. Cleanliness, too, is generally difficult to maintain where water-closets and staircases are shared by more than one tenant. It is generally acknowledged, however, that by systematic inspection of these places and by enlisting the active sympathy of employers and employed, the standard of sanitation has been raised to a much higher level than that which obtained some years ago.

The ventilation of workplaces is, from a health point of view, a most important matter. On occasions one is told that it is the workers themselves who object to

ventilation. To some extent this is true, but it is not really ventilation that is objected to, but draughts and coldness. This is a point which applies particularly to workrooms in which sedentary occupations are carried on. The remedy is to be found in providing means of ventilation which will not create violent down draughts on those who must work near windows for the sake of light, and in providing adequate means of warming the air of a room so that the windows need not be closed for the sake of warmth.

These are the two things which are generally at fault when a workroom is found to be badly ventilated, and it is certain that the cost of properly warming and ventilating the workroom would be more than repaid by the increased output of better work. One cannot conceive anything more conducive to lethargic methods than the atmosphere of some workrooms towards the end of the day.

Employers are advised to air workrooms during meal hours, and while carrying out workshop supervision every opportunity is taken of engendering a popular interest in public health conditions for the welfare of the workers generally.

Outworkers:—Firms giving out work in certain trades are required to send in a list twice a year of those they employ. Home-workers are frequently in the employ of several firms, so that the number of names returned does not necessarily coincide with the actual number of workers. A careful scrutiny is made of the addresses from which cases of infectious disease are reported, and if any case occurs in outworkers' premises the necessary steps are taken to prevent any work becoming the vehicle of infection.

HOME WORK—LIST OF OUTWORKERS.

Nature of Work.	Lists received from Employers.					
	Reporting twice in the year.			Reporting once in the year.		
	Lists.	Contractors.	Workmen.	Lists.	Contractors.	Workmen.
Wearing Apparel—Making, &c. . .	64	35	453	11	2	14

Table showing the Visits paid to Workshops and the Improvements effected.

	I. Calton.	II. Canongate.	III. Newington.	IV. Morningside.	V. Merchiston.	VI. Gorgie.	VII. Haymarket.	VIII. St Bernard's.	IX. Broughton.	X. St Stephen's.	XI. St Andrew's.	XII. St Giles'.	XIII. Dalry.	XIV. George Square.	XV. St Leonard's.	XVI. Portobello.	Total.
Number of Workshops on Register at end of year	78	38	44	57	61	29	92	33	58	69	234	154	35	106	55	27	1170
Number of Visits paid	90	45	55	64	80	34	112	39	70	94	170	21	...	4	2	4	884
Premises found dirty and subsequently cleansed	11	15	8	9	15	4	20	4	14	28	40	2	...	...	1	...	171
Sanitary Conveniences dirty or neglected	2	...	2	7	5	1	...	1	1	1	10	1	...	...	...	...	31
Ventilation improved	1	1	2	...	1	1	3	1	1	1	1	2	...	...	...	...	15
Gas Stoves for heating Irons—hoods and ventilation provided	...	...	...	...	...	1	2	...	3	2	5	1	...	...	...	..	14
Overcrowding	...	...	...	...	...	...	1	...	...	...	1	2	...	...	...	..	4
Floors of Laundries drained or repaired	...	...	...	...	..	...	...	...	...	...	...	1	...	...	...	...	1
Ceilings, walls and floors of Workshops repaired	1	...	1	1	2	1	...	1	1	3	6	...	...	...	...	...	17
Sinks—defective, repaired, and earthenware sinks introduced	1	...	...	1	2	...	...	...	...	..	...	..	...	...	...	...	4
Insufficient sanitary accommodation	...	...	...	...	...	...	1	1	...	...	1	...	...	...	...	..	3
Separate sanitary accommodation for sexes provided	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
Sanitary Conveniences—new apparatus substituted, lighting and ventilation improved, or defects repaired	5	1	3	...	6	3	5	2	3	5	7	...	...	...	...	..	40
Other Nuisances—accumulations of refuse, smells from adjoining premises, &c.	3	...	...	3	1	...	...	...	...	1	5	...	...	...	1	1	15
Workshops without Abstracts—reported to H.M. Inspector	3	3	1	1	3	3	...	1	1	...	1	...	...	...	...	...	17

BAKEHOUSES.

At the end of 1920 there were 163 bakehouses on the Register, 86 of which were "underground" and 77 "level."

292 inspections were made in the bakehouses of the City, and a Table is given on page 72 showing the distribution of bakehouses in the various Wards, and the improvements effected.

An important feature in bakehouses has been the great development in the use of electrical energy for manufacturing purposes. One result of this is that the baking of loaf bread is becoming more and more centralised in large factory bakeries.

The workshop bakehouses have been regularly visited and the standard of cleanliness so essential in such places has been well maintained throughout the year. One matter which received particular attention was the condition of the floors. In a few instances, the floors were found to have been neglected and were in a dirty state with dough and flour tramped on to their surfaces and left to gradually decompose. It is hardly conceivable that any responsible occupier would permit his bakehouse floor to become covered in this manner, and shows how needful it is that these premises be constantly supervised and inspected.

Complaints received from H.M. Inspector, as remediable under the Public Health Acts, but not under the Factory Act	36
Complaints received from occupiers of Workshops . .	4
Complaints received from others—anonymous	5

HAIRDRESSING SALOONS.

The number on the Register at the end of the year was 153.

It is satisfactory to record that the hairdressing saloons throughout the City continue to be well conducted and the recommendations of the Department given effect to.

Many of the occupiers are thoroughly well posted in all that pertains to the hygienic aspect of their business, and steady progress is taking place in the equipment and management of these premises.

Table showing the number of Bakehouses, the visits paid, and the results.

	I. Calton.	II. Canongate.	III. Newington.	IV. Morningside.	V. Merchiston.	VI. Gorgie.	VII. Haymarket.	VIII. St Bernard's.	IX. Broughton.	X. St Stephen's.	XI. St Andrew's.	XII. St Giles'.	XIII. Dalry.	XIV. George Square.	XV. St Leonard's.	XVI. Portobello.	Total.
Bakehouses—Including Factory Premises:—																	
On Register at end of year:—Underground	4	3	3	8	6	2	3	1	4	7	8	7	6	11	6	7	86
On Register at end of year:—Level	3	7	5	1	5	5	3	5	4	3	6	7	4	8	8	3	77
On Register at end of year:—Factories	4	2	5	5	5	4	4	3	7	3	4	5	6	10	4	3	74 } 163
On Register at end of year:—Workshops	3	8	3	4	6	3	2	3	1	7	10	9	4	9	10	7	89 }
Number of Visits paid	16	25	24	24	26	15	14	11	13	11	16	19	18	26	18	16	292
Limewashing overdue or not satisfactory	...	1	2	...	...	1	...	...	...	3	5	3	2	...	2	2	21
Improved Ventilation of Bakehouses	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1
Floors dirty or refuse allowed to accumulate	...	...	...	1	3	...	...	...	...	1	1	2	...	...	1	...	9
Water-closets in dirty condition and cleansed	...	...	...	...	1	2	...	...	...	...	...	...	...	...	2	1	6
Defective Floors, Walls, Ceilings and Windows repaired	...	...	...	...	...	...	...	1	...	2	...	...	...	1	2	2	8
Storing Baking Materials or Utensils where liable to contamination	...	...	...	2	1	...	...	...	...	...	...	...	...	...	1	...	4
Water-closets removed to more sanitary situation	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	2
Water-closets improved or renewed	...	...	...	2	...	...	...	1	1	...	1	...	1	1	...	...	7
Defective Sinks:—Earthenware Sinks substituted and Sinks repaired	...	2	...	...	...	...	...	...	...	2	...	...	...	1	...	...	5
Workshops without Abstracts—reported to H.M. Inspector	...	...	...	...	...	...	...	1	...	2	...	...	...	3	...	1	7

SHOPS ACT, 1912 and 1913.

Under the terms of this Act it is competent for the various classes of shopkeepers in the City to petition the Local Authority in favour of Closing Orders, and it then devolves upon the Officer appointed under the Act to ensure that the terms of the Orders are duly observed.

It may be stated generally that most of the shops in the City now fall within the terms of the Act, and, generally speaking, Wednesday is the day of the week mostly in favour as the Half-holiday.

A very considerable amount of supervision is necessary in order to ensure as far as possible against contraventions of the Act.

It is apparent that those who really observe its terms have good ground for complaint against a neighbour who may fail to do so, and there are constantly occurring instances in which after enquiry it is found that good ground exists for such complaints.

The Department is very largely dependent for the efficient carrying out of the Act upon information supplied to it by those who suffer from any existing contravention, and every complaint received is subject matter of very careful enquiry.

Warnings are, of course, in all cases made preliminary to prosecution, and it must be said that in the majority of cases these are effectual in removing the cause of complaint.

There remain, however, several instances in which a considerable amount of difficulty is experienced, and must continue to be experienced in carrying out the terms of the Act. Thus a constant class of complaint is against the keepers of very small shops, chiefly in the poorer districts of the City, where a variety of goods is exposed for sale, but the total value is extremely small.

It is generally found on enquiring into such complaints that the front shop is really the entrance to the house occupied by the keeper, and it is obviously difficult, if not impossible, considering the requirements, to have the door finally closed at a particular hour at night. It may be said, however, that all that can be done is being done even in connection with such a branch of the work as this. The keepers of the larger shops are most loyally carrying out the terms of the Act.

There have been several complaints during the period under report against keepers of shops, who, after the closing hour, are found remaining on their premises although their shutters are closed, and the door itself locked, while an outer gate may remain open. It does not appear to be clearly understood that the Act does not prevent such a condition as this. The power vested in the Local Authority is to enable them to prevent articles being sold after the closing hour, but does not prevent the occupation of premises. Observations, of course, are periodically made in such cases to ensure that no contravention is carried out.

During the term under report, 17 persons failed to act upon the warning issued to them, subsequent to a contravention having been detected, and it became necessary in all of these cases to report the circumstances to the Procurator Fiscal, who subsequently took proceedings against the persons involved.

A note of these, and the class of trades carried on, is appended in the following report :—

Date.	Class of Business.	Offence.	Result.
1920.			
April . 21	Grocer . . .	Failing to obey closing order .	Fined £1.
May . . 19	Fishmonger . .	do. do. .	Admonished
Do. . . 19	do. . .	do. do. .	do.
July . . 13	do. . .	do. do. .	Fined 5s.
Do. . . 30	Multiple Shop . .	Failing to obey half-holiday order .	Admonished
September 17	Tobacconist . .	do. do. .	Fined 5s.
Do. 27	do. . .	do. do. .	Fined 2s. 6d.
Do. 27	Multiple Shop . .	do. do. .	Withdrawn by Fiscal
October . 1	Tobacconist . .	do. do. .	Fined 10s.
Do. . 4	Fishmonger . .	Failing to obey closing order . .	Fined 15s.
Do. . 11	Butcher . . .	do. do. .	Fined 10s.
November 22	Jeweller . . .	do. do. .	Admonished
Do. 22	do. . . .	do. do. .	do.
Do. 22	do. . . .	do. do. .	do.
Do. 22	do. . . .	do. do. .	do.
Do. 22	do. . . .	do. do. .	do.
Do. 22	do. . . .	do. do. .	do.

SALE OF FOOD AND DRUGS ACTS.

The number and variety of the articles purchased for analysis under these Acts is very similar from year to year, and during the term under report there were 1151 samples procured. Of these, 215 were official and 936 preliminary or test samples, being a slight increase on previous years. Of the 215 official samples taken, 66 were certified as being adulterated.

It was found necessary to institute proceedings in 18 cases, and in them all the offender was found guilty—a total amount of £141, 1s. in fines being imposed.

The following Table sets forth in detail the number and variety of the official samples taken, and the condition of these as subsequently determined by analysis.

It might not be amiss to direct attention to the procedure adopted in milk cases before it is resolved to forward a prosecution to the Court.

A preliminary sample is purchased by deputy from the shop without the knowledge of the seller. If, on analysis, adulteration is proved, then an official visit is made and a second sample bought. Should this also be deficient, an offer is made to the dairy-keeper (and invariably accepted) to take a sample on delivery from the source of supply, and should this third sample approximate that procured from the shop, then proceedings are taken against the wholesale dealer only—the presumption being that the milk had been sold identically as received from the consignor.

It is highly gratifying to report that, notwithstanding the fact that a larger number of samples was dealt with than in any former year, the proportion of these found to be adulterated was considerably less, while the amount of adulteration itself was distinctly smaller; indeed in many cases, while the sample did not reach the official standard, the discrepancy was so slight as to be of a comparatively trivial nature.

SALE OF FOOD AND DRUGS ACTS—continued.

Article.	Number of Samples taken.	Genuine.	Adulterated.	Extent and Form of Adulteration.	Reported to Prosecutor.	Acquitted.	Convicted.	Fines Inflicted. £	s.	d.	Remarks.
Arrowroot	1	1	...	.....	...	...	...				
Barley	2	2	...	.....	...	...	...				
Butter	2	2	...	.....	...	...	...				
Cheese	3	3	...	.....	...	...	...				
Cinnamon	1	1	..	.....	...	...	...				
Cocoa	1	1	..	.....	...	...	...				
Coffee	1	1	...	.....	...	...	...				
Ginger (Ground)	1	1	...	.....	...	...	...				
Jam	1	...	1	Contained 5 % apple pulp ...	...	...	...				
Jelly	1	1	...	.....	...	...	...				
Lard	2	2	...	.....	...	...	...				
Margarine	3	3	...	.....	...	...	...				
Milk (Sweet)	182	119	...	.....	...	...	...				
Do.	...	...	1	Deficient in fat 7 %	...	...	...				
Do.	...	...	1	Mixed with 3 % water	...	...	...				Warned.
Do.	...	...	1	Mixed with 4 % water	1	...	1	7	0	0	
Do.	...	...	1	Deficient in fat 7 %	...	...	...				
Do.	...	...	1	Mixed with 14 % water	1	...	1	2	0	0	
Do.	...	...	1	Mixed with 2 % water	...	...	...				
Do.*	...	...	1	Deficient in fat 24 %	...	...	...				
Do.	...	...	1	Deficient in fat 3 %	...	...	...				
Do.*	...	...	1	Deficient in fat 8 %	...	...	...				
Do.	...	...	1	Deficient in fat 33 %	1	...	1	5	0	0	
Do.	...	...	1	Deficient in fat 9 %	1	...	1	20	0	0	
Do.	...	...	1	Deficient in fat 7 %	...	...	...				
Do.	...	...	1	Deficient in fat 20 %	...	...	...				
Do.	...	..	1	Deficient in fat 18 %	1	...	1	5	0	0	
Do.	...	...	1	Mixed with 14 % water	1	...	1	5	0	0	
Do.	...	...	1	Deficient in fat 15 %	...	...	...				
Do.	...	...	1	Deficient in fat 17 %	1	...	1	2	0	0	
Do.	...	...	1	Mixed with 3 % water	1	...	1	30	0	0	
Carry forward	201	137	19	Carry forward ...	8	...	8	76	0	0	

* Cases withdrawn, in order that samples might be taken from the Wholesale Dealers.

SALE OF FOOD AND DRUGS ACTS—continued.

Article.	Number of Samples taken.	Genuine.	Adulterated.	Extent and Form of Adulteration.	Reported to Prosecutor.	Acquitted.	Convicted.	Fines Inflicted. £	s.	d.	Remarks.
›oughtforward	201	137	19	Brought forward ...	8	...	8	76	0	0	
Milk (Sweet)	...	...	1	Deficient in fat 17 %	...	...	...				
Do.	...	...	1	Deficient in fat 10 %	1	...	1	2	0	0	
Do.	...	...	1	Deficient in fat 6 %	...	...	...				
Do.	...	...	1	Deficient in fat 14 %	...	...	...				
Do.	...	...	1	Mixed with 4 % water	...	...	...				
Do.	...	...	1	Deficient in fat 10 %	...	...	...				Warned.
Do.	...	...	1	Mixed with 9 % water	1	...	1	12	0	0	
Do.*	...	...	1	Mixed with 10 % water	...	...	...				
Do.*	...	...	1	Mixed with 13 % water	...	...	...				
Do.	...	...	1	Mixed with 2 % water	...	...	...				
Do.*	...	...	1	Mixed with 16 % water	...	...	...				
Do.*	...	...	1	Mixed with 4 % water	...	...	...				
Do.*	...	...	1	Mixed with 2 % water	...	...	...				
Do.*	...	...	1	Deficient in fat 3 % and mixed with 2 % water	...	...	...				
Do.	...	...	1	Mixed with 5 % water	1	...	1	5	0	0	
Do.	...	...	1	Mixed with 3 % water	...	...	...				
Do.*	...	...	1	Mixed with 18 % water	...	...	...				
Do.	...	...	1	Mixed with 8 % water	1	...	1	10			
Do.*	...	...	1	Mixed with 7 % water	...	...	...				
Do.*	...	...	1	Mixed with 5 % water	...	...	...				
Do.	...	...	1	Deficient in fat 3 % and mixed with 2 % water	...	...	...				
Do.	...	...	1	Deficient in fat 20 %	...	...	...				
Do.	...	...	1	Mixed with 7 % water	1	...	1	10	0	0	
Do.	...	...	1	Mixed with 4 % water	...	...	...				
Do.*	...	...	1	Mixed with 7 % water	...	...	...				
Do.*	...	...	1	Mixed with 7 % water	...	...	...				
Do.	...	...	1	Mixed with 2 % water	...	...	...				
Do.	...	...	1	Mixed with 5 % water	...	...	...				
Do.	...	...	1	Mixed with 10 % water	1	...	1	10	0	0	
Do.*	...	...	1	Mixed with 6 % water	...	...	...				
Carry forward	201	137	49	Carry forward ...	14	...	14	125	0	0	

* Cases withdrawn, in order that samples might be taken from the Wholesale Dealers.

SALE OF FOOD AND DRUGS ACTS—continued.

Article.	Number of Samples taken.	Genuine.	Adulterated.	Extent and Form of Adulteration.	Reported to Prosecutor.	Acquitted.	Convicted.	Fines Inflicted. £	s.	d.	Remarks.
Brought forward	201	137	49	Brought forward ...	14	...	14	125	0	0	
Milk (Sweet)*	...	...	1	Mixed with 8 % water	...	...	...				
Do.	...	...	1	Mixed with 2 % water	...	...	...				
Do.	...	...	1	Mixed with 3 % water	1	...	1	5	0	0	
Do.	...	...	1	Mixed with 3 % water	...	...	...				
Do.	...	...	1	Mixed with 4 % water	1	...	1	5	0	0	
Do.	...	...	1	Mixed with 3 % water	...	...	...				
Do.	...	...	1	Mixed with 4 % water	1	...	1	5	0	0	
Do.	...	...	1	Mixed with 2 % water	...	...	...				
Do.*	...	...	1	Deficient in fat 3 % and mixed with 2 % water	...	...	...				
Do.*	...	...	1	Deficient in fat 7 % and mixed with 7 % water	...	...	...				
Do.	...	...	1	Deficient in fat 3 %	...	...	...				
Do.*	...	...	1	Deficient in fat 27 %	...	...	...				
Do.	...	...	1	Mixed with 3 % water	...	...	...				
Do.	...	...	1	Deficient in fat 3 %	...	...	...				
Do.	...	...	1	Deficient in fat 4 %	...	...	...				
Pepper (White)	5	5	...	.....	...	...	...				
Rice	2	2	...	.....	...	...	...				
Rice Flour	2	2	...	.....	...	...	...				
Sugar	1	1	...	.....	...	...	...				
Tartaric Acid	1	1	...	.....	...	...	...				
Vinegar	3	1	...	.....	...	...	...				
Do.*	...	...	1	Deficient in acetic acid 41·25 % ...	...	...	...				
Do.	...	...	1	Deficient in acetic acid 44·75 % ...	1	...	1	1	1	0	
Number of Samples taken	215			Cases reported to Prosecutor	18						
Number found Genuine		149		Number acquitted		...					
Number found Adulterated			66	Number convicted			18				
				Total Amount of Fines ...				£141	1	0	

* Cases withdrawn, in order that samples might be taken from the Wholesale Dealers

Annual Report

of the

Sanitary Department of the City of Edinburgh

FOR THE YEAR 1920

By

ALLAN W. RITCHIE
M.R.San.Inst.

Chief Sanitary Inspector

SANITARY DEPARTMENT,
EDINBURGH, *June* 1921.

To
The Scottish Board of Health and
The Right Honourable the Lord Provost,
Magistrates and Council of the City of Edinburgh.

MY LORD PROVOST AND GENTLEMEN,

I have the honour of submitting my Report on the sanitary condition of the City and the operations of the Sanitary Department for the year 1920.

It is gratifying to observe the marked decline in disease and death rates during recent years. This, it will be admitted, is in large measure due to improved housing and sanitation. Further developments have still to be effected in these directions, and it should be possible to witness an even greater decline in these rates.

A point is being reached, however, if it has not been reached already, when emphasis must be directed to the benefits which can be derived by citizens not so much by external efforts on their behalf, great as these will continue to be, but more by personal effort, or making the most of the conditions in which they find themselves, by such means as thorough cleanliness in their homes and immediate surroundings, and by permitting the free entrance of light and air into their dwellings, so far as that is possible.

I refer later in this Report to various ways in which this personal effort can be exercised. What is required, however, is that every individual citizen should become imbued by what might be termed a health ideal. If this is of a high order, it will not require any means of external compulsion to attain to; it will become its own driving force. The opportunity for the carrying into effect of this ideal will be found in other places beyond the home—for example, the shop, the workroom, the factory, the office, the public conveyance, places of public resort, in fact the whole community.

This health or civic conscience may not be easily realisable in certain quarters where, unfortunately, it is most required, and where for well-known reasons the people appear to be totally unable to rise above their habitual conditions of squalor. In such instances the hope is with the children, unless they too become the victims of their environment. This necessitates the taking of long views, and in the meantime every step should be taken in the schools and elsewhere to arouse practical interest in matters of elementary hygiene.

EXTENDED CITY.

With the passing of the Edinburgh Boundaries Extension Act, 1920, under which the Burgh of Leith and the Parishes of Cramond, Corstorphine, Colinton and Liberton were taken over by the City at 1st November, 1920, very considerable additional responsibilities now rest on the Department.

One beneficial result of the combination of these areas will be the unification of policy and effort in securing improved sanitary conditions for the large population residing therein.

In all parts of the City as we now find it there are many matters of insanitation remaining to be dealt with, and while the economic situation makes improvement more difficult of realisation, a way must be found for at least a gradual betterment.

HOUSING.

Since the issue of my Report of last year, in which I directed attention to the serious state of overcrowding caused by the shortage of houses, the situation has been relieved to a slight extent by the completion and occupation of a number of houses forming part of the housing schemes of the Corporation. Additional houses under these schemes are nearing completion, as are also a considerable number of huts; and while a certain further relief will be occasioned by their occupation, the shortage of houses will still remain very great.

The lack of sufficient housing accommodation undoubtedly causes great inconvenience and discomfort to many people, especially in cases where perforce two or more families have to live together. This is particularly the case, and all the more serious from the health and sanitary point of view, in the more congested parts of the City, where the houses are small and where it has been always regarded as important to discourage overcrowding.

It therefore becomes all the more imperative, in considering the whole housing needs of the City, to have due regard to the necessity of providing a sufficient number of suitable houses in those parts of the City. This has received attention already to some extent by the reconstruction of several tenements and also by the proposals for dealing with certain unhealthy areas; but there yet remains much more to be done by the construction of a number of modern tenemental dwellings on central sites.

Experience has shown, however, that many of the present occupants of houses in the central districts are totally unable to pay the enhanced rents that of necessity have had to be fixed for the new or reconstructed houses, and it becomes a matter of real concern as to how the position of these people is to be met. This will be realised more acutely when the Corporation comes to consider the question of providing accommodation for those people who will require to be dispossessed from the houses that have been included in the areas for clearance and reconstruction.

Many of those people are aged, and others are endeavouring to eke out a bare existence as best they can and are totally unable to gather together more than a small amount for rent. Many of them, too, live at present in single apartment houses, the provision of which has not been included so far in any housing proposals. While, therefore, one hesitates to suggest any increase in the number of single apartment houses, it must be quite evident that in order to accommodate this class of occupier provision will require to be made for a sufficient number of moderately rented houses.

INCREASE OF RENT AND MORTGAGE INTEREST (RESTRICTIONS) ACT, 1920.

Under the provisions of this Act, which in Scotland applies to houses of a rental up to £90 per annum, it is permissible for the owners to make certain increases of rent. The occupier, however, is given the opportunity of applying to the Sanitary Authority for a Certificate on the ground that the house is not in all respects reasonably fit for human habitation or is otherwise not in a reasonable state of repair. If this certificate is granted, the occupier can then apply to the Sheriff Court for an Order suspending such increase until the Court is satisfied, on the report of the Sanitary Authority or otherwise, that the necessary repairs (other than the repairs, if any, for which the tenant is liable) have been executed, and on the making of such Order the increase shall cease to have effect until the Court is so satisfied.

The Corporation appointed me to issue certificates in terms of the Act where application had been made. In the vast majority of cases, owners took full advantage of the opportunity to advance the rents, but contrary to expectations comparatively few occupiers made application for certificates. This, it was stated by some, was due to the fear that they might be dispossessed by the owners at the first opportunity, and also to a disinclination to pay the costs of an application to the Court, the success of which was uncertain.

Up to 31st December, 350 applications for certificates had been lodged, and of that number it was found on inspection of the houses that in 131 instances the conditions were of such a nature as to warrant the granting of certificates, while in the remaining 219 the circumstances were considered too trivial and certificates had to be refused. Of those granted, 74 were on account of the houses not being in all respects reasonably fit for human habitation, and 57 because the houses were not in all respects in a reasonable state of repair.

Whether or not certificates were issued to the occupiers, intimation of the various defects that came under notice in course of inspection were notified to the owners, who, in most cases, had the defects remedied. Thus the Act was an indirect means of bringing about a certain amount of repair work which had gone into arrears.

NUISANCES.

In order effectually to carry out a proper system of routine inspection to ascertain the existence of nuisances and any infringements of the various sanitary bye-laws, and to see these properly attended to, the City has been divided into a series of Districts, each of which is supervised by an Inspector.

The majority of the nuisances that come under notice have reference on the one hand to matters affecting the occupation of dwellings, and consist of defects of the structure or of the sanitary fittings, demanding the attention of the owners, and on the other hand to various items of neglect in domestic hygiene, both within and outside the dwellings, for which the occupiers are responsible. Other nuisances affect groups of houses or whole neighbourhoods, consisting of effluvia from some business of an objectionable nature, or of offensive accumulations, or the keeping of animals and poultry in such a manner as to cause offence.

While most of these matters come under the personal notice of the Inspectors in the course of their rounds, complaints are frequently made by citizens which require to be investigated. Most of these complaints are well founded, and the action of the Department brings about many improvements; but in a number of instances it happens that a dispute between neighbours causes a reference to be made to the "Sanitary," and, while the complaint may refer to a matter outwith the scope of this Department, a little kindly influence is exercised to allay ruffled feelings, often with gratifying results.

Where infectious disease such as Diphtheria occurs in any property, investigation is made into the condition of the sanitary arrangements as well as the general surroundings, and any defects are brought to the notice of those responsible for their attention.

In last year's Report I referred to a number of prominent features of insanitation that still existed within the City that would require to be faced seriously in the immediate future. Although the economic situation resulting from the War tends constantly to retard progress in the direction of improvement, yet there is reason to hope that with the recent increases on rents and the decline in the cost of labour and material, the way is opening up for more and more work of this nature being done.

SANITARY IMPROVEMENTS.

Despite the difficulties occasioned by the high costs and other circumstances created by the War, the record of Sanitary improvements effected during the year is most gratifying.

One class of improvement that receives a good deal of attention year after year is the eradication of the antiquated and foul-smelling "pan" water-closets which unhappily still exist in large numbers. By reason of their construction and of their being boxed in with woodwork, it is impossible, despite various efforts made to do so, to keep them clean and free from offence. When, too, the situation of the water-closet is in a dark, badly ventilated or unventilated apartment, the case is worse. It often happens, also, that the domestic water supply is liable to pollution on account both of the situation of the water-closet and the want of a flushing cistern separate from the domestic water supply cistern. Some owners are difficult to convince as to the vital matters of difference between this early type of convenience and the modern wash-down apparatus, but no sanitarian can agree to any arguments at this late date for the retention of "pan" water-closets. Their removal and substitution by the modern fitting must be insisted upon wherever found. Last year this was accomplished in 244 instances.

In 570 cases defective water-closets were repaired or improved, and 411 choked water-closets were cleared after intimation to the owners.

Complaints are often made by occupiers of houses as to smells from the kitchen or scullery sinks. The sinks in many instances are of iron construction, and are frequently corroded and foul, and occasionally cracked or have the overflow choked. Often, too, the surrounding woodwork has become rotten, and foul-smelling. These defective iron sinks were removed in 172 instances,

and substituted by earthenware appliances, and 376 sinks had repairs executed upon them. Chokages occurring in connection with 151 sinks, wash-tubs, baths, &c., were cleared, as were also 489 chokages in drains, and 266 surface gratings. Choked or fractured waste pipes, soil pipes, and water pipes attended to numbered 243.

The filthy condition of water-closets and sinks, due to carelessness, to the number of 697, had to be brought to the notice of the tenants using same, and cleansing insisted upon.

The necessity for repairs upon the internal structure of houses, including the floors, doors, windows, walls, ceilings, &c., was brought to the notice of the owners of 281 houses, and attended to. Flooding occurred in 57 houses due to defects in the flats above or in the roofs. Complaints of smells from shops below received attention in 47 instances. Other complaints of smells in houses were in 63 cases discovered to arise from dry rot, escapes of gas, dead vermin, &c.

Back smoke was complained of as occurring in 64 houses, and the cause, usually defective or obstructed vents, was rectified.

Dampness occurring in 72 houses was abated by the carrying out of structural improvements.

CLEANSING OF DIRTY HOUSES.

In 537 houses, the walls and the ceilings, having been found by the Inspectors to be in a dirty condition, were cleaned by the owners or occupiers. Although there has been a decided improvement in household cleanliness in the localities requiring special supervision, the attention of the occupiers of 606 houses had to be directed to the filthy condition of the floors and fittings and of the bedding and clothing. The numbers were distributed as follows:—

One apartment houses	203
Two apartment houses	313
Three apartment houses	54
Four apartment houses	36

With regard to these dirty houses, it was possible to extend a certain amount of sympathy in special cases such as illness, mental deficiency, or old age, but in many instances the conditions were due to carelessness and neglect, and the occupiers required to be reprimanded and kept under supervision. This was especially the case where there were evidences of the presence of body vermin such as fleas and lice.

In such cases it is necessary not only for the house and bedclothes to be thoroughly cleansed, but also for the persons affected to undergo bathing and to have their clothing disinfected. Persuasion often results in these necessary acts being performed, but there are exceptions, and unfortunately Local Authorities are not armed with powers sufficient to compel verminous persons to cleanse themselves. It is thus possible for those in this state to move about with impunity amongst cleanly citizens in the public streets, or in shops, tramways, trains, and public places. The experience of persons of cleanly habits thus becoming accidentally attacked by body vermin is by no means uncommon.

The thought of the possibilities of such occasional attacks is most unpleasant, especially when regard is had to the fresh light thrown upon the subject by the experience gained during the War. Before then it was not generally believed that disease could be spread by means of lice and fleas, but this is now an accepted fact. It therefore becomes a matter of urgent public interest to see that the best measures are taken to minimise this danger. The reserve adopted in the past cannot be continued in the light of the new knowledge.

Already, it is an infringement of the law for a parent to allow his child to attend school in a verminous condition, and compulsory powers are possessed by the Education Authorities to have the children properly cleansed. These powers have had a remarkable effect in securing a better state of cleanliness amongst school children. It should be a like offence, therefore, for any adult person to expose himself in that state, and Local Authorities should be provided with somewhat similar compulsory powers to have such persons properly cleansed.

This would require an amendment of the Cleansing of Persons Act, 1897, which provides that Local Authorities shall have powers to expend any reasonable sum on buildings, appliances, and attendants, and shall permit any person *who shall apply* to the said Authority, on the ground that he is infested with vermin, to have the use, free of charge, of the apparatus which the Authority possesses for cleansing the person and his clothing from vermin.

As can be readily expected, very few persons in that state *apply* for cleansing. It should be possible, therefore, to inflict penalties upon any person found in this state who fails to cleanse himself and his clothing within a specified time after warning, and to cause him to be compulsorily cleansed thereafter.

It is desirable also that provision should be made for dealing with verminous conditions in houses. Frequently the bedding and clothing are found in a verminous state, and the dust contained in the floor crevices is often the breeding place of fleas. To deal with these conditions satisfactorily, fumigation as well as thorough cleansing is required, and this should be done either by or at the expense of the occupier. Section 40 of the Public Health (Scotland) Act, 1897, which deals with the cleansing of *dirty* houses, should be extended so as to include the proper cleansing of *verminous* houses. This would apply not only to cases of infestation by fleas and lice, for which the occupier is responsible, but also to houses infested by bugs, which in the nature of things would require the attention of the owners.

Vermin in dwelling-houses, unless in those cases where they occur only occasionally and accidentally, are invariably associated with dirt and carelessness. It is therefore upon the improvement of personal habits that influences must be brought to bear, constantly and persistently, so that the possibility of the risks to public health resulting from them may be lessened.

I have to direct attention, once again, to the desirability of some scheme being adopted whereby the aged poor, who, through commendable independence, endeavour to eke out a living in the loneliness of their own homes, will be properly attended to, will have their houses kept in order, their bed and body clothing washed, properly cooked food provided to them, and visits paid by nurses when infirmity requires them to keep in bed. Since the introduction of the Old Age Pension, in many cases their sole income, the number of aged persons living alone, without the interest of relatives or friends, appears to have been on the increase, and the condition that

some of them get into is truly pitiable. Were it not for the visits and attentions of the Inspectors, or the kindly interest of neighbours, many more would be soon in the same state.

CLEANLINESS OF DOMESTIC SURROUNDINGS.

The number of common stairs and passages painted after the issue of notices to the owners was 1442, an increase of 314 over the number in the previous year. In many instances the walls and ceilings had first to be repaired before the painting was done.

Many owners and tenants complain of the disfigurement of the walls and ceilings of passages and stairs, frequently after the painting has been newly done, by children playing with balls, ropes, &c. This could be lessened very greatly if parents were to instruct their children in the matter.

But, as I have indicated before, staircases also become dirty by careless habits in sweeping and washing, and this likewise demands the serious consideration of occupiers. A little attention to method in matters of cleansing would obviate much discomfort and probably also prevent the spread of disease.

Very frequently the cleaning of stairs is most irregularly executed through the neglect of an occupier in taking the turn in proper rotation. This becomes most irksome to the other tenants and is often the cause of considerable ill-feeling, requiring the calling in of the Inspectors to adjust matters. In no less than 3239 occasions did this neglect to observe the City Regulations occur, and in one or two instances threat of a prosecution had to be resorted to.

Another matter, frequently complained of, is the nuisance caused on stairs, back-greens, and other places by dogs and cats. Where these animals are properly cared for and kept under control, there is no difficulty in preventing nuisance, but unfortunately this desirable attention does not always obtain. The nuisance is aggravated when these animals are no longer desired by their owners, and are turned adrift and allowed to stray. They then linger about in the district, feeding where they can, and give rise to considerable annoyance and trouble. The problem of the stray cat is at present under the consideration of the Local Authority, and it is hoped that some scheme may be adopted for dealing satisfactorily with it.

Neglect on the part of occupiers in getting rid of their household refuse by putting it out to the scavenging carts in the morning leads to refuse being deposited in any out-of-the-way corner. Thus the Inspectors discovered no fewer than 2153 such accumulations in areas, vacant houses, cellars, lobbies, &c., and had to arrange for their removal.

Back courts and greens in many parts of the City are also in a constantly dirty and untidy state caused by the throwing of garbage and filth over windows. This is a most disgusting habit, as well as a very unhealthy one, and a little thought on the part of those who indulge in it should impress them with its unseemly reflection upon themselves and its degrading effect upon the neighbourhood.

If every occupier in these districts would adopt proper habits of cleanliness, their houses and surroundings even in most unlikely localities would become brighter and pleasanter, and the benefits in improved health to the whole community would be very marked.

OVERCROWDING.

The continued shortage of dwelling-houses made it very difficult to deal with the many instances of overcrowding that came to the notice of the Department. In the course of the normal routine inspection of houses it was quite evident that overcrowding existed to a considerable extent, but owing to the impossibility of the tenants getting other accommodation, the greater number of cases had to be overlooked.

Of the cases brought to the notice of the owners and occupiers, 29 were one apartment houses, 54 two apartment houses, 5 three apartment houses, and 1 house of four apartments. The overcrowding extended from 1 to 6 persons per house, and the air space of 400 cubic feet per person fixed by Statute was thereby reduced to from 357 to 121 cubic feet. There are undoubted harmful possibilities associated with this state of affairs, which can only be removed by the rapid increase in the number of houses.

TICKETED HOUSES.

Houses of two apartments having less capacity than 2000 cubic feet were all measured a number of years ago in accordance with Statutory requirements, and tickets were placed over the doors to indicate the air space and the maximum number of persons that can occupy them. Persons taking such houses can tell by a glance at the ticket if the house is suitable for the requirements of the family. The majority of the houses are situated in the Central Districts, and are regularly visited by the Women Sanitary Inspectors, who have regard to such matters as overcrowding, the general cleanliness of the house and its contents, including the bedding and clothing, as well as the sanitary conveniences, stairs, &c. These visits, which are welcomed by the occupiers for the most part, are fruitful of much improvement in the sanitation of the premises, besides being beneficial in other ways. A record of the inspections is given in the following table:—

Number of	Houses Inspected	9449
,,	Houses found dirty, and cleansed	144
,,	Stairs found dirty, and cleansed	526
,,	Revisits to Stairs and Houses	1194
,,	Houses in which bedding was found dirty, and cleansed	114
,,	Water-closets inspected—	
	Private	420
	Mutual	5898
,,	Water-closets found dirty, and cleansed	228

In addition to the ticketed houses, inspections were also made by the Women Inspectors of the other houses of larger capacity in the same stairs with the following results :—

Number of Houses inspected	7819
„ Houses found dirty, and cleansed . . .	121
„ Houses in which bedding was found dirty and cleansed	88

WATER SUPPLY.

Edinburgh is very favourably situated as regards both the quantity and quality of its water supply. The only matter that demands the attention of this Department is the examination of the domestic water cisterns, through which the water must pass in supplying the needs of households. This examination continues to reveal conditions that are far from satisfactory. In the older tenemental properties the cisterns are often found in very faulty situations, and the close relation of sanitary conveniences to the cisterns is frequently such as to cause the water supply to be distinctly liable to pollution. The inspections also bring to notice many instances of dirty cisterns, and of others that are unprovided with covers.

The following Table indicates the number of inspections made, and the conditions found.

	Newington.	Merchiston.	Gorgie.	Haymarket.	St Giles'.	Dalry.	Portobello.	West Leith.	Central Leith.	Total.
No. of cisterns inspected from January to December 1920.	2764	4642	1924	739	966	3177	3751	150	457	18,570
No. of re-examinations made .	297	284	640	8	268	347	296	73	168	2,381
No. of cisterns found clean .	2467	4358	1284	731	698	2830	3455	77	289	16,189
No. of cisterns found dirty .	297	284	640	8	268	347	296	73	168	2,381
No. of notices served to clean cisterns	297	284	640	8	268	347	296	73	168	2,381
No. of cisterns cleaned in consequence of notice . .	297	284	640	8	268	347	296	73	168	2,381
No. of cisterns found without covers	10	12	8	3	22	14	8	2	28	107
No. of cisterns provided with covers	10	12	6	3	9	14	12	...	14	80
No. of notices to cover . .	10	12	8	3	22	14	8	2	17	96
No. of cisterns found with waste pipes discharging openly .	2764	4642	1924	739	965	3177	3751	150	457	18,569
No. of cisterns found with waste pipes connected to drain .	...	...	...	...	1	...	...	...	...	1
No. of houses where drinking water was derived from tap off main	1152	1630	17	452	264	404	835	...	34	4,788

COMMON LODGING-HOUSES.

No amendment has been made yet in the definition of *common lodging-house* contained in the Public Health Act, which includes those houses in which the charge per night does not exceed 6d. Many of the keepers make a charge of from 6d. to 9d. per night, and by so doing they remove their houses from this category. As, however, apart from the definition they are virtually of that class of house, their registration has been continued. They have also been included, at the request of the Scottish Board of Health, in the list of houses let-in-lodgings in order to bring them within the scope of the bye-laws.

This, however, is not regarded as satisfactory, and steps should be taken without further delay to have the clause of the Act amended so as to permit of the houses being continued as common lodging-houses.

One or two of these lodging-houses do not quite reach the standard desired, so far as the general structure and arrangement are concerned, and this will require to be attended to in the not too distant future. Insistence, however, is made in securing thorough cleanliness of the various apartments and of the bunks and bedding.

On account of the prevalence of Smallpox in other parts of the country, and in order to detect at once any possible case coming from those districts, arrangements were made for nightly visits being paid to the common lodging-houses by the Inspectors, who were kept informed by the keepers of the previous movements of new arrivals. Any persons arriving from infected areas were medically examined and kept under observation. Our remarkable freedom from this disease may be attributed in some measure to these and other precautions that were observed.

FARMED-OUT HOUSES & HOUSES LET-IN-LODGINGS.

There were at the end of the year 232 farmed-out houses on the register, and these provided accommodation for 838 persons. Regular inspections were made of these places to see that they were being kept clean and in good order.

The Scottish Board of Health granted the application made by the Corporation for the powers contained in the Glasgow Corporation Order Confirmation Act, 1918, for dealing with this class of house. Bye-laws in terms of that Act are in course of preparation.

There were also 54 houses let-in-lodgings on the register, and these had accommodation for 3185 persons. Included in this number are, of course, the former common lodging-houses referred to.

SCHOOLS.

The Edinburgh Education Authority and other School Directors continue to maintain excellent supervision of the schools under their control, and it is seldom necessary to bring any want of cleanliness or other matter of insanitation to their notice. One or two of the voluntary schools, however, that were transferred recently to the Education Authority, had become defective in the light of modern requirements, and these are under consideration.

By arrangement with the Education Authority, an Inspector attached to the Sanitary Department devotes his whole time to visiting the homes of dirty and verminous children discovered attending the schools in the City that are under the control of the Education Authority.

During the year, 375 cases involving 559 children, came under the supervision of this Inspector. Upon inspection, 64 houses were found having the floors and bedding in a dirty condition. The walls and ceilings of 14 houses were also in a dirty state ; while in 8 houses overcrowding was discovered. The results effected included the bathing of 234 children, and the disinfection at the City Disinfecting Station of the children's clothing and 35 sets of bedding. There were no prosecutions before the Sheriff. In every case a warning to the parents or guardians, after having been summoned to appear before the Education Authority, had the desired effect. One or two of the cases may be briefly commented on.

Case A.—House of 1 apartment occupied by tenant, his wife and four of a family. The bedding was verminous and of the most meagre description. The whole family were bathed ; all personal clothing, bedding, and the house were thoroughly disinfected ; and new and adequate bedclothes were thereafter provided.

Case B.—Tenement house of 2 apartments occupied by a widower and 3 children. House was in a very dirty condition and one bed was simply a heap of rags and in an extremely verminous state. This bed was immediately destroyed. The house, bedding and all personal clothing were disinfected and the children bathed. A decided improvement has taken place here and the youngest children have been boarded out with friends.

Case C.—A small tenement house of 1 apartment occupied by mother and two children of school age. This house required constant visitation as suspicions were fully confirmed that this woman was leading a most immoral life. After the necessary disinfection was carried out, the mother was taken into an Institution and the children were taken care of by the Parochial Authorities.

Case D.—A tenement house of 2 apartments, occupied by husband, wife and 6 children. House very dirty, bedding dirty and verminous and children in a verminous condition. All necessary disinfection was carried out, new bedding provided, and children provided with new clothing. A complete change for the good has taken place here, as repeated visits amply show that both parents are not only taking a better interest in their home but are taking a much more personal interest in the welfare of their children.

HOUSING OF ANIMALS.

The housing of animals is now so directly related to public health as to demand its being dealt with in the most satisfactory manner. There is undoubtedly an aspect of the subject that might be regarded as humanitarian, which has reference to the benefits brought to the animals by improved housing, but while that aspect should never be lost sight of, there are also great advantages to public sanitation.

Stables.—Motor traction has done much to lessen the problems attendant upon the keeping of horses in urban localities, and as this more modern method develops, the number of stables will gradually diminish. It is likely, however, that the diminution will take place amongst the best managed stables, and many of the more undesirable stables made use of by the casual horse-owner will remain. The buildings in some instances are situated amongst groups of dwelling-houses, and the structures are frequently of a primitive nature, providing very little in the way of drainage or ability to be properly cleansed. These conditions, which give rise to the offensiveness associated with such places, are immeasurably worse in summer. As is now common knowledge, the propagation of house flies takes place to a far greater extent in horse manure than anywhere else, and it becomes all the more necessary to regard this class of stable and its immediate surroundings as an imminent source of danger to the community. The present time, however, is not the most suitable for applying pressure for the abolition or even the radical structural improvement of some of the worst stables. It has, however, been the practice of the Department, for some time past, to insist on more thorough cleansing of all stables, and to ensure the removal of the manure every few days. The need for this has been difficult to bring home to some horse owners, who have had to be threatened with legal proceedings before attention was given to the matter.

Pigstyes.—Some of the pigstyes within the old City area are in such close proximity to dwelling-houses, and so dilapidated and badly kept, as to be the subject for immediate discontinuance. The close association of one of the new housing schemes to a number of these piggeries makes this all the more necessary.

In the newly added suburban area there are many piggeries, both of a primitive and of a modern improved type. The latter class has been provided in accordance with the bye-laws operated by the Local Authority of the Suburban District, and as the trade of pig keeping is likely to develop, it is important that the City Local Authority which has now the oversight of these places should be in possession of similar bye-laws.

Poultry Runs.—During recent years, on account of the food shortage and the high cost of eggs, many people have taken to keeping poultry. Every encouragement might well be given to this practice in such circumstances, but unfortunately the number of hen runs has grown to such an extent, and in many cases they have been provided in such unsuitable situations, and are frequently so badly kept, as to be a real nuisance. In addition, there is the constant crowing and cackling, which, except perhaps to the country-trained person, becomes somewhat annoying. But what is probably an even worse feature is the distinct attractiveness of these places to rats. Once these vermin gain a hold upon a locality containing hen runs they are most difficult to exterminate.

The only really satisfactory way to control this growing business is by a code of bye-laws that shall have regard to such matters as locality, relation to dwellings, construction, and proper maintenance and cleanliness.

PLACES OF PUBLIC ENTERTAINMENT.

The theatres, picture-houses, and other places of public entertainment were all examined from time to time throughout the year. There is a great variety in

the provision that is made in these places to give effect to hygienic requirements. Some buildings are of modern design and construction, and are equipped and maintained in a thoroughly scientific fashion. Special consideration has been given to such important matters as heating, ventilation, cleanliness, and general sanitation, not only in the provision of adequate facilities but also in their careful control.

Other places are less satisfactory, either from the lack of equipment or from want of proper regulation of same. This is most noticeable in such matters as cleaning and ventilation. The sweeping and dusting, while daily observed, is not done very methodically, and frequently for want of proper measures it is merely the transference of dust from one part of the building to another. Where mechanical means of ventilation are provided, this should be kept in motion during these operations in order to remove the dust entirely from the building. While performances are in progress, and the buildings are occupied, it is frequently found that the ventilating fans are not in operation, and the atmosphere is hot and stuffy. These are matters that are of the utmost importance, and require to be very carefully observed in all such places.

Structural improvements and cleaning and painting were required at several establishments, and these were duly attended to.

A commencement has been made during the present year with the chemical examination of the atmosphere in picture-houses. The amount of impurity found in a number of instances points to the necessity for more strict enforcement of proper ventilation.

INSPECTION OF SHOPS AND RESTAURANTS.

All shops in which foodstuffs were either sold or prepared, as well as the kitchens of hotels and restaurants, were regularly inspected, and many matters requiring improvement were brought to the notice of those responsible. The nature of these improvements at the various classes of premises is shown in the following Table :

[Table.

Table showing nature of nuisance and improvements effected in connection with Shops where Foodstuffs are sold.

Nature of nuisance and improvements effected.	Bakers.	Butchers.	Confectioners.	Fruiterers.	Fishmongers.	Grocers.	Public Houses.	Restaurants.	Fish and Chip Restaurants.	Dairies.	Totals.
Additional washdown W.-C. introduced into apartment, lighted and ventilated to outer wall. . . .	...	...	1	...	...	...	...	...	...	...	1
W.-C.'s (washdown) substituted . .	1	1	1	1	..	...	...	2	...	...	6
Sinks, W.-C.'s and urinals repaired . .	...	3	...	2	...	...	2	...	2	...	9
Fireclay sink substituted for old iron appliance	...	...	...	...	...	...	...	1	...	...	1
Foul W.-C.'s and sinks cleaned . .	1	2	...	...	...	...	...	1	1	...	5
Choked W.-C.'s cleared . . .	...	1	...	1	...	1	...	...	2	...	5
Choked drains cleared . . .	...	1	...	...	...	...	...	...	1	...	2
W.-C.'s removed to more sanitary situation .	...	...	...	...	...	...	...	1	...	...	1
Dirty shops cleansed . . .	...	3	2	1	...	3	...	...	3	...	12
Accumulations of refuse removed . .	1	1	...	3	3	2	...	...	7	...	17
Premises limewashed . . .	...	5	...	1	2	1	...	3	9	...	21
Vessel with properly fitting lid provided for offal	...	...	...	...	...	...	...	...	1	...	1
Smells from premises abated . .	...	1	...	1	2	...	...	...	...	...	4
New floor and ventilation for same provided	...	...	...	1	...	...	...	...	...	...	1
Repairs to floor and plaster on walls and ceilings	...	...	...	1	2	...	...	...	1	...	4
Proper ventilation introduced . .	...	...	...	...	...	...	...	...	1	...	1
Shops flooded from above abated . .	...	...	1	...	...	1	...	...	1	...	3
Lodgers removed from back premises .	...	...	..	...	...	...	...	...	1	...	1
Rats exterminated	4	2	2	4	4	5	...	7	2	2	32
Cisterns found dirty and cleansed . .	4	6	9	7	2	8	1	1	2	22	62
Cistern covers provided . . .	...	1	2	...	...	1	...	1	...	1	6
Totals . . .	11	27	18	23	15	22	3	17	34	25	195

OFFENSIVE TRADES.

With the addition of those offensive businesses, 13 in number, carried on in Leith, there are now altogether 25 such businesses in the City. They are classified as follows:—

Tanners	3
Hide & Skin Factors	5
Gut Scraper	1
Glue & Sizemaker	1
Skinners	2
Soap Boiler	1
Bone Boiler	1
Tripe Cleaners	3
Manure Manufacturers	6
Tallow Melters	2
Total	25

Constant supervision is required at some of these premises in order to have them kept in a proper condition of cleanliness, and in other respects to see that the conduct of the trade conforms with the bye-laws. During the year 94 inspections were made.

TENTS AND VANS.

The visits of show-people on several occasions throughout the year required the making of satisfactory arrangements for water supply, sanitary conveniences, and the disposal of refuse. Inspections were also made of the various vans, and these were generally found in a very clean and tidy state.

RAT EXTERMINATION.

The fact that a penalty can be imposed under the Rats and Mice (Destruction) Act, 1919, upon occupiers of premises who fail to take such steps as may, from time to time, be necessary and reasonably practicable for the destruction of rats and mice, has caused an increase of interest to be aroused in the rat destruction campaign. Many occupiers have taken steps, voluntarily, to exterminate the rodents from their premises and to prevent their re-entrance.

The services of the Sanitary Staff have been requested on numerous occasions by persons who desire to know the best measures to adopt, and advice and help in this connection have been freely afforded. This co-operation is desirable, as a great deal of time and money can be wasted, particularly in the use of much-advertised specific exterminants, the results from which may not be altogether satisfactory. The Department is in a position to determine by experience the real value of these materials, and this knowledge is placed at the disposal of citizens.

A reminder has to be given, however, that the use of poisons, traps, &c., is but one step towards the eradication of rodents. The other repressive measures are really

of more importance. Unless means are adopted to prevent rodents from re-entering and harbouring on the premises, the relief may be only temporary. It is therefore necessary to cause the premises to be thoroughly rat-proofed. By this is meant the scrutiny of every part to observe where the rats are in lodgment,—usually under floors or behind boarding, &c.—and to so reconstruct those places that such lodgment will be impossible. The rat-runs also require observation, and these must be satisfactorily closed. Every means of access to the building, too, must be thoroughly blocked. More often this is at the ground floor, or in the basement, frequently from defective drains or defects in the structure, but occasionally the rats pass along the roofs from one building to another, entering by open roof-lights, hatches, or other unguarded openings. In some dwelling-houses found infested, the entrance was by the under-floor ventilating openings, due to the absence of gratings.

The work required to thoroughly rat-proof premises may in some instances involve considerable expense, but as has been proved by experience, it is greatly worth while. The destruction that can be caused by the vermin in a very short time is serious, and all efforts to keep them out of premises are well repaid.

In the erection of new buildings it is of the utmost importance to see that every precaution is taken to prevent rats finding an inlet or lodgment. Such initial preventative measures would save much expenditure in later days when an invasion has to be dealt with.

The habits and movements of rodents form a very interesting study. Their knowledge and cunning are most extraordinary, making it very difficult to cope with them. Moreover, they multiply with such rapidity that nothing but constant and thorough methods of repression need be attempted.

One simple fact, however, always kept in mind by those interested would do much to discourage the vermin, and it is that rats must have food, and they will not be attracted to a place where there is no food. Thus they are to be found more numerously in or about such places as stables, pig-styes, hen-runs, barns, grain-stores, and other premises where food is plentiful. It is evident too that their numbers increase or decrease according to the amount of food available. If, therefore, food supplies were made less available to them—and it is possible in many places to keep food altogether out of their reach—there would be fewer of these pests.

During the year 213 premises were reported as being infested in greater or less degree. Intimation was made to the occupiers or owners, and their interest was aroused in order to adopt proper measures. While in some instances attention was not at once given by those responsible, it was in no case necessary for the Local Authority to take legal action.

The number of premises completely cleared of rats was 71, and at the end of the year there were 142 cases in which either work was still being carried out by tradesmen, or the premises were being kept under the observation of the Inspector. A number of complaints of the presence of mice were also dealt with.

The following Table shows the class of premises infested by rats :—

Class of Premises—

Dwelling-Houses	87
Bakers	4
Butchers	2
Confectioners	2
Dairies	2
Fish Mongers	4
Fried Fish Shops	2
Fruiterers	4
Grocers	5
Other Shops	20
Picture-Houses	4
Restaurants	7
Stables, Garages, &c.	33
Cellars, Yards, &c.	31
Land—including Piggeries, Farms, Water-courses, &c.	6
Total	213
Number of premises completely cleared of rats	71
Number of premises in which tradesmen were still occupied under supervision in the extermination of the vermin, and to prevent their recurrence	142
Number of notices of infestation sent to occupiers	70
Number of notices of infestation sent to owners	49
Number of notices sent where structural repairs were required	87
Number of premises where structural repairs were carried out	87
Number of unfounded complaints	6
Approximate number of rats killed	2060

A great deal can be done at farms to keep down the number of rats, such as by rat-proofing of premises, by improving the building of stacks, by killing the rodents during threshing operations, by using ferrets, traps, and exterminants in buildings or on the banks of streams. It requires, of course, that all farmers will co-operate in this work, and act simultaneously, if possible, otherwise the vermin may be only driven from one farm to another. Rats appear to live in colonies, and if attacked in one place of habitation, they speedily remove to a safer place. Co-operation and simultaneous action is therefore in the interests of all farmers and others in the same neighbourhood. Steps are being taken by the Department to obtain this interest and co-operation.

The North British Railway Company has appointed a Rat Destruction Officer to undertake the work of exterminating the rodents from the Company's stations, depots, &c. At a number of other places of business the management has appointed a special employee noted for zeal, to carry out the work necessary for keeping the premises free from rats. An arrangement was made with the Chief Engineer of Leith Dock Commission whereby the staff of the Commission would continue as before to carry out rat extermination measures within the Dock area. This involves observation of all premises and laying down of exterminants at frequent intervals.

The work of rat destruction at a port is important from the health point of view, since it is possible to convey Plague from a foreign country to a home port by means of rats. It is therefore an urgent necessity to have all ships, especially those from Eastern ports, thoroughly examined to ascertain the presence of rodents, and to have them destroyed. Some Masters are fully alive to this requirement and voluntarily notify the Authorities as to the infestation. In the case of some cargoes, however, especially cargoes of foodstuffs, extermination is not free from difficulty.

It has to be stated, however, that this is not a problem to be faced by any one Local Authority or even by a number of them ; it is a matter rather for the Government, and involves the making of regulations to be observed at all British ports. It is also an International question, requiring an arrangement between Governments for the carrying out of satisfactory precautions on all ships that ply between their ports.

SANITARY INSPECTION OF SHIPS.

Besides the arrangements necessary for dealing with rats on ships coming into the Port of Leith, arrangements were also made for the sanitary inspection of ships. This comprises an examination of the quarters of the crews and passengers, including bunks, bedding and clothing, cookhouses, sanitary accommodation, and the water supply. In several instances cleanliness did not always prevail to the extent desired, and in other cases the sanitary appliances were unsatisfactory. These matters were brought to the notice of the Master, and if the ship had to leave port before the work could be done, intimation was sent to the Authorities of the next port of call.

I am,

My Lord Provost and Gentlemen,

Your obedient Servant,

ALLAN W. RITCHIE, M.R.San.Inst.

SANITARY IMPROVEMENTS IN 1920.

Nature of Nuisance.	Calton.	Canongate.	Newington.	Morningside.	Merchiston.	Gorgie.	Haymarket.	St Bernard's.	Broughton.	St Stephen's.	St Andrew's.	St Giles'.	Dairy.	George Square.	St Leonard's.	Portobello.	South Leith.	North Leith.	West Leith.	Central Leith.	Liberton.	Colinton.	Corstorphine and Cramond.	Totals.
Accumulations of rubbish, garbage and filth removed from areas, roofs, cellars and vacant houses	67	285	36	41	39	132	24	29	92	99	83	240	113	182	465	194	6	14	3	...	3	...	6	2153
Stairs and passages in a dirty condition and cleansed by tenants	107	297	57	64	64	174	26	37	83	137	187	530	161	295	759	77	13	107	51	13	...	...	...	3239
Choked W.-C.'s cleared	7	80	12	3	2	10	...	5	12	10	13	105	21	27	79	18	1	5	1	...	...	...	...	411
W.-C.'s insufficiently lighted and ventilated—improvements effected	...	1	1	...	...	1	2	...	...	...	1	1	8	5	4	...	...	...	...	...	...	...	...	24
W.-C.'s removed to more sanitary situation	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	1	...	...	...	...	...	...	...	3
Defective W.-C.'s :—																								
New apparatus substituted	11	12	16	5	18	9	7	5	12	23	1	19	27	46	26	6	...	...	...	...	...	1	...	244
Improved or repaired	9	94	26	1	6	54	7	7	10	9	21	97	49	43	82	35	6	7	4	1	1	1	...	570
Partitions of W.-C.'s repaired	...	...	...	...	...	...	...	...	...	1	...	...	...	...	2	...	...	...	...	...	...	...	...	3
W.-C.'s introduced	1	...	...	...	...	...	...	...	1	...	1	3	...	1	...	...	...	...	...	...	...	...	...	7
Insanitary W.-C.'s removed	...	...	...	...	...	...	...	...	...	...	1	1	...	2	...	...	...	...	...	...	...	...	...	4
W.-C.'s and sinks in a filthy condition and cleansed	40	156	13	1	1	22	3	9	10	33	47	137	38	39	88	51	...	5	1	3	...	...	...	697
Sinks introduced	...	...	...	...	1	...	...	...	...	2	6	3	...	...	...		...	...	...	...	...	...	...	12
Insanitary sinks abolished	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...		...	...	...	...	...	...	..	1
Carry forward	242	925	161	116	131	402	69	92	221	314	361	1136	417	641	1505	382	26	138	60	17	4	2	6	7368

SANITARY IMPROVEMENTS IN 1920—continued.

Nature of Nuisance.	Calton.	Canongate.	Newington.	Morningside.	Merchiston.	Gorgie.	Haymarket.	St Bernard's.	Broughton.	St Stephen's.	St Andrew's.	St Giles'.	Dalry.	George Square.	St Leonard's.	Portobello.	South Leith.	North Leith.	West Leith.	Central Leith.	Liberton.	Colinton.	Corstorphine and Cramond.	Totals.
Brought forward .	242	925	161	116	131	402	69	92	221	314	361	1136	417	641	1505	382	26	138	60	17	4	2	6	7368
Defective sinks :—																								
Earthenware sinks substituted . .	7	7	2	8	11	11	1	4	3	4	8	14	55	17	12	8	...	...	...	...	...	...	...	172
Repaired	31	6	17	20	11	65	2	9	21	9	18	31	48	35	17	29	1	..	1	...	2	3	...	376
Removed to more sanitary situations .	...	...	...	...	...	...	...	...	...	1	...	...	...	2	...	1	...	...	...	...	...	...	...	4
Choked sinks, washtubs. &c., cleared .	9	24	2	5	5	5	1	4	1	7	7	40	4	6	18	7	3	2	1	...	..	...	...	151
Houses and shops flooded from defects on flats above	5	...	5	3	2	2	1	1	1	2	8	6	4	9	6	1	...	1	...	...	...	...	...	57
Smells from shops, &c., underneath dwellings	10	...	2	6	...	...	...	1	1	4	8	4	2	2	6	1	..	...	...	...	...	...	...	47
Animals kept in, or in close proximity to, dwellings	8	1	5	5	6	7	...	1	3	6	2	2	4	7	7	8	1	...	...	...	...	1	2	76
Houses limewashed and cleansed by tenants	1	21	1	1	1	6	...	1	1	10	5	22	6	7	20	3	1	2	...	...	...	...	...	109
Houses limewashed and cleansed by owners in terms of Section 110 of the Edinburgh Municipal and Police Act, 1879 . .	25	32	3	5	4	33	6	14	9	20	50	88	16	45	64	12	1	...	...	...	...	...	1	428
Floors and bedding of houses in a dirty condition and cleansed by tenants . .	14	101	2	8	6	21	3	3	9	8	24	149	13	44	130	47	4	9	2	8	1	...	...	606
Staircases painted	87	78	82	28	66	123	40	38	71	71	40	82	116	104	163	77	110	17	11	38	...	...	...	1442
Nuisances due to bad smells in dwelling-houses caused by escapes of gas, dry rot, dead vermin, &c.	2	1	3	5	6	3	5	1	3	5	2	7	2	3	3	7	1	4	...	...	...	...	...	63
Damp houses remedied or abated . .	4	1	1	...	8	4	...	1	1	4	...	7	12	18	4	4	1	1	1	...	...	...	...	72
Carry forward .	445	1197	286	210	257	682	128	170	345	465	533	1588	699	940	1955	587	149	174	76	63	7	6	9	10971

Brought forward .	445	1197	286	210	257	682	128	170	345	465	533	1588	699	940	1955	587	149	174	76	63	7	6	9	10971
Damp houses vacated . . .	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
Houses found uninhabitable and vacated .	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	2
Houses overcrowded	7	9	4	...	...	...	1	1	3	2	3	17	3	8	19	11	...	...	...	...	1	...	...	89
Reported cases of overcrowding . .	1	2	1	...	1	...	...	4	2	7	3	11	2	2	4	...	1	1	...	...	...	...	...	42
Premises infested by rats . . .	16	19	4	7	6	4	9	3	7	8	28	22	8	26	32	7	3	2	1	...	...	...	1	213
Premises infested by other vermin . .	4	3	1	...	...	5	1	4	3	2	5	8	3	11	8	1	...	...	...	...	...	...	...	59
Houses temporarily without water supply, due to burst pipes, &c. . . .	11	17	14	11	...	21	...	20	2	20	1	20	32	34	74	...	9	23	...	...	...	...	...	309
Smoke in houses due to foul or obstructed vents	1	4	2	2	3	5	...	4	3	2	1	21	4	6	2	2	1	1	...	..	...	...	...	64
Accumulations of manure near dwellings .	6	17	6	3	12	6	1	2	17	19	4	1	38	5	8	11	...	2	...	...	...	...	6	164
Disused cellars cleaned and closed . .	5	2	1	...	...	13	...	...	11	5	2	7	6	3	16	...	...	2	...	...	...	...	...	73
Choked surface gratings cleared . .	11	12	8	1	8	83	5	13	7	4	6	7	43	7	31	17	2	1	...	...	...	...	...	266
Choked drains cleared . . .	16	39	8	6	4	82	5	5	10	14	8	53	58	35	93	30	1	9	2	6	1	1	3	489
Walls of areas, courts and passages, limewashed	...	...	...	...	...	...	...	...	...	...	2	...	...	...	1	2	...	...	...	...	...	...	...	5
Areas and courts surfaced and drained .	...	...	...	...	1	...	...	...	1	...	...	1	...	...	1	...	...	...	...	...	...	...	...	4
Brokers' shops and rag stores cleaned .	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	1	...	.	...	...	...	..	...	3
Nuisances arising from fried fish shops investigated, and where necessary abated .	1	1	...	...	...	...	...	...	...	1	2	...	...	...	2	2	...	...	...	...	...	...	...	9
Shops cleaned by tenants . . .	...	...	...	...	1	1	...	...	...	...	2	...	1	1	2	4	...	...	...	...	...	...	...	12
Shops cleaned by owners . . .	...	...	...	...	...	...	...	...	...	...	1	..	1	1	...	1	...	...	...	...	...	...	...	4
Carry forward .	524	1322	335	240	293	903	151	227	411	549	602	1757	898	1079	2248	676	166	195	79	69	9	7	20	12780

SANITARY IMPROVEMENTS IN 1920—continued.

Nature of Nuisance.	Calton.	Canongate.	Newington.	Morningside.	Merchiston.	Gorgie.	Haymarket.	St Bernard's.	Broughton.	St Stephen's.	St Andrew's.	St Giles'	Dalry.	George Square.	St Leonard's.	Portobello.	South Leith.	North Leith.	West Leith.	Central Leith.	Liberton.	Colinton.	Corstorphine and Cramond.	Totals.
Brought forward .	524	1322	335	240	293	903	151	227	411	549	602	1757	898	1079	2248	676	166	195	79	69	9	7	20	12780
Choked and fractured waste pipes, soil pipes, water pipes cleared or repaired . .	7	10	5	6	15	21	3	5	10	10	10	34	15	35	45	7	...	3	...	1	...	1	...	243
Repairs to floors, doors, windows, ceilings, &c.	26	16	6	11	12	19	4	2	5	3	10	54	7	32	50	21	...	3	...	...	...	...	...	281
Walls of W.-C.'s. used in common, limewashed	2	...	...	...	...	...	...	...	1	...	2	...	1	...	...	3	...	...	...	...	...	...	...	9
Urinals found dirty and cleansed . .	2	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	3
Urinals repaired	...	...	...	...	1	...	1	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	4
Cisterns found dirty and cleansed . .	11	6	298	...	284	644	8	5	2	3	6	274	347	12	2	297	...	...	75	168	...	...	1	2443
Cistern covers provided . . .	2	...	10	1	12	6	3	...	...	...	...	11	14	...	...	12	...	...	1	14	...	...	1	87
Cisterns repaired	7	3	3	3	1	23	...	1	...	...	1	5	5	5	6	4	...	...	...	...	...	...	...	67
Cistern waste pipes disconnected from drain	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Cisterns removed to more sanitary situation	...	...	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
Cisterns from which source of contamination has been removed by introduction of main taps	...	...	...	...	...	...	...	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	3
Roofs, rhones, &c. renewed and repaired .	5	2	1	3	6	4	1	2	...	2	3	20	3	16	7	8	...	1	...	...	1	2	...	87
Dark bed-recesses opened out . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	2
Totals .	586	1859	661	264	624	1620	171	243	429	568	635	2157	1291	1179	2360	1029	166	222	155	252	10	10	22	16013

SUMMARY—YEAR 1920.

Includes the Areas Annexed as from 1st November 1920.

Number of complaints by citizens	2,934
,, ,, ,, other Departments	190
	3,124
Number of nuisances discovered and reported by District Inspectors	12,889
Total number of nuisances dealt with by the Department	16,013
Of these have been abated	15,414
The remainder being in progress or under arrangement	599
Number of intimations of existence of nuisance served	1,603
,, notices to remove nuisances served at the instance of the Local Authority	235
,, notices delivered cautioning persons against casting garbage over windows	1,500
,, notices served on occupiers, failing to take due rotation of stair sweeping and washing	973
,, notices served for the cleaning of dirty areas, cellars, &c.	456
,, ,, ,, ,, whitewashing and cleansing of houses	356
,, ,, ,, ,, removal of accumulation of manure	47

Annual Report

of the

Veterinary Department of the City of Edinburgh

FOR THE YEAR 1920

By
ARTHUR GOFTON
F.R.C.V.S.
Chief Veterinary Inspector

VETERINARY DEPARTMENT,
CITY CHAMBERS,
EDINBURGH, *June*, 1921.

To

The Lord Provost, Magistrates, and
Council of the City of Edinburgh.

MY LORD AND GENTLEMEN,

I beg to submit herewith my Report on the work of the Veterinary Department during the year 1920.

Inspection of Meat and other Foods.—The work carried out under this head falls into two categories, namely (*a*) the inspection of all animals slaughtered at the Abattoirs, and (*b*) the inspection of all foodstuffs offered for sale in wholesale meat markets, warehouses, shops, &c. At the Abattoir at Gorgie constant attendance is necessary and is maintained during the ordinary working hours.

During the year 132,862 animals were slaughtered at the Abattoirs, an increase of 8253 as compared with the previous year. The increase consisted almost wholly of cattle and sheep, a noticeable feature so far as sheep are concerned being a marked rise in the numbers presented for slaughter after the removal of Government control in July.

Reference was made last year to the wastage consequent on the large numbers of young cows and of calves slaughtered for food. So far as the former are concerned, the numbers show a fall of approximately 1000 as compared with the preceding year, but they are still greatly in excess of pre-war years. The fall is probably due in a large measure to the lower prices which ruled after the cessation of control. Calves increased from 5989 in 1919 to 6244 in 1920. These figures do not at first sight appear to support the statements made frequently on high official authority that there has been a distinct fall in the numbers of calves slaughtered for food purposes, but when examined month by month throughout the year it is evident that during the second half of the year, when other classes of live stock and in particular sheep were more freely offered in the fat stock markets, there was a distinct fall in the number of calves slaughtered as compared with the first half.

Reference to the appended Tables will serve to indicate the amount of work performed at the Abattoirs and the necessity for constant supervision. Three hundred and seventy-six carcases and 582 portions of carcases were condemned at the slaughterhouses as unfit for human food on account of injury or disease, representing a total weight of over 75½ tons. In addition, Tables are given showing the numbers of diseased organs destroyed and the causes of destruction. It will be noted that tuberculosis was, as in previous years, responsible for a large proportion of the condemnations, 641 carcases being condemned wholly or in part on account of this disease. This total represents 67 per cent. of the condemnations from all causes, but it does not represent the total loss sustained. To it must be added the cost of the additional keep required for fattening the average tuberculous animal as compared with the sound, healthy animal. It cannot be too often repeated

that tuberculosis is a preventable disease, and that with the necessary effort on the part of stock owners, the wastage for which it is responsible could be steadily and materially reduced. It has been clearly established that tuberculosis can be gradually eliminated from an infected herd by the use of tuberculin, the separation of the young stock from the affected adults, and the gradual disposal of the latter, but unfortunately effort in this direction remains confined to relatively small numbers of progressive but isolated stock owners. In this respect, the incidence of congenital tuberculosis in calves is both interesting and of moment, since it provides a measure of the risk of a calf, which is the progeny of a tuberculous mother, being born with the disease already implanted in its system. The congenital incidence has been variously estimated and no doubt it varies in different districts within fairly wide limits. The experience at the City Abattoirs during the last three years has shown a congenital incidence of 1 in 2720. This is higher than is usually estimated, but the fact of congenital incidence does not affect the practicability of reducing and ultimately eliminating tuberculosis from a herd.

During the year 2730 tons of meat were imported into the City. Of this total, 530 tons were represented by home-killed carcases and 2200 tons were imported from overseas. On the whole, the standard of quality of the imported meat was good, and for the greater part it arrived in the City in good condition. Reference should be made, however, to one consignment of frozen mutton, weighing approximately 10 tons, which was found on arrival to have undergone serious depreciation, attributable almost entirely to faulty handling, and which was condemned and destroyed.

Regular supervision has been maintained over all the premises where food is stored or prepared and sold for human consumption. This inspection resulted in the detection of over 40 tons of foodstuffs which were unsound and unfit for human food. This total included carcases of beef and mutton, poultry, game, tripe and other offal, bacon, butter, eggs, tinned provisions, fruit, and almost every kind of foodstuff which is sold in a raw, uncooked condition. The total is large, but a small measure of satisfaction may be derived from the fact that it represents a decrease of 15 per cent. as compared with the preceding year, and I think it may fairly confidently be anticipated that during the current year a much greater fall will occur. Foodstuffs of all descriptions may now be purchased wholesale or by retail in free markets, and free markets have already contributed to a higher average standard of quality in many respects. In addition, many foodstuffs are now passed more quickly into the hands of the consumer with, as a consequence, materially decreased risks of depreciation and subsequent unfitness.

A combined Table is given showing the different classes of foodstuffs condemned as unfit for human food at the Abattoirs and on various premises in the City, which represents a total weight of over 116 tons as compared with 131 tons in the previous year.

Inspection of Cowsheds and Dairy Cows.—The number of cowsheds licensed for dairy purposes was 56, a decrease of 1, and the average cow population was 1605, a decrease of 79 as compared with the previous year.

Regular inspection of dairy cows and of the conditions under which milk is produced for sale within the City has been maintained, and as far as circumstances

have permitted inspection has been extended to the dairy cows in country byres, particularly those in close proximity to the City. Twenty-seven cows were removed during the year from dairy byres on account of tuberculosis. Of these, 18 were affected with tuberculosis of the udder, 8 were the subjects of advanced clinical tuberculosis with emaciation, and the remaining 1 was eliminating tubercle bacilli in the milk. In addition, under the provisions of the Edinburgh Municipal and Police (Amendment) Act, 1891, 31 cows suffering from various diseases which injuriously affected the milk and rendered it unfit for human consumption were removed from the milking herds. The latter, not being affected with contagious disease, were appropriately disposed of for grazing and fattening. So far as the tuberculous cows are concerned, it is very necessary again to direct attention to the inadequate powers of control over these animals. Every effort is made to secure slaughter, but only partial success is secured in this respect, and since, under existing conditions, the whole loss must fall on the dairyman, no more can be expected. As a consequence, there is no assurance that a cow whose milk has been definitely proved to contain tubercle bacilli will be removed as a source of danger to the consumers of the milk. Of the 28 cows turned out of dairy byres during the year, 9 are known to have been slaughtered, but no evidence could be obtained as to the ultimate disposal of the remainder.

It is accepted that milk containing the tubercle bacilli of bovine tuberculosis is capable of causing tuberculosis in the human subject, and that the risk is greater in children owing to greater susceptibility and the higher rate of consumption per head. It is also recognised that the cow affected with tuberculosis of the milk gland is mainly responsible for the infection of milk with the bacillus of bovine tuberculosis. The cow with advanced clinical tuberculosis contributes to infection in a lesser degree, and experience has also shown, in Edinburgh, as elsewhere, that a certain number of cows affected with tuberculosis may eliminate tubercle bacilli in the milk for a period of several months whilst retaining the appearance of health and without showing any detectable evidence of disease of the udder. The practical bearing of the last stated fact on the work of inspection is that it is necessary to check the clinical examination of dairy stock by the submission of samples of milk collected for the purpose to the test of guinea-pig inoculation, and such tests are regularly carried out as far as the facilities available will permit. It may also be mentioned that these facts merit consideration in their relation to the various schemes for child welfare, and point to the desirability of encouraging and stimulating efforts to establish tubercle-free herds for the production of milk for human consumption. Before much progress is likely to be made in the latter respect, a great deal of prejudice on the part of the stockowner must be overcome, and in addition it would appear that an immediately realisable higher return for dairy produce is also a necessary inducement to the commencement of operations.

It is a matter for regret that dairymen producing milk for sale within the City have not taken more advantage of the assistance offered by the Public Health Committee in the matter of eliminating tuberculosis from their herds. It may, however, be stated that the dairy herds of two large suppliers are now free from tuberculosis and that several others are in course of being cleared.

In the early part of the year a series of samples of milk were collected from various dairy premises with the object of determining its bacterial content. In the U.S.A., the bacterial content of milk is used as a test of the standard of

cleanliness observed in its collection and for the purposes of grading. In this country the Ministry of Food last year introduced a scheme for the grading and certification of milk, an important feature of which was the determination of the numbers of contained bacteria. The value of a numerical bacterial standard for the purposes of grading milk is a question on which widely different opinions are held, and there can be no doubt that a test of bacterial numbers, unless carefully interpreted with regard to the many factors which may operate to increase numbers, may give rise to a totally misleading conception of the conditions which prevail at the place of production. There can be no doubt, however, that the test is of material value as an aid in the routine work of inspection and as a check on its efficiency. The samples collected in the City for the purposes of the tests were taken under the working conditions normally prevailing, and in so far as they are evidence of the standard of cleanliness observed in the collection of milk, they indicate a very fair average which compares favourably with the published reports of similar tests in other cities. The results obtained may be briefly summarised as follows :—

Numbers of bacteria per c.c.	Number of samples.
Not exceeding—	
30,000	1
60,000	—
200,000	21
500,000	17
1,000,000	9
1–4,000,000	5
Total	53

Approximately 400 samples of milk, secretions, exudates, &c., were submitted for examination in the laboratory during the year, but the numbers convey a very inadequate impression of the work performed or of the value of the facilities for obtaining promptly the accurate information which is essential in the work of inspection.

A considerable number of improvements in the dairy premises within the City were carried out during the year, but difficulties in obtaining supplies of material as well as of labour have made it impossible to effect necessary repairs in certain instances.

I am,

My Lord and Gentlemen,

Your obedient Servant,

A. GOFTON, F.R.C.V.S.,
Chief Veterinary Inspector.

Table showing number of animals slaughtered at Gorgie and Portobello Abattoirs during 1920 as compared with 1919.

	1919.			1920.		
	Gorgie.	Portobello.	Total.	Gorgie.	Portobello.	Total.
Cattle	25,623	175	25,798	29,169	177	29,346
Calves	5,989	...	5,989	6,244	...	6,244
Sheep	84,595	545	85,140	89,569	397	89,966
Swine	7,075	607	7,682	6,836	470	7,306
	123,282	1,327	124,609	131,818	1,044	132,862

Meat imported into the City :—

Beef (Frozen)	equal to	6,500 carcases
„ (Home killed)	„	1,200 „
Veal (Home)	„	503 „
„ (Dutch)	„	100 „
Sheep and Lambs (Frozen)	„	28,000 „
„ „ (Home killed)	„	14,974 „
Pigs (Frozen)	„	1,700 „
„ (Home killed)	„	371 „
Venison	„	38 „
Boneless Beef	5,000 packages or 132 tons.	

(The above figures are approximate only.)

Table showing number of carcases in the different classes of animals condemned at Abattoirs during 1920, and showing weights of condemned carcases.

	Totally condemned.		Partially condemned.		Total weight.
	No.	Weight in lb.	No.	Weight in lb.	
Cattle . . .	207	99,421	520	61,053	160,474
Calves . . .	7	584	1	5	589
Sheep . . .	139	4,674½	15	209½	4,884
Swine . . .	23	2,006	46	1,699	3,705
Total . .	376	106,685½	582	62,966½	169,652

Table showing causes of condemnation of carcases in the different classes of animals slaughtered in Abattoirs during 1920.

	Cattle.		Calves.		Sheep.		Swine.	
	Total.	Partial.	Total.	Partial.	Total.	Partial.	Total.	Partial.
Tuberculosis	147	432	3	...	...	...	18	41
Traumatism	8	43	...	1	4	6	...	3
Emaciation	2	1	1	...	21	2	...	...
Œdema	18	5	...	...	97	3	1	1
Abscesses	1	8	...	...	...	1	...	...
Peritonitis	6	2	...	..	2	...	2	...
Pneumonia and Pleurisy	2	4	...	...	1	...	1	...
Pericarditis	1	...	...	...	...	...	...	...
Septicæmia and Pyæmia	11	3	...	...	2	2	...	1
Actinomycosis	...	4	...	...	...	...	...	...
Neoplasms	...	1	...	...	...	...	...	...
Fractures	1	15	...	...	...	1	...	...
Immaturity	...	...	1	...	...	...	...	...
Suffocation	9	...	1	...	6	...	1	...
Cysts	1	2	...	...	...	...	...	...
Decomposition	...	...	1	...	6	...	...	...
Total	207	520	7	1	139	15	23	46

Table showing comparison between Tuberculous and Non-Tuberculous diseases as causes of condemnation in carcases of animals slaughtered in Abattoirs during 1920.

		Cattle.				Swine.	Sheep.	Total.
		Cows.	Calves.	Other Cattle.	Total.			
Tuberculosis	Total	115	3	32	150	18	...	168
	Partial	291	...	141	432	41	...	473
Total and Partial		406	3	173	582	59	...	641
Non-Tuberculous Diseases	Total	45	4	15	64	5	139	208
	Partial	41	1	47	89	5	15	109
Total and Partial		86	5	62	153	10	154	317

Table showing organs destroyed in the different classes of animals at Abattoirs during 1920.

	Cattle.						Swine.	Sheep.	Total.
	Oxen.	Bulls.	Cows.	Heifers.	Calves.	Total.			
Lungs—									
Tuberculosis . .	344	11	980	38	3	1376	28	...	1404
Abscesses . . .	49	2	30	1	...	82	...	6	88
Pneumonia . .	17	1	14	...	1	33	6	5	44
Pleurisy . . .	42	3	33	3	...	81	13	4	98
Parasitism . . .	84	1	72	2	...	159	...	260	419
Œdema . . .	3	5	19	...	2	29	1	125	155
Traumatism . .	1	...	1	...	...	2	...	1	3
Hearts—									
Pericarditis . .	11	2	25	3	...	41	4	1	46
,, Tuberculous	...	...	4	...	...	4	...	...	4
Abscesses . . .	...	...	2	1	...	3	...	3	6
Œdema . . .	3	5	17	...	2	27	1	126	154
Degeneration . .	3	...	2	...	...	5	...	1	6
Bowels—									
Tuberculosis . .	116	8	409	15	1	549	14	...	563
Œdema . . .	3	5	18	...	2	28	1	126	155
Peritonitis . .	8	2	7	...	...	17	4	4	25
Abscesses . . .	3	...	1	...	...	4	...	1	5
Stomachs—									
Tuberculosis . .	54	6	168	13	2	243	...	...	243
Abscesses . . .	16	1	15	3	...	35	...	1	36
Peritonitis . . .	32	1	18	1	...	52	1	2	55
Œdema . . .	9	6	19	...	2	36	1	126	163
Spleens—									
Tuberculosis . .	57	5	169	9	3	243	9	...	252
Abscesses . . .	4	...	6	1	...	11	...	1	12
Peritonitis . .	1	...	...	...	...	1	...	...	1
Œdema . . .	3	5	17	...	2	27	1	127	155
Neoplasms . . .	1	...	...	...	...	1	...	...	1
Carry forward	864	69	2046	90	20	3089	84	920	4093

Table showing organs destroyed during 1920—*continued.*

	Cattle.						Swine.	Sheep.	Total.
	Oxen.	Bulls.	Cows.	Heifers.	Calves.	Total.			
Brought forward	864	69	2046	90	20	3089	84	920	4093
Livers—									
Tuberculosis . .	180	11	350	25	3	569	31	...	600
Abscesses . . .	494	6	136	12	...	648	5	13	666
Dis. Necrosis . .	7	...	2	...	...	9	...	...	9
Cirrhosis . . .	75	2	33	...	...	110	12	3	125
Cav. Angioma . .	11	...	63	...	...	74	...	...	74
Echinococcus . .	13	...	50	...	...	63	3	4	70
Distomatosis . .	828	8	258	15	...	1109	...	149	1258
Œdema . . .	3	5	16	...	2	26	1	126	153
Neoplasms . . .	2	...	...	...	...	2	...	...	2
Peritonitis . . .	1	...	...	...	...	1	...	...	1
Degeneration . .	22	...	11	1	...	34	...	9	43
Kidneys—									
Tuberculosis . .	8	1	33	...	1	43	2	...	45
Abscesses . . .	12	...	6	...	...	18	...	...	18
Cysts	7	...	6	...	...	13	...	...	13
Nephritis . . .	3	...	9	1	...	13	...	...	13
Degeration . .	4	1	8	...	...	13	...	2	15
Œdema . . .	3	5	19	...	2	29	1	126	156
Udders—									
Tuberculosis . .	...	...	26	...	...	26	1	...	27
Mastitis . . .	...	...	658	2	...	660	2	...	662
Abscesses . . .	...	...	20	...	...	20	...	...	20
Traumatism . .	...	...	4	...	...	4	...	...	4
Heads—									
Tuberculosis . .	515	26	413	22	1	977	257	...	1234
Actinomycosis . .	117	4	9	2	...	132	...	...	132
Abscesses . . .	6	1	6	...	...	13	...	5	18
Traumatism . .	13	6	31	...	1	51	...	3	54
Œdema . . .	3	5	17	...	2	27	1	130	158
Feet—									
Tuberculosis . .	1	...	...	...	...	1	...	...	1
Abscesses . . .	14	...	...	...	...	14	...	...	14
Traumatism . .	3	...	5	...	...	8	...	1	9
Total . .	3209	150	4235	170	32	7796	400	1491	9687

Table showing percentage incidence of Tuberculosis in animals slaughtered at Abattoirs during the years 1917, 1918, 1919, and 1920.

	1917.	1918.	1919.	1920.
	Per Cent.	Per Cent.	Per Cent.	Per Cent.
Cows	21·17	25·46	35·99	34·64
Other Cattle	1·28	1·47	2·95	4·24
Cattle (all classes)	5·47	7·12	9.98	7·30
Calves	0·06	0·07	0·02	0·05
Swine	1·06	2·27	3·72	4·54

Table showing number of visits paid to shops, &c., during the year 1920.

Butchers' Shops	1,822
Provision Shops	3,321
Fishmongers' Shops	869
Fruiterers' Shops	2,372
Meat Sales and Wholesale Meat Shops	1,550
Live Stock Sales and Markets	293
Street Hawkers	33
Railway Stations	689
Hide and Skin Merchants	288
Ham Curers, Sausage Makers, &c.	71
Total	11,308

Table showing numbers and weights of foodstuffs seized in premises in the City.

	No.	Weight in lb.
Beef	102	15,760½
Mutton	53	28,256½
Pork	65	1,577¾
Veal	1	32
Poultry and Game	72	4,482
Edible Offal	70	19,281¼
Fruit and Vegetables	14	1,045
Provisions	115	20,197
Total	492	90,632

Summary showing total foodstuffs condemned in the City during 1920 as compared with 1919.

	1919. Weight in lb.	1920. Weight in lb.
Meat	222,836¼	215,278¾
Poultry and Game	2,443	4,482
Edible Offal	1,630½	19,281¼
Fruit and Vegetables	63,980	1,045
Provisions	3,243½	20,197
Totals	294,133¼	260,284

Tons	cwts.	lb.	Tons	cwts.	lb.
131	6	21¼	116	3	108

Summary of work under Dairies, Cowsheds and Milkshops Orders and the Edinburgh Municipal and Police (Amendment) Act, 1891.

No. of Licensed Dairy Byres		56
Average Cow Popululion		1605
No. of Visits to City Byres		1197
No. of Visits to Country Byres		449
No. of Country Cows Inspected		9930
No. of newly calved Cows Inspected in Gorgie Markets		4027
No. of Cows removed from Dairy Herds under Edinburgh Municipal and Police (Amendment) Act, 1891 :—		
Tuberculosis of Udder	18	
Advanced Clinical Tuberculosis	9	
Other causes	31	
		58
Bacterial and other examinations of :—		
Milk	249	
Expectorate	10	
Blood	28	
Skin Scrapings for Mange Parasites	76	
Other Material	7	
		370
Notices served requiring :—		
Lime-washing of Premises	122	
Removal of Manure	30	
Removal of Diseased Cows	28	
Carrying out Repairs	13	
		193
Animals tested with Tuberculin		339