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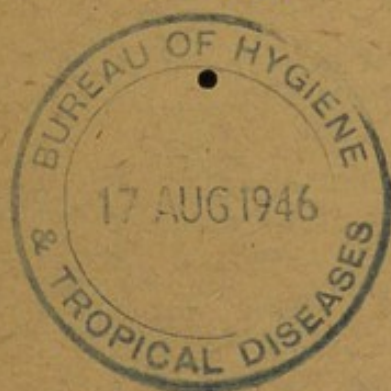
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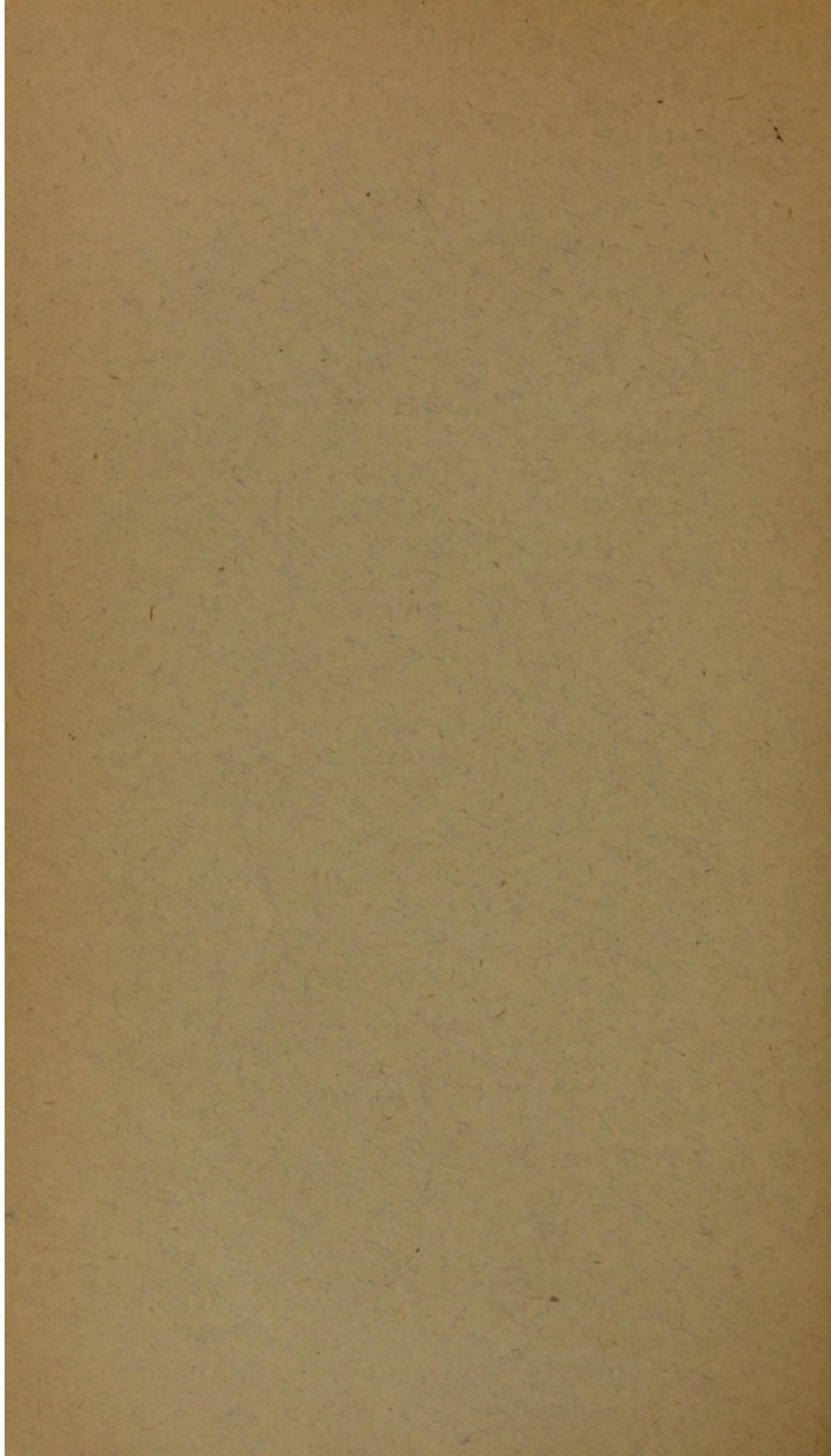
COUNTY BOROUGH OF CORK

REPORT OF THE
MEDICAL OFFICER
OF HEALTH

FOR THE YEAR

1945





COUNTY BOROUGH OF CORK



REPORT OF THE
MEDICAL OFFICER
OF HEALTH

FOR THE YEAR

1945

J. C. SAUNDERS, M.D., D.P.H.,
Medical Officer of Health.

CORK :
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1946

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Miss N. Dunn

Tuberculosis Nurse:

Miss L. Lyndon.

Maternity and Child Welfare Nurses :

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Miss H. Neville

Miss H. A. Crowley

School Nurses :

Miss M. Lordan

Miss M. O'Sullivan

Miss N. Dillon

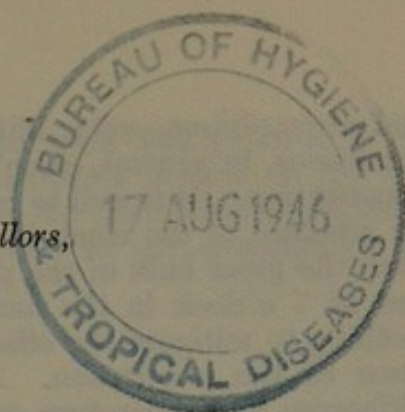
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J. P. Kieran

To the Lord Mayor, Aldermen and Councillors,
of the County Borough of Cork,



MY LORD MAYOR AND GENTLEMEN,

In presenting my Annual Report for the year 1945 it seems to me to be appropriate to present in this covering letter a synopsis of what I regard as the more important features contained in the general body of the report as well as other relevant matters.

Vital Statistics.

There has been a very marked improvement in the statistical figures as compared with the previous year. The general death rate fell from 18.1 to 14.9, the tuberculosis death rate (which was 1.92 in 1944) fell to 1.52, a substantial reduction. The infant mortality rate fell from 108 to 89 and the infectious disease death rate from 0.6 to 0.1 one of the lowest figures ever recorded. There was also a very marked reduction in the number of cases of infectious disease *notified*—800, as compared with 3,023 in 1944.

The population of this city has suffered a substantial reduction since the year 1936 (when the last census was taken and when it stood at the figure of 80,765). Two registers of population were compiled in the intervening years—one in 1941 and one in 1943. In the first it was shown that the figure had fallen to 76,834 which, by 1943, was further reduced to 75,484, from which it can be seen that the population has been reduced by over 5,000. This would appear to be almost entirely the result of emigration. The reduction has fallen most heavily upon adult males, who are reduced by over 3,300 while females are down by 570. (These figures relate to the Register of Population 1941 only. There was no sub-division into age and sex groups in the Register of 1943). The exact figures are shown in Table 1. It will be of much interest to see how these figures will have been affected by the Census returns for the year 1946.

Though strictly speaking not concerned with this report, I desire to allude to the circumstances of the outbreak of influenza which became marked in the early weeks of 1946. Influenza itself is not a notifiable disease in this area consequently it is not possible to give an approximate idea of the number of cases which occurred but it was fairly obvious that the disease was widespread and, at the same time, of mild character although a few deaths were recorded (mostly of elderly persons).

Summer Time.

My principal reason for alluding to the outbreak at this juncture is to draw attention to what I consider to have been the very unnecessary hardship inflicted on the people by the continuance of the so-called "summer time" throughout the winter months—an enactment for which I have never been able to obtain any explanation. It will be recalled that the weather conditions at this period were extremely harsh

and unpropitious—cold, biting winds accompanied by rain, atmospheric conditions, in general, calculated to put a severe strain on the strongest constitution. It is well to recall that “summer time” in this area entails an advance of the clock by an hour-and-a-half on sun time. In effect then the great bulk of the population, adults and children, were turning out at 7 o’clock in the morning, a circumstance, certainly, which did nothing to mitigate the effects of the influenza or to increase the resistance of the population. Anyone can test for himself the material difference in temperature which 90 minutes can make in the morning, so there can be no reasonable doubt that undue hardship has been imposed on the population by “summer time” in winter.

I referred to this matter on an earlier occasion remarking that in the absence of an official explanation it was very difficult indeed to understand the prolongation of the interference with natural time. An examination of the report of the Summer Time Committee does not help to solve the problem. In para. 28 (p.13) the Report states:—“It is, we think, quite clear from the evidence that *there is practical unanimity as to the adverse effects and consequent inadvisability of emergency summer time, more especially in so far as the winter months are concerned*”*. Again: “Captain Freyne suggests that, having regard to the influence of Equation, it appears difficult to support any argument in favour of the introduction of summer time in Ireland before the April date on which coincidence between natural time and clock time first occurs” (par.. 59 p. 23). Finally in Conclusions and Recommendations the Report remarks:—“We think we are correct in our interpretation of public opinion in the matter when we say that there was practical unanimity as to the undesirability of prolonging the operation of summer time throughout the months of winter” (par. 64, p.25).

It is to be noted that the question of summer time itself is not in dispute, but its application to the winter. Can any justification for this procedure be advanced? So far as I have been able to ascertain the only possible explanation is that some saving might be affected in the consumption of electricity during the winter evenings, but it seems to me that the conclusions of the Committee dispose of any such argument when, having considered figures submitted by the Electricity Supply Board (as well as by the Dublin and Cork Gas Companies), they remark that “the saving in electricity and gas while, of course, by no means negligible, *cannot nevertheless be regarded as a factor of outstanding importance*”* (par. 45 p 18). The anomalous character of this arrangement is further emphasised when one considers the expressed views of those members of the Committee who favoured the general principle of summer time. One of the arguments put forward in support of summer time is the importance of synchronising railway time tables in this country and Great Britain. This view has been expressed in para. 6 of the reservation appended to the Report (p. 28) as follows:—“We are of the opinion that complete uniformity of time between Eire, Northern Ireland and Great Britain is of great value to our commercial and agricultural interests and that any permanent alteration of this would cause loss and inconvenience to the community, and generally would have an adverse effect on our national economy”. It is strange that no opinion was expressed by this group on the decision to extend

* Italics mine.

summer time in this country when normal time was restored in the other countries. The main point in this discussion is that, in my view and from a consideration of the public health, the continuation of summer time into the winter months is of disservice to the community and should no longer be permitted.

Tuberculosis.

As noted above, a substantial fall in the death rate from this disease was recorded. While this figure has been bettered on a number of previous occasions nevertheless it affords a hope that the acute phase characteristic of the war period has now been passed and that the downward trend has been resumed. In the governmental White Paper on Tuberculosis the chief headings of the campaign against the disease have been set out and they give hope of a very material reduction in the mortality rate in years to come. The principal feature in the provision of adequate bed accommodation by the setting up of large regional sanatoria in three different parts of the country. These institutions should provide the solution to one of our greatest problems—the growing list of persons awaiting institutional treatment. When this particular problem has been overcome we can then proceed more actively with case-finding. A further provision is to be financial relief for patients undergoing institutional treatment. This is a measure certainly calculated to give impetus to the reduction of the disease because experience has shewn that a great number of patients will not remain in sanatorium sufficiently long on account of the financial burden imposed on their dependents. These are two striking departures and both are calculated to exert important effects in reducing the incidence of tuberculosis. The provision of relief also by way of extra nourishment, clothing and bedding (which has been in effect now for some $2\frac{1}{2}$ years) should produce encouraging results. So far as food and bedding are concerned I am satisfied that this form of relief has been of much advantage and will, in time, prove a great benefit to the community. In regard to the provision of clothing—quite a number of applicants still seem to be unaware that this is not a luxury service.

Important as these administrative measures are they must not be allowed to obscure the simple biological fact that tuberculosis is almost entirely spread from person to person by the acts of coughing and spitting and until the public has been made fully conscious of this our preventive measures can never be regarded as adequate. This is a subject to which I attach particular importance and for which I make no excuse in returning to year after year. We know now that ninety-nine per cent of infection from coughing and sneezing could be prevented by the simple procedure of covering the mouth with a handkerchief during the acts—yet how few people resort to this simple expedient. Spitting, of course, should not be permitted in any circumstances, in public at any rate. It is a prolific source of disease but, apart from this, it is a filthy and disgusting habit which should not be tolerated in any community. It is to be feared that our propaganda against it has been too fitful and spasmodic to be of any permanent value. My principal reason for adverting to this point here is the hope that the matter may receive the prominence it deserves. It seems to me to be illogical to spend a lot of money in repairing the damage caused by a burst pipe if we ignore the source of leakage itself.

Infant Mortality.

While it is possible to record a welcome reduction in the rate, this continues to be one of our major public health problems. Reference to the tables in which the underlying factors are examined shews that the problem of infant mortality is the problem of breast feeding—why so many mothers are unable or unwilling to nurse their babies. The importance of this factor has not been sufficiently stressed in the medical and nursing curricula hitherto and while it is clear that many mothers are *unable* to nurse it is equally clear that in many cases they could do so were they sufficiently encouraged. This is roughly the position which conditions our high infant mortality rates and while children continue to be fed by artificial means it does not seem likely that we can hope for any material reduction in our rates. Investigation has shewn that the majority of deaths from infantile diarrhoea are associated with the use of cows milk and this introduces the question of supervision over the sources of control and methods of delivery which are referred to in the section on milk control. There is, in addition, the added sources of contamination from insanitary conditions prevailing in the neighbourhood of the infant's home which would comprise piggeries, stables and refuse dumps. As regards piggeries, I have always held that they should simply not be permitted under urban conditions. Pig rearing is an agricultural avocation which might well indeed be reserved to the farming community. As regards stables, while horse transport continues to be (as it now is) the main type employed these will always constitute a problem, particularly during warm weather, when fly-breeding is at its height, but there seems to be no reason why, given adequate control and supervision, infection from this source should not be reduced to a minimum. We should not forget that the manure resulting from these stables is an important contribution to the food supply of the community and what is required is, not abolition, but proper control of its disposal. There seems to be no reason why some arrangement should not be come to whereby the Corporation would be responsible for its collection, proper treatment and distribution to market gardeners and others who have use for the commodity. Consideration of this topic tends logically to a further consideration of the cognate subject of refuse disposal.

Refuse Disposal.

The method employed in this area is that described as uncontrolled tipping by which the waste material is led to the tip face and there dumped. A considerable proportion of it is disposed of by distribution to market gardeners and farmers for use on the land. Although this material has been the staple of market gardeners for many generations the practice cannot be regarded with any degree of equanimity according to modern standards. This arises principally from the unsatisfactory conditions prevailing at the tip face which predispose to the generation of foul smells, excessive prevalence of flies and a considerable increase in the rat population—conditions which naturally do not improve the amenities of the locality and which, in actual fact, give rise to great complaint from those living in the neighbourhood and compelled to endure the inconveniences imposed by such conditions. Some of the approaches to the city are considerably marred by the existence of dumps and it is a matter of some surprise that civic pride has not called the practice into question before this. Controlled tipping would obviate all the disadvantages referred to and though admittedly a more expensive

method of refuse disposal, modern hygienic standards certainly demand that it be adopted in place of the unsightly and unhygienic practice of uncontrolled dumping. In this method the refuse is sorted out at the tip face and arranged in layers, refractory materials being placed at the bottom and covered with organic matter the whole being covered daily with 12 to 24 inches of earth. This is the method practised by progressive municipalities and has the double advantage of being free from offence and of converting waste spaces into level parks and fields on which trees, shrubs and vegetation generally grow freely converting unsightly areas into pleasant surroundings. Incidentally it is of interest to note that great quantities of fertiliser have been released for agriculture in Great Britain during the war from these tips.

It has, however, been mentioned above that considerable quantities of our ordinary crude refuse have been used by market gardeners and farmers as manure and it is a tribute to the fertilising value of this coarse, immature material that the former have been able, by its aid, to carry on over many generations a most intensive system of cropping without any appreciable deterioration of the productive capacity of the soil. With a system of controlled tipping such fertiliser will not be available, immediately at any rate, although the resultant compost is more valuable than the crude refuse currently used. There seems to be no doubt that this compost is a more valuable fertiliser but there is bound to be a gap in its production which may impose a definite hardship on the market-gardening community. This leads naturally to a consideration of other methods of disposal which have come to be referred to in modern terminology as waste utilisation rather than waste disposal. Many municipalities have adopted such methods which, in general, comprise the recovery of saleable matter like paper, rags, bones, etc. with pulverisation of the remaining material. The latter appears to have a ready sale in agricultural communities. A further and promising development of this method is the composting of the pulverised matter with sludge from the sedimentation tanks of sewage disposal plants. This has been shewn to produce a much more valuable fertilising material than either of the two previously mentioned methods.

This is not the place for a detailed discussion on the technique of these different methods. I introduce them in order to direct your attention to modern tendencies in the disposal (or, if you will, the utilisation) of waste materials. They have been fully discussed elsewhere and the evidence is available should the occasion for it arise, as it well may in connection with the proposed scheme of main drainage for the city.

Before leaving this topic it is appropriate to refer to the problem of the disposal of trade waste, which has been assuming acute form in recent times, due mainly to the closure of many private tips to which traders hitherto have had access. The Corporation, it appears, is not liable for the disposal of waste from trade premises and the owners have had to make their own individual arrangements in the matter which, as just mentioned, is becoming more and more difficult. This appears to me to be a most unsatisfactory and anomalous position. It seems an anachronism that in the middle of the twentieth century such a system should exist. Quite apart from the legal position it would appear to be more logical for the sanitary authority to assume responsibility for the disposal of *all* refuse and, if necessary, to make a special charge to

traders for removing it. It would relieve them of the inconvenience to which they are now subjected and put an end to the unsatisfactory conditions created by the existence of a number of private tips in and about the city.

Market Gardens

At this juncture I desire to draw attention to the position of affairs created by the proposed extension of building activities on the southern area of the city. The site involved comprises some twenty to thirty acres of one of the most intensively cultivated tracts in the whole country which, from time immemorial, has contributed in a most material degree to the food supply of the city. When the present proposals have been implemented it must, of necessity, mean that this whole region will be cut off and, so far as I know, no proposals have been suggested to counteract the serious effects which are almost certain to arise when this large area has been put out of production. In this connection it seems to me that our plans have not been sufficiently comprehensive, that it is not enough to acquire land for building by compensating the occupiers. Market gardens are an essential complement to all urban communities and where they have to be acquired on such an extensive scale provision should be made for alternative sites for the dispossessed owners. It is not alone that valuable food-providing tracts are being put out of action but that a highly skilled craft is at the same time going to be wiped out—an even more serious consideration. I do not think this aspect of the problem has been given sufficient consideration and it is mainly for this reason that I bring it to your notice.

Before leaving this subject I would advert to a matter already touched upon in connection with infant mortality—the role of stable manure. It is clear from the evidence that it plays a material part in the spread of epidemic diarrhoea by reason of the favourable conditions which it affords for the breeding of flies and it seems to me that it would be a very good thing indeed if the municipality could assume responsibility for its disposal—in short that the sanitary authority should be responsible for the control and disposal of all waste material. This would ensure removal under the most hygienic conditions possible and storage conditions properly supervised. Such manure would greatly enhance the value of Corporation refuse and could be disposed of to interested parties under much more satisfactory conditions than those which prevail. Admittedly the question is not an easy one, particularly in regard to the subject of compensation, but this a matter surely not beyond the possibility of adjustment and I throw out the suggestion now with a view to its consideration at some future date.

Milk Supply.

The control of this commodity is fully discussed in the appropriate section and I propose to deal briefly with but one or two aspects of it here. In particular I desire to draw attention to the conditions under which bottled milk is sometimes sold in the city. A complaint was made to this Department by a reputable person that he had seen a milkman fill a bottle by the roadside from a can, take a disc from his pocket and cap the bottle with it. Unfortunately our informant would not come forward with evidence to sustain a prosecution and we could

do nothing in this particular case. I discussed the matter with the Chief Veterinary Officer and it appears that there is no direct legal redress for offences of this character, which are extremely hard to detect. In effect this means that a milkman can collect a dirty bottle at one house, fill it from his churn and deliver it at another household further along his route. Reprehensible as this practice is it is greatly aggravated by the manner in which the bottle may be capped (as related above). The legal enactments controlling the sale of milk in bottles are contained in Art 41 of the Milk and Dairies Regulations, 1936 and Arts 11 and 12 of the Milk and Dairies (Special Designations) Regulations, 1936 neither of which covers the offence stated. It would appear that purveyors of "special designation" milks require to be licensed before selling such milk in bottles but no provision has been made in this respect for purveyors of ordinary milk. Under Art 41 (3) of the Regulations a prosecution might have been sustained (had evidence been forthcoming) in the incident cited. This part of the article states:—"Immediately before a sale container.....is filled, reasonable precautions shall be taken to ensure that such sale container is sterile". Certainly there was a direct contravention of this provision but, in practice, the difficulty in enforcing it arises from the extreme improbability of detection in such cases. The real remedy lies in amending legislation to prohibit the sale of bottled milk in any circumstances unless under licence, such licence to be granted by the issuing authority only when it is satisfied that ample facilities are available for washing and sterilisation. Alternatively, the sale of "ordinary" milk in bottles might be prohibited, such sale being confined to milks of "special designation." Certainly in this case the quality of the milk was in no way improved by the treatment to which it had been subjected.

It will be noted that there has been a steady increase in the cost of milk to the consumer. In the pre-war years the summer and winter prices were 1d. and a 1½d. respectively. The corresponding prices now range from 2½d. to 3½d. One of the first effects of the Milk (Regulation of Supply and Price) Act, 1936 was to raise the price. There seems to be no doubt that under previous circumstances milk production was becoming more and more unprofitable to the dairyman and one could, perhaps, view with a certain amount of equanimity an increase in price when the alternative appeared to be no milk supply at all. Since the war, of course, the mounting costs of materials and labour have sent the price higher and higher so that now the winter price of milk stands at 3½d. a pint. This is a serious matter as it puts the commodity out of reach of the very poor, to the detriment of their health and particularly of that of their children. The operation of the Free Milk Scheme and the supply of milk under the National Tuberculosis Grant, have no doubt, gone a considerable way to mitigate what would otherwise have been a considerable hardship on the poorer classes of the community. Large quantities also have been distributed by charitable organisations and through the schools. Were it not for these agencies it is to be feared that the consumption would have been minimal. One cannot help feeling that distribution of milk by such methods must, of necessity, be a somewhat expensive affair and that it would be better if the cost could be brought down to a level such that it could be bought in the ordinary way by the poorest person. Bread has been subsidised in this fashion and there seems to be no valid reason why milk should not be similarly subsidised. It is such a valuable article of nutrition

that no effort should be spared to increase its consumption. In discussing this matter on a previous occasion I threw out the suggestion that funds for such a subsidy might very easily be raised by a tax on confectionery. No one could possibly suggest that the latter can compare with milk in health promoting qualities and considering the enormous quantities consumed in pre-war years it is apparent that a certain amount of good would accrue to the public health if there was a reduction in consumption. Not that one believes for a moment that a tax would produce such a reduction since it is a phenomenon of modern life that people will give up necessities before giving up luxuries. I throw out the suggestion because I think it worth considering as a way of increasing the consumption of milk without inflicting any undue financial burden on any one section of the community. One thing is certain, that we should examine every suggestion calculated to bring about such an increase.

Meat Inspection.

On page 87 will be found a list of 43 butchers who regularly send their meat to the Meat Inspection Depot for examination by the Corporation Veterinary Officers before sale to the public. All meat so inspected is marked with the official Corporation stamp as a guarantee that it is fit for human consumption. This system is purely a voluntary one and, while the traders concerned are deserving of merit for availing of it, at the same time it insures them freedom from court proceedings which do not enhance the reputation of meat traders in the eyes of the public. Often diseased meat escapes the notice of the victualler and may be detected on sale by an inspector if not previously examined at the depot. Reputable traders are thus spared vexatious legal proceedings. It will be noted that 9 whole carcasses were condemned at the depot while in no less 868 instances it was necessary to remove parts of the carcasses. In addition to the above (which were beef carcasses) a number of sheep and veal carcasses were also condemned as unfit for food. Should any of these carcasses have been found exposed for sale legal proceedings would certainly have followed so that the traders concerned were definitely protected by this preliminary examination. Notwithstanding the advantages thus accruing from inspection there are still 50 butchers in the city who do not avail of the service.

Food and Drugs.

The routine analytical examination of foodstuffs and drugs may be regarded as the "silent service" of the municipality whereby the citizens are protected against the activities of dishonest traders. In retrospect the history of this service may be regarded as a battle of wits in which the abilities of the chemist have been pitted against the efforts of certain manufacturers and purveyors of foods (often it is true, with the aid of other chemists) to palm off spurious articles on the public or to cover their more obvious deficiencies by the use of dangerous poisons. The measure of the success attained may be gauged from the disappearance of the more flagrant impostures so characteristic of former years, but the contest still goes on though the weapons employed are more up to date and refined than those of earlier years.

In last year's report the City Analyst and I had had perforce to make very scathing remarks on the sharp practice of certain commercial interests in foisting inferior materials on the public. "Dyed flour" wrote Mr. O'Sullivan "sold as custard represented, probably, a residue

from a custom formerly common but disapproved by the Courts and now abandoned. Mixtures of ground wheat, barley and capsicum (red pepper with or without real pepper) reflected the shortage of the genuine commodity. Pearl barley and pancake flour were found to be infested with cereal mites. More serious, prepared barley sold for 'infants and invalids' and an article labelled Rotunda Food . . . a dextrinised cereal food . . . for babies and invalids were similarly infested, sometimes to a disgusting degree. The price charged for these commodities was, approximately, 12 times the cost of the grain from which they were obtained. Such a large profit is not unusual for prepared cereal foods because of the expense and expert care necessary to make an article with lasting qualities and proof against the attacks of mites. But in these cases, the care and expense seem to have been by-passed without any adjustment of the price margin. In this way the manufacturer has much more profit but leaves an impression of a want of a sense of responsibility to his ultimate customers, the 'infants and invalids'. In present commercial conditions these two tendencies are not incongruous."

Notwithstanding the prosecutions undertaken in 1944 in connection with these cases it is somewhat disappointing to have to record no less than 14 further prosecutions in 1945 for the sale of cereal foods infested with mites. These included custard powder, pearl barley and prepared barley. When the housewife purchases such wares she expects them to be of "the nature, substance and quality" demanded and does not expect to be served up with cereal mites in addition, though these are included without extra charge. It is disquieting too to note that "corn-flour" made from potatoes is still being foisted on the public. The probity of this practice was tested in the Courts in 1944, in what was a somewhat classical case and it was rightly condemned. In the trial leading counsel were briefed but the issue went against the manufacturers. In spite of this it would appear that they have persisted in their efforts, for 10 cases are recorded in 1945 in which fines were imposed on retailers for selling this spurious preparation.

In this connection Mr. O'Sullivan remarked, in last year's Report, that profit without responsibility seems, therefore, to have been the policy governing the sale of maggoty cereals, mis-described potato starch, preserved sponge cakes, and dyed flour. The many shopkeepers who have handled these goods by retail have, in Court, uniformly blamed the wholesalers for their predicament; and, in turn, the wholesalers have blamed the manufacturers. All these parties combine to ignore the warranty provisions in the Acts, by means of which responsibility can be fixed. They pay each other's Court costs, take the financial loss and continue to offer goods of which they know only the outsides of the wrappers. These modern sales methods, that leave no trail of goodwill, have now reached the point of being not merely delinquent, but offensive.

These remarks are reproduced here because I feel they did not attract the attention they deserve. At the same time one can scarcely escape the conviction that no real progress will be made in protecting the public against this type of exploitation until these cases are given more publicity in the press.

I have the honour to remain, my Lord Mayor and Gentlemen,

Your obedient Servant,

J. C. SAUNDERS.

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SUMMARY OF STATISTICS.

Area (in Acres)				2,618
Population (Register of Population 1941)				75,484
Density of Population (persons to the acre)				28.9
Rateable Value			£237,309	0 0
Sum represented by a Penny Rate			£988	
Number of Births				1,690
Birth Rate				22.4
Number of Deaths				1,128*
Death Rate				14.9
Maternal Mortality Rate				2.4
Infantile Mortality				89
Zymotic Death Rate				0.1

*Includes 16 deaths over and above corresponding figure in body of report. These represent transfers to area by Registrar General of which we have no particulars.

Section I.—Vital Statistics.

1.—Population.

The age and sex constitution of the population of this City (as ascertained by the census taking of 1936 and the subsequent Register of Population, 1941) is set out in table 1. It will be noted that there was a heavy fall between the two periods. A further estimation of the population took place in 1943, and revealed a still further reduction. The total reduction has amounted to over 5,000 persons. The registrations of 1941 and 1943 were for the purpose of rationing supplies. When the 1941 registration was taken the figures were divided into age and sex groups; this has not been done in the case of the 1943 registration (at least the figures, so dub-divided, are not obtainable). Consequently we have to rely on the former registration for a comparison with the census figures to ascertain how the sex and age groups have been affected.

Table 1.—Cork City.—Population classified by age-groups for each sex, arranged according to Census Return, 1936 and Register of Population, 1941.

AGE GROUP	MALES			FEMALES			TOTALS		
	1936	1941	Var'tion	1936	1941	Var'tion	1936	1941	Var'tion
Under 1	820	757	— 63	888	778	—110	1,708	1,535	—173
1 Year	809	751	— 58	814	681	—133	1,023	1,432	—191
2 Years	770	805	+ 35	768	749	— 19	1,538	1,544	+ 16
3 „	798	757	— 41	811	720	— 91	1,609	1,477	—132
4 „	785	734	— 51	794	775	— 19	1,579	1,509	— 70
5-9 „	3,721	3,516	—205	3,653	3,693	+ 40	7,374	7,209	—165
10-14 „	3,872	3,588	—284	3,574	3,422	—152	7,446	7,010	—436
15-19 „	3,352	3,388	+ 36	3,717	3,697	— 20	7,069	7,085	+ 16
20-24 „	3,434	2,763	—671	4,159	3,772	—387	7,593	6,535	—1,058
25-29 „	3,122	2,369	—753	3,763	3,612	—151	6,885	5,981	—904
30-34 „	2,723	2,407	—316	2,977	3,111	+134	5,700	5,518	—182
35-39 „	2,567	2,157	—410	2,898	2,846	— 52	5,465	5,003	—462
40-44 „	2,138	1,954	—184	2,360	2,553	+193	4,498	4,507	+ 9
45-49 „	1,973	1,756	—217	2,340	2,143	—197	4,313	3,899	—414
50-54 „	1,907	1,635	—272	2,168	2,061	—107	4,075	3,696	—379
55-59 „	1,725	1,557	—168	1,852	1,883	+ 31	3,577	3,440	—137
60-64 „	1,408	1,410	+ 2	1,649	1,760	+111	3,057	3,170	+113
65-69 „	1,142	1,174	+ 32	1,210	1,371	+161	2,352	2,545	+193
70-74 „	688	853	+165	1,132	1,229	+ 97	1,820	2,082	+262
75-79 „	372	395	+ 23	615	637	+ 22	987	1,032	+ 45
80-84 „	113	152	+ 39	237	295	+ 58	350	447	+ 97
85-89 „	37	38	+ 1	74	91	+ 17	111	129	+ 18
90-94 „	9	5	—4	24	20	— 4	33	25	— 8
95-99 „	1	2	+ 1	2	8	+ 6	3	10	+ 7
Over 100	—	2	+ 2	—	2	+ 2	—	4	+ 4
Totals ...	38,286	34,925	—3,361	42,479	41,909	—570	80,765	76,834	—3,931

The implications of this table were discussed in last year's report. The main features emerging from it are that the male population has been very much more heavily affected than the female and that the age-group 20-30 was that most influenced. One of the effects of this

change would be to cause a relative increase at the two ends of the life table (at which death-rates are high) and it is justifiable to assume that the high death-rate for Cork last year (in relation to the other boroughs) had some bearing on this. The substantially higher number of *female* deaths recorded during the year now under review may also be related to it, for we note that while males have been reduced by over 3,600, the female reduction has amounted to only 570. These figures, of course, relate to the Register of Population of 1941, a further substantial reduction over 1,000 was recorded in the Register of 1943. The fluctuations in population revealed by the various census-taking are as follows.

1881	...	...	...	80,124
1891	...	...	...	75,345
1901	...	...	...	76,122
1911	...	...	...	76,673
1926	...	...	...	78,464
1936	...	...	...	80,765
1941	...	...	...	76,834
1943	...	...	...	75,484

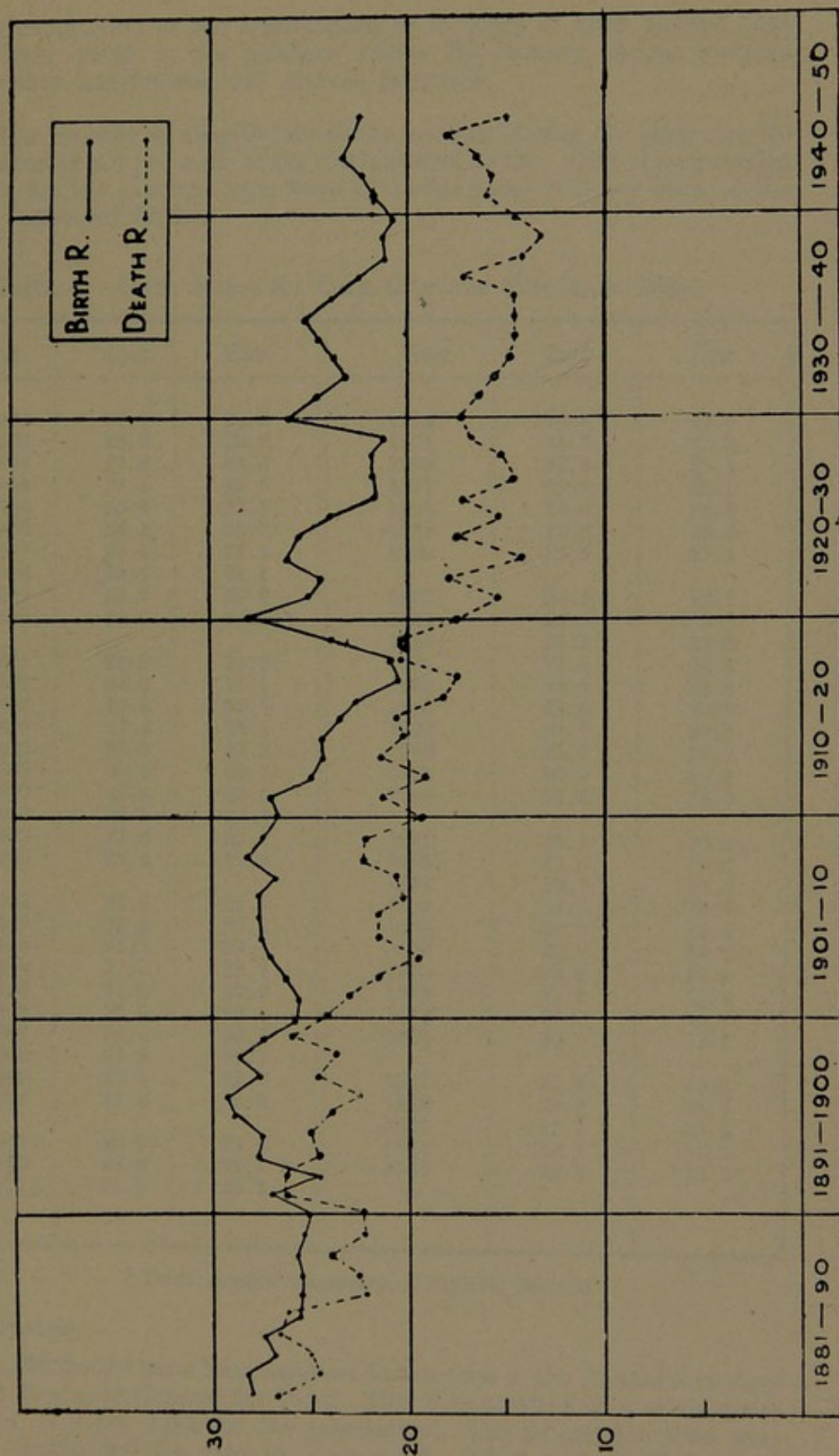
In the three other boroughs there were substantial accretions of population. Cork alone recorded a fall. Why this should be so is not clear. Probably the fact that at least one big local industrial concern has headquarters in England has had some bearing on it, but there must have been a considerable degree of emigration from the other boroughs also and one can therefore only assume that this has been more than neutralised by a heavy *immigration* from rural areas—a state of affairs far from encouraging.

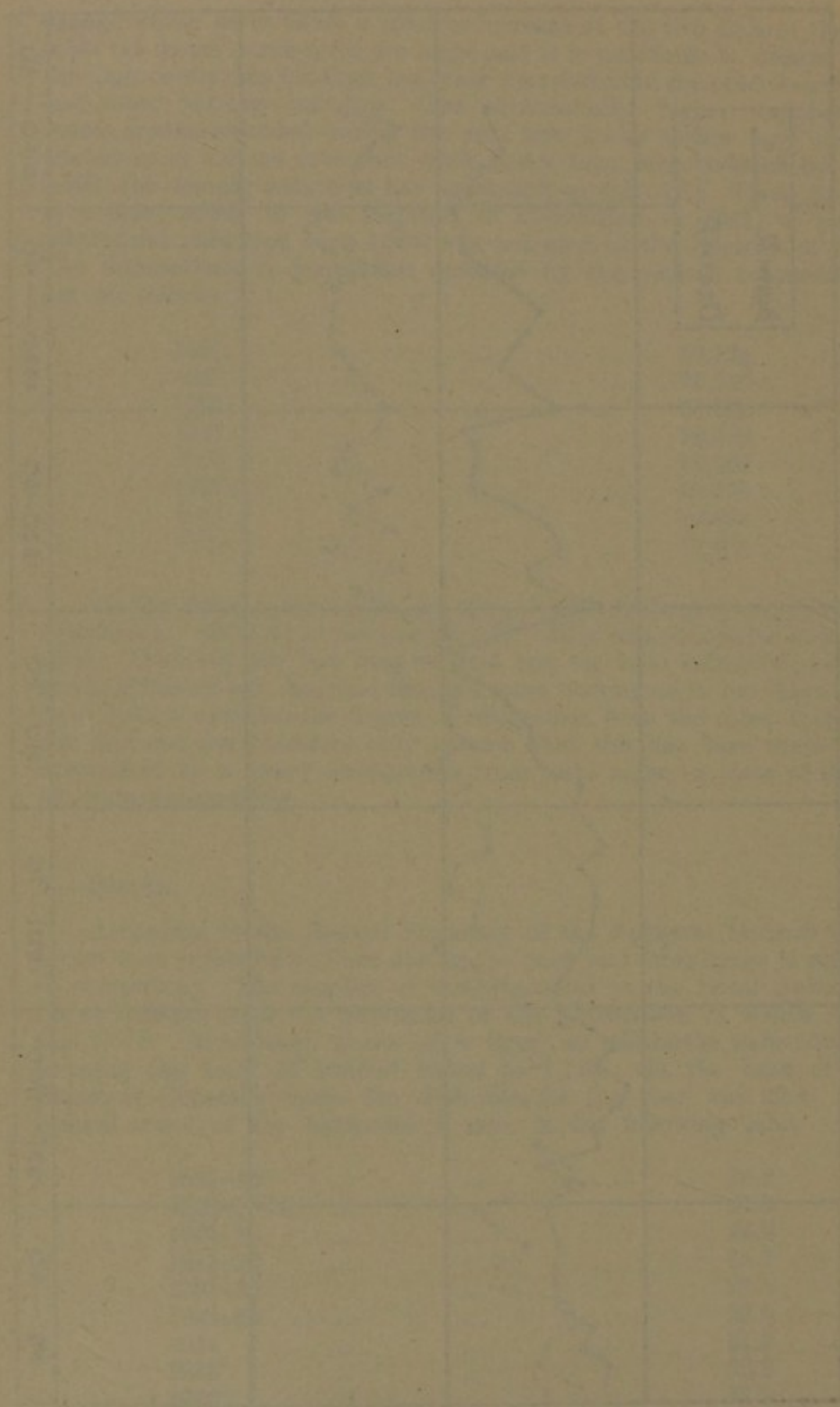
2.—Births.

According to the Annual Summary of the Registrar General 1,690 births were *registered* in Cork during the past year (this figure is subject to correction). The number of births *notified* to the Local Authority (in accordance with the provisions of the Notification of Births Acts) was 1,677. In addition to the latter figure 40 still-births were notified, bringing the total of *notified* births to 1,710. On the basis of the Registrar General's figure the birth-rate for the year was 22.4. The general trend of the birth-rate is seen in the following table.

1881-90	...	...	...	26.2
1891-1900	...	...	...	27.2
1901-10	...	...	...	26.0
1911-20	...	...	...	24.7
1921-30	...	...	...	23.5
1931-40	...	...	...	22.6
1941	...	...	...	21.8
1942	...	...	...	22.2
1943	...	...	...	23.2
1944	...	...	...	24.7
1945 (Preliminary)	...	...	...	22.4

FIG. 1—BIRTH AND DEATH RATES COMPARED 1881 TO PRESENT YEAR.





Examination of the notifications as to place of birth shewed that 875 took place in the mothers' homes the balance having occurred in various institutions and private hospitals.

The number of illegitimate births notified during the year was 40 representing 2.4 per cent. of the total notified births. The corresponding figures for the previous year were 37 births being 2.15 per cent. of the total registered births.

Table 2.—Birth Rates for Cork City and Éire from 1881.

Year	Cork	Éire	Year	Cork	Éire
1881	27.7	24.0	1914	24.3	22.3
1882	28.2	23.8	1915	23.2	22.0
1883	27.0	23.4	1916	22.6	21.1
1884	27.4	23.5	1917	20.2	20.0
1885	25.6	23.1	1918	20.8	19.9
1886	25.4	22.7	1919	23.8	19.9
1887	25.5	22.5	1920	28.3	21.6
1888	25.7	22.1			
1889	25.2	22.0	1921	24.6	19.7
1890	25.0	21.6	1922	24.2	19.5
			1923	26.2	20.5
1891	26.9	22.3	1924	25.5	21.0
1892	24.6	21.7	1925	23.8	20.8
1893	27.8	22.1	1926	21.5	20.6
1894	27.4	22.1	1927	21.7	20.3
1895	28.9	22.3	1928	21.7	20.1
1896	29.2	22.7	1929	20.9	19.8
1897	27.5	22.5	1930	25.4	19.9
1898	28.7	22.3			
1899	27.3	22.1	1931	24.4	19.4
1900	25.8	21.8	1932	23.0	19.0
			1933	23.7	19.3
1901	25.6	21.8	1934	24.4	19.5
1902	26.2	22.2	1935	24.8	19.6
1903	27.1	22.1	1936	23.7	19.6
1904	27.4	22.7	1937	22.3	19.1
1905	27.6	22.6	1938	21.1	19.4
1906	27.5	22.8	1939	21.1	19.1
1907	25.6	22.4	1940	20.7	19.1
1908	27.3	22.7			
1909	26.3	22.9	1941	21.8	18.9
1910	25.8	22.8	1942	22.2	22.0
			1943	23.2	21.8
1911	26.0	22.8	1944	24.7	22.2
1912	24.8	22.7	1945	22.4	22.3*
1913	24.2	22.6			

* From *Annual Summary* of Register General.

3.—Deaths.

1,128 deaths have been assigned to this area in the Annual Summary of the Registrar General for 1945. This is equivalent to a crude death rate of 14.9 per 1,000 of the population. The figures for 1944 were 1,365 deaths and the rate 18.1 per 1,000. There is some discrepancy

between our figures collected locally (shewn in Table 5) and those of the Registrar General. This discrepancy has persisted in successive years and has been previously alluded to. According to our records the number of deaths was 1,112 (compared with 1,350 in the previous year). The difference, it is to be assumed, is explained by the occurrence of deaths in other places of persons normally resident in Cork, of which deaths we would be unaware. Actually the difference between ours and those of the Registrar General are not of statistical significance. The information to be obtained from our age-grouping is slightly more detailed than that of the Registrar General and a comparison has been made in the following table of the number of deaths in each age-group as recorded from locally collected statistics for the years 1944 and 1945.

Table 3—Deaths according to age-groups

Age Group	1945	1944	Difference
0-1 years	156	188	— 32
1-5 „	23	81	— 58
5-15 „	26	18	+ 8
15-25 „	35	35	0
25-35 „	41	56	— 15
35-45 „	50	68	— 18
45-55 „	99	114	— 15
55-65 „	184	194	— 10
65-75 „	289	349	— 60
75-85 „	169	214	— 45
85 Upwards	40	34	+ 6
Males	541	693	— 152
Females	571	658	— 87
TOTAL	1112	1351	— 239

The most substantial decreases have occurred in the 1-5, 65-75 and 75-85 groups, but (with the exception of the 51-5 and over 55 years periods) all groups shew reduced deaths.

Table 5 sets out the death rates per 1,000 persons living in Cork City, Eire and in England and Wales during the period 1881 to 1945. These figures do not necessarily represent the relative healthiness of the communities concerned since they are based on crude death rates. In order to compare such conditions the figures would have to be based on standardised death-rates. The general trend of the death-rate is, however, indicated by this table.

THE EFFECT OF TEMPERATURE ON THE RATE OF REACTION

Between the rate of reaction and the temperature of the reaction mixture.

It is found that the rate of reaction increases with an increase in temperature.

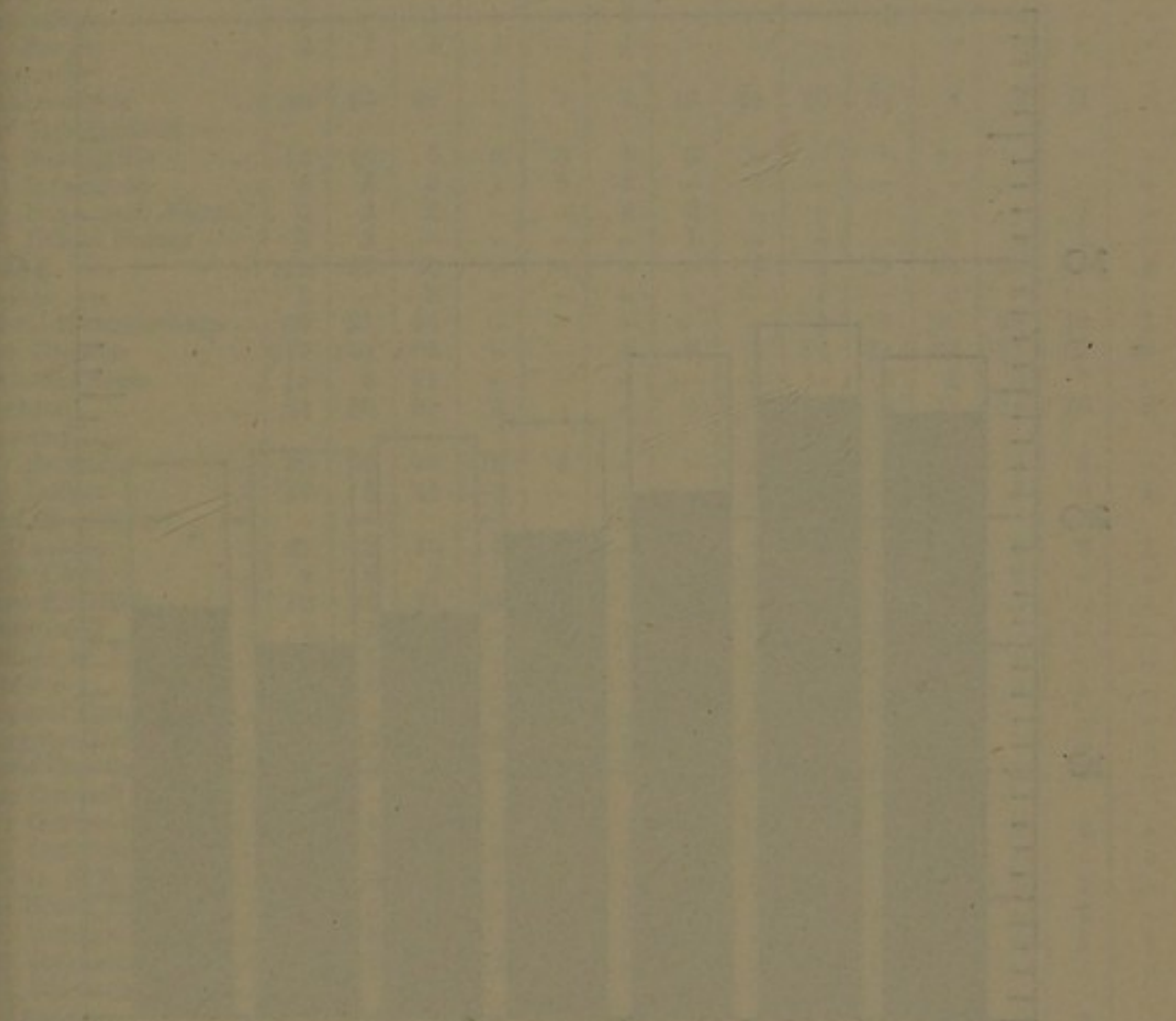


FIG. 1. A graph showing the effect of temperature on the rate of reaction.

The rate of reaction increases with an increase in temperature.

This is because the molecules have more energy and move faster.

As a result, they collide more frequently and with more energy.

Therefore, the rate of reaction increases with an increase in temperature.

The graph shows that the rate of reaction increases with an increase in temperature.

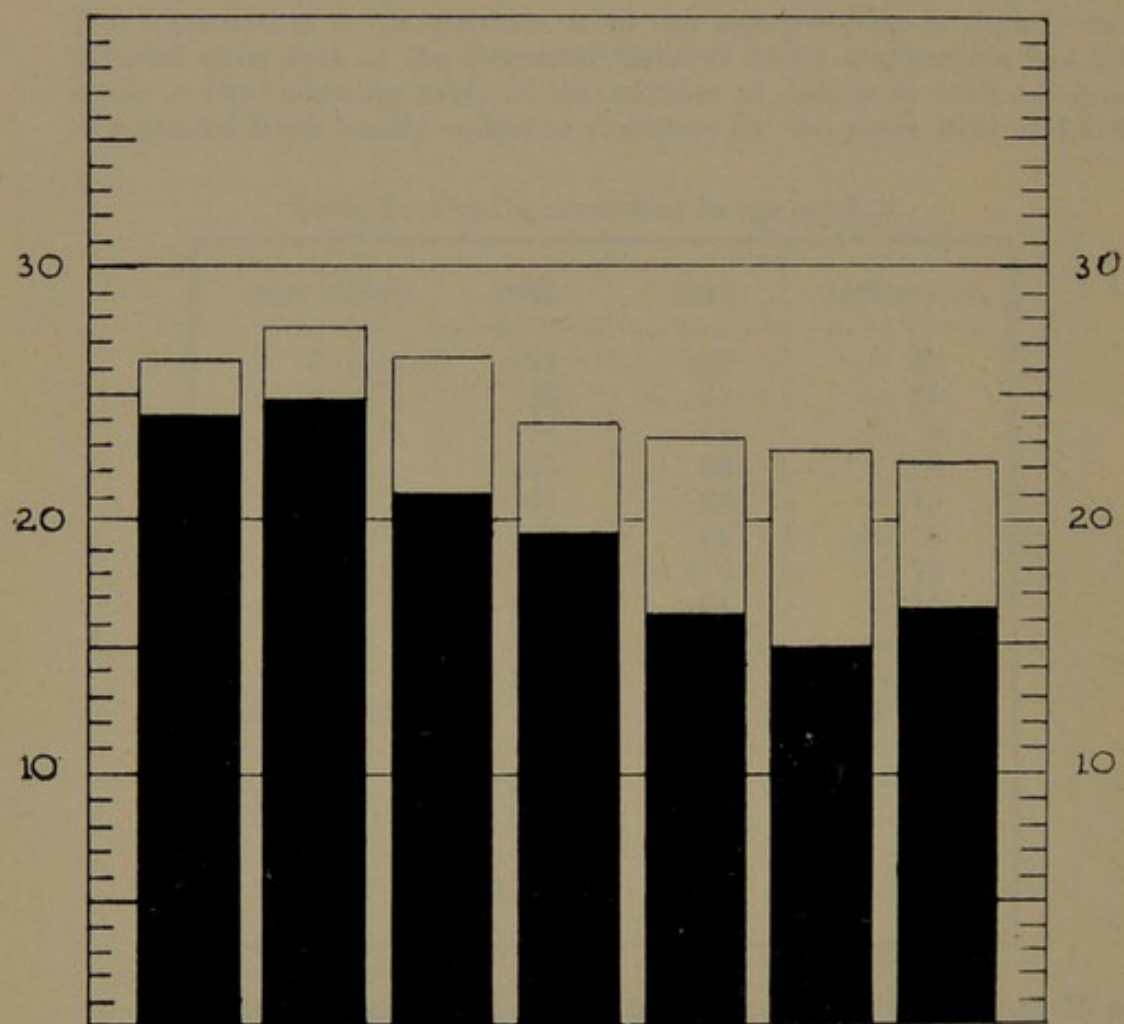


FIG. II.—BIRTH AND DEATH RATES AS DECENNIAL AVERAGES FROM 1881 TO PRESENT YEAR.

The lower (black) portion of each column represents the death rates, the total height of column the birth rates.

Table 4.—Analysis of Causes of Death at different age-periods during the year 1945*

Causes of Death	TOTAL	Sex		Un 1 yr.	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and up
		M.	F.											
Diphtheria ...	3	2	1	—	—	1	1	—	—	1	—	—	—	—
Influenza ...	1	1	—	—	—	—	—	—	—	—	—	1	—	—
Poliomyelitis ...	1	—	1	—	—	—	1	—	—	—	—	—	—	—
Encephalitis ...	1	—	1	—	—	1	—	—	—	—	—	—	—	—
C. S. Fever ...	2	1	1	1	—	1	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis ...	86	45	41	—	1	3	13	24	15	14	8	7	1	—
Other Tuberculosis :—														
(a) Meningitis ...	15	10	5	2	5	5	3	—	—	—	—	—	—	—
(b) Intestinal ...	6	3	3	1	2	2	—	1	—	—	—	—	—	—
(c) Bone and Joint ...	5	3	2	—	—	2	2	—	—	—	—	—	1	—
(d) Other Forms ...	3	3	—	—	—	—	1	—	—	—	1	—	1	—
Cancer ...	116	46	70	—	—	—	—	1	4	19	40	35	15	2
Diabetes ...	3	—	3	—	—	—	—	—	1	—	2	—	—	—
Cerebral Haemorrhage ...	69	25	44	—	—	—	—	—	3	7	20	25	13	1
Heart Disease ...	317	154	163	—	—	3	6	4	12	24	62	123	69	14
Arterio-Sclerosis ...	16	5	11	—	—	—	—	—	—	2	2	5	7	—
Bronchitis ...	83	50	33	3	—	—	1	—	1	9	17	29	20	3
Pneumonia :—														
(a) Broncho ...	30	20	10	15	6	—	—	—	—	2	1	3	3	—
(b) Lobar ...	16	5	11	1	—	—	—	—	1	2	4	5	2	1
Other Respiratory Diseases ...	28	13	15	4	—	—	1	2	1	3	6	8	2	1
Peptic Ulcer ...	8	6	2	—	—	—	—	1	2	2	—	3	—	—
Gastro-Enteritis ...	50	26	24	48	2	—	—	—	—	—	—	—	—	—
Appendicitis ...	2	1	1	—	1	1	—	—	—	—	—	—	—	—
Cirrhosis of Liver ...	1	1	—	—	—	—	—	—	—	—	1	—	—	—
Nephritis ...	13	5	8	—	—	—	—	2	—	2	3	4	2	—
Puerperal Conditions ...	4	—	4	—	—	—	—	3	1	—	—	—	—	—
Congenital Debility etc. ...	54	33	21	52	1	1	—	—	—	—	—	—	—	—
Violent Deaths ...	16	10	6	—	1	3	—	—	1	1	3	5	2	—
Other Defined Causes ...														
(1) Gastro-Intestinal ...	9	4	5	—	—	—	—	—	1	—	1	5	2	—
(2) Convulsions ...	6	3	3	6	—	—	—	—	—	—	—	—	—	—
(3) C. N. System ...	18	9	9	—	—	—	2	—	2	2	7	3	2	—
(4) Blood Diseases ...	9	5	4	—	—	1	1	—	1	1	3	—	2	—
(5) Genito-Urinary ...	7	5	2	—	—	—	—	—	—	—	—	5	1	1
(6) Marasmus ...	6	4	2	6	—	—	—	—	—	—	—	—	—	—
(7) Rheumatic Diseases ...	9	4	5	—	—	—	—	—	1	1	1	3	3	—
(8) Hepatic Disease ...	4	1	3	—	—	—	—	—	—	1	—	3	—	—
(9) Septicaemia ...	6	6	—	1	1	—	1	—	—	1	—	1	1	—
(10) Gangrene ...	5	3	2	—	—	—	—	—	—	—	—	4	—	1
(11) Senile Decay ...	44	12	32	—	—	—	—	—	—	—	—	9	20	15
(12) Syphilis (Congenital) ...	3	1	2	3	—	—	—	—	—	—	—	—	—	—
(13) Meningitis ...	5	4	1	2	—	1	—	—	1	1	—	—	—	—
(14) Intra-Cranial Haemorrhage ...	8	4	4	7	1	—	—	—	—	—	—	—	—	—
(15) Osteomyelitis ...	2	3	1	—	—	1	—	1	1	—	—	—	—	—
(16) Miscellaneous ...	21	9	12	4	2	—	2	2	1	4	2	3	—	1
Totals ...	1112	541	571	156	23	26	35	41	50	99	184	289	169	40

*The figures in this table are computed from returns of weekly deaths by the District Registrars, they have not been corrected for *inward transfers* and accordingly do not correspond with the returns of the Registrar General.

Table 4, which is based on Abstract V. of the Registrar-General's Annual Report, is an analysis of the causes of death during the year. It differs from Abstract V. in this respect that the age-groups are more extended and that the causes of death have been sub-divided in some instances. For example, under the headings "other forms of tuberculosis" and "other defined diseases" the various causes of death are more fully set out. This has been made possible by the system of weekly collection of deaths from the district Registrar's registers and the card-index system of filing which has been adopted in connection with it. This table is compiled from the weekly returns collected by us from the local Registrars and the totals do not correspond with those of the Registrar-General in his Summary, which are not fully corrected. The number of deaths in this table amounts to 1,112 (as compared with 1,128 in the Summary) so that the error is but slight and probably due to deaths in other places which have been allocated by the Registrar-General to this area. Once again I have to acknowledge the assistance received from the Registrar-General in the compilation of these figures.

Table 5.—Crude Death Rates per 1,000 living for Cork City, Eire and England and Wales, 1881–1945.

Year	Cork	Eire	E. & W.	Year	Cork	Eire	E. & W.
1881	26.8	17.1	18.9	1914	20.2	16.1	14.0
1882	24.7	16.9	19.6	1915	20.7	17.5	15.7
1883	24.9	18.6	19.6	1916	18.2	16.5	14.3
1884	26.7	17.4	19.7	1917	17.4	16.9	14.2
1885	26.2	18.0	19.2	1918	20.4	17.5	17.3
1886	22.1	17.4	19.5	1919	20.2	17.9	14.0
1887	22.4	17.9	19.1	1920	17.5	14.7	12.4
1888	24.1	17.4	18.1	1921	15.4	14.3	12.1
1889	22.3	16.9	18.2				
1890	22.2	17.6	19.5	1922	18.0	14.7	12.8
				1923	14.0	14.0	11.6
1891	26.9	17.6	20.2	1924	17.8	15.0	12.2
1892	26.4	18.7	19.0	1925	15.5	14.7	12.2
1893	24.5	17.3	19.2	1926	17.3	14.0	11.6
1894	24.9	17.7	16.6	1927	14.7	14.8	12.3
1895	23.9	17.7	18.7	1928	15.2	14.2	11.7
1896	22.6	15.9	17.1	1929	16.9	14.6	13.4
1897	24.7	17.8	17.4	1930	17.3	14.1	11.4
1898	23.7	17.7	17.5	1931	16.4	14.5	12.3
1899	26.3	17.0	18.2				
1900	24.2	19.1	18.2	1932	15.7	14.4	12.0
				1933	14.9	13.6	12.3
1901	23.0	17.1	16.9	1934	14.7	12.9	11.8
1902	21.5	17.0	16.3	1935	14.8	13.9	11.7
1903	19.4	17.0	15.5	1936	14.7	14.3	12.1
1904	21.6	17.6	16.3	1937	17.4	15.3	12.4
1905	21.7	16.4	15.3	1938	14.1	13.6	11.6
1906	20.2	16.2	15.5	1939	13.1	14.2	12.1
1907	20.6	17.0	15.1	1940	14.6	14.1	14.0
1908	22.2	17.1	14.8				
1909	22.1	16.8	14.6	1941	16.1	14.6	12.9
1910	19.3	16.6	13.5	1942	15.9	14.0	11.6
				1943	16.5	14.7	12.1
1911	21.2	16.3	14.6	1944	18.1	15.4	12.7
1912	19.1	16.2	13.4	1945	14.9	14.4	
1913	21.5	16.8	13.8				

The principal causes of death (in order of importance) were as follows :—

1.	Heart Disease	...	...	317	(390)
2.	Cancer	...	...	116	(123)
3.	Pulmonary Tuberculosis	...	...	86	(118)
4.	Bronchitis	...	...	83	(82)
5.	Cerebral Haemorrhage	...	...	69	(73)
6.	Premature Birth	...	...	54	(47)
7.	Diarrhoea and Enteritis	...	...	50	(63)
8.	Senile Decay	...	...	44	(49)
9.	Broncho-pneumonia	...	...	29	(44)
10.	Violence	...	...	16	(29)
11.	Lobar Pneumonia	...	...	13	(26)
12.	Nephritis	...	...	16	(23)

The figures in parenthesis denote the corresponding number last year.

Cardiac Disease. As usual this condition accounts for the great bulk of the deaths. Stress has been laid on deaths from heart disease and allusion made to the fact that the majority of them are found to be recorded in the later age-groups which gives rise to the supposition that they represent a degenerative condition rather than an infective one. This feature has been reproduced this year as shewn in the following table.

Table 6.—Analysis of deaths from heart disease from 1931.

Year	Under 5 years	5/15 years	15/25 years	25/35 years	35/45 years	45/55 years	55/65 years	65/75 years	75 yrs and up	Total
1931	—	6	3	5	18	31	66	87	34	250
1932	—	6	2	9	17	39	50	99	36	258
1933	—	2	4	5	15	31	58	83	42	240
1934	1	3	4	5	20	17	66	103	39	258
1935	2	3	1	7	11	29	63	93	36	245
1936	4	3	3	7	6	32	64	98	48	265
1937	—	5	6	9	16	24	72	112	64	308
1938	1	2	2	2	12	35	67	106	76	304
1939	—	1	4	2	12	27	63	108	61	278
1940	2	—	5	4	12	21	66	109	74	293
1941	—	3	2	6	12	22	82	108	71	306
1942	1	1	1	5	11	25	74	131	60	317
1943	—	1	7	4	16	28	81	133	79	349
1944	1	1	3	5	13	35	63	155	114	390
1945	—	3	6	4	12	24	62	123	83	317

The general trend of deaths from heart disease is shewn in the following table in which a comparison is made with deaths from cancer and pulmonary tuberculosis.

Table 7.—Trend of mortality from the three principal causes of death in Cork City from 1931.

Year	Condition		
	Heart Disease	Cancer	Pulmonary Tuberculosis
1931	250	124	103
1932	258	98	111
1933	240	114	106
1934	258	111	107
1935	245	133	115
1936	265	121	85
1937	308	117	96
1938	304	106	99
1939	278	143	86
1940	293	114	96
1941	306	125	88
1942	317	149	106
1943	349	120	107
1944	390	123	118
1945	317	116	86

Cancer. The number of deaths attributable to this disease recorded by us was 116 as compared with 123 in 1944. The corresponding figures of the Registrar-General are 106 (uncorrected) and 112. The discrepancy observable here, no doubt, is due to a difference in classification, all forms of malignant disease being classed by us under this heading. For comparative purposes the Registrar-General's are the more correct figures. On the basis of 106 deaths the rate was 1.4 per 1,000 of the population.

Phthisis Death Rate. The deaths from pulmonary tuberculosis numbered 86 equivalent to a rate of 1.1 per 1,000 of the population. The corresponding figures for last year were 118 and 1.5 per 1,000 respectively.

Infant Mortality. The number of deaths of children under one year of age was 156 which is equivalent to a rate of 89 per 1,000 live births. In 1944 the number of deaths was 188 and the rate 108 per 1,000. The contributory factors are discussed in Section V.

Maternal Mortality. There were 4 deaths from causes under this heading during the year. The maternal mortality rate was 2.38.

Infectious Disease Death Rate. The number of deaths from the principal infectious diseases was 8 equivalent to 0.1 per 1,000 of the population.

Table 9.—Showing the number of deaths from the principal epidemic diseases during the past ten years.

Year	Small Pox	Typhus Fever	Typhoid Fever	Scarlatina	Puerperal Fever	Membranous Croup	Diphtheria	Measles	Diarrhoea	Whooping Cough
1935	—	—	—	—	1	—	7	7	56	1
1936	—	—	—	7	1	—	8	10	41	5
1937	—	—	—	10	—	—	17	—	52	12
1938	—	—	1*	3	—	—	7	—	33	3
1939	—	—	—	1	1	—	3	—	39	6
1941	—	—	—	1	—	—	5	21	52	—
1940	—	—	—	—	—	—	5	6	36	—
1942	—	—	—	—	—	—	21	—	52	2
1943	—	—	—	—	1	—	17	—	52	4
1944	—	—	—	—	2	—	5	6	65	28
1945	—	—	—	—	—	—	3	—	50	—

* Infection in this case was incurred outside the City area.

Uncertified Deaths. Eleven uncertified deaths were recorded during the year as compared with eight in 1941.

Deaths from Violence. In the 16 recorded instances the cause of death was as follows :—

Falls	...	...	8
Drowning	...	...	3
Bicycle Accidents	...	...	2
Miscellaneous	...	...	3

In the case of deaths attributed to falls it was noted that the average age at death was 69.9 years.

Our liking for bread made from white flour is an example of the failure of the appetite to guide us correctly, since coarser flours have a higher nutritive value. An important incentive for the manufacture of white flour is the improvement in its keeping properties under modern conditions of food distribution.

McCOLLUM *et alia*.

THE NEWER KNOWLEDGE OF NUTRITION—1939.

The science of nutrition marches far in advance of its application either in daily life or in preventive or curative medicine. The knowledge is there waiting to be used. Health depends not on how much money is spent on food, but on what foods the money is expended. Malnutrition occurs at all levels of income.

PLIMMER, V. G.

Food Values at a Glance.

Table 10.—INFANT DEATH RATE.

Year	Births	Deaths under 1 year	Deaths per 1000 Births	Year	Births	Deaths under 1 year	Deaths per 1000 Births
1881	2167	271	124	1914	1897	226	119
1882	2212	283	127	1915	1778	235	132
1883	2161	236	109	1916	1732	182	105
1884	2199	253	110	1917	1552	169	108
1885	2054	247	120	1918	1559	189	118
1886	2037	225	110	1919	1825	183	100
1887	2042	252	123	1920	2169	173	79
1888	2058	288	139	1921	1887	144	76
1889	2023	253	125	1922	1853	173	93
1890	2005	214	106	1923	2007	133	66
1891	2024	281	138	1924	1990	175	87
1892	1978	297	150	1925	1827	136	74
1893	2092	268	132	1926	1687	220	130
1894	2063	310	150	1927	1701	148	87
1895	2179	287	131	1928	1764	135	76
1896	2144	229	106	1929	1816	156	85
1897	2073	316	152	1930	1998	155	77
1898	2160	285	131	1931	1921	138	71
1899	2060	276	133	1932	1819	168	89
1900	1944	235	120	1933	1852	165	89
1901	1942	272	139	1934	1922	139	72
1902	2031	258	127	1935	1945	162	83
1903	2066	232	112	1936	1921	154	80
1904	2089	249	118	1937	1818	187	103
1905	2099	276	131	1938	1708	129	76
1906	2094	279	133	1939	1711	125	73
1907	1946	254	139	1940	1670	153	92
1908	2084	281	134	1941	1680	142	85
1909	2000	251	125	1942	1706	171	100
1910	1965	189	96	1943	1781	197	113
1911	1992	277	139	1944	1721	188	108
1912	1903	204	106	1945	1690	156	89
1913	1853	253	136				

Table 8.

10b

Summary of Births and Deaths Registered during the Years 1873 to 1944, inclusive, in the Cork Urban Sanitary District with the number of Deaths from some of the principal causes.

YEAR	POPULATION	Rate per 1,000 persons represented by		NUMBER REGISTERED																							
				DEATHS.																							
				BIRTHS	DEATHS		BIRTHS	TOTAL NUMBER	Under 1 year of age	At 65 years & upwards	NUMBER CAUSED BY												Tubercu- lous Disease	Violence	Inquest Cases	No. in Public Institutions	Number of Uncertified
					All Causes	Principal Zymo- tic Diseases					Smallpox	Measles	Scarlet Fever	Typhus	Whooping Cough	Diphtheria	Enteric Fever	Diarrhoea	Influenza	Pneumonia	Pulmonary	Other forms						Cancer
1878...		31.7	27.0	—	2,546	2,464	350	681	...	61	1	...	59	1	...	76	...	...	...	23	87	863		
1879...		33.5	29.0	3.8	2,707	2,689	319	711	...	49	65	...	19	2	...	48	...	...	...	30	113	977		
1880...		28.5	30.8	5.9	2,620	2,837	376	624	...	73	204	...	47	13	...	86	...	289	...	23	99	1026					
1881...	80,124	27.7	26.8	4.1	2,167	2,101	271	611	...	36	30	88	61	4	4	87	...	237	...	14	82	673					
1882...		28.2	24.7	2.3	2,212	1,935	282	490	...	20	8	54	25	5	4	55	...	274	...	11	77	574					
1883...		27.0	24.9	2.0	2,161	1,993	236	572	...	35	8	46	5	10	11	38	...	271	...	9	50	646					
1884...		27.4	26.7	2.8	2,199	2,139	253	553	...	41	27	37	45	6	13	51	...	292	...	12	50	671					
1885...		25.6	26.2	2.3	2,054	2,098	247	614	...	6	48	21	55	5	9	35	...	287	...	7	36	587					
1886...		25.4	22.1	2.1	2,037	1,769	225	430	...	12	30	17	5	8	42	50	...	263	...	11	40	525					
1887...		25.5	22.4	1.8	2,042	1,792	252	490	...	34	1	12	6	2	20	67	...	236	...	15	43	490					
1888...		25.7	24.1	3.5	2,058	1,934	288	501	...	146	6	21	49	18	9	30	...	231	...	7	32	499					
1889...		25.2	22.3	1.9	2,023	1,786	253	497	...	1	10	5	88	7	9	32	...	278	...	8	34	433					
1890...		25.0	22.2	1.0	2,005	1,778	214	571	...	1	5	7	14	8	12	29	...	295	...	20	43	479					
1891...	75,345	26.9	26.9	1.4	2,024	2,025	281	630	...	—	4	5	29	11	17	34	...	295	...	15	35	557					
1892...		24.6	26.4	1.9	1,978	1,988	297	560	...	40	...	23	42	3	17	17	...	203	...	17	65	682					
1893...		27.8	24.5	1.3	2,092	1,844	268	517	...	6	2	7	14	3	14	51	...	314	...	15	58	596					
1894...		27.4	24.9	1.8	2,062	1,874	310	517	...	51	15	2	16	4	13	32	...	296	...	31	63	609					
1895...		28.9	23.9	1.6	2,179	1,798	287	494	...	1	3	8	65	2	16	28	...	261	...	24	68	657					
1896...		29.2	22.6	1.2	2,144	1,706	229	477	...	2	2	7	16	1	24	40	...	299	...	14	66	619					
1897...		27.5	24.7	2.7	2,073	1,858	316	452	...	75	1	3	59	10	9	47	...	260	...	22	64	680					
1898...		28.7	23.7	1.9	2,160	1,787	285	493	...	3	1	11	25	4	13	86	...	283	...	14	75	640					
1899...		27.3	26.3	2.8	2,060	1,980	276	525	...	34	1	6	33	5	8	121	...	320	...	9	79	749					
1900...		25.8	24.2	1.4	1,944	1,821	235	496	...	9	22	4	1	2	5	59	...	281	...	7	51	597					
1901...	76,122	25.6	23.0	1.9	1,942	1,745	272	440	...	3	17	2	36	11	5	73	...	289	...	13	54	558					
1902...		26.2	21.5	1.3	2,031	1,667	258	430	...	21	3	...	30	4	5	34	...	287	...	25	65	564					
1903...		27.1	19.4	1.3	2,066	1,476	232	336	...	2	4	...	44	4	5	37	...	279	...	19	46	518					
1904...		27.4	21.6	1.0	2,089	1,842	249	408	...	8	1	1	27	6	8	27	...	352	...	39	75	563					
1905...		27.6	21.7	1.0	2,099	1,650	276	468	...	14	...	2	...	7	8	47	...	103	294	...	18	50	605				
1906...		27.5	20.2	1.7	2,094	1,535	279	406	4	14	11	5	92	...	65	261	81	62	20	54	593				
1907...		25.6	20.6	1.5	1,946	1,570	254	427	2	6	52	5	4	48	...	77	278	84	77	14	53	609			
1908...		27.3	22.3	1.9	2,084	1,700	281	472	...	13	6	6	13	9	16	79	...	62	245	93	59	12	53	651			
1909...		26.3	22.1	2.3	2,000	1,680	251	457	...	3	15	5	72	11	15	54	...	106	264	78	62	13	75	673			
1910...		25.8	19.3	0.9	1,965	1,469	189	489	2	3	7	11	13	34	...	71	233	75	73	25	50	630			
1911...	76,673	26.0	21.2	1.9	1,992	1,622	277	377	...	17	2	...	28	10	5	78	...	91	252	73	64	28	61	627			
1912...		24.8	19.1	0.7	1,903	1,464	204	412	...	6	5	...	11	6	6	18	...	69	231	71	66	16	56	560			
1913...		24.2	21.5	1.9	1,853	1,645	253	424	...	16	4	2	...	3	6	114	...	110	202	79	95	14	57	643			
1914...		24.3	19.9	2.1	1,897	1,551	226	367	...	9	9	1	64	13	4	67	...	85	231	79	74	15	48	581			
1915...		23.1	20.7	1.5	1,778	1,584	235	418	...	14	12	...	22	14	5	49	...	152	211	72	66	13	50	590			
1916...		22.6	18.2	1.0	1,732	1,394	182	387	...	6	6	1	11	9	6	35	...	97	189	69	66	14	31	564			
1917...		20.2	17.5	0.8	1,552	1,340	169	395	1	14	3	3	34	...	74	202	78	62	24	40	51	60			
1918...		20.8	20.5	2.2	1,699	1,570	189	326	...	88	1	1	27	6	8	40	...	247	187	75	61	20	29	596			
1919...		23.8	20.2	1.1	1,825	1,551	183	414	...	1	2	3	7	32	1	40	...	248	156	58	69	19	26	564			
1920...		28.3	17.5	1.9	2,169	1,341	173	355	...	2	5	...	40	60	13	22	...	69	159	46	86	30	32	574			
1921...	24.6	15.4	1.4	1,887	1,181	144	313	1	1	56	4	1	...	40	125	34	75	71	82	482				
1922...	24.2	18.0	1.06	1,853	1,383	173	392	...	38	42	2	...	37	128	176	39	70	39	28	571				
1923...	26.2	14.0	0.7	2,007	1,071	133	332	1	...	23	1	24	...	4	55	130	32	84	28	38	446			
1924...	25.5	17.8	1.4	1,990	1,386	175	396	81	12	2	10	...	25	146	164	32	94	18	29	568			
1925...	23.8	15.5	0.8	1,827	1,185	136	397	2	...	2	6	5	45	...	8	60	134	31	92	25	38	457			
1926...	78,490	21.5	17.3	2.4	1,687	1,359	220	361	...	75	6	1	32	18	2	53	...	13	116	126	46	82	25	27	501		
1927...		21.7	14.7	0.5	1,101	1,152	148	343	...	1	6	9	2	24	...	17	63	129	35	78	28	27	449		
1928...		21.7	15.0	0.8	1,767	1,179	135	398	4	...	8	22	2	28	...	17	80	109	29	101	27	34	459		
1929...		20.9	16.7	1.4	1,816	1,308	156	404	...	15	3	1	30	33	1	25	...	12	81	141	17	92	26	44	552		
1930...		25.4	16.1	1.8	1,998	1,264	155	399	...	22	8	...	5	64	...	37	...	5	88	117	25	96	22	36	584		
1931...		24.4	16.2	0.5	1,921	1,275	138	388	5	24	1	34	34	...	96	124	46	107	26	24	515			
1932...		23.0	15.8	0.7	1,819	1,239	163	400	...	1	1	...	18	17	1	46	...	11	82	111	45	98	27	40	607		
1933...		23.7	14.9	0.8	1,852	1,168	165	367	...	1	1	...	3	14	2	45	...	20	60	106	19	104	22	43	557		
1934...		24.4	14.7	1.0	1,922	1,151	139	403	...	3	2	...	16	25	...	36	...	6	61	107	21	111	21	43	542		
1935...		24.8	14.8	0.9	1,945	1,158	162	386	...	11	...	...	1	7	...	56	...								

Summary of Sales and Receipts for the Month of January 1912

Date	Particulars	Debit		Credit		Balance
		Dr.	Cr.	Dr.	Cr.	
Jan 1	Balance forward					100.00
Jan 2	Sales			50.00		150.00
Jan 3	Receipts			25.00		175.00
Jan 4	Payments	10.00				165.00
Jan 5	Sales			75.00		240.00
Jan 6	Receipts			30.00		270.00
Jan 7	Payments	15.00				255.00
Jan 8	Sales			60.00		315.00
Jan 9	Receipts			40.00		355.00
Jan 10	Payments	20.00				335.00
Jan 11	Sales			80.00		415.00
Jan 12	Receipts			50.00		465.00
Jan 13	Payments	25.00				440.00
Jan 14	Sales			90.00		530.00
Jan 15	Receipts			60.00		590.00
Jan 16	Payments	30.00				560.00
Jan 17	Sales			70.00		630.00
Jan 18	Receipts			45.00		675.00
Jan 19	Payments	35.00				640.00
Jan 20	Sales			85.00		725.00
Jan 21	Receipts			55.00		780.00
Jan 22	Payments	40.00				740.00
Jan 23	Sales			95.00		835.00
Jan 24	Receipts			65.00		900.00
Jan 25	Payments	45.00				855.00
Jan 26	Sales			100.00		955.00
Jan 27	Receipts			70.00		1025.00
Jan 28	Payments	50.00				975.00
Jan 29	Sales			110.00		1085.00
Jan 30	Receipts			80.00		1165.00
Jan 31	Payments	55.00				1110.00
Jan 31	Balance forward					1110.00

Section. II.—Infectious Diseases

The following diseases are compulsorily notifiable in this area :—

Small Pox	Acute Influenzal Pneumonia
Cholera	Malaria
Typhus	Dysentery
Typhoid (Enteric Fever)	Encephalitis Lethargica
Simple Continued Fever	Cerebro Spinal Fever
Scarlatina	Poliomyelitis
Puerperal Fever	Ophthalmia Neonatorum
Diphtheria	Pemphigus Neonatorum
Membranous Croup	Puerperal Pyrexia
Erysipelas	Trachoma
Measles	Undulant Fever
Diarrhoea	Whooping Cough
Acute Primary Pneumonia	

The last six diseases were made notifiable by the Public Health (Infectious Diseases) Regulations 1941.

The Infectious Disease (Notification) Act, 1889, was by a resolution of the Corporation, dated 7th February, 1890, adopted in the County Borough.

The Act was subsequently made to apply to the following diseases :—

Name of Disease	Date of Resolution making Act applicable	Period in force
Cerebro-Spinal Meningitis ...	13 July, 1900 ...	Till 31st December, 1900
do. ...	22 February, 1907	Till revoked
Measles ...	26 May, 1905 ...	do.
Diarrhoea ...	14 December, 1908	1 July, 1907, to 31 Oct., 1907
do. ...	12 February, 1909	1 July, 1909, until revoked
Poliomyelitis or Infantile Paralysis ...	10 November, 1918	Till revoked

The Infectious Disease (Prevention) Act, 1890, was, by a resolution of the Corporation, dated 11th March, 1892, adopted and put into force in the County Borough.

The Public Health Acts Amendment Acts, 1907, was adopted and put into force by a resolution dated the 24th January, 1908, save as regards Sections 21, 24 to 33, 48, 66, 78 to 86, and 91 to 95.

The Public Health (Ireland) (Pneumonia, Malaria, Dysentery, etc.) Regulations, 1919 were revoked and are replaced by The "Public Health (Infectious Diseases) Regulations, 1929." Trench Fever, which was included in the 1919 Regulations, has been withdrawn in the new order.

The Emergency Powers (No. 46) Order, 1940 still remains in force. The provisions of this Order were fully reported on in the 1941 report.

Of the notifiable diseases some are now of academic interest only. This applies particularly to small-pox of which, during a period of 67 years, only six cases were notified while, during the same period, not a single death was recorded. The period covered was marked by major outbreaks of the disease in many parts of the world and the almost complete freedom of this city is a very striking tribute to the efficacy of vaccinations as a preventive measure. Cholera does not appear in our statistical tables at all. This disease was very widespread in the country during the late forties of the last century—coinciding with the famine, while typhus (as mentioned further on) has made no appearance for the past sixteen years. This is not to say that it may not be introduced. It is always a potential danger in view of the smouldering typhus areas on the south-western and western littoral. From this point of view one welcomes the measures which it is now proposed to take to deal with this danger. Simple continued fever appears to have departed more permanently than typhus. The last case was recorded in 1930 (fifteen years ago) but for the fifteen years before that its appearance was very irregular and the number of cases small (45 during the whole period). In this respect the incidence followed that of typhus more or less closely and it is highly probable that many of the reported cases were really cases of typhus. It is of interest to note that in both diseases the insect vector is the louse. Trachoma was at one time a relatively common disease in this community if one is to judge from the testimony of the older ophthalmologists but, so far as is known, it is now non-existent. Some years ago a few cases were under supervision by the School Medical Service but they have dwindled down to zero and no new cases have been detected in school inspection. Undulant fever has never been notified in this area. Considering the intensely agricultural belt by which the city is surrounded and the almost complete absence of pasteurisation of milk, this is surprising. If such cases do occur (and there is no evidence whatever to suppose they do) they must be few and far between and the symptoms very mild. Malaria has never been notified.

There was a very substantial reduction in the total number of notifications received during 1945, in comparison with the previous years—800 as compared with 3,023 in 1944. The principal factor in effecting this reduction was the reduced number of *scabies* notifications (1,899 in 1944, and 398 in 1945). Measles also provided a substantial reduction (370 and 7 respectively) while for whooping cough analogous figures have resulted (172 and 95). Diphtheria and scarlatina also shew materially reduced incidence. Cases of diarrhoea were reduced from 179 to 114. This has been one of the most fatal diseases of childhood in this area and is one of the principal contributory factors to our high rate of infant mortality. On the whole the year may be regarded with a certain degree of satisfaction so far as infectious disease is concerned, the reduction is a substantial one and it is many years since the general incidence of these diseases has been so low.

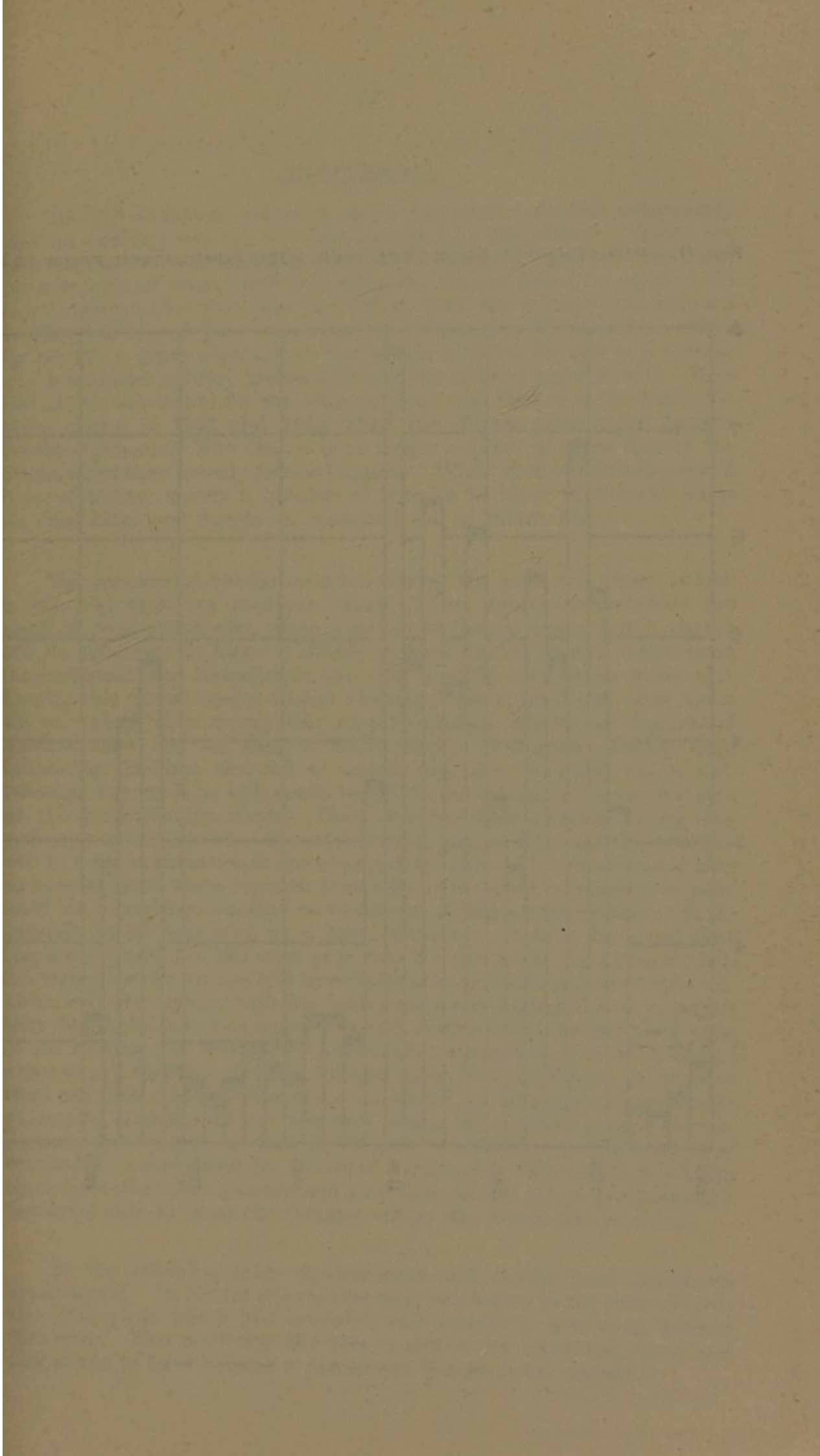
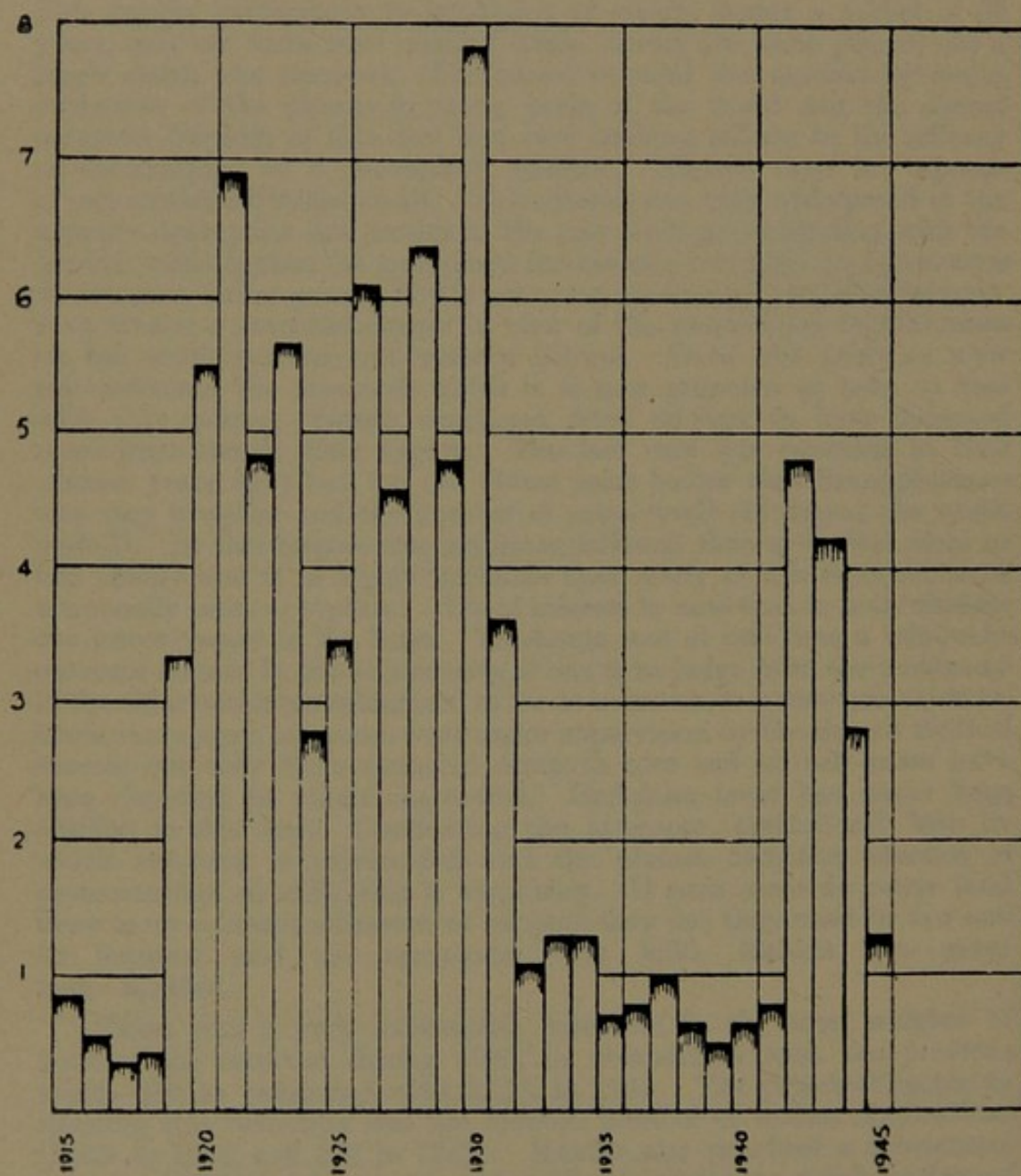


FIG III.—DIPHTHERIA INCIDENCE (PER 1000 POPULATION FROM 1915)



DIPHTHERIA.

In 1919 diphtheria assumed major importance in this community and for twelve years the city was scourged by the disease. Under the influence of our immunisation scheme we witnessed a partial abatement for a number of years until 1942 when the disease flared up again. 372 cases were recorded that year and 326 in 1943, the number was reduced to 172 in 1944 and there was a further reduction to 95 last year. These figures are a grave reproach to the people of Cork, for this is a disease which is almost entirely preventable and the citizens know it well. How else are we to account for the huge numbers who flocked to the immunisation clinics in 1942 and 1943 when the disease once more became epidemic? Now that it is no longer a factor of grave danger the attendances shew greatly reduced figures. While such conditions prevail it is, of course, merely a question of time as to when diphtheria flares up once more and exacts an increased toll of infant life.

The number of deaths recorded during the year was three (which is two less than the previous year). These figures undoubtedly are small in comparison with those recorded in former years, but it should not be necessary to have to allude to such deaths at all. Diphtheria immunisation was initiated in this city in 1929—seventeen years ago. During this period nearly 25,000 children were treated and once again we can state that *among this very substantial number of immunised children there has not been a single death*. Meanwhile, among non-immunised children the toll of deaths has now mounted up to 264. Allusion was made in last year's report to the falling off in attendances at the immunisation clinic. There was no improvement during the year now under review; the attendances was in fact slightly worse as will be seen on reference to the appropriate table. It is most regrettable to have to place these facts on record for it is merely a question of time until we experience another recrudescence of the disease which will inevitably be accompanied by a high mortality. It is to be noted that the fatality-rate for the past year was 3.1 per 1,000, an exceptionally low figure for this area as will be evident from an examination of table 12. Ordinarily the fatality rate has been excessively high and it is apparent that diphtheria here has assumed a very severe form, the prevalent type of the bacillus has been very virulent and, altogether, it is no exaggeration to say that this city has suffered more from diphtheria in the past than any other comparable area. It would be altogether unjustifiable to assume that the disease was now taking on a milder form since experience has taught us that in its rise to epidemic proportions it is invariably accompanied by increased virulence. This makes it all the more important that parents and guardians should adopt precautionary measures now to meet the dangers which the future has in store.

In the following table age-incidence and deaths from diphtheria are analysed. In former reports attention was drawn to the shift towards the older years which had occurred, this feature is now more marked than ever. This tendency has been manifest for some time past and now seems to have become a permanent feature of the disease.

Table 11.—Analysis of cases and deaths.

Age Groups	CASES		DEATHS
	Number	Proportion of Total	Number
0-2 years	2	2.2 per cent.	
2-4 "	10	10.5 "	
4-6 "	22	23.2 "	
6-8 "	6	6.3 "	
8-10 "	5	5.3 "	
10-15 "	17	18.0 "	1
15-25 "	25	26.3 "	1
25 & over	8	8.2 "	1
Total ...	95	100 per cent.	3

The incidence (per 1,000 of population) and the case-fatality rates of diphtheria from 1890 to the present year are set out in Table 12.

In a proportion of cases the reports received transpired not to be diphtheria. The actual number was 113 (approximately 54 per cent. of all notifications received). The age distribution of these was as follows :—

0-2 years	...	...	8 cases
2-4 "	...	...	15 "
4-6 "	...	...	10 "
6-8 "	...	...	11 "
8-10 "	...	...	4 "
10-15 "	...	...	18 "
15-20 "	...	...	16 "
Over 20 "	...	...	31 "
Total ...			113

Table 12.—Incidence and Case Fatality of Diphtheria from 1890.

Year	Cases	Rate per 1000 Population	Deaths	Fatality Rate
1890	20	0.26	8	40.00
1891	37	0.49	11	29.97
1892	11	0.14	3	27.27
1893	18	0.23	3	16.66
1894	14	0.18	4	28.57
1895	6	0.07	2	33.33
1896	7	0.09	1	14.28
1897	21	0.27	10	47.61
1898	18	0.23	4	22.22
1899	18	0.23	5	27.77
1900	23	0.30	2	0.86
1901	26	0.34	11	42.30
1902	8	0.10	4	50.00
1903	17	0.22	4	17.53
1904	29	0.38	6	20.60
1905	18	0.23	6	33.33
1906	37	0.48	11	29.73
1907	37	0.48	5	13.51
1908	40	0.56	9	22.50
1909	66	0.86	11	16.66
1910	51	0.65	11	19.29
1911	70	0.91	10	14.28
1912	52	0.67	6	11.54
1913	24	0.31	3	12.50
1914	54	0.70	13	24.07
1915	68	0.88	14	20.59
1916	43	0.55	9	20.93
1917	26	0.33	3	11.53
1918	34	0.43	6	17.64
1919	262	3.37	32	12.21
1920	428	5.50	60	14.02
1921	541	6.93	56	10.37
1922	379	4.86	42	11.08
1923	440	5.68	23	5.18
1924	217	2.85	12	5.40
1925	265	3.50	6	2.19
1926	469	6.10	18	3.75
1927	344	4.55	9	2.52
1928	385	6.37	19	4.75
1929	369	4.81	32	8.46
1930	627	7.86	59	10.00
1931	288	3.66	24	8.61
1932	85	1.08	17	20.00
1933	109	1.32	14	12.83
1934	109	1.32	25	22.10
1935	56	0.71	7	12.50
1936	25	0.31	8	32.00
1937	80	0.99	17	21.20
1938	54	0.66	7	12.77
1939	41	0.50	3	7.40
1940	52	0.67	5	9.61
1941	62	0.80	5	8.06
1942	372	4.84	21	5.64
1943	326	4.25	17	5.21
1944	172	2.27	5	2.9
1945	95	1.24	3	3.1

Note :—The Infectious Disease (Notification) Act, 1889, was adopted on 7th February, 1890.

DIPHTHERIA IMMUNISATION.

The total number of children who completed the full course of treatment during the year was 728, of whom 106 were children who were negative to the primary Schick test. There was a very marked falling off in attendances as compared with 1943 and 1942.

Table 13.—Attendance of new cases at Diphtheria Prevention Clinic.

Year	Primary Schick Negative	Completed Full Course	Total	Not Completed Course
1929	—	1,802	1,802	—
1930	154	2,857	3,011	505*
1931	324	1,777	2,101	436
1932	91	422	513	208
1933	159	592	751	61
1934	826	1,716	2,542	432
1935	173	1,118	1,291	8
1936	458	1,741	2,199	22
1937	165	960	1,125	212
1938	106	708	814	205
1939	87	355	442	69
1940	87	552	639	90
1941	109	576	685	60
1942	367	3,795	4,162	891
1943	306	1,081	1,387	321
1944	80	654	734	99
1945	106	622	728	145
Totals	3,598	21,328	24,926	3,764

* Includes figures for both 1929 and 1930.

The figures for primary Schick tests in this table do not represent the *total* number of such tests performed but merely the number that proved *negative*. They are stated here for the purpose of estimating the number of children who have passed through our hands and who may be regarded as presumably immune. The number of primary tests has been reduced to a minimum. It is now confined to children over ten years. The great bulk of our cases is now under this age, so that the necessity for the primary test is comparatively rare.

Table 14.—Primary Schick Tests performed during the year.

Age Group	Number of Cases	Positive	Negative	Proportion Positive
0-5 years	9	5	4	55.5 %
5-10 "	26	8	18	30.7 %
10 and over	146	62	84	42.4 %
Totals ...	181	75	106	41.4 %

Table 15.—Primary Schick Tests. Analysis showing proportion positive in each year.

Year	Number Tested	Positive	Negative	Proportion Positive
1929-30	1170	916	254	78.2 per cent.
1931	598	274	324	45.8 "
1932	301	210	91	69.7 "
1933	435	276	159	63.4 "
1934	1474	648	826	44.0 "
1935	309	136	173	44.0 "
1936	626	168	458	26.8 "
1937	266	101	165	38.0 "
1938	152	46	106	30.2 "
1939	110	23	87	20.9 "
1940	131	34	87	25.9 "
1941	146	37	109	25.3 "
1942	686	319	367	46.5 "
1943	306	107	199	34.9 "
1944	108	28	80	25.9 "
1945	181	75	106	41.4 "

Apart from record purposes this table is of little value as, obviously, the proportion of *positive* reactions will depend almost entirely on the age constitution of the groups of children tested and as this factor will fluctuate widely from year to year, so also will the results vary from one year to another. In this respect the next table is much more informative as the results in the different years have been analysed in accordance with the age groups of the children.

Table 16.—Primary Schick Tests. Analysis of proportion positive each year in different age groups.

Age Group	Proportion POSITIVE (expressed as percentages)															
	1929-30	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945
0-5 years	—	—	88.4	79.7	65.8	66.6	66.6	—	—	50.0	25.0	—	25.0	83.0	—	55.5
5-10 "	—	—	60.1	63.3	44.2	49.5	41.5	43.8	25.0	28.6	20.4	30.9	45.2	28.0	12.0	30.7
10 and over	—	—	37.7	28.9	27.5	30.3	15.5	33.0	35.7	18.4	32.9	22.2	47.6	34.8	29.2	42.4
Whole Group	78.2	45.8	69.6	63.4	44.0	44.0	25.2	37.9	30.2	20.9	25.9	25.3	46.5	34.9	25.9	41.4

Owing to the smallness in the number of cases tested, no results can be adduced for the figures for the year 1937 to date.

The *total number of cases* dealt with, according to age-groups is shewn in the following figures.

(1) Treatment Incomplete—

0-5 years	...	96
5-10 years	...	23
10 and over	...	26

(2) Treatment Complete—

0-5 years	...	543
5-10 years	...	36
10 and over	...	43

145

622

Total New Cases Treated	...	767
No. of Primary Schick Negatives	...	106
Old cases tested and treated	...	574

Total 1,447

Table 17.—Secondary Schick Tests, 1930-1944.

Year	Total	Negative	Positive	Proportion Negative
1930	805	752	53	94.6 per cent.
1931	1166	991	175	85.2 "
1932	913	858	55	92.8 "
1933	893	801	92	89.0 "
1934	1105	1058	47	95.7 "
1935	1405	1388	17	98.8 "
1936	1272	1259	13	98.9 "
1937	732	722	10	98.6 "
1938	581	498	83	85.7 "
1939	215	205	10	95.3 "
1940	353	350	3	99.1 "
1941	488	464	24	95.0 "
1942	2,409	2,248	161	93.3 "
1943	1,232	1,178	54	97.2 "
1944	398	378	20	94.9 "
1945	484	479	5	98.9 "
Totals ...	14,451	13,629	722	94.3 per cent.

Alum-precipitated toxoid (A.P.T.) and toxoid anti-toxin floccules (T.A.F.) were the prophylactics used. The former was administered by the two-dose method (0.2 c.c. followed by 0.5 c.c.) and the latter in three doses of 1 c.c. each at intervals of a fortnight or three weeks.

SWAB EXAMINATIONS.

The following figures indicate the number of swabs examined in connection with the control of diphtheria since 1928.

Year	No. Examined	Year	No. Examined
1928	980	1938	1,124
1929	1,353	1939	714
1930	2,872	1940	747
1931	1,936	1941	711
1932	1,022	1942	3,509
1933	878	1943	3,237
1934	1,203	1944	1,546
1935	924	1945	1,363
1936	633		
1937	1,092		

EPIDEMIC DIARRHOEA.

114 notifications were recorded during the year. Of this number, on investigation, two were found not to be suffering from the disease thus leaving a balance of 112 confirmed cases. This figure represents a substantial reduction in incidence in comparison with the previous

year, but it is altogether too high to afford any degree of satisfaction. Epidemic diarrhoea continues to be one of the three principal causes of infant deaths. In 1944 it headed the list with 63 deaths while prematurity, congenital debility came second with 43. In 1945 the latter was the principal cause with 52 deaths while epidemic diarrhoea was a very close second with 48. In the present state of our knowledge little can be done to abate mortality from causes arising (as they largely do) during intra-uterine life but deaths from gastro-enteritis should be regarded as largely preventible. Of the 50 deaths recorded 48 were under one year. The morbidity, mortality and fatality rates are shewn in table 18. These figures emphasise the dangerous nature of this disease and the important influence which it exercises on our mortality tables. In two of the 48 cases investigated it was stated that the babies were being fed at the breast, but in both instances there was good reason to believe that this was not altogether true. In one of the cases, certainly, the evidence of the mother could almost certainly be discounted. Apart from these two alleged instances all the deaths were associated with bottle feeding which is, of course, in keeping with the recorded findings in this respect. As was pointed out in last year's report, there is abundant evidence that breast feeding affords specific protection not only against gastro-enteritis but against many (if not all) other infectious diseases. The part played by this disease in infant mortality generally is discussed in the appropriate section (Maternity and Child Welfare). The seasonal variation was not so marked as in the previous year—54 of the 114 recorded cases occurred in the third quarter, but both the second and fourth quarters had very material recordings too, 22 and 26 respectively. Many cases of gastro-enteritis are indeed not true cases of epidemic disease but arise from dietetic indiscretions on the part of those responsible for the feeding of the infant. Cow's milk, once more, has been associated in marked degree with the incidence of the disease. The seasonal distribution of the cases was in accordance with the following tabulations. :—

Month	Cases	Deaths	Month	Cases	Deaths
Jan. ...	1	2	July ...	13	4
Feb. ...	4	3	Aug. ...	11	2
March ...	5	4	Sept. ...	30	6
April ...	4	3	Oct. ...	11	6
May ...	12	2	Nov. ...	11	7
June ...	6	2	Dec. ...	4	9

The distribution according to *quarters* was as follows :—

	Cases	Deaths
1st Quarter ...	10	9
2nd „ ...	22	7
3rd „ ...	54	12
4th „ ...	26	22

It has already been stated that 114 notifications were received (of which two were cancelled) but of these we failed to trace 13 in the investigations which followed. This has been a constant feature, as

alluded to in previous reports and is due to the mother tendering wrong particulars to the notifying doctor. This is the method adopted by such mothers to secure the attention of the doctor of their choice. Subtracting this number (plus the two cancelled) we were left with a residue of 99 cases traced and investigated. Of this 99 only 4 were breast-fed. These figures speak for themselves. In conjunction with the corresponding figures for each year since 1935 they are analysed in the next table.

Year	Number of Cases according to Manner of Feeding			Cases Untraced	Total
	Breast	Cow's Milk	Dried Milk		
1935	18	128	6	26	178
1936	7	198	5	16	261
1937	18	204	8	51	246
1938	14	108	5	15	142
1939	9	148	13	27	197
1940	13	202	9	62	286
1941	4	173	6	35	218
1942	11	168	24	24	227
1943	10	90	18	30	148
1944	5	128	17	29	179
1945	4	84	11	13	112
Totals ...	113	1631	122	328	2194

During the eleven years covered by this table 1,866 cases have been investigated and in 93.9 per cent. artificial feeding was the method employed. It is to be noted that these figures do not pretend to complete accuracy and since we do not know the actual number of children at risk in each year we cannot postulate the relative danger of each method of feeding but taken together, the evidence is clear enough that any child subjected to artificial feeding is greatly imperilled thereby and further it can be stated that when artificial feeding is adopted the danger is very much greater when cow's milk is employed. This no doubt is due to faulty methods in preparing feeds and unhygienic conditions generally in the homes. There seems to be much greater risk from cow's milk than from dried milk. Considering the better nutritive value of the former this is unfortunate, but taking facts as we find them we are forced to the conclusion that, in the hands of the average mother, ordinary cow's milk is a highly dangerous article.

In Table 18 are shewn the numbers of cases and deaths from diarrhoea which have occurred in the City since 1907, the year in which the disease was first made notifiable here. The *morbidity* rate is based on the number of cases notified in proportion to the population, the *mortality* rate on the number of deaths per 1,000 of the population while the case *fatality* rate represents the deaths registered per 100 cases notified.

Table 18.—Epidemic Diarrhoea. Return of Cases notified and Deaths registered, together with the Mortality, Morbidity and Case-fatality Rates arising therefrom.

Year	No. of Cases	Rate per 1000 Population (Morbidity)	DEATHS		
			Number Recorded	Mortality Rate	Case Fatality Rate*
1907	413	5.42	48	0.63	11.1
1908	524	6.85	79	1.03	15.0
1909	514	6.72	54	0.71	10.3
1910	159	2.07	34	0.44	21.3
1911	352	4.56	78	1.01	22.1
1912	71	0.92	18	0.23	25.3
1913	320	4.13	114	1.48	35.6
1914	188	2.43	67	0.86	35.6
1915	177	2.29	49	0.63	27.6
1916	139	1.79	35	0.45	25.1
1917	83	1.07	34	0.43	40.9
1918	121	1.55	40	0.51	33.0
1919	85	1.09	40	0.51	47.0
1920	54	0.69	22	0.28	40.7
1921	105	1.35	1	0.01	0.94
1922	19	0.24	—	—	—
1923	35	0.44	24	0.30	68.5
1924	30	0.38	10	0.12	33.3
1925	142	1.81	45	0.58	31.6
1926	108	1.37	53	0.67	49.1
1927	76	0.96	24	0.30	31.5
1928	79	1.00	28	0.35	35.4
1929	78	0.98	25	0.31	32.0
1930	59	0.74	37	0.46	62.7
1931	85	1.06	34	0.42	40.0
1932	178	2.22	46	0.57	27.8
1933	189	2.35	45	0.56	23.8
1934	80	0.99	36	0.44	45.0
1935	178	2.21	56	0.69	31.4
1936	261	3.23	41	0.50	15.7
1937	246	3.04	52	0.64	21.1
1938	142	1.76	33	0.41	23.2
1939	197	2.44	39	0.48	19.8
1940	286	3.54	52	0.64	18.4
1941	218	2.85	36	0.46	16.5
1942	227	2.95	52	0.68	22.9
1943	148	2.00	52	0.68	35.1
1944	179	2.37	65	0.61	36.3
1945	114	1.45	50	0.50	43.8

* The *fatality rates* in this table must be read with extreme caution. The fluctuation from year to year is so extreme that it is apparent that notification must have been very defective in the years with abnormally high rates. It is obvious, nevertheless, that this is a most fatal disease of early childhood and the figures lend point to the remarks which have been made above in regard to the prime contributory cause.

TYPHOID FEVER.

Three cases were notified during the year, the patients in all cases being young females. Two were notified within a relatively short period of each other but no contact could be established between them. These two cases occurred in late March and late April respectively the third one was recorded in October. Investigations failed to reveal any possible source of contagion. Reference was made in last year's report to a possible source of infection arising from the growing trade in cooked meats causing sporadic cases of typhoid as well as dysentery. In view of the relative ease with which this foodstuff can be infected and the high standard of personal hygiene called for in those handling it, it is pretty obvious that this is a trade which calls for careful control.

The general trend of typhoid fever incidence and mortality from the year 1881 is shewn in table 19.

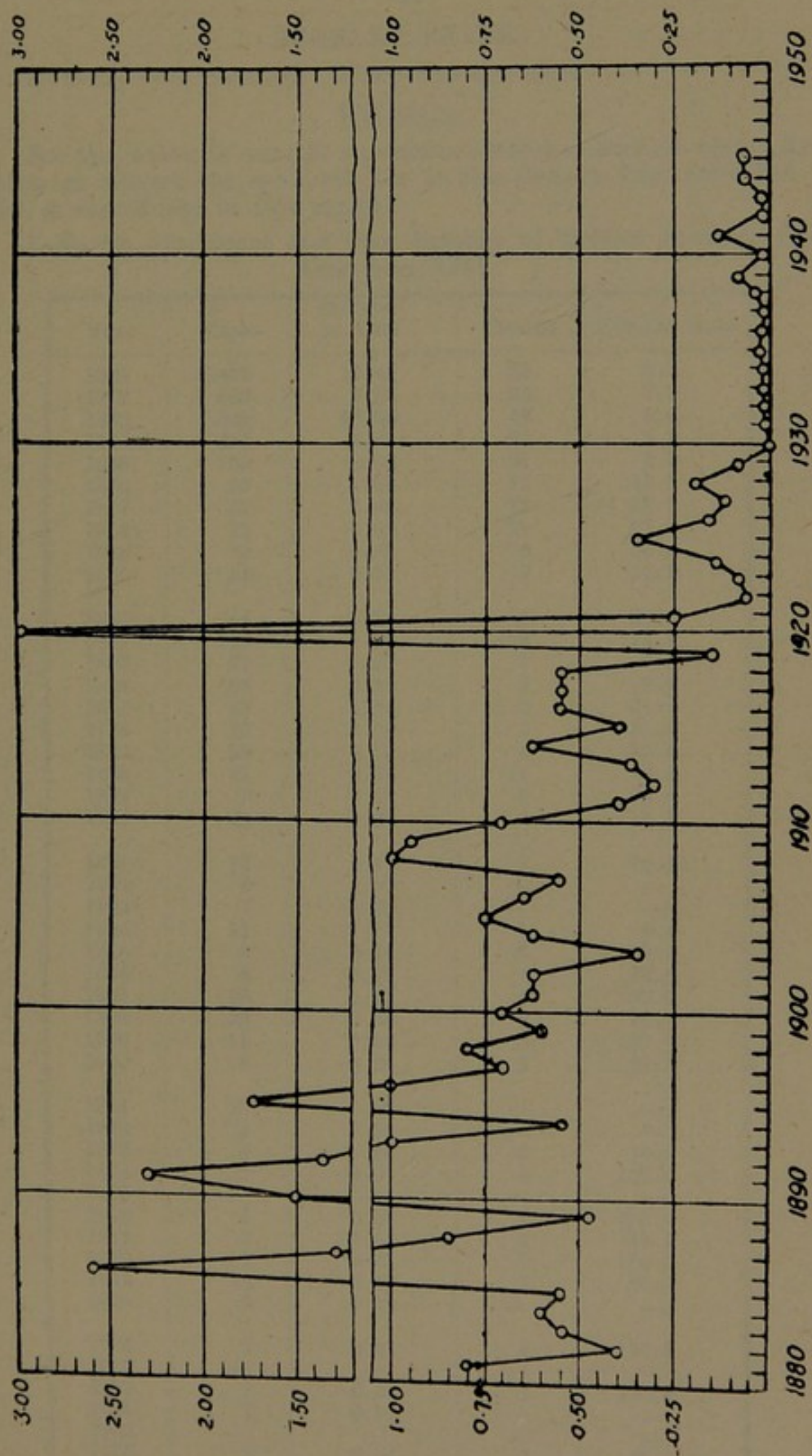
Table 19.—Incidence and Case Fatality of Enteric Fever in Cork City from 1881.

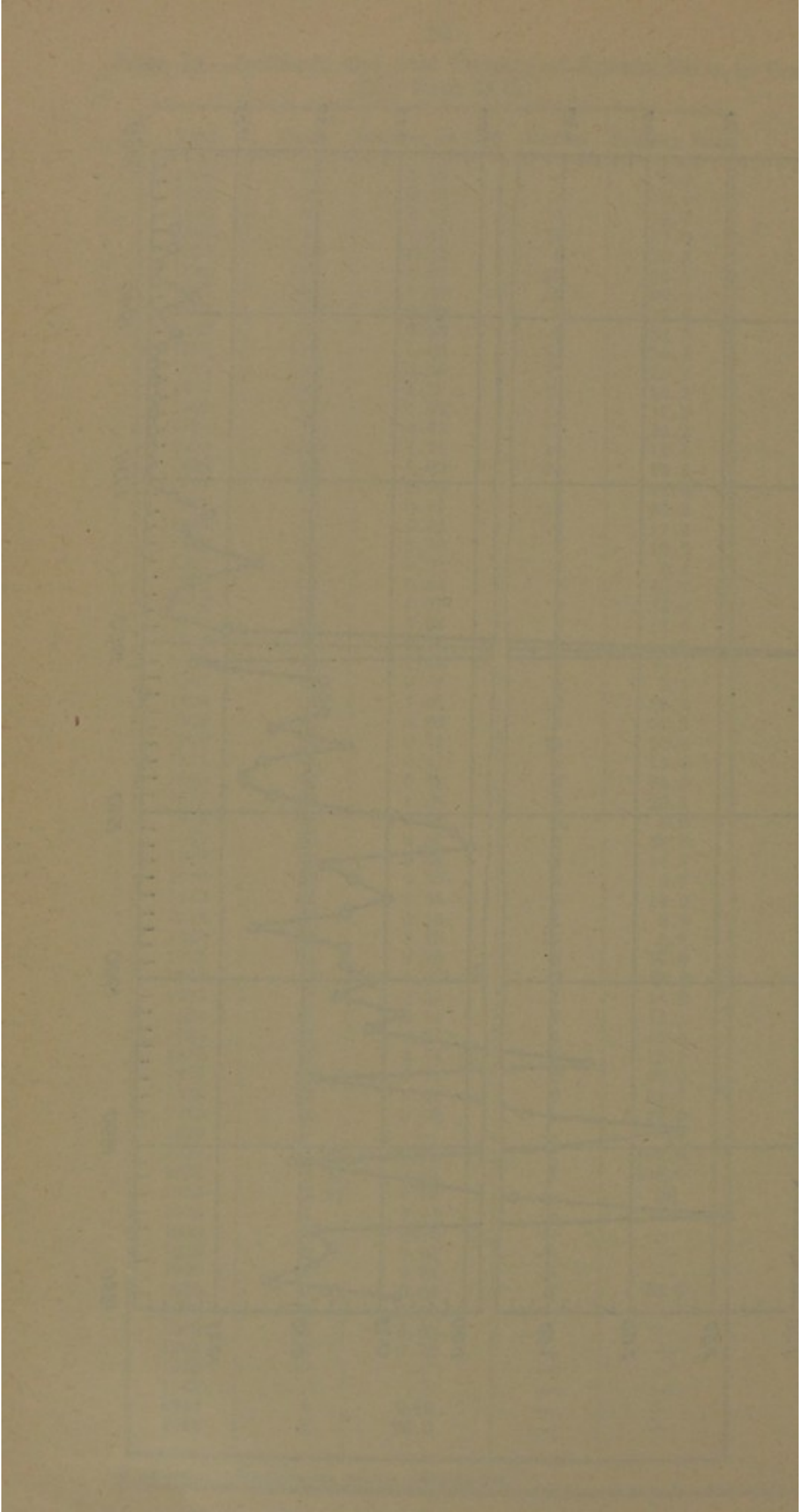
Year	Cases	Incidence per 1,000	Deaths	Fatality Rate
1881	66	0.82	4	6.5
1882	37	0.46	4	10.8
1883	45	0.56	11	24.4
1884	48	0.61	13	27.0
1885	43	0.55	9	20.9
1886	180	2.57	42	23.3
1887	100	1.30	20	20.0
1888	66	0.86	9	13.6
1889	37	0.48	9	24.3
1890	113	1.50	12	10.6
1891	165	2.33	17	10.3
1892	104	1.37	17	18.3
1893	78	1.03	14	17.9
1894	43	0.57	13	30.2
1895	132	1.74	16	12.1
1896	94	1.00	24	25.5
1897	51	0.70	9	17.6
1898	62	0.81	13	20.9
1899	47	0.62	8	17.0
1900	50	0.70	5	10.0
1901	51	0.67	5	9.8
1902	49	0.64	5	10.2
1903	27	0.35	5	18.5
1904	50	0.64	8	16.0
1905	58	0.76	8	13.8
1906	48	0.66	5	10.4
1907	44	0.57	4	9.1
1908	88	1.02	16	18.2
1909	74	0.95	15	20.2
1910	54	0.70	13	24.0
1911	32	0.41	5	15.6
1912	26	0.33	6	23.0
1913	29	0.38	6	20.7
1914	50	0.64	4	8.0
1915	32	0.41	5	15.6
1916	42	0.54	6	14.3
1917	43	0.55	3	6.9
1918	42	0.54	8	19.0
1919	12	0.15	1	8.3
1920	244	3.13	13	5.3
1921	21	0.26	4	19.0
1922	6	0.07	2	33.3
1923	7	0.09	1	14.2
1924	11	0.14	2	18.1
1925	27	0.34	5	18.5
1926	11	0.14	2	18.2
1927	10	0.12	2	20.0
1928	17	0.21	2	11.7
1929	6	0.08	1	16.6
1930	—	—	—	—
1931	1 (a)	0.01	1	100.0
1932	1 (a)	0.01	1	100.0
1933	2 (a)	0.02	—	(b)
1934	1	0.01	—	—
1935	3	0.03	—	—
1936	2	0.02	—	—
1937	1	0.01	—	—
1938	3 (a)	0.03	1	33.3
1939	7	0.08	—	—
1940	2	0.02	—	—
1941	12	0.15	—	—
1942	—	—	—	—
1943	—	—	—	—
1944	3	0.03	—	—
1945	3	0.03	—	—

(a) Infection in all these cases was incurred outside the City.

(b) Two deaths were recorded in Cork Mental Hospital (Co. Area) of inmates who formerly resided in the City

FIG. IV.—ENTERIC FEVER. INCIDENCE (PER 1000 POPULATION) FROM 1880.





SCARLET FEVER.

33 cases were reported. There was no death.

TYPHUS.

For the sixteenth year in succession there has been no case. As a matter of interest the table relative to this disease, first published in 1935, is reproduced in this report.

Table 20.—Incidence and Case Fatality of Typhus Fever in Cork City from 1881.

Year	Cases	Incidence per 1,000	Deaths	Fatality Rate
1881	1406	17.42	88	6.2
1882	683	8.57	54	7.9
1883	844	10.66	46	5.4
1884	456	5.65	37	8.1
1885	159	2.03	21	3.2
1886	83	1.06	17	18.0
1887	67	0.86	12	17.9
1888	72	0.93	21	27.7
1889	48	0.63	5	10.4
1890	54	0.71	7	12.9
1891	24	0.30	5	20.8
1892	162	2.28	23	14.1
1893	92	1.20	7	7.6
1894	25	0.33	2	8.0
1895	29	0.38	8	31.0
1896	22	0.29	7	31.8
1897	30	0.39	3	10.0
1898	61	0.80	11	18.0
1899	9	0.10	6	66.6
1900	28	0.36	4	14.3
1901	13	0.17	2	15.38
1902	6	0.07	—	—
1903	7	0.09	—	—
1904	11	0.14	1	9.1
1905	9	0.11	2	22.2
1906	6	0.07	4	66.6
1907	10	0.13	6	60.0
1908	23	0.30	6	26.1
1909	18	0.24	5	27.7
1910	8	0.10	3	37.5
1911	10	0.13	—	—
1912	1	0.01	—	—
1913	5	0.06	2	40.0
1914	1	0.01	1	100.0
1915	—	—	—	—
1916	1	0.01	1	100.0
1917	3	0.04	1	33.3
1918	1	0.01	1	100.0
1919	15	0.19	3	20.0
1920	2	0.03	—	—
1921	1	0.01	1	100.0
1922	—	—	—	—
1923	1	0.01	1	100.0
1924	1	0.01	—	—
1925	—	—	—	—
1926	3	0.04	1	33.3
1927	4	0.05	—	—
1928	1	0.01	—	—
1929	1	0.01	1	100.0

There has been no case since 1929.

SCABIES.

The provisions of the Public Health (Infectious Diseases) Regulations, 1941 were made applicable to this condition by special regulations made by the Minister for Local Government and Public Health on 19th October, 1943, under title of Public Health (Infectious Diseases) (Amendment) (No. 2) Regulations, 1943, the effect of which was to make the condition notifiable. 398 such notifications were received during the past year (as compared with 1889 in 1944).

Table 21.—Scabies Treatment Centre. Attendances, 1945.

WEEK ENDED	MALES			FEMALES			Com- bined Total	Pro- gressive Total	In- dividual Atten- dances
	1st Atten- dance	2nd Atten- dance	TOTAL	1st Atten- dance	2nd Atten- dance	TOTAL			
6-1-45	76	41	117	131	87	218	335	—	207
13-1-45	91	55	146	138	96	234	380	715	436
20-1-45	85	48	133	146	95	241	374	1,089	667
27-1-45	51	43	94	67	57	124	218	1,307	785
3-2-45	69	39	108	150	65	215	323	1,630	1,004
10-2-45	110	72	182	183	153	336	518	2,148	1,297
17-2-45	118	79	197	242	173	415	612	2,760	1,657
24-2-45	114	75	189	232	186	418	607	3,367	2,003
3-3-45	95	73	168	244	145	389	557	3,924	2,342
10-3-45	83	63	146	127	136	263	409	4,333	2,552
17-3-45	65	33	98	112	82	194	292	4,625	2,729
24-3-45	73	56	129	164	112	276	405	5,030	2,966
31-3-45	49	43	92	119	116	235	327	5,357	3,134
7-4-45	81	41	122	129	87	216	338	5,695	3,344
14-4-45	57	56	113	169	114	283	396	6,091	3,570
21-4-45	75	50	125	211	164	375	500	6,591	3,856
28-4-45	70	54	124	158	116	274	398	6,989	4,084
5-5-45	55	44	99	93	88	181	280	7,269	4,232
12-5-45	39	42	81	87	46	133	214	7,483	4,358
19-5-45	51	37	88	117	91	213	301	7,784	4,526
26-5-45	39	18	57	84	53	137	194	7,978	4,649
2-6-45	37	37	74	120	96	216	290	8,268	4,806
9-6-45	50	26	76	95	72	167	243	8,511	4,951
16-6-45	80	45	125	155	90	245	370	8,881	5,186
23-6-45	60	46	106	142	108	250	356	9,237	5,388
30-6-45	35	30	65	93	98	191	256	9,493	5,516
7-7-45	47	39	86	88	53	141	227	9,720	5,651
14-7-45	23	13	36	77	65	142	178	9,898	5,751
21-7-45	39	25	64	64	51	115	179	10,077	5,854
28-7-45	61	30	91	176	93	269	360	10,437	6,091
4-8-45	60	51	111	142	133	275	386	10,823	6,293
11-8-45	34	21	55	74	45	119	174	10,997	6,401
18-8-45	39	28	67	83	77	160	227	11,224	6,523
25-8-45	36	27	63	64	40	104	167	11,391	6,623
8-9-45	68	25	93	198	118	316	409	11,800	6,889
15-9-45	51	39	90	116	89	205	295	12,095	7,056
22-9-45	57	43	100	93	68	161	261	12,356	7,206
29-9-45	68	38	106	138	67	205	311	12,667	7,412
6-10-45	39	38	77	113	125	238	315	12,982	7,564
13-10-45	38	30	68	85	64	149	217	13,199	7,687
20-10-45	56	34	90	90	74	164	254	13,453	7,833
27-10-45	44	33	77	101	71	172	249	13,702	7,978
3-11-45	58	23	81	99	63	162	243	13,945	8,135
10-11-45	43	36	79	120	97	217	296	14,241	8,298
17-11-45	68	36	104	88	73	161	265	14,506	8,454
24-11-45	63	54	117	105	64	169	286	14,792	8,625
1-12-45	50	49	99	105	89	194	293	15,085	8,777
8-12-45	45	34	79	98	82	180	259	15,344	8,920
15-12-45	49	36	85	86	68	154	239	15,583	9,055
22-12-45	29	20	49	71	55	126	175	15,758	9,155
	2,973	2,048	5,021	6,182	4,555	10,737	15,758		

Table 21 is a detailed statement shewing the work done at the Centre during the year. It will be noted that the total number of *attendances* was 15,758 and that the number of *persons* treated amounted to 9,155. Considering the great benefit accruing to sufferers from the specialised treatment afforded at the Centre it must be said that the attendance on the whole was disappointing. That many more should have attended is apparent from the report of Dr. Moynihan. Once again I have pleasure in referring to the excellent work of the staff of the Treatment Centre, the continued smooth running of the department and the complete absence of complaints is testimony to the efficiency of the staff. Appended herewith is the report of Dr. Moynihan on the working of the Centre during the year.

Report on Scabies Treatment Centre—1945.

The special centre for the treatment of scabies established during 1944 was maintained during the year under review. The fact that its facilities were freely availed of indicated that the disease was still widespread. During the course of the year, however, the numbers attending the centre decreased, due, to a large extent, to the effectiveness of the treatment afforded. It became possible then to work the scheme with a reduced staff. The following figures show the total attendances during the year (50 weeks).

Male			Female			Grand Total
1st Bath	2nd Bath	Total	1st Bath	2nd Bath	Total	15,758
2,973	2,048	5,021	6,182	4,555	10,737	

Average attendance per week 332.

Throughout the year it was obvious that many families heavily infected with scabies, were deliberately refusing to have their infection dealt with at the treatment centre. These cases were brought to our notice by the School Medical Service, Sanitary Officers and School Attendance Officers, who had themselves endeavoured to prevail on those infected to attend for treatment. No measure was at our disposal to compel such cases to seek the simple cure of the disease nor could they be prevented from further disseminating the infection. Their persistent avoidance of treatment at the centre was largely the direct result of neglect on the part of parents who, rather than submit to baths and the application of benzyl-benzoate, were apparently content to see both themselves and their children distressed by irritation and even disfigured by offensive and unsightly secondary infection. The latter invariably followed the prolonged itching. The disease continued to be regarded by some as a reflection on personal cleanliness and shame deterred them from acknowledging its existence in their families.

It was discouraging to find many cases returning repeatedly to the centre for treatment. It was made a *routine* procedure in all such cases to endeavour to seek out the source of reinfection. Almost invariably it was found that one or *more* members of the family had never attended for treatment or had attended once but had failed to complete treatment. With an obvious source of reinfection in close contact with treated cases a permanent cure of scabies could not be expected. How frequently

families defaulted in this manner may be judged from the following figures which show the number of families treated and of these the number when all the family attended and when only some attended.

Total Number of families treated.	Whole families treated.	Portion of family treated.
1,346	307 (22.7%)	1,039 (77.3%)

The primary importance of the treatment of the whole family was repeatedly stressed to the parents in all cases where some members of a family neglected to attend but many failed to appreciate and act on the advice given them. Too often parents were quite willing to have their children treated but were unwilling to submit to treatment themselves. Where there was a persistent refusal on the part of several members of a family to come to the centre the staff were forced to refuse treatment to any member of that family. While such a course was undesirable it must be claimed for it that it proved a most effective method of bringing whole families for treatment.

In many cases patients preferred to seek advice at the centre on the cause and proper treatment of their skin irritation and to carry out in their homes the instructions given. Those who had facilities for baths privately were often glad to avail themselves of this provision in the scheme but it was not applicable to the majority of the poorer class patient, who had no alternative but to undergo treatment at the scabies centre. The number of families who were instructed in treatment is not recorded but in the course of the year reached considerable proportions. In fact the treatment centre in this way performed a most useful function.

County patients continued to avail of the treatment put at their disposal at the scabies centre. It became evident from interrogation of these patients that many of their neighbours were also infected and it was thought advisable that measures should be taken to make them familiar with the nature of the disease and with the facilities available for proper treatment. The fact that hitherto no case had been referred to the centre for treatment by any Dispensary Doctor from the County area suggested that the latter were unaware that patients in their areas were included within the scope of the scabies scheme. A further point of importance was the fact that many cases living convenient to the city were attending City Schools and were in contact with city children. It seemed logical, then, to make every effort to encourage County Cases to come for treatment and, with this in view, the aid of Dr. Condry, County M.O.H. was sought. His co-operation resulted in the Dispensary Doctors being circularised with details of the epidemic of scabies, particulars of the most effective method of treatment and where available. Since this measure was adopted a steady flow of county cases has passed through the scabies centre. The increased attendance of such cases should reflect itself in a decrease in the incidence of the disease in the City.

It is unnecessary for patients attending the treatment centre to be referred there for treatment by a doctor. In actual fact the vast majority came of their own initiative. It is disappointing to review the small

numbers referred to the centre by local Dispensary Doctors. No more than six or seven such reference notes, on an average, were presented each week at the scabies clinic even when three hundred or more treatments were being given weekly. As the majority of patients attending the clinic would normally be dispensary patients it is difficult to explain the small numbers being referred for treatment.

In spite of the prevalence of scabies among the citizens it would appear that many are not yet familiar with the symptoms and signs of the disease. Unfortunately the average person seems to consider that the condition is not established until the secondary infection with other organisms (i.e. staphylococcal pustules, furunculosis and impetigo), has been added. It was exceptional to find patients attending for treatment of simple scabies. Too often they delayed treatment until secondary infection had complicated the condition and rendered subsequent treatment both more difficult and more protracted. In addition it was again evident that the free treatment offered at the centre was often only availed of as a last resort when various home cures had failed to arrest the condition. No reasonable person could find fault with parents endeavouring to treat scabies at home provided that the preparations used were likely to effect a cure. Little success, however, attended the unskilled home treatment of scabies. Eventually many of these cases came to the treatment centre with the original condition of simple scabies cloaked in a widespread eczema or medicinal dermatitis, the direct result of their home treatment. It was necessary in such cases to treat the added complaint, often sulphur dermatitis, before undertaking treatment of the original scabetic infection. If chemists must supply preparations to people who consult them in connection with scabies why can they not dispense benzyl benzoate rather than various ointments and lotions which often prove more harmful than beneficial? Even when skilled treatment had been commenced at the centre many patients sought to "help" the cure with useless and unnecessary ointments. It can hardly be doubted at this stage that the use of benzyl benzoate is the simplest and most rapid method of treating scabies. Among the large number of cases treated at the scabies centre only three cases of dermatitis resulted from the use of benzyl benzoate. It is fair to assume that in these cases a sensitivity to the preparation existed. Its occurrence was so rare as to be negligible. However, it appears not to be generally realized that benzyl-benzoate ought not to be used immediately after the previous use of sulphur preparations as a severe dermatitis is extremely likely to result from this combination.

At few Public Health Clinics can the attendance be so influenced by weather conditions as at a clinic for the treatment of scabies. As here the routine treatment involves a preliminary bath it is obvious that many will avoid treatment in cold or wet weather. Little fault can be found in this natural reluctance on the part of patients, especially when it is remembered that many of necessity must travel considerable distances from the clinic to their homes after treatment. A week during which the weather was cold or wet showed decreased attendance returns and much of the fluctuation in the attendance from week to week can be explained on this basis alone.

An interesting feature of the work of the centre was the number of expectant mothers treated. Some such cases were referred to us from the ante-natal clinic of the Public Health Service. The need for treatment before their confinement, of expectant mothers infected with scabies is obvious as the newborn infant is invariably infected from its close contact with the mother in the act of suckling etc. In fact the time appearance of scabies in an infant born of a mother infected with scabies provided a simple and instructive method of estimating the incubation period of the disease. Infants are peculiarly susceptible to the infection, which rapidly becomes generalized over the whole trunk and limbs. The irritation resulting interferes greatly with restful sleep in the infant and quickly reduces it to an unstable and troublesome condition. As it was considered unwise to subject infants under the age of ten weeks to routine treatment of scabies, only palliative measures in the form of alkaline baths, given at home, were recommended during the three or four weeks which had to elapse between the appearance of definite symptoms and signs of scabies and the time judged most suitable for the commencement of cinatine treatment.

Pediculosis infestation was again noticed in many patients attending the clinic. Commonly it occurred in conjunction with scabies but often the infestation was solely responsible for the irritation and scratching which suggested scabies as the underlying cause. A plentiful supply of D.D.T. in powder form was available and routine treatment with this material was given to each case requiring it. Suitable appliances rendered the use of D.D.T. simple, rapid and highly effective. The following figures show the incidence of pediculosis infestation in cases treated at the centre:—

MALE			FEMALE			Total
Adults	School Age	Under 5 years	Adults	School Age	Under 5 years	
264	375	80	186	205	64	1,156

Percentage infestation 6.9.

The centre continued to deal with many varieties of skin conditions, particularly those in which irritation is a prominent symptom. All skin conditions attending were investigated and suitable treatment was prescribed or, where convenient the patients were directed to consult their own medical advisers. It would be impracticable rigidly to confine the treatment centre to scabies alone, though, on the other hand some limit must necessarily be put to the forms of skin disease treated or the centre would be tend to become a true dermatological clinic rather than a scabies treatment centre.

Where cases came to notice which required hospital treatment the facilities put at our disposal by the medical staff, Cork District Hospital, were fully availed of not many such cases occurred but it was a very definite advantage to have a hospital available to which serious cases requiring constant supervision and continuous treatment could be admitted. The extent to which Dr. Goold, R.M.S., and his staff accommodated us in this connection is again gratefully acknowledged.

Table 22.—Yearly Summary of Infectious Diseases from 1879.

Year	Small Pox	Typhus	Enteric Fever	Simple Contd. Fever	Scarlatina	Puerperal Fever	Membranous Croup	Diphtheria	Erysipelas	Measles	Diarrhoea	Chicken Pox	Cerebro-Spinal Meningitis	Poliomylitis	Pneumonia	
															Acute Primary	Acute Influenza
1879		337	91	335	386			2	30	269	107					
1880		756	117	420	616			9	37	282	48					
1881		1406	66	364	103				31	240	5					
1882		683	37	239	25			3	11	146	3					
1883		844	45	164	105			6		109	1					
1884		456	48	221	158			2	14	106	3					
1885	1	159	43	94	143			2	17	35						
1886		83	180	70	86			1	14	24						
1887		67	100	46	17			4	25	182	1					
1888		72	66	40	55			7	25	232						
1889		48	37	24	90			9	12							
1890		54	113	36	128	5	3	20	27	3	2					
1891	1	24	165	46	64	3	3	37	27	2						
1892	1	162	104	53	19		3	11	45	74	1					
1893		92	78	26	91	3		18	70	4	2					
1894		25	43	29	301	5	6	14	65	11	2					
1895		29	132	23	53	3	1	6	45	2						
1896		22	94	29	69	6		7	54	3	2					
1897		30	51	23	34	7	4	21	35	9						
1898		61	62	30	30	6	7	18	20	2						
1899		9	47	14	22	2	10	18	60	23						
1900		28	50	27	401	2	2	23	36				8			
1901		13	51	29	288	3	12	26	38				8			
1902		6	49	16	119	4	1	8	49	8	7		3			
1903	3	7	27	16	51	2	6	17	58	5	49		1			
1904	1	11	50	33	29	4	3	29	43	2	39		4			
1905	1	9	58	47	35	7	8	18	50	7	33		4			
1906		6	48	31	23	10	1	37	48	8	49		3			
1907		10	44	44	50	6	4	37	42	4	413	63	8			
1908		23	88	55	114	4	6	40	26	379	524	14	1			
1909		18	74	42	119	10	4	66	25	44	514	21				
1910		8	54	24	38	4	6	51	26	14	159	16				
1911		10	32	22	39	4	13	70	31	433	352	1	1			
1912		1	26	17	93	6	5	52	29	53	71	7				
1913		5	29	13	81	4	10	24	28	254	320	2				
1914		1	50	12	230	11	15	54	38	161	188	8				
1915			32	4	245	2	8	68	44	160	177	10	6			
1916		1	42	9	112	8	11	43	41	86	139	13	6			
1917		3	43	6	46	1	9	26	24	28	83	8	3			
1918		1	42	10	21	2	18	34	16	750	121	19	4			
1919		15	12	3	16	4	21	262	18	3	85	26	2			
1920		2	244	8	70	6	3	428	18	9	54	30			37	
1921			21	1	14	4	8	541	17	2	105	28				
1922			6		29	1	5	379	14	324	19	29				
1923		1	7	1	44	1	4	440	45	10	35	30				
1924		1	12		41	3	3	217	30	5	30	54				
1925			27		81	4	9	265	35	94	142	117			5	
1926		4	11	2	278	4	11	469	34	534	108	59				
1927		4	10	1	205	14	11	344	25	7	76	76	1	1		
1928		1	17		208	7	15	385	24	6	79	64	1			
1929		1	6		216	6	4	369	24	226	78	80			12	
1930				1	238	6	5	588	38	241	59	72			7	
1931			1		98	1	1	288	19	3	85	71	1		3	
1932			1		80	9	1	85	13	242	178	99			41	
1933			2		181	9		109	24	49	189	79			7	
1934			1		118	10		109	28	126	80	158			3	
1935			3		52	11	1	56	24	300	178	53			2	
1936			2		437	12	1	24	18	233	261	69			5	
1937			1		454	6		79	26	88	246	218	3		14	
1938			3		228	1		54	18	12	142	83	5	1	21	
1939			7		158	4		41	31	3	197	28	14		19	
1940			2		143	1		52	23	1613	286	52	1		14	
1941			12		42	1		62	29	94	218	254	2	1	27	
1942					50			372	38	1	227	65	2		21	
1943					76	2		326	45	6	148	47	2		32	
1944			3		85			172	57	370	179	*	3		35	
1945			3		33			95	20	7	114		7	1	37	

* No longer notifiable.

OTHER INFECTIOUS DISEASES.

Notifications in regard to other infectious diseases during the year were as follows :—

Scabies	...	...	398	(1889)
Whooping Cough	...	...	12	(219)
Cerebro Spinal Fever	...	...	7	(5)
Poliomyelitis	...	...	1	(3)
Dysentery	...	...	1	(1)
Ophthalmia Neonatorum	...	...	1	(1)

Figures in parenthesis indicate corresponding notifications in the previous year.

Particulars of Articles Disinfected during the year.

	Bed Ticks	Mat- tresses	Articles of Bedding	Articles of Wearing Apparel	Miscel- laneous Articles	Total No. of Articles
January ...	4	98	665	47	10	824
February ...	6	32	255	6	21	320
March ...	4	45	259	297	37	642
April ...	3	42	373	26	21	465
May ...	3	29	221	102	20	375
June ...	5	28	165	10	14	222
July ...	2	23	230	9	17	281
August ...	4	38	210	33	10	295
September ...	6	72	687	1	55	821
October ...	7	16	218	13	13	267
November ...	6	35	314	20	34	409
December ...	1	17	133	26	31	208
	51	475	3,730	590	283	5,129

VACCINATION.

The figures appended herewith, which are taken from the Annual Summaries of the Registrar General, relate to the number of persons vaccinated in each locality concerned.

Year	CORK			DUBLIN			LIMERICK			WATERFORD		
	Births	Vaccin- ations	Pro- portion	Births	Vaccin- ations	Pro- portion	Births	Vaccin- ations	Pro- portion	Births	Vaccin- ations	Pro- portion
1936	1,921	1,833	95%	11,582	3,903	34%	975	622	64%	661	54	8%
1937	1,706	1,898	110%	11,652	3,199	27%	1,006	672	67%	696	71	10%
1938	1,761	1,532	87%	11,534	4,076	35%	1,030	579	55%	626	27	4%
1939	1,632	1,591	97%	11,384	3,051	27%	1,073	596	55%	614	16	3%
1940	1,670	1,050	63%	11,064	2,700	24%	984	601	61%	677	43	6%
1941	1,753	1,138	65%	11,305	3,412	30%	1,007	558	55%	613	30	5%
1942	1,706	1,065	62%	12,528	3,517	28%	1,115	763	68%	807	47	6%
1943	1,781	1,233	69%	12,673	2,005	15%	1,075	748	69%	737	58	7%
1944	1,712	1,272	74%	12,074	1,525	12%	1,002	856	85%	644	34	5%
1945	1,690	1,238	73%	12,508	1,170	9%	1,051	893	85%	676	25	4%

One prosecution for failure to comply with the Acts were undertaken during the year. A fine of 1/- was imposed and 6/- costs.

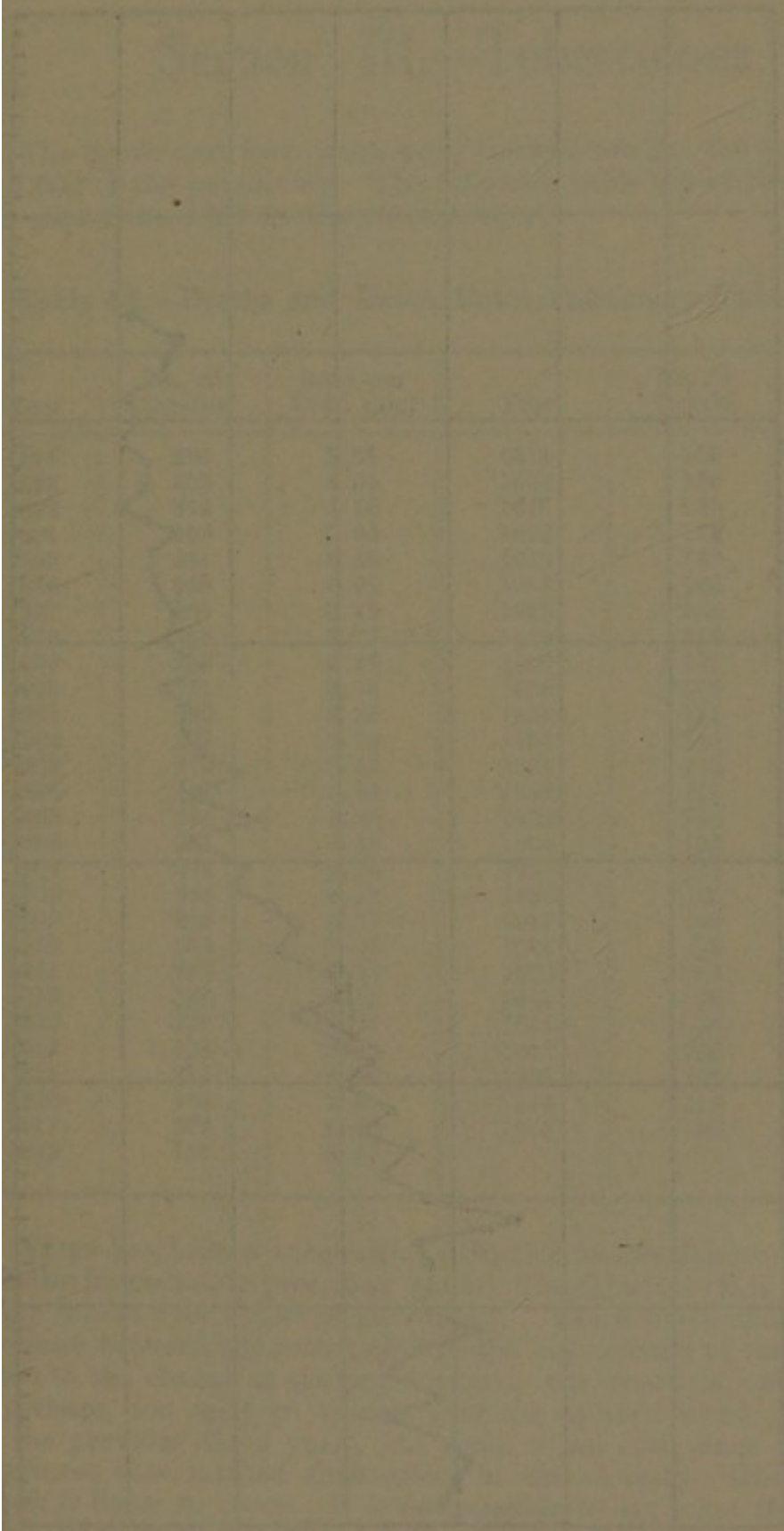
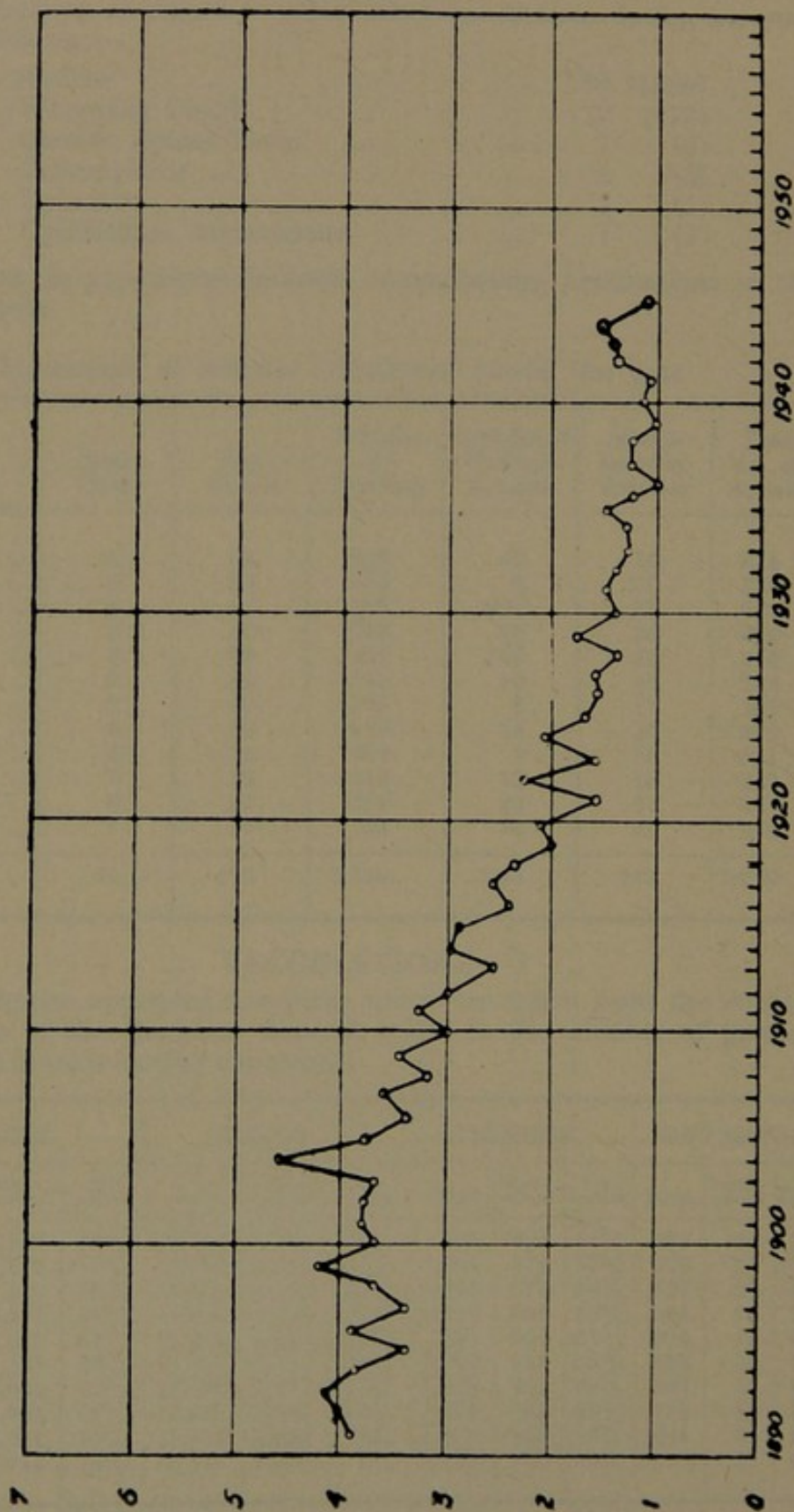


FIG V.—PULMONARY TUBERCULOSIS DEATH RATES PER 1,000 POPULATION FROM 1891 TO PRESENT.



Section III.—Tuberculosis

The death rate from pulmonary tuberculosis for the year was 1.13 per 1,000 of the population. The following table shows the death-rates each year from 1891 to the present time.

Table 23.—Deaths and Death Rates Pulmonary Tuberculosis.

Year	No. of Deaths	Rate per 1,000 pop.	Year	No. of Deaths	Rate per 1,000 pop.
1891	295	3.93	1919	156	2.04
1892	303	4.04	1920	159	2.07
1893	314	4.18	1921	125	1.64
1894	296	3.94	1922	176	2.30
1895	261	3.48	1923	130	1.64
1896	299	3.98	1924	164	2.09
1897	260	3.46	1925	134	1.71
1898	283	3.77	1926	126	1.60
1899	320	4.26	1927	129	1.60
1900	281	3.74	1928	109	1.39
1901	289	3.80	1929	141	1.79
1902	287	3.79	1930	114	1.45
1903	279	3.67	1931	124	1.56
1904	352	4.63	1932	111	1.40
1905	294	3.86	1933	106	1.35
1906	261	3.43	1934	104	1.34
1907	278	3.65	1935	115	1.46
1908	245	3.22	1936	85	1.06
1909	264	3.47	1937	96	1.20
1910	233	3.06	1938	99	1.21
1911	252	3.29	1939	86	1.06
1912	231	3.01	1940	96	1.17
1913	202	2.62	1941	86	1.12
1914	231	3.01	1942	106	1.38
1915	211	2.88	1943	107	1.38
1916	189	2.46	1944	118	1.56
1917	202	2.63	1945	86	1.13
1918	187	2.43			

There has been a substantial reduction in the figures as compared with the immediately preceding years. The figure of 86 is in fact equal to the lowest ever achieved previously. The relative smallness in the difference between the *rates* noted in the last column of the above table is due to the change in the population as the result of emigration. It is, perhaps, too early to assume that the upward trend, so noticeable for the previous three years, has come to an end, since we know by experience that marked fluctuation in the mortality tables for tuberculosis is liable to occur. It is not possible to say what the factors are which have been instrumental in effecting this reduction. Naturally we would like to comfort ourselves with the reflection that it is related to administrative action (in which case the distribution of free extra nourishment to tuberculous patients suggests itself) but it would be

unwise to assume any such thing at this stage. Familiarity with the statistical history of tuberculosis makes one very conservative in expressing any opinion as to the real factors concerned in the steady decline in this disease over the past 75 years. It has been pointed out that this decline had set in long before any concerted administrative action had been taken to deal with it. This is not to say, however, that such action is a waste of effort. It is obvious that as fresh knowledge of the spread of the disease has become available specific efforts have to be directed against it and it will remain to be seen if the cumulative effect of these endeavours will result in an accelerated reduction in the figures. However, it is a satisfaction to note such a definite reduction as that shewn for the past year and it is hoped that it will be maintained in the coming years.

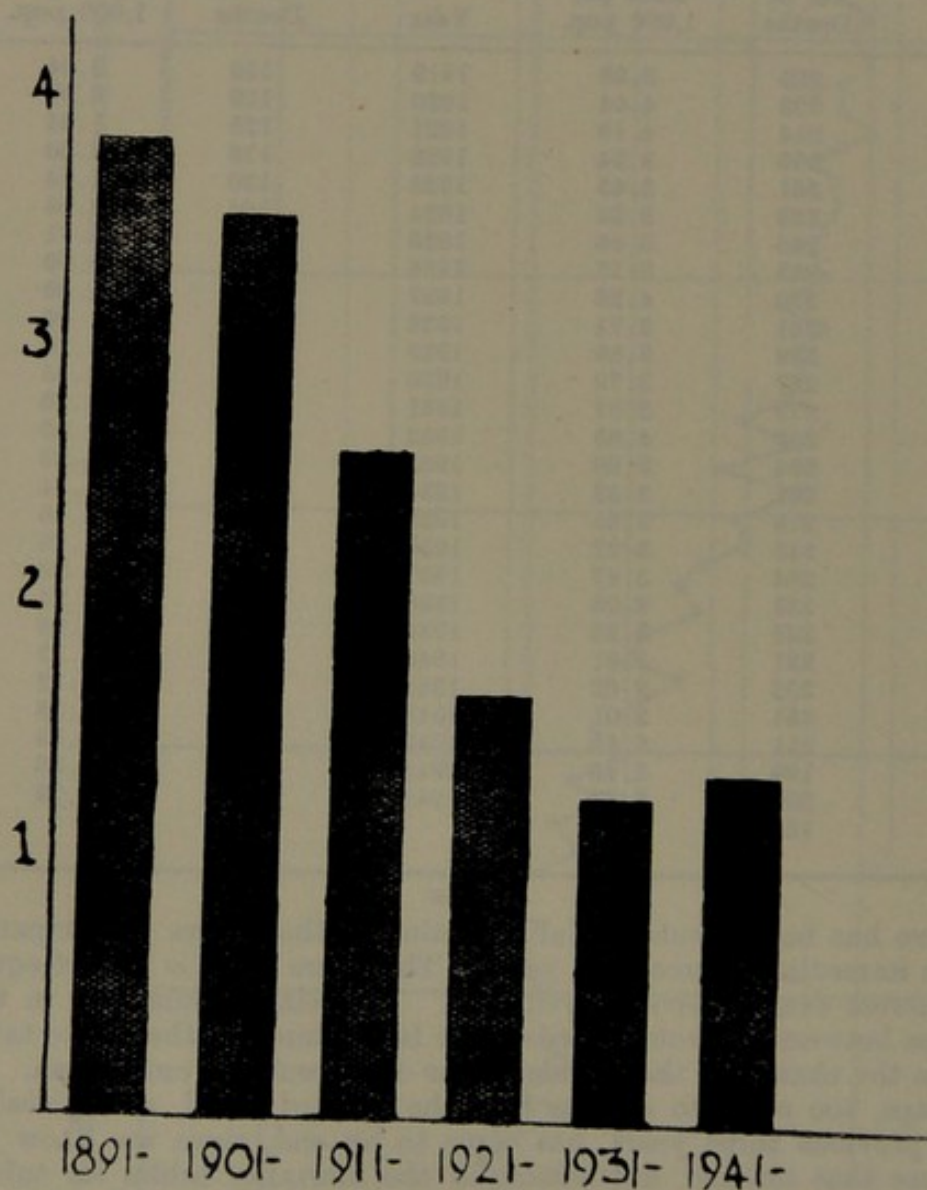


FIG. VI—PULMONARY TUBERCULOSIS. DEATH RATES EXPRESSED AS DECENNIAL AVERAGES

The figures above relate to *pulmonary* tuberculosis. There was an increase of two in the deaths recorded for the *non-pulmonary* form of the disease. Combining the two sets of figures yields a rate of 1.52 per 1,000 (compared with 1.92 per 1,000 in 1944) which is the tuberculosis mortality rate for the year. The total number of deaths from all forms of the disease was 115 (compared with 145 in 1944). The corresponding rates for other urban areas in this country (according to the Annual Summary of the Registrar General) were ; Dublin, 1.70 ; Limerick, 1.70 ; Waterford 1.90 ; while that for the country as a whole was 1.2.

The figures in table 23 represent deaths from the *pulmonary* form of the disease only. It will be noted that figures are available from the year 1891 so that there is presented a continuous picture of the trend of the disease over a period of 54 years. On the other hand figures for *non-pulmonary* disease are available only from 1906, that is for the past 39 years. They are shewn in table 25 and it will be noted here too that the war years have been characterised by a rather sharp rise which has not so far come to an end, although there has been some slowing down in the rate of increase. The effect of combining the two sets of figures is shewn in table 24. Taking this table, by and large, it will be seen that there has been a very substantial reduction over the whole period covered. The main problem now is to increase the tempo of this reduction.

The trend of *pulmonary* deaths from the year 1891 down to the present time is represented in graphic form in two diagrams. Fig. V represents the year by year incidence, calculated as rates per 1,000 of the population. The characteristics referred to above are strikingly presented in this diagram. In Fig. VI the figures have been divided up into 10 year groups and represented as averages for these periods. This diagram illustrates even more clearly the downward trend in the mortality figures as well as the reversal of the process which characterised the war period. It is interesting to note that the first world war scarcely affected the figures for this area at all.

The main reason for giving figures (and diagrams) for *pulmonary* tuberculosis as distinct from the deaths from all forms of the disease is that the figures for the former go back so much further. It will be noted that they date from 1891. On the other hand the figures for deaths from *non-pulmonary* tuberculosis date only from 1906. Table 24 is the result of combining the two sets of figures from that year and gives us the tuberculosis mortality for the period covered.

Table 24.—Combined Deaths and Death rates from Pulmonary and Non-pulmonary Tuberculosis.

Year	Pulmonary Deaths	Non-pulmonary Deaths	Total	Rate per 1,000 pop.
1906	261	81	342	4.49
1907	278	84	362	4.74
1908	245	93	338	4.42
1909	264	78	342	4.47
1910	233	75	308	4.01
1911	252	73	325	4.23
1912	231	71	302	3.92
1913	202	79	381	3.64
1914	231	79	310	4.02
1915	211	72	383	3.66
1916	189	69	258	3.33
1917	202	78	280	3.61
1918	187	75	262	3.37
1919	156	58	214	2.75
1920	159	46	205	2.64
1921	125	34	159	2.03
1922	176	39	215	2.75
1923	130	32	162	2.05
1924	164	32	196	2.50
1925	134	31	165	2.10
1926	126	46	172	2.18
1927	129	35	164	2.08
1928	108	29	138	1.74
1929	141	17	158	2.00
1930	117	25	142	1.78
1931	124	46	170	2.13
1932	111	45	156	1.95
1933	106	19	125	1.56
1934	107	21	128	1.59
1935	115	29	144	1.78
1936	85	20	105	1.29
1937	96	24	120	1.48
1938	99	13	112	1.38
1939	86	14	100	1.23
1940	96	29	125	1.54
1941	86	20	106	1.38
1942	106	18	124	1.57
1943	107	23	130	1.69
1944	118	27	145	1.92
1945	86	29	115	1.52

The figures in this table are shewn diagrammatically in Fig X in which the figures for the country as a whole have, for comparative purposes, been also represented.

The influence of the age-factor in the distribution of deaths from tuberculosis is, of course, well-recognised. Generally speaking it may be said that these deaths fall most heavily on the young adult groups, affecting females mainly between the ages of 15 and 45, that is the reproductive period. In males the effect extends beyond the latter age and is felt for some considerable time longer. This is interpreted as an

Table 25.—Deaths and Death Rates from *non-pulmonary* Tuberculosis.

Year	No. of Deaths	Rate per 1,000 pop.	Year	No. of Deaths	Rate per 1,000 pop.
1906	81	1.06	1926	46	0.58
1907	84	1.10	1927	35	0.44
1908	93	1.08	1928	29	0.36
1909	78	1.02	1929	17	0.21
1910	75	0.97	1930	25	0.31
1911	73	0.95	1931	46	0.57
1912	71	0.92	1932	35	0.44
1913	79	1.02	1933	20	0.24
1914	79	1.02	1934	21	0.25
1915	72	0.93	1935	29	0.36
1916	69	0.89	1936	20	0.25
1917	78	1.00	1937	24	0.29
1918	75	0.96	1938	13	0.16
1918	58	0.74	1939	14	0.17
1920	46	0.59	1940	29	0.35
1921	34	0.43	1941	20	0.26
1922	39	0.50	1942	18	0.24
1923	32	0.40	1943	23	0.30
1924	32	0.40	1944	27	0.35
1925	31	0.39	1945	29	0.38

effect of the extra hazards to which males are exposed during this period. With a view to studying the nature of this feature as it affected the figures for this area Table 26 was constructed some years ago and kept up to date. This year, for the first time, the figures have been totalled. Two considerations have been concerned in this. In the first place the mass of figures as presented have been somewhat confusing and uninformative and, secondly, the sum of the figures in any given year is so small as to be without any real statistical significance. Certainly the effect of summation appears to produce something upon which one can generalise more safely than on the very limited evidence for individual years. In the first place we note that of a total of 2,133 deaths, 1,112 were of males and 1,021 of females so that over the whole group we may say that the excess of male deaths has not been very marked. We note a sharp increase in the female deaths first in the 5/15 group and assume that this is very largely made up of deaths occurring towards the end of this period, since deaths from pulmonary tuberculosis are comparatively rare in the earlier years. The excess in female deaths is carried-over into the two succeeding age groups comprising the period from 15 to 35 years, thereafter there is a sharp increase in male deaths (as compared with female) up to the period of 65 years—that is roughly for the effective working period of life, after which there is a sensible diminution in the difference between the two sexes. These figures approximate to those cited by Cummins*. In his article he remarks: “. . . the age-periods of female life which are characterised by the preparation for and the assumption of full sexual maturity are dangerous periods as regards pulmonary tuberculosis; that females are, at least in such a population as that of England and Wales, more liable to die of phthisis than are males during these age periods, and that the risk from phthisis is, at these times, greater than the risk from other causes of death. This

Cummins., S. Syle., *Tubercle*, June 1923.

Table 26.—Deaths from *Pulmonary Tuberculosis* distributed according to sex and age groups.

Year	Sex	All Ages	Under 1 year	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65 and over
1926	M	65	1	2	4	14	14	16	7	5	2
	F	60	—	—	5	11	19	12	9	2	2
1927	M	62	1	1	1	1	15	22	10	4	1
	F	72	—	4	3	16	18	16	10	4	1
1928	M	49	—	1	1	11	10	11	10	4	1
	F	67	—	1	4	15	21	12	7	7	—
1929	M	65	—	2	—	16	14	16	11	2	4
	F	80	—	—	2	24	24	17	7	2	4
1930	M	58	—	—	1	16	16	14	9	2	—
	F	46	—	1	2	9	14	10	5	3	2
1931	M	62	—	1	—	12	16	11	13	8	1
	F	61	—	1	4	15	17	14	6	3	1
1932	M	58	—	—	1	7	22	15	8	4	1
	F	54	—	1	3	14	21	5	7	3	—
1933	M	52	—	—	—	8	17	14	11	1	1
	F	53	—	—	—	18	12	10	9	3	1
1934	M	53	—	—	2	6	13	16	12	3	1
	F	50	—	—	1	14	12	16	3	3	1
1935	M	58	1	1	—	10	9	20	13	4	—
	F	54	—	—	2	11	18	9	11	3	—
1936	M	38	—	—	2	7	11	15	8	5	—
	F	34	—	1	—	6	8	7	5	6	1
1937	M	56	—	—	—	9	10	13	13	8	2
	F	40	—	—	2	10	9	10	4	5	—
1938	M	61	—	—	—	12	12	13	17	4	3
	F	38	—	—	—	4	15	10	7	2	—
1939	M	53	—	—	1	10	6	13	16	6	1
	F	33	—	—	2	11	4	6	6	4	—
1940	M	48	—	—	—	12	9	10	9	8	—
	F	48	1	—	—	12	13	14	4	2	2
1941	M	46	—	—	—	8	11	12	9	6	—
	F	42	—	—	—	5	10	14	9	4	—
1942	M	61	—	—	1	9	13	12	15	5	5
	F	45	—	—	1	17	9	7	6	4	—
1943	M	61	—	1	—	4	15	14	14	9	4
	F	46	—	—	2	15	10	8	3	6	2
1944	M	61	—	1	—	12	9	16	11	7	5
	F	57	1	—	1	13	20	8	4	8	2
1945	M	45	—	1	1	7	9	8	8	7	4
	F	41	—	—	2	6	15	7	6	1	4
Totals	M	1112	3	11	15	191	251	281	224	102	36
	F	1021	2	9	36	246	289	212	128	75	23
Persons		2133	5	20	51	437	540	493	352	177	59

risk seems to disappear to a large extent shortly after the menopause, while it increases for males with advancing age—so much so, in fact, that the total male death-rate from pulmonary tuberculosis is much in excess of the female". We have noted above that in this area the excess of male deaths, over that for females is not so very marked; so that our experience in this restricted area has been somewhat different from that quoted by Prof. Cummins. It differs too in this that the period of excess female deaths has not been carried on beyond the 35 years period whereas, for England and Wales, the excess has characterised the period up to 40 or 45 years.

With regard to this table (26) it has to be remarked that there are certain discrepancies as compared with other tables in the report particularly tables 23 to 25 inclusive, which might conceivably attract the attention of those given to the discrimination of minutiae.

In table 26 the figures from 1926 to 1936 inclusive are taken from the Annual Reports of the Registrar General for the appropriate years. Prior to 1929 the figures in tables 23 and 25 are taken from the records of this Department over a great number of years (see table 8). From 1937 onwards the figures are taken from the records of deaths compiled in the Department itself from the District Registrar's weekly returns. With the exception of one or two years the discrepancies are not very great and since the main object of such tables is to display the *trend* of deaths the conclusions which may be drawn from them are not vitiated to any material extent. Similar observations apply to table 30 in which deaths from non-pulmonary tuberculosis are arranged into age and sex groups except that in this case all are compiled from the District Registrar's returns and accordingly may be said to represent the facts with a reasonable degree of accuracy. In the case of *non-pulmonary* tuberculosis, however, it is necessary to advert to the fact that there is reason to doubt the accuracy of some of the returns. The principal factor in non-pulmonary deaths is meningitis and it has been the practice to classify deaths under this heading as due to tuberculosis only when the certifying physician specifies "tuberculous meningitis." One feels reasonably sure that a good many deaths certified simply as meningitis are probably tuberculosis in origin; but here again the important fact is that it is the *trend* which matters most.

The causes of the increased deaths noted in previous years were again examined. So far as the figures for the current year are concerned little can be added to the remarks made in the appropriate reports. Once again the great bulk of deaths occur in the age group between 15 and 45 years. This tendency has been characteristic for many years as will be seen in table 26. The actual figures for the last nine years, are as follows. These figures refer to *pulmonary* deaths only.

	15/25	25/35	35/45	45/55	55/65
1937	19	19	23	17	13
1938	16	27	23	24	6
1939	21	10	19	22	10
1940	24	22	24	13	10
1941	13	21	26	18	10
1942	26	22	19	21	9
1943	19	25	22	17	15
1944	24	30	24	15	15
1945	13	24	15	14	8

The principal reduction, it will be noted, is in the 15/25 group, in which the figure is 11 less than that of the previous year. Substantial reductions were also effected in the 25/35 group (-6); in the 35/45 group (-9); and in the 55/65 group (-7). The total reduction of 32 deaths was distributed exactly evenly between the two sexes. In the following table the age-groups have been sub-divided into sexes.

Year	15/25		25/35		35/45		45/55		55/65	
	M	F	M	F	M	F	M	F	M	F
1937	9	10	10	9	13	10	13	4	8	5
1938	12	4	12	5	13	10	17	7	4	2
1939	10	11	6	4	13	6	16	6	6	4
1940	12	12	9	13	10	14	9	4	8	2
1941	8	5	11	10	12	14	9	9	6	4
1942	9	17	13	9	12	7	15	6	5	4
1943	4	15	15	10	14	8	14	3	9	6
1944	11	13	9	21	16	8	11	4	7	8
1945	7	6	9	15	8	7	8	6	7	1

In the 15/25 group the decrease is more marked among females than males (-7 as against -4), in the 25/35 group the reduction (-6) is entirely among females, while, on the other hand, in 35/45 group the decrease is preponderatingly a male one (-8 as against -1). In the 45-155 group male deaths are reduced by 3 and female deaths are up 2 while in the last group the reduction has been entirely in female deaths.

Table 27.—Proportion of Deaths from Tuberculosis (all forms) to Deaths from all causes in 1945.

Age Group	No. of Deaths (all causes)	Deaths from Tuberculosis	Proportion
0/1	155	3	1.9 per cent.
1/5	23	8	34.7 " "
5/15	26	12	46.1 " "
15/25	35	19	54.3 " "
25/35	40	25	62.5 " "
35/45	50	15	30.0 " "
45/55	99	14	14.1 " "
55/65	184	9	4.9 " "
65 and over	418	10	2.4 " "
Totals ...	1110	115	10.4 per cent.

The ratio of deaths from tuberculosis to *all* deaths registered during the year remains at practically the same figure as in 1944 (10.4 in 1945 and 10.7 in the previous year). There has however been a slight shift in the various age groups. In 1944 the maximum ratio was in the 15/25 group when no less than 71.4 per cent of the total deaths were due to tuberculosis. In 1945 this figure was 54.3 per cent while it is noted that the maximum ratio is in the 25/35 group in which 62.5 per cent of all deaths were attributed to this disease. Other fluctuations are: 1/5 group. (13.6 to 34.7 per cent); 5/15 group (33.3 to 46.1 per cent);

35/45 group (36.7 to 30.0 per cent); 55/65 (8.8 to 4.9 per cent). The principal feature of this table is the excessive proportion of tuberculosis deaths in the groups from 15 to 45 which emphasises the importance of concentrating administrative effort on these particular ages. It is particularly in the young adolescent groups that care is necessary and,

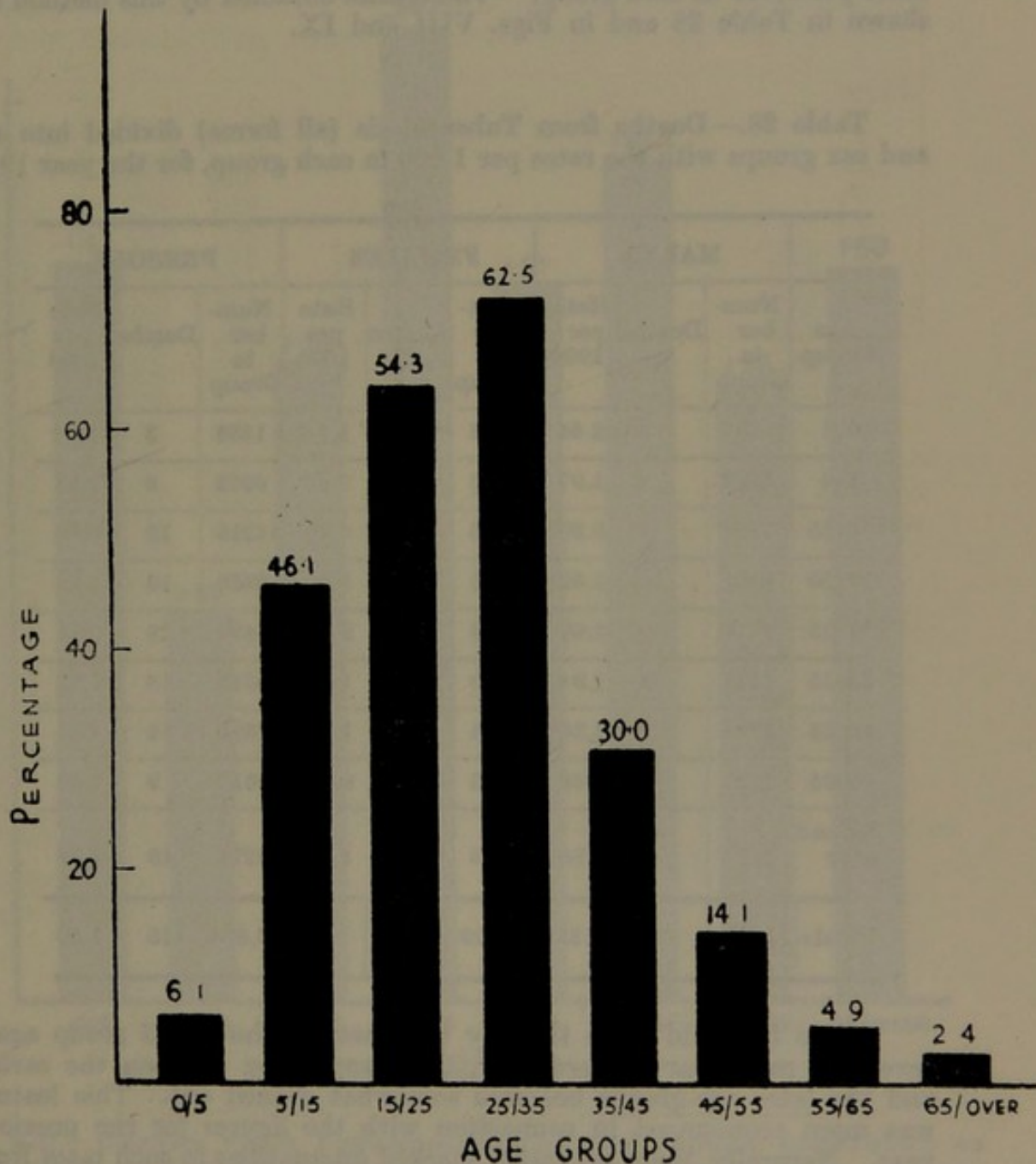


FIG. VII. PROPORTION OF DEATHS FROM TUBERCULOSIS TO DEATHS FROM ALL CAUSES IN 1945.

unfortunately, under present circumstances it is just exactly these groups which receive least preventive attention. A material reduction in the general death-rate would be effected if a substantial reduction in the deaths from tuberculosis took place in these particular groups. The numerical details in Table 27, are shewn graphically in Fig. VII.

The findings presented in Table 27 and in Fig VII represent the proportion of deaths occurring which are due to tuberculosis, but they do not tell us the exact risk to which each age group is exposed. This feature has been worked out for the past three years. The method has been to get the population status of each group and to apply to it the number of deaths resulting from tuberculosis and then working out the rates per 1,000 in each group. The results obtained by this method are shewn in Table 28 and in Figs. VIII and IX.

Table 28.—Deaths from Tuberculosis (all forms) divided into age and sex groups with the rates per 1,000 in each group, for the year 1944.

Age Group	MALES			FEMALES			PERSONS		
	Num- ber in Group	Deaths	Rate per 1000	Num- ber in Group	Deaths	Rate per 1000	Num- ber in Group	Deaths	Rate per 1000
0/1	757	2	2.64	778	1	1.28	1535	3	1.95
1/5	3047	6	1.97	2925	2	0.68	5972	8	1.34
5/15	7104	7	0.98	7115	5	0.70	14219	12	0.84
15/25	6151	10	1.62	7469	9	1.20	13620	19	1.39
25/35	4776	10	2.09	6723	15	2.23	11499	25	2.17
35/45	4111	8	1.94	5399	7	1.29	9510	15	1.57
45/55	3391	8	2.36	4204	6	1.42	7595	14	1.84
55/65	2967	8	2.69	3643	1	0.27	6610	9	1.36
65 and over	2621	5	1.90	3653	5	1.37	6274	10	1.59
Totals	34,925	64	1.83	41,909	51	1.22	76,834	115	1.50

While it would seem that by this method the 25/35 group again reveals a particular vulnerability, the discrepancy between the earlier and the later age-groups becomes somewhat evened out. This feature was more pronounced in connection with the figures for the previous year. Naturally, there are rather marked fluctuations in such rates from year to year so that a more reliable picture may be expected after the lapse of a number of years when averages may be worked out. For comparative purposes the actual figures arrived at for the past three years are presented in Table 29.

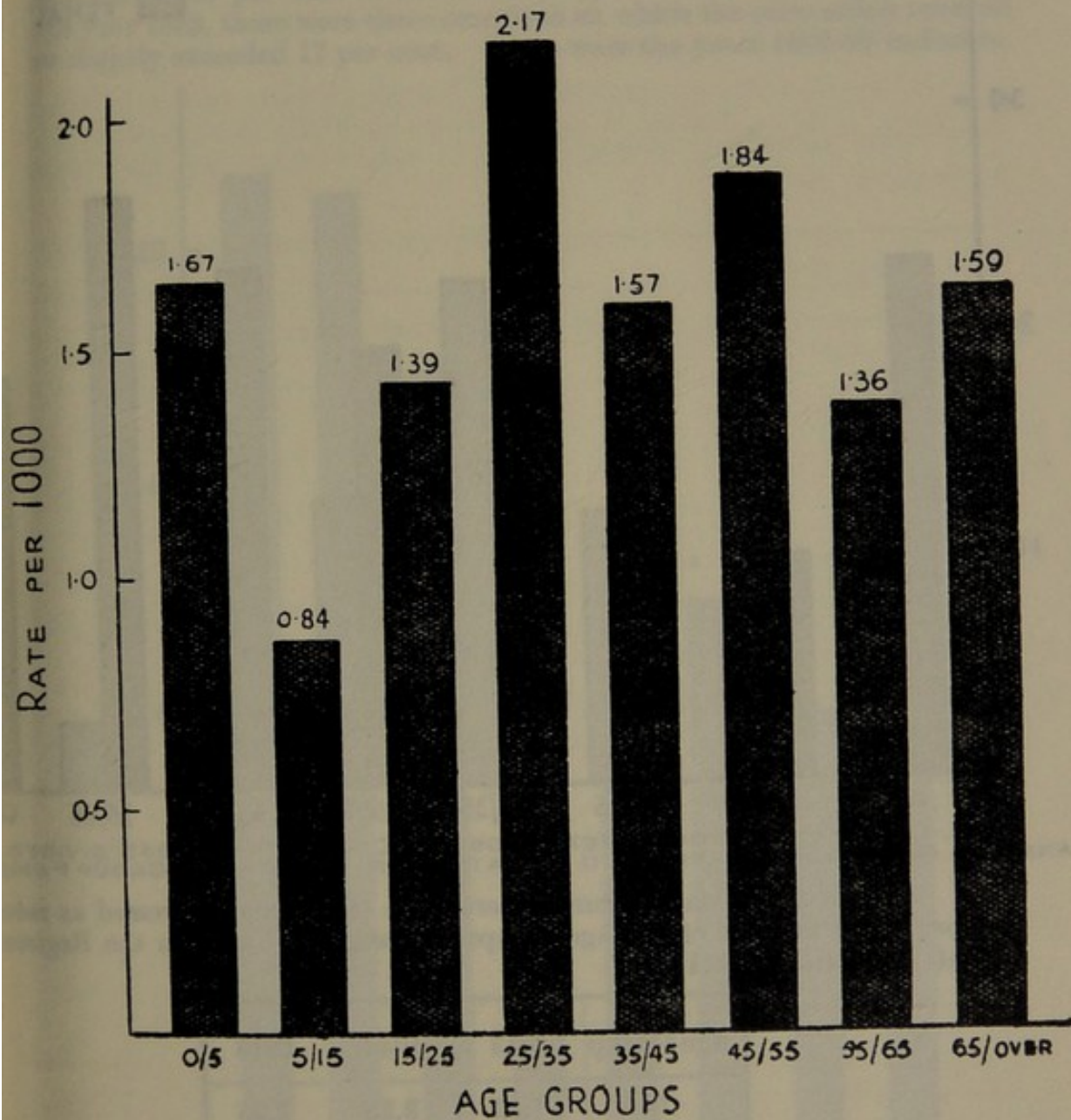


FIG. VIII. DEATHS FROM TUBERCULOSIS IN AGE GROUPS, EXPRESSED AS RATES PER 1000 OF THE GROUP POPULATION (1945). THIS DIAGRAM CORRESPONDS TO THE FIGURES IN THE LAST COLUMN OF TABLE 29.

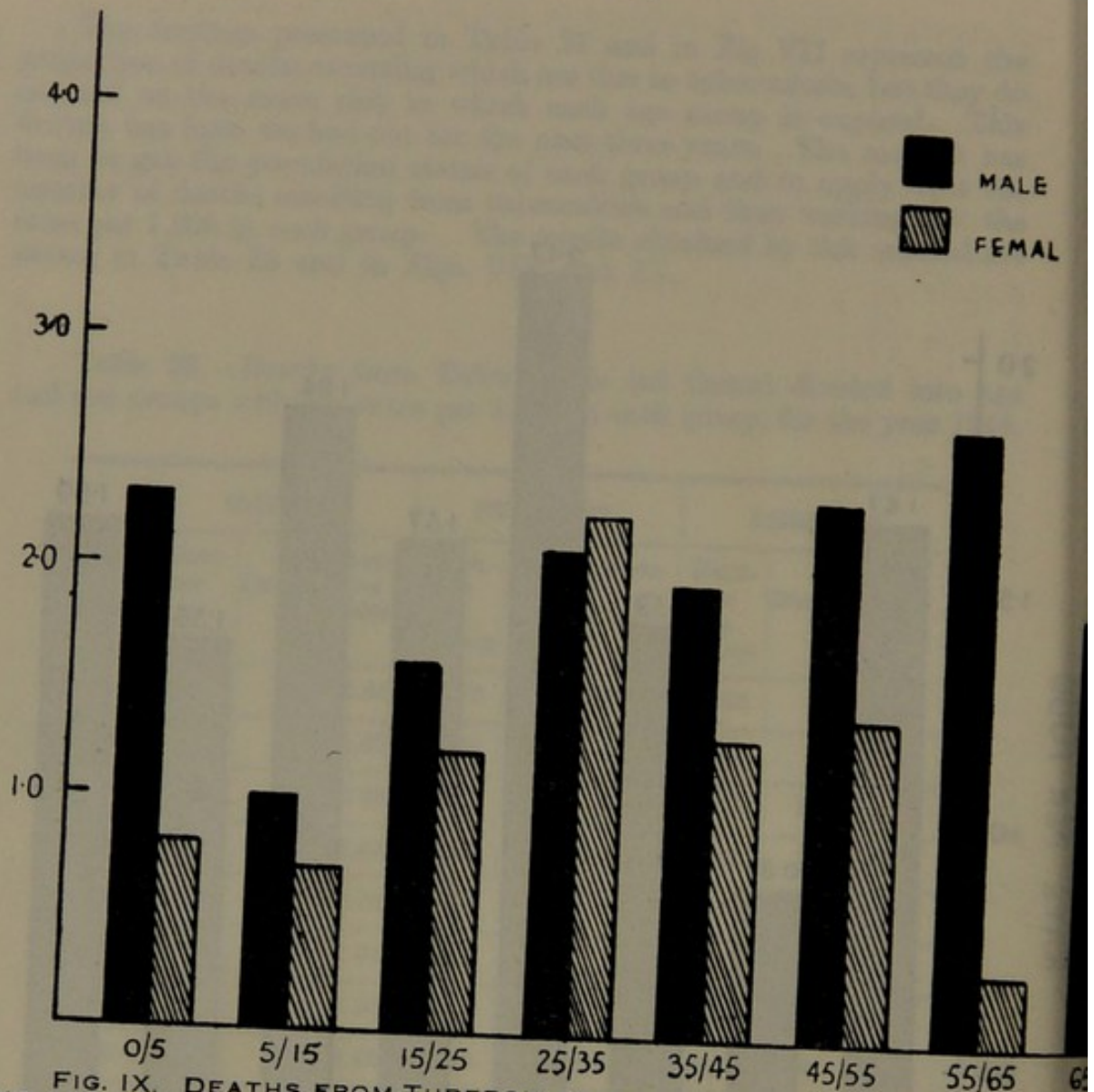


FIG. IX. DEATHS FROM TUBERCULOSIS IN CORK DURING 1945, DIVIDED BY AGE GROUPS AND SEX GROUPS AND EXPRESSED AS RATES PER 1000 OF THE GROUP POPULATION.

Table 29.—Deaths from Tuberculosis (all forms) expressed as rates per 1,000 in each of the age-groups represented (based on the Register of Population, 1941).

Age Group	1943	1944	1945
0-1	1.92	3.25	1.95
1-5	1.67	1.84	1.34
5-15	0.35	0.42	0.84
15-25	1.76	1.83	1.39
25-35	2.26	2.61	2.17
35-45	2.42	2.62	1.57
45-55	2.23	2.23	1.84
55-65	2.26	2.57	1.36
65-over	1.03	1.32	1.59
All ages	1.69	1.88	1.50

Even a cursory examination of the mortality tables reveals not only a steadily dwindling number of deaths from tuberculosis but it also tells us that the ratio of these deaths to deaths from all causes is also a decreasing one. In 1893 the number of recorded deaths from *pulmonary* tuberculosis was 17 per cent of the total deaths and excepting the year 1904 when the ratio rose to 21.4 per cent, it fell more or less steadily to minima of 6.8 per cent in 1937 and 6.9 per cent in 1941. Apart from the year 1893, there were three occasions on which the ratio either reached or slightly exceeded 17 per cent. These were the years 1905-07 inclusive.

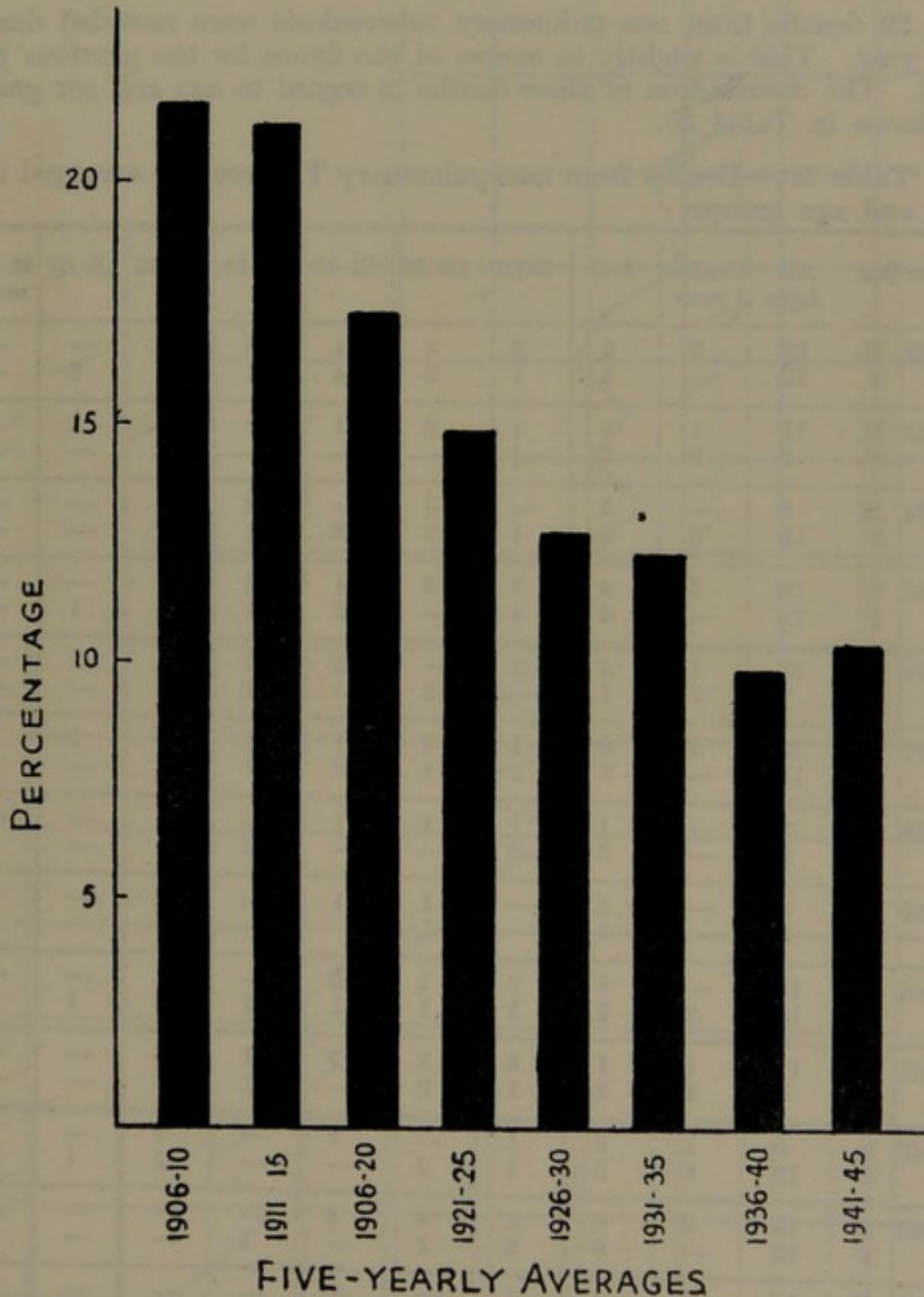


FIG. X. RELATIONSHIP OF DEATHS FROM TUBERCULOSIS (ALL FORMS) TO DEATHS FROM ALL CAUSES FROM 1906 TO 1945, EXPRESSED AS PERCENTAGES OF THE TOTAL DEATHS FROM ALL CAUSES DURING THIS PERIOD.

During 1938-40 the ratio was slightly over 8 per cent and again in the war years from 1942 to 1944. When computing this ratio in the case of deaths from *all forms* of tuberculosis a picture was produced which differs only in detail from that of the *pulmonary* form of the disease.

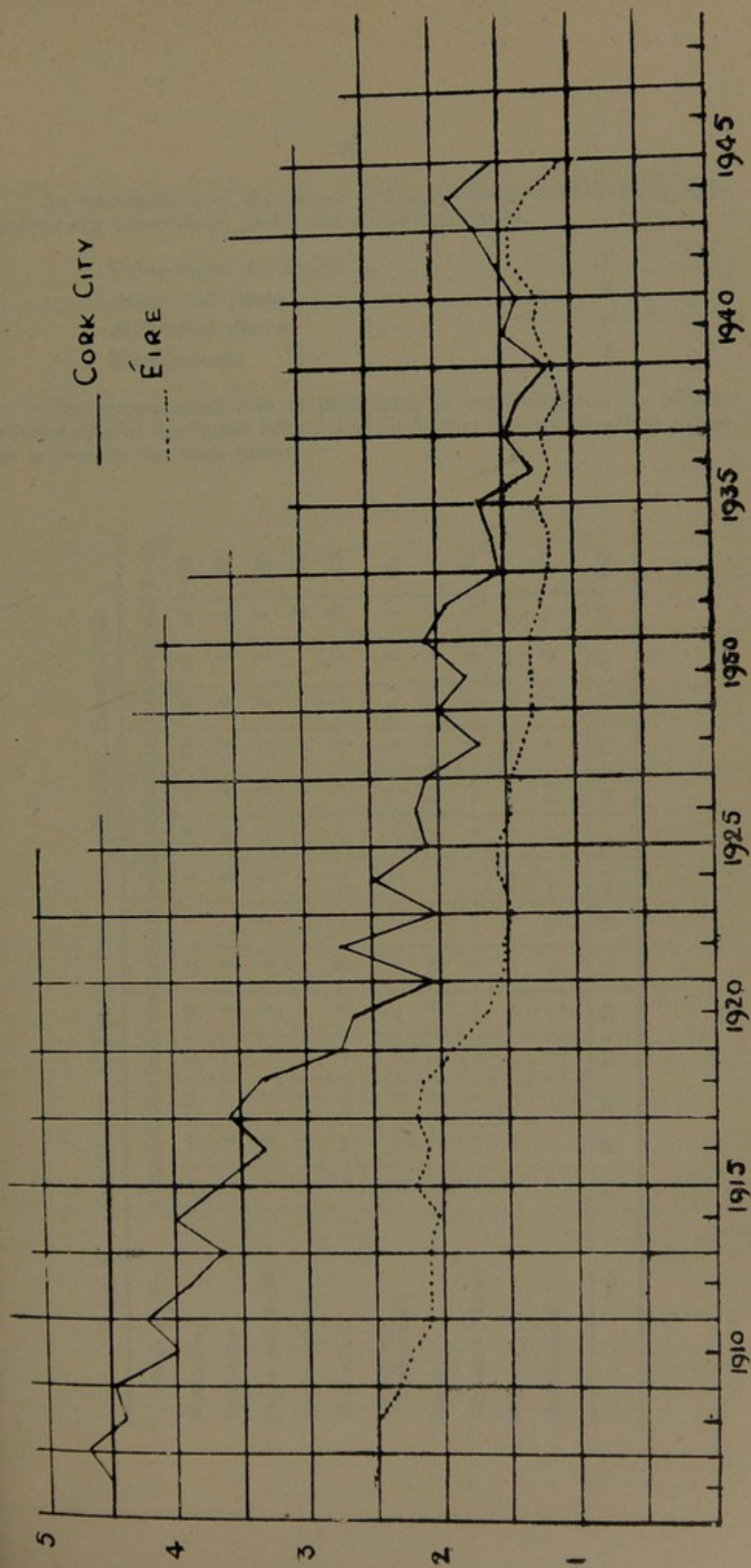
As mentioned above combined figures are available only from 1906 and in that year the highest ratio (25.3 per cent was recorded) the lowest ratio (8.55 per cent) was attained in 1937 and 1941. When one considers the fact that in the first decade of this century no less than a quarter of all the deaths were due to tuberculosis and that they now represent some 10 per cent one is impressed by the important part played in the reduction of the general death-rate by reduced deaths from tuberculosis. The general picture of this tendency is exhibited in Fig. X in which they have been worked out as five yearly averages.

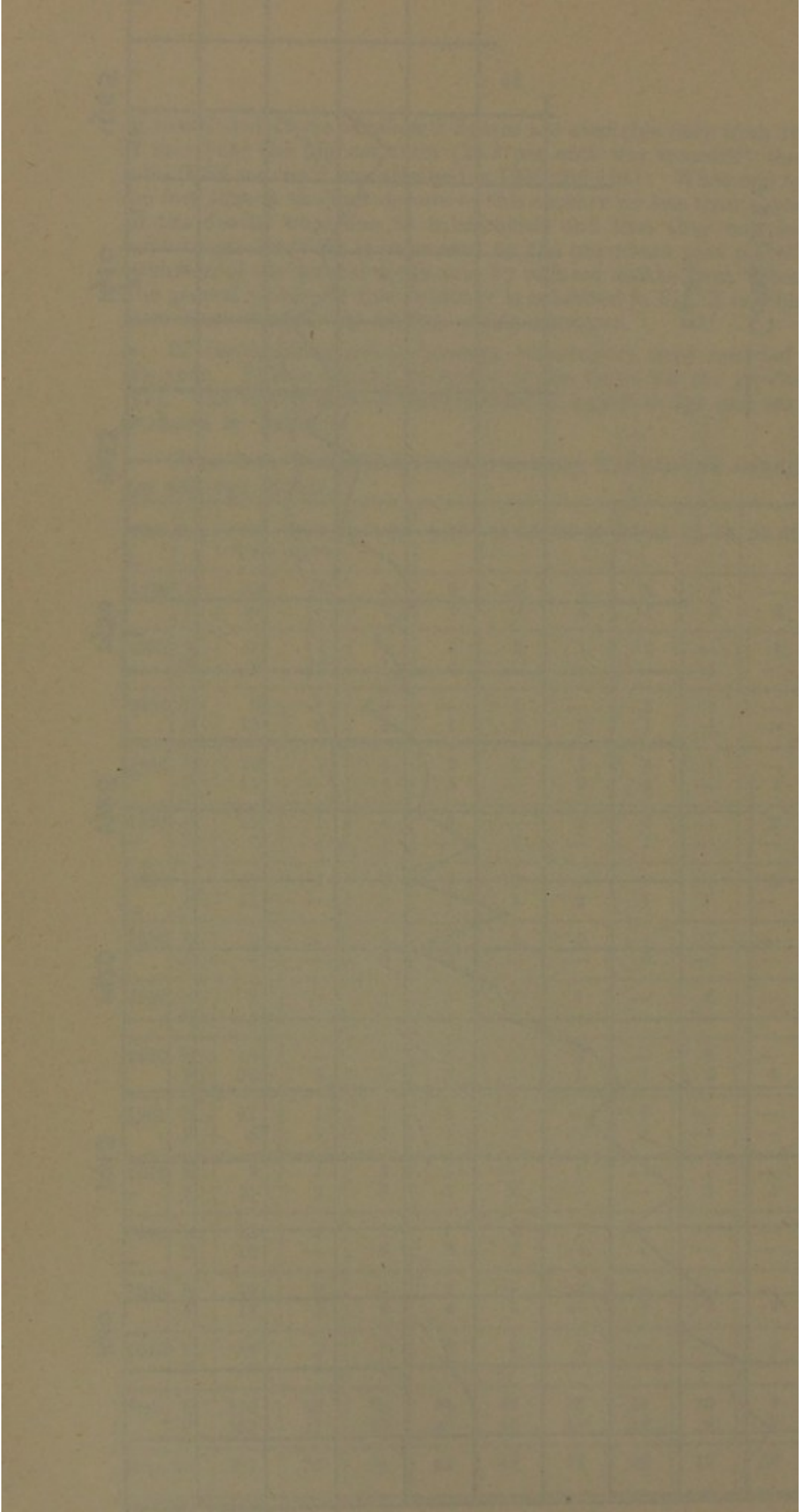
29 deaths from non-pulmonary tuberculosis were recorded during the year. This is slightly in excess of the figure for the previous year (27). The distribution of these deaths in regard to age and sex groups is shewn in Table 30.

Table 30.—Deaths from non-pulmonary Tuberculosis arranged into sex and age groups.

Year	Sex	All Ages	Under 1 year	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65 and over
1932	M	22	5	5	2	5	1	2	2	—	—
	F	13	—	1	1	2	4	1	2	2	—
1933	M	11	1	4	1	2	1	1	—	1	—
	F	9	3	1	4	—	—	—	1	—	—
1934	M	8	—	4	—	1	—	2	1	—	—
	F	13	2	4	1	2	2	1	1	—	—
1935	M	14	1	4	2	2	1	3	1	—	—
	F	15	—	4	4	—	2	4	—	1	—
1936	M	13	1	4	2	—	2	2	—	2	—
	F	7	3	1	—	2	—	1	—	—	—
1937	M	13	2	3	1	2	1	1	—	2	1
	F	11	—	3	2	1	2	1	—	—	2
1938	M	5	—	1	1	1	1	—	1	—	—
	F	8	—	2	2	—	—	2	—	—	2
1939	M	9	—	5	—	1	1	—	2	—	—
	F	5	—	4	—	1	—	—	—	—	—
1940	M	14	—	6	3	1	2	—	2	—	—
	F	15	3	2	3	1	1	1	2	1	1
1941	M	11	1	1	3	2	3	1	—	—	—
	F	9	1	2	1	2	—	1	—	—	2
1942	M	8	1	3	1	—	1	—	1	—	1
	F	11	2	3	1	2	—	—	1	1	1
1943	M	13	3	4	1	4	1	—	—	—	—
	F	10	—	5	2	1	—	1	—	—	1
1944	M	10	2	6	1	—	—	—	—	—	1
	F	17	2	4	4	1	—	1	2	2	1
1945	M	19	2	5	6	3	1	—	—	1	1
	F	10	1	2	3	3	—	—	—	—	1
Tot.	M	170	19	55	24	24	16	12	10	6	4
	F	153	17	38	28	18	11	14	9	7	11
Persons		323	36	93	52	42	27	26	19	13	15

DEATH RATES FROM TUBERCULOSIS (ALL FORMS) FOR CORK CITY AND ÉIRE FROM 1906.





An examination of the causes of the 29 deaths attributed to non-pulmonary tuberculosis yields the following figures.

Tuberculous meningitis	...	...	15
Bones and joints	...	...	5
Abdominal disease	...	...	6
Miscellaneous	...	...	3

The preponderant role of meningitis is very obvious. A further examination of the figures brings out this feature in a very marked degree as is seen in the next table.

Table 31.—Classification of Deaths from non-pulmonary Tuberculosis.

Cause of Death	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	Totals
Meningitis...	9	10	10	12	10	12	8	6	15	9	10	16	11	15	153
Peritonitis	4	4	—	3	3	2	—	3	7	2	2	2	1	4	37
Bones and Joints	4	3	2	4	4	4	2	1	2	5	1	1	7	4	44
Genito-urinary	3	1	1	1	—	—	—	1	2	2	2	—	—	2	15
Abdominal	4	—	—	3	2	2	—	1	—	1	1	1	2	2	19
Generalised Tuberculosis	6	1	5	3	—	1	2	1	—	1	1	—	2	1	24
Glands ...	—	1	2	—	1	1	—	—	1	—	—	1	—	1	8
Addison's Disease	—	—	1	2	—	2	—	1	1	—	2	—	2	—	11
Skin ...	2	—	—	—	—	—	1	—	1	—	—	1	—	—	5
Miscellaneous	3	—	—	1	—	—	—	—	—	—	—	1	2	—	7
Totals	35	20	21	29	20	24	13	14	29	20	19	23	27	29	323

Tuberculous meningitis is almost invariably of human origin. With the exception of glandular disease and, possibly, abdominal tuberculosis most of the conditions listed in table 31 may be said to be of haematogenous origin and due, in the first instance, to pulmonary infection of human origin from which it would seem clear that the control of the human carrier or case must be the prime consideration in the attack on tuberculosis.

Table 32.—Non-pulmonary tuberculosis. Analysis of certified deaths, shewing same distributed into sex and age-groups, from 1932 to 1944 (inclusive).

Cause of Death	Sex	All Ages	Under 1 Yr.	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65 and over
Meningitis ...	M	78	11	36	13	12	3	2	1	—	—
	F	75	11	27	21	9	3	3	1	—	—
Peritonitis ...	M	22	3	9	3	2	1	3	—	1	—
	F	15	2	4	1	2	1	3	1	—	1
Bone and Joint ...	M	19	—	2	4	4	3	2	1	2	1
	F	25	—	—	6	5	3	2	1	3	5
Genito-urinary ...	M	12	—	—	—	1	4	3	3	1	—
	F	3	—	—	—	—	1	1	1	—	—
Abdominal ...	M	9	—	3	1	1	2	—	1	1	—
	F	10	3	3	—	—	1	1	—	1	1
Generalised Tuberculosis ...	M	16	2	4	2	3	2	2	—	—	1
	F	8	1	1	—	1	2	1	1	1	—
Supra-renal Gland	M	6	—	—	—	1	1	—	2	1	1
	F	6	—	—	—	—	—	1	2	1	2
Miscellaneous ...	M	8	3	1	1	—	—	—	2	—	1
	F	11	—	3	—	1	—	2	2	1	2
TOTALS	M	170	19	55	24	24	16	12	10	6	4
	F	153	17	38	28	18	11	14	9	7	11
PERSONS		323	36	93	52	42	27	26	19	13	15

The preponderant role of meningitis in deaths from non-pulmonary tuberculosis is again apparent in this aggregate table accounting for nearly half the deaths in the period of thirteen years covered. It will be noted that the earlier years are those most affected. The other forms of non-pulmonary tuberculosis are more evenly distributed.

One thing, I think, is certain, and that is that it is best to ingest our supply of vitamins in the form that nature provides.

CATHCART, Professor E. P. Proceedings of National Conference on Nutrition (B.M.A.), 1939.

Table 33.—Tuberculosis (all forms). Comparative Statement of annual death rates.

Year	Éire	Cork	Dublin	Limerick	Waterford
1936	1.17	1.29	1.59	1.40	1.57
1937	1.23	1.48	1.59	1.49	1.57
1938	1.09	1.38	1.47	1.10	1.32
1939	1.13	1.23	1.48	1.27	1.25
1940	1.25	1.54	1.63	2.05	1.43
1941	1.24	1.38	1.56	1.58	1.40
1942	1.47	1.57	1.90	2.12	1.65
1943	1.46	1.69	1.84	1.95	1.86
1944	1.34	1.92	1.60	2.10	1.40
1945	1.20*	1.52	1.70*	1.70*	1.90*

*These figures are taken from the Annual Summary of the Registrar General and are subject to correction.

NOTIFICATIONS.

The number of notifications received during the year was 169. Prior to 1930 such notifications were for the period from the 1st April to 31st March following. Notifications for previous years were as follows :

1925-26	...	...	110	1936	...	...	154
1926-27	...	...	108	1937	...	...	166
1927-28	...	...	73	1938	...	...	147
1928-29	...	...	116	1939	...	...	128
1929-30	...	...	179	1940	...	...	114
1930 (April-Dec.)	...	...	133	1941	...	...	173
1931	...	...	196	1942	...	...	159
1932	...	...	136	1943	...	...	173
1933	...	...	164	1944	...	...	161
1934	...	...	112	1945	...	...	169
1935	...	...	154				

In the following table notifications, from the year 1930, have been analysed as to age and sex distribution.

Table 34.—Notifications of Tuberculosis distributed according to Sex and Age.

Year	Total	Sex	All Ages	Under 5 yrs	5-15	15-45	45-60	60 and up
1930	133	M	77	4	11	50	11	1
		F	56	5	11	37	2	1
1931	196	M	114	9	24	64	15	2
		F	82	7	19	53	3	—
1932	136	M	71	5	11	42	11	2
		F	65	1	6	48	7	3
1933	159	M	89	5	10	59	14	1
		F	70	5	8	48	8	1
1934	112	M	43	1	6	26	9	1
		F	69	4	10	41	9	5
1935	154	M	83	7	14	43	14	5
		F	71	5	15	40	7	4
1936	154	M	76	9	10	33	16	8
		F	78	3	12	55	6	2
1937	166	M	91	5	10	47	25	4
		F	75	2	10	52	5	6
1938	147	M	78	4	6	52	15	1
		F	69	4	10	49	5	1
1939	128	M	60	5	9	33	10	3
		F	68	3	3	54	6	2
1940	114	M	56	1	6	35	14	—
		F	58	5	4	41	6	2
1941	173	M	90	8	13	48	19	2
		F	83	8	14	51	7	3
1942	159	M	80	8	13	43	16	—
		F	79	3	18	48	6	4
1943	173	M	83	1	14	45	14	9
		F	90	1	10	66	10	3
1944	161	M	76	2	10	83	16	10
		F	85	6	18	50	3	8
1945	169	M	78	6	15	38	16	3
		F	91	7	14	56	6	8

The number of home visits made by the Tuberculosis Nurse was 418.

SPUTUM EXAMINATIONS.

Examination of specimens of sputum is carried out in the laboratory attached to the Tuberculosis Clinic. 321 such specimens were examined during the past year, of which 87 were found to contain tubercle bacilli

while 234 were negative. Of the 321 specimens examined 59 were submitted by medical practitioners. The following table shows the number of specimens examined, and the results obtained since 1931.

Year	Total	Positive	Negative
1931	375	90	285
1932	440	94	346
1933	502	118	384
1934	519	121	398
1935	512	94	418
1936	467	93	374
1937	511	73	438
1938	336	49	287
1939	228	51	177
1940	336	88	248
1941	276	68	208
1942	295	81	214
1943	277	61	216
1944	325	67	258
1945	321	87	234
Totals ...	5720	1235	4485

Where tubercle bacilli exist in very small numbers the usual direct examination of specimens may not be sufficient to demonstrate their presence and a more elaborate technique becomes necessary. This technique consists of digestion of the specimen (with caustic soda) in an incubator at body temperature, centrifugalisation, neutralisation of the deposit and culture on a selective growth medium. The medium we are using at present is Lowenstein's. A typical culture appears in three to four weeks. Cultural methods, with other lines of investigation, are demanded when we wish to find out that arrest of disease has taken place and this method along with animal inoculation must be regarded as the supreme test of active tuberculous infection. All the examinations recorded in the above table were examined by the ordinary routine Ziehl-Nielson staining method. The newer method of examining for tubercle bacilli was used by us for the first time in 1945, and 30 specimens were dealt with during the past year of which 3 were positive.

CLASSIFICATION OF NEW CASES.

As in former years the new cases dealt with at the Tuberculosis Dispensary who presented signs of advanced disease was disproportionately high. 49 per cent. of such were found to be in Stage III. and 34 per cent. in Stage II.; in other words, no less than 83 per cent. of the new cases were suffering from definitely established disease recognisable by ordinary clinical methods. These figures are similar to those of former years and must be regarded with considerable dissatisfaction, as little or nothing can be done in regard to the treatment of such advanced cases apart from palliative methods. The main factor in the production of this state of affairs appears to be the failure of patients to seek treatment sufficiently early.

At a conference of Tuberculosis officers held in Dublin in November 1944, a new method of classification was adopted according to which cases were graded, in the first instance, into those in which tubercle bacilli could not be detected in the sputum and those who had positive sputum. The latter are further subdivided into grades corresponding to those previously recognised. According to the new classification the stages found on the examination of new cases were as follows :—

		1945	1944	
Sputum Negative	... ..	13	20	per cent.
Sputum Positive—Stage I.	... ..	4	4	„ „
„ „ Stage II.	... ..	34	12	„ „
„ „ Stage III.	... ..	49	64	„ „

The fact that 13% of the new cases were classified as sputum negative does not necessarily mean that all these were good cases for treatment or that the disease was of little extent. While specimens from some were examined and found negative others had no sputum for investigation. Treatment is not withheld from patients who come under this category for the diagnosis can usually be clearly established by other methods of approach. The examination of the sputum remains, however, the most valuable aid we possess in the diagnosis of the disease, the estimation of risks to which contacts are exposed and the assessment of progress of the patient.

The cases reported as sputum negative were made up of :—

- (a) Cases of tuberculous pleural effusion.
- (b) Cases who came on transfer under our scheme after treatment elsewhere.
- (c) Cases who had X-Ray evidence of infiltration in which there was doubt whether complete arrest had taken place, and
- (d) Cases of advanced disease of a miliary type.

In all these categories but the last the probable behaviour of the disease is regarded at the outset as favourable. (a) Tuberculous pleural effusion needs the rigorous care that all cases of pulmonary tuberculosis require. (b) Cases who come under treatment to us with a negative sputum and a history of treatment elsewhere are regarded as quiescent and if treatment is persevered in there is every prospect of final arrest of the disease. These cases have shewn a favourable response to treatment and immunity to the disease is becoming established. (c) The third category requires careful review. They represent the type of case that may be uncovered by the mass radiological survey of healthy groups and it is the business of the tuberculosis officer to decide whether these cases are active or not. (d) The miliary group represents a condition of widespread disease in the body. The lungs are involved with other organs in a blood borne dissemination which arises as a result of an escape of a lethal dose of bacilli into the blood stream. These cases may die of intense toxæmia before the lung lesions break down to excrete the organisms.

The following table, which is introduced for comparative purposes, gives the corresponding proportions for previous years.

Table 35.—Showing the proportion of early, moderately advanced and advanced cases attending the Tuberculosis Clinic for the first time (1930 to 1943).

TYPE	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943
Stage I. (Early)	15%	8%	9%	6%	14%	13%	6%	9%	5%	8%	6%	3%	4%	9%
Stage II. (Moderately Advanced)	36%	50%	38%	39%	28%	30%	43%	38%	33%	32%	44%	46%	34%	44%
Stage III. (Advanced)	49%	42%	53%	55%	58%	57%	51%	53%	62%	60%	50%	51%	62%	47%

Artificial Pneumothorax.

5 new cases received artificial pneumothorax during the year. These cases had their induction carried out at Heatherside Sanatorium by the R.M.S. 7 cases are having refills and management at the Tuberculosis Clinic. The number of cases treated during the year was 11. 182 refills were given and 43 X-Ray examinations were made in connection with the treatment.

X-Ray Examination.

X-Ray examination is essential for diagnosis and assessment of progress in all cases of pulmonary and bone and joint tuberculosis. Very many of the cases reaching us are accompanied by films. All the cases that come for chest examination are screened. 92 films for cases attending the dispensary were obtained on the recommendation of the tuberculosis officer.

In 1943 an X-Ray Screen was added to the equipment of the clinic. This apparatus, which enables the Tuberculosis Officer to visualise the lung fields has been a very great help.

Screen examinations of the lungs are made :—

- (1) To define the extent of lung involvement by disease.
- (2) To observe the progress of cases undergoing artificial pneumothorax treatment.
- (3) To help in the examination of those who have been in contact with tuberculous patients.

It is scarcely necessary to add that the approach to diseases of the chest cannot be regarded as competent unless an X-Ray examination is made. The methods of examination of the lungs at our disposal other than X-Rays are not sufficiently sensitive to define the extent of the tuberculous disease. In many cases they are not sufficient to detect the disease at all.

The number of screen examinations made during the year was 952.

The following account of an interesting contact survey made during the year is reproduced by kind permission of the Editor.

Reprinted from "The Irish Journal of Medical Science," January, 1946. Pages 33 to 35.

A TUBERCULOSIS CONTACT SURVEY.

By P. F. Fitzpatrick (Cork).

During the year a school child aged 8 years was sent for examination by the School Medical Officer to the Tuberculosis Department. The child was discovered during a routine school medical inspection to have physical signs in the chest and was not complaining.

Examination of this child showed her to have a development somewhat better than normal for height and age. Physical signs were present over both lungs, and the sputum contained tubercle bacilli. Upwards of half the lung fields was seen on screen examination to be infiltrated with a bronchogenic type infection.

The mother had not noticed anything unusual about the child's health. She had been attending school regularly, playing with her companions and had not been confined to bed during the previous twelve months.

The family of the child was examined.

One sister, aged 14 months, was found to have a well-defined shadow at the base of the left lung, with glandular enlargement at the hilum and a positive tuberculin test. This was a primary complex.

It was decided to examine her classmates. The school is in a thickly populated part of the city and caters for the maximum number of pupils. There were 38 children in this class, aged 7 to 9 years.

The Red Cross Society is engaged on a tuberculin survey of school children in Cork City and County, and Dr. Monica Murphy, who is at present in charge of this survey, kindly tested the class and supplied me with details of the results.

All the children in this class reacted positively to tuberculin intradermally: 55 per cent. to 1 in 10,000 and 45 per cent. 1 in 1,000.

The entire class was subjected to a screen examination. Three were found to have a healed primary complex (a small well-defined opacity in the parenchyma with a similar appearance in the corresponding root glands). Three others had small hilar opacities only. In the remainder of the examinations, the appearances were normal.

An inquiry was also made into the medical history of the children. Two years ago, one child was treated for phlyctenular ophthalmia; another child had tuberculous cervical glands. Neither of these children showed radiographic evidence of a recent or old primary complex.

The affected child was re-examined five months after the diagnosis was made. She had been removed from the family to the home of her grandmother, and was in consequence without expert management. She has maintained the excellent general condition which had been the case when first seen.

Comment

Bronchogenic (reinfection) tuberculosis in childhood is relatively rare. It is usually rapidly progressive from the time symptoms arise. The duration of the disease depends on the immunological response to infection, and the onset of symptoms coincides with a breakdown of this immunity. Etiologically, the disease is a chronic one.

That the disease may be symptomless, and progress to considerable involvement of the lungs before suspicion is awakened, is illustrated by this case. Symptomless bronchogenic tuberculosis in children is a conception which has not received its due regard.

The affected child was excreting tubercle bacilli. Within the confined space of a classroom she was a continued and potent source of infection. All her immediate contacts were tuberculin-positive, and it is reasonable to assume that some of them had been infected by her.

The Irish Red Cross Society has kindly allowed me to quote from the records of their tuberculin testing. To date, in the age group 7-9 years, 1,209 children have been tested. Of these, 62 per cent. were found positive.

It may be of interest, and it is germane to this communication, to quote further from the Society's figures. The two schools which had the highest proportion of positive reactors gave the following results.:

School "A"

Total No. tested ...	418	Found positive ...	75%
No. tested, 7-9 age group ...	97	Found positive ...	62%

School "B"

Total No. tested ...	224	Found positive ...	87%
No. tested, 7-9 age group ...	51	Found positive ...	82%

In the school class under survey, it is difficult to escape from the belief that the number of positive reactors was filled to 100 per cent. by the infected child.

The examination of lungs of children by the fluoroscopic screen is satisfactory, if the child is co-operative. American experience shows over all ages that screening in comparison with full size films has an error of 13 per cent. This error must show a considerable reduction when children only are dealt with. The capability of a properly conducted screen examination to reveal abnormal shadows in the lung is limited only by the thickness of the chest wall. For this reason the method is not always satisfactory in dealing with adults. It may, however, be wholly satisfactory in dealing with children. Furthermore, it may be superior to the miniature film for, as well as giving at least as clear a visualisation of the lung field, movements of the diaphragm can be observed and pathological conditions in immediate relationship to this muscle given a significance not always apparent on a film.

The correct interpretation in terms of pathology of the shadows in a child's lungs can be very puzzling. Small dense circumscribed opacities are usually assumed to be calcifications. These opacities in the parenchyma and hilum remaining after a primary complex may disappear completely. Dr. Dorothy Price showed me one such case, and I have myself followed the progress of many children who suffered a primary complex until the shadows disappeared and the presence of a primary tuberculous lesion was no more than conjectural. To be sure, many primary complexes occurring in childhood leave calcified scars which are readily demonstrable in adult life. It would appear that

these residual calcifications depend on the degree of tissue destruction that has taken place. Tuberculosis infection in the lung does not always lead to irrecoverable tissue loss. It is a commonplace that shadows of bronchogenic as well as of haematogenous lesions disappear under treatment.

The children in this small survey who were labelled "healed primary complex" had irregularly shaped opacities of small pea size or larger. Others of the class may have had a primary infection in the lung, but that could not be demonstrated beyond doubt.

The survey would seem to indicate that children of a school class with an inordinately high percentage of positive tuberculin reactors are in contact with a common source of infection.

The work of Zacks, quoted by Chadwick and Pope, has an interest in this connection. He found that in a series of 500 cases of reinfection tuberculosis discovered by x-ray in school children an average interval of three years elapsed between the time the diagnosis was made and the appearance of symptoms. For three years the disease in these children may be said to have been smouldering. There is no proof that such cases may not intermittently void tubercle bacilli.

We have not discovered such cases in this country because, apart from a few small local investigations, no widespread radiological survey has been made. The tuberculin survey proceeding in Cork under the management of the Red Cross Society in so far as it has gone has been most revealing. Many schools have had all the pupils tested, and it is exceptional to encounter a non-acceptor. The results, therefore, are comparable to tuberculin surveys carried out elsewhere. Compared in age groups with tuberculin surveys in seven great cities (six in America and one in England), our figures are very high indeed. They indicate in a striking way what a need there is for a radiological survey. It is more than probable that many of our positive reactors did not acquire a primary complex from a source outside of their school, and that we have in our schools latent cases of reinfection tuberculosis. An attempt should be made to find these cases and segregate them. The danger from them is apparent.

ADMINISTRATION.

The routine administrative work of the Tuberculosis Dispensary is summarised in the following paragraphs.

The number of new patients examined at the Tuberculosis Dispensary during the year amounted to 378, of whom 225 were adults and 153 children. 102 of the adults and 51 of the children were found to be suffering from tuberculosis in one form or another and appropriate treatment was afforded.

The number of cases admitted to sanatorium during the year was as follows :—

		Males	Females	Total
Insured ...	...	22	11	33
Uninsured	...	2	17	19
Children ...	...	—	—	—
Total ...	...	24	28	52

The number of patients discharged from sanatorium during the year was as follows :

		Males	Females	Total
Insured ...	...	16	10	26
Uninsured ...	...	1	14	15
Children ...	...	—	—	—
Total ...	...	17	24	41

Advanced cases who are not likely to derive benefit from sanatorium treatment who cannot receive adequate treatment in their own homes are admitted to St. Patrick's Hospital and St. Joseph's Hospital. This following cases were admitted during the year :—

		Males	Females	Total
Insured ...	...	27	5	32
Uninsured ...	...	20	26	46
Total ...	...	47	31	78

The following cases died or were discharged from these Institutions.

		Males	Females	Total
Insured ...	...	28	3	31
Uninsured ...	...	17	28	45
Total ...	...	45	31	76

INSTITUTIONAL TREATMENT.

In the tables which follow statistical details are given of the various institutions which have been utilised for the treatment of our cases during the past year. Early and moderately early cases of pulmonary disease have, almost all, been referred to the Cork Sanatorium at Heatherside.

Table 36.—Particulars of patients who received sanatorium treatment during the year.

		Under treatment on 1st. Jan. 1945	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st. Dec. 1945	No. of Cases treated during the year
Insured Males ...	...	10	20	14	16	30
„ Females ...	...	4	11	10	5	15
Uninsured Males ...	...	1	2	1	2	3
„ Females ...	...	4	17	14	7	21
Ex-Service men ...	...	1	2	2	1	3
Male Children ...	...	—	—	—	—	—
Female Children ...	...	—	—	—	—	—
Totals ...	...	20	52	41	31	72

Table 37.—Particulars of cases treated at Cork District Hospital.

		Under treatment on 1st. Jan. 1945	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st. Dec., 1945	No. of Cases treated during the year
Male Adults	...	5	30	30	5	35
Female Adults	...	4	18	18	4	22
Male Children	...	2	5	7	—	7
Female Children	...	4	7	7	4	11
Totals	...	15	60	62	13	75

Table 38.—Particulars of patients treated in St. Patrick's Hospital during 1945.

		Under treatment on 1st. Jan. 1945	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st. Dec. 1945	No. of Cases treated during the year
Insured Males	...	8	16	16	8	24
„ Females	...	3	1	2	2	4
Uninsured Males	...	6	11	10	7	17
„ Females	...	5	11	12	4	16
Ex-Servicemen	...	1	1	2	—	2
Male Children	...	—	—	—	—	—
Female children	...	—	4	2	2	4
Totals	...	23	44	44	23	67

Table 39.—Particulars of cases treated in the North Infirmary during 1945.

		Under treatment on 1st. Jan., 1945	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st. Dec., 1945	No. of Cases treated during the year
Male children	...	1	3	4	—	4
„ adults	...	—	1	1	—	1
Female children	...	—	2	2	—	2
„ adults	...	—	—	—	—	—
Totals	...	1	6	7	—	7

Table 40.—Particulars of cases treated in the South Infirmary during 1945.

	Under treatment on 1st Jan., 1945	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st Dec., 1945	No. of Cases treated during the year
Male children ...	1	7	8	—	8
„ adults ...	—	4	3	1	4
Female children ...	—	13	13	—	13
„ adults ...	—	2	2	—	2
Totals ...	1	26	26	1	27

Table 41.—Particulars of cases treated in St. Mary's Open-Air Hospital, Cappagh, Co. Dublin.

	Under treatment on 1st Jan., 1945	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st Dec., 1945	No. of Cases treated during the year
Female children ...	—	1	1	—	1
Male children ...	—	—	—	—	—
Totals ...	—	1	1	—	1

Table 42.—Particulars of cases treated at St. Joseph's Hospital, Mount Desert, during 1945.

	Under treatment on 1st Jan., 1945	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st Dec., 1945	No. of Cases treated during the year
Insured Males ...	5	10	10	5	15
„ Females ...	2	4	1	5	6
Uninsured Males ...	4	9	7	6	13
„ Females ...	4	15	16	3	19
Male children ...	1	1	1	1	2
Female children ...	1	—	—	1	1
Totals ...	17	39	35	21	56

Table 43.—Particulars of cases treated at Coole Open-Air Hospital Co. Westmeath.

	Under treatment on 1st Jan., 1945	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st Dec., 1945	No. of Cases treated during the year
Male children ...	2	7	1	8	9
Total ...	2	7	1	8	9

Table 44.—Particulars of cases treated at Mercy Hospital.

		Under treatment on 1st Jan., 1945	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st Dec., 1945	No. of Cases treated during the year
Male Adults ...	...	—	1	1	—	1
„ Children ...	...	1	1	1	—	1
Female Adults ...	...	—	1	1	—	1
„ Children ...	...	—	1	1	—	1
Totals ...	...	1	4	4	—	4

Table 45.—Return of number of patients treated under the Tuberculosis Scheme, during the year ended 31st December, 1945.

	Pulmonary Tuberculosis			Non-Pulmonary Tuberculosis			Total
	Children under 15 years	Other Persons		Children under 15 years	Other Persons		
		Males	Females		Males	Females	
1.—Insured Patients :							
(i) No. remaining under treatment							
(a) On 1st Jan., 1945 ...	—	71	24	—	1	2	98
(b) On 31 Dec., 1945 ...	—	65	31	—	3	1	100
(ii) No. of new patients treated during year ...	—	39	18	—	4	4	65
(iii) No. of cases under observation at close of year 1945 ...	—	1	2	—	1	—	4
2.—Other Patients :							
(i) No. remaining under treatment							
(a) On 1st Jan., 1945 ...	8	23	50	37	3	10	131
(b) on 31st Dec., 1945 ...	6	25	52	26	4	9	122
(ii) No. of new patients treated during year ...	5	14	42	49	5	10	125
(iii) No. of cases under observation at close of year 1945 ...	1	1	2	1	—	2	7

PROVISION OF EXTRA NOURISHMENT, CLOTHING, Etc.

In a Departmental letter (P.H. circular 53/43) dated 31st March, 1943, the principal provisions of which are outlined below, the Minister approved for recoupment from the National Tuberculosis Grant of:—

- (a) Free allowance of extra nourishment in the form of eggs, butter and milk to patients while they are awaiting admission to institutions or following discharge after an approved term of institutional treatment. Allowance per patient not to exceed: $3\frac{1}{2}$ pints of milk, $\frac{1}{2}$ -lb. of butter, 7 eggs per week.
- (b) A separate bed and, where necessary, bedding for infective patients receiving domiciliary or dispensary treatment. Expenditure by the L.A. should not exceed £4 in any one case (this amount was subsequently raised to £15).
- (c) In the case of necessitous patients undergoing treatment in institutions, suitable clothing if such be necessary to derive the full benefit of treatment.

The following particulars relate to the number of persons who benefitted under the scheme during the year:

Number of Recipients	Amount Spent
<i>Extra Nourishment</i> —150	£577 7 4
<i>Clothing</i> —104	£481 7 11
<i>Beds and Bedding</i> —18	£75 19 6

Expenditure under this heading amounted to £1,134 14s. 0d. as compared with £717 3s. 0d. in the previous year.

The most striking differences in nutritive value between whole-wheat flour and flours of lower extraction are attributable first to the losses of B vitamins which occur in processing . . . The differences in amount and quality of the proteins contained in the different flours are less important, provided the diet is a generous one and contains a fair proportion of other protein foods. Under conditions of poverty or food scarcity, however, when bread forms an unduly large proportion of the food, an important nutritive advantage may be gained by adding even a small amount of extra protein of good quality, and by the supplementary action of the more varied mixture of proteins which is present in flours of higher extraction.

CHICK, Harlette; COPPING, A. M. and SLACK, E. B. *The Lancet*, 9th February, 1946.

However cheaply synthetic vitamins may eventually be prepared, natural foodstuffs are preferable to synthetic because there is always the possibility that the natural product may contain other unrecognised essentials. Moreover, with natural foodstuffs there is no danger of overdosage as there is with concentrates or with the pure vitamin in the case of vitamin D.

PLIMMER, V. G. *Food Values at a Glance*.

Section IV.

Maternity and Child Welfare.

(A) INFANT MORTALITY.

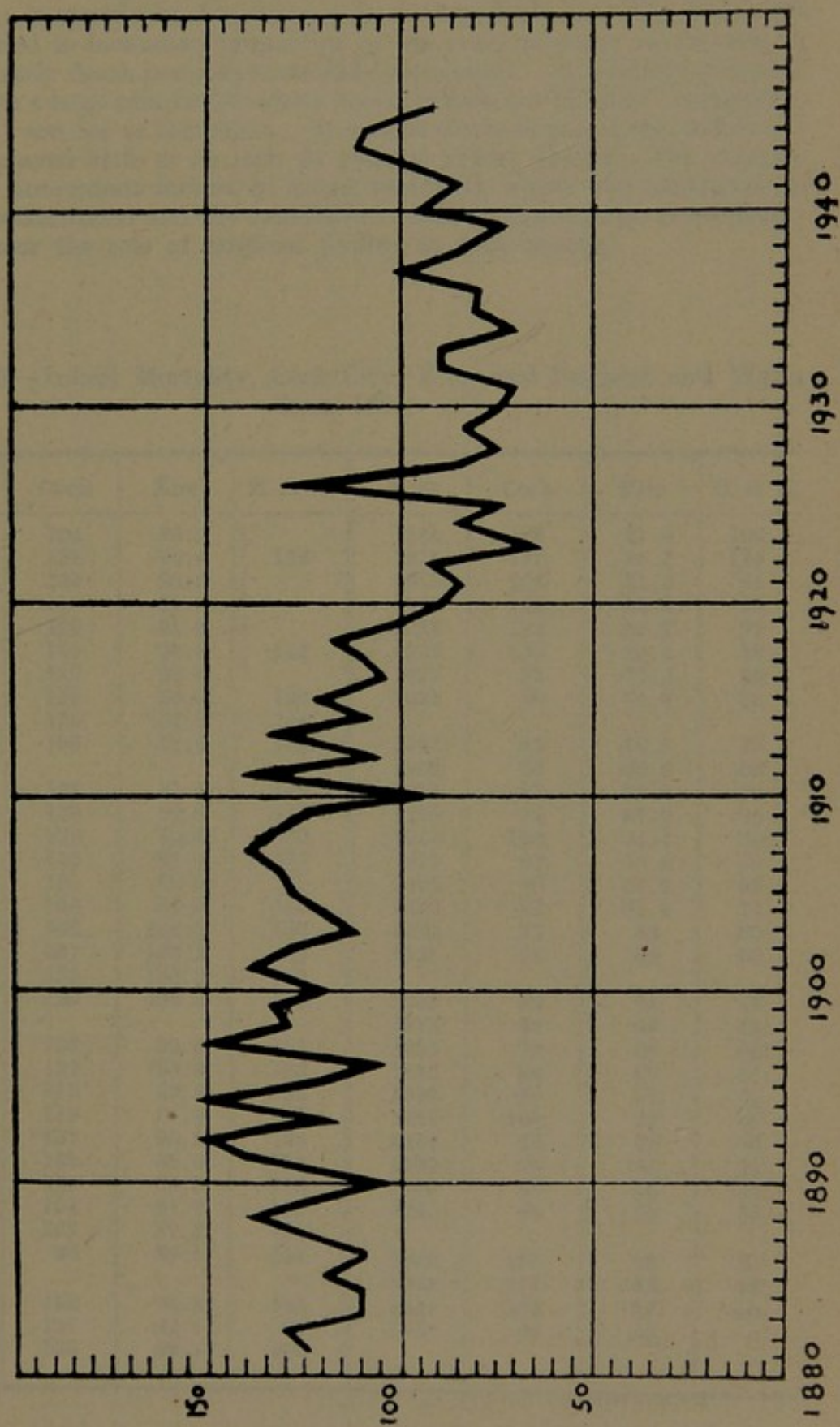
The number of deaths of infants under one year of age amounted to 156, which is equivalent to an infant mortality rate of 89 per 1,000 live births. The corresponding figures last year were 188 and 108 per 1,000 respectively. The principal contributory causes were as follows :—

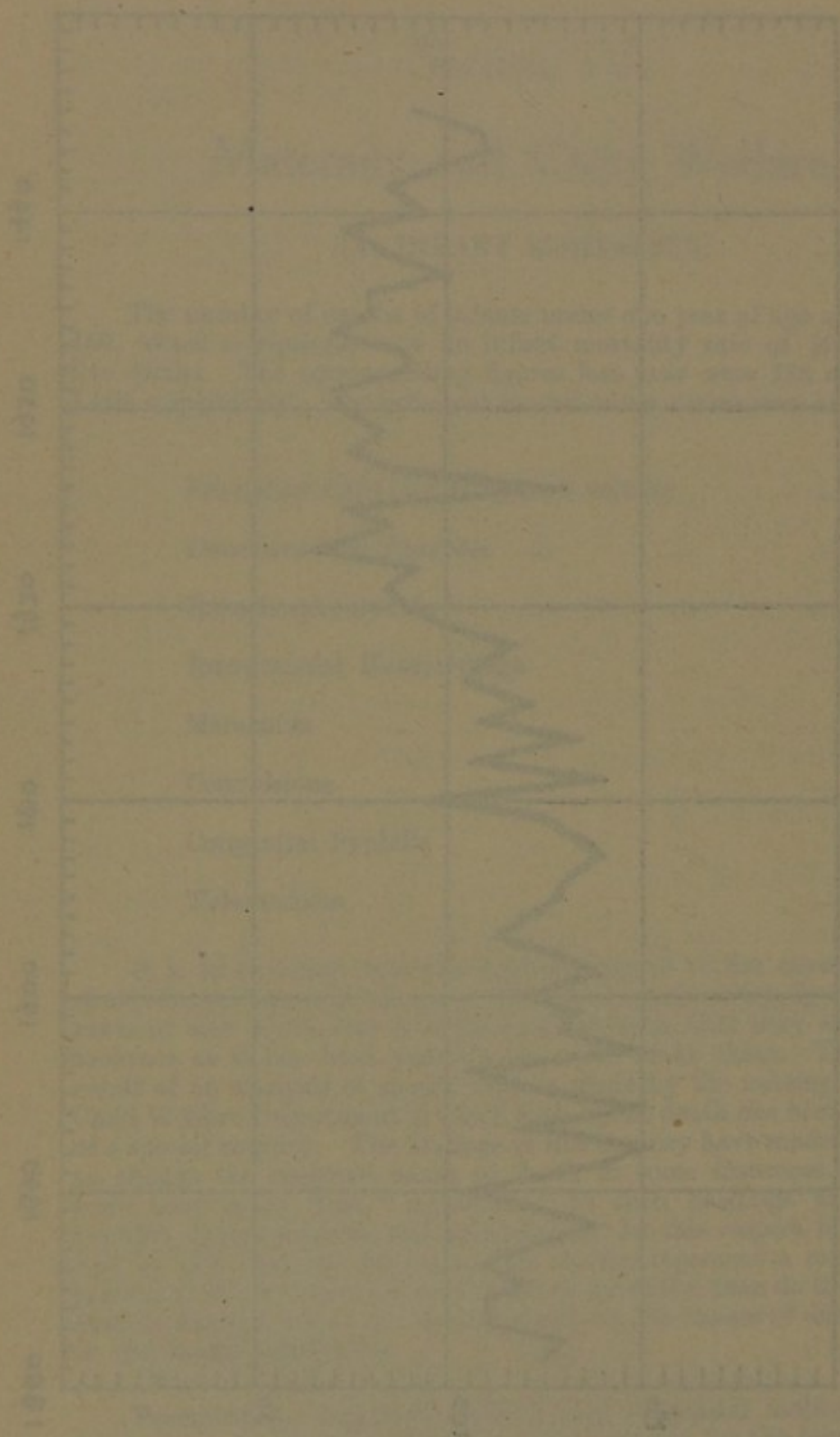
Premature birth and congenital debility	...	52
Diarrhoea and Enteritis	... ..	48
Broncho-pneumonia	... ..	16
Intra-cranial Haemorrhage	... ..	7
Marasmus	... ..	6
Convulsions	... ..	6
Congenital Syphilis	... ..	3
Tuberculosis	... ..	3

It is to be noted that the figures assigned to the causes tabulated above do not agree in all cases with the corresponding figures in other parts of this report but it is claimed for them that they are as nearly accurate as it has been possible for us to make them. They are the result of an analysis of special reports made by the nursing staff of the Child Welfare Department in which each infant death has been the subject of a special enquiry. The findings of this enquiry have made it necessary to change the assigned cause of death in some instances. Transfers have been made from "marasmus" to such headings as congenital syphilis, gastro-enteritis and tuberculosis. In this respect it may therefore be said that the figures in this section represent a more accurate picture of the factors concerned in infant mortality than do those enumerated in Table 4 which are based entirely on the causes of death assigned in the death certificates.

Prematurity, congenital debility and congenital malformations—a triad arising largely in intra-uterine life—account for the largest number of deaths, with *gastro-enteritis* following very closely. *Bronch-pneumonia* also contributed materially to the high rate of infant mortality. *Intra-*

FIG. XII.—INFANT MORTALITY: FROM 1880 TO PRESENT.





UNITED STATES DEPARTMENT OF AGRICULTURE, BUREAU OF PLANT INDUSTRY, WASHINGTON, D. C.

cranial haemorrhage is represented by seven deaths and appears for the first time in significant dimension. It is very likely that this cause will be assigned in increasing proportion in the years to come as its role in causing early death becomes more fully recognised. It is highly probable that quite a large number of infant deaths which are labelled "congenita debility" are due to this cause. In contra-distinction to 1944, infectious disease played little or no part in causing infant deaths. The enquiry into the antecedent factors in infant mortality which was instituted in 1943 was continued and the cumulative evidence shews in an overwhelming manner the role of *artificial feeding* in such deaths.

Table 46.—Infant Mortality, Cork City, Éire, and England and Wales from 1881.

Year	Cork	Éire	E. & W.	Year	Cork	Éire	E. & W.
1881	124	89.4	139	1914	119	81.0	105
1882	127	94.9		1915	132	85.2	110
1883	109	95.0		1916	105	81.3	91
1884	110	91.9		1917	108	84.0	96
1885	120	91.3	145	1918	118	80.2	97
1886	110	93.9		1919	100	84.4	89
1887	123	93.6		1920	79	77.5	80
1888	139	96.0		1921	76	72.6	83
1889	125	92.0	144	1922	93	68.9	77
1890	106	91.6	151	1923	66	66.4	69
1891	138	91.4	149	1924	87	71.6	75
1892	150	99.9	148	1925	74	67.9	75
1893	132	99.8	159	1926	130	74.4	70
1894	150	97.4	137	1927	87	70.8	70
1895	131	98.0	161	1928	76	67.9	65
1896	106	91.0	148	1929	81	70.4	74
1897	152	104.0	156	1930	77	68	60
1898	131	105.2	160	1931	71	69	66
1899	133	103.2	163	1932	89	71	65
1900	120	105.3	154	1933	89	65	64
1901	139	95.5	151	1934	72	63	59
1902	127	95.2	133	1935	84	67	57
1903	112	92.2	132	1936	80	74	59
1904	118	95.8	145	1937	103	73	58
1905	131	90.2	128	1938	75	66	53
1906	133	88.0	132	1939	73	65	50
1907	139	88.5	118	1940	92	66	56
1908	134	91.2	120	1941	85	73	59
1909	125	87.3	109	1942	100	68	49
1910	96	89.1	105	1943	113	83	49
1911	139	91.3	130	1944	108	79	46
1912	107	82.1	95	1945	89	69	—
1913	136	93.1	108				

In Table 47 is set out a comparative statement of infant mortality in Cork, Dublin, Belfast, Limerick and Waterford from 1920.

Table 47.—Infant mortality in Cork and other Irish Cities from 1920.

Year	Cork	Dublin*	Belfast†	Limerick*	Waterford*
1920 ...	79	152	132	109	96
1921 ...	76	143	115	113	102
1922 ...	93	120	94	108	94
1923 ...	66	117	101	128	78
1924 ...	87	119	107	90	93
1925 ...	74	117	104	91	106
1926 ...	130	127	112	146	114
1927 ...	87	123	101	102	83
1928 ...	76	102	103	117	105
1929 ...	81	106	112	118	110
1930 ...	77	97	78	114	91
1931 ...	71	94	90	120	92
1932 ...	89	100	111	91	132
1933 ...	89	83	102	126	103
1934 ...	72	80	80	76	92
1935 ...	84	94	112	106	126
1936 ...	80	114	102	95	90
1937 ...	102	102	94	68	97
1938 ...	75	96	96	70	99
1939 ...	73	90	86	59	73
1940 ...	95	91	122	70	111
1941 ...	85	118	91	95	88
1942 ...	100	98	90	77	91
1943 ...	113	126	111	76	100
1944 ...	108	125	89	136	84
1945 ...	89	114	84	96	77

* Figures for current year obtained from Annual Summary of Registrar-General. Those for previous years have been corrected from figures in the Annual Reports of the Registrar-General for the appropriate years. (Table 10).

† Figures obtained from Superintendent Medical Officer of Health.

Neo-natal Mortality. The role of neo-natal mortality (i.e., deaths of infants under one month old) in the production of infant mortality is shewn in the following table.

Table 48.—Deaths of infants *under one month* in Cork City and the ratio of same to the total number of infant deaths (i.e., under one year), together with the comparative figures for the whole country.

Year	CORK CITY		ÉIRE. Relation of deaths under one month to all infant deaths
	Deaths under one month	Proportion to all infant deaths	
1931	41	30.1 per cent	38.4 per cent.
1932	47	29.6 " "	35.9 " "
1933	56	33.3 " "	39.7 " "
1934	43	29.9 " "	38.7 " "
1935	39	26.2 " "	39.9 " "
1936	56	36.8 " "	40.5 " "
1937	58	31.4 " "	41.7 " "
1938	34	27.2 " "	42.4 " "
1939	47	39.8 " "	44.1 " "
1940	45	29.4 " "	42.0 " "
1941	52	30.9 " "	41.2 " "
1942	52	32.9 " "	39.5 " "
1943	91	46.4 " "	40.2 " "
1944	58	31.0 " "	41.9 " "
1945	61	39.3 " "	—

Table 49.—Cork City—Deaths of Infants under one year from conditions which constitute the principal causes of Infant Mortality.

Year	Number of Births Registered	DEATHS OF INFANTS UNDER ONE YEAR FROM												Rate per 1000 Births	Whooping Cough	Rate per 1000 Births
		Congenital Debility	Rate per 1000 Births	Prematurity	Rate per 1000 Births	Congenital Malformations	Rate per 1000 Births	Diarrhoea and Enteritis	Rate per 1000 Births	Pneumonia	Rate per 1000 Births	Convulsions	Rate per 1000 Births	Bronchitis	Rate per 1000 Births	Rate per 1000 Births
1931	1,963	18	9.1	20	10.2	9	4.5	28	14.2	8	4.1	16	8.1	5	2.5	1.5
1932	1,820	28	15.4	13	7.1	6	3.3	39	21.4	13	7.1	19	10.4	8	4.4	4.4
1933	1,884	19	10.1	27	14.3	7	3.7	38	20.1	17	9.0	13	6.9	13	6.9	1.0
1934	1,846	17	9.2	24	13.0	6	3.2	32	17.3	12	6.5	9	4.8	8	4.3	4.3
1935	1,915	18	9.4	19	9.9	5	2.6	50	26.1	23	12.0	6	3.1	5	2.6	—
1936	1,913	12	6.2	28	14.6	5	2.6	36	18.8	27	14.1	10	5.2	6	3.1	—
1937	1,799	18	10.0	13	16.7	7	3.9	45	25.0	27	15.0	18	10.0	4	2.2	2.8
1938	1,761	13	7.4	19	10.8	7	3.9	31	17.6	21	11.9	9	5.1	3	1.7	1.7
1939	1,632	24	14.1	16	9.8	8	4.9	34	20.8	9	5.5	10	6.1	3	1.8	1.2
1940	1,670	17	10.2	25	14.9	4	2.4	45	26.9	15	8.9	8	4.8	5	2.9	—
1941	1,680	15	8.9	25	14.9	10	5.9	33	19.6	16	9.5	11	6.5	6	3.5	0.6
1942	1,842	14	7.6	18	9.7	17	9.2	49	26.6	16	8.7	10	5.4	5	3.2	0.5
1943	1,781	12	6.2	46	25.8	11	6.1	52	29.2	25	14.0	8	4.5	4	2.2	1.1
1944	1,721	5	2.9	29	16.8	9	5.2	63	36.0	28	16.2	7	4.0	3	1.7	7.5
1945	1,690	6	3.5	32	18.9	10	5.9	50	29.5	16	9.4	6	3.5	3	1.7	—

* Including broncho pneumonia.

Note :—Figures in this table are based on returns of the Registrar-General. They do not correspond to the figures in table 50 which have been readjusted by transfers as explained in text.

Table 50.—Deaths of infants under 1 year, shewn as neo-natal and other deaths.

Cause of Death	Neo-Natal	Others	Total
Prematurity ...	30	2	32
Congenital Debility ...	3	3	6
Congenital Malformations†	6	4	10
Diarrhoea and Enteritis ...	3	47	50
Broncho-pneumonia*	3	14	17
Marasmus ...	3	3	6
Congenital Syphilis ...	—	3	3
Tuberculosis ...	—	2	2
Convulsions ...	—	6	6
Icterus ...	3	—	3
Intra-cranial Haemorrhage	5	—	5
Miscellaneous ...	5	10	15
Totals ...	61	94	155

† Including congenital cardiac disease.

* Including pneumonia and bronchitis.

(Note—The figures in this table do not necessarily agree with the corresponding figures in table 4. This is due to the fact that, on investigation, transfers from one disease to another have been found to be necessary. Figures in table 4 are based entirely in District Registrar's returns of registered causes of death).

The findings of the enquiry (referred to above) into the factors concerned with infant mortality are enumerated in the two succeeding tables. The first concerns neo-natal deaths (i.e., deaths occurring in the first month of life) and the second all other infant deaths. In the case of neo-natal deaths enquiry has not been made into the manner of feeding as this can scarcely be regarded as influencing the outcome since the great bulk of such deaths come under prematurity and its cognate headings. In the present instance 39 out of the total 61 deaths are accounted for under these designations. The general design of the undertaking was outlined in the report for 1943 and, accordingly, need not be detailed further.

Investigation into infant deaths was continued during the year, these deaths being classified into two groups (a) neo-natal i.e. those occurring within the first month and (b) those occurring between one month and 12 months. There were 61 neo-natal deaths (out of a total of 155 infant deaths). Of these 61 no less than 39 were due to causes coming under the heading prematurity and congenital debility and malformations. If intra-cranial haemorrhage were included under this heading the proportion of such causes would be still higher. Reduction under this heading therefore will involve investigation into those factors which prejudice the likelihood of survival during intra-uterine life. These

would include the nutrition of the mother and her social circumstances, whether it is necessary for her to work or not. The chances of foetal survival are greatly influenced by these factors. The general findings of the enquiry as they relate to the current year as set out in the two next succeeding tables. The first of these (Table 51) relates to neo-natal deaths.

Table 51.—Neo-natal deaths. Analysis of factors concerned.

Cause of Death	Number of Deaths	Efficiency of Mother			Previous Health of Mother		Economic Circumstances			Pre-natal Supervision	
		Good	Avg.	Bad	Good	Poor*	Good	Avg.	Bad	+	—
Prematurity ...	30	10	17	3	20	10	6	17	7	14	16
Congenital Debility	3	1	2	—	3	—	2	1	—	2	1
Congenital Malformations ...	6	4	1	1	6	—	1	2	3	2	4
Gastro-enteritis ...	3	1	2	—	1	2	1	2	—	2	1
Icterus ...	3	1	2	—	2	1	1	1	1	2	1
Pneumonia ...	3	1	2	—	1	2	1	1	1	1	2
Intra-cranial Haemorrhage	5	2	3	—	5	—	3	1	1	3	2
Marasmus ...	3	3	—	—	1	2	2	1	—	2	1
Miscellaneous ...	5	3	2	—	1	4	2	2	1	4	1
Total ...	61	26	31	4	40	21	19	28	14	32	29

* Included under this heading are cases in which there has been a history of falls. This occurred in six instances. Health otherwise may have been good.

The findings for one particular year are, perhaps, too restricted in scope to justify definite conclusions. The cumulative evidence of a number of years will afford more sure ground for basing judgment and from this point of view the findings should be of more value after the lapse of such time. One notes from this table that the general efficiency of the mother does not appear to be a factor in neo-natal mortality—a far larger number have been classified as definitely good than those classed as definitely bad. This is what one would expect in circumstances in which the causative factors are largely outside the control of the mother and is in contra-distinction to the findings under this heading in Table 52 relating to infant deaths occurring later in life. Here efficiency (or rather inefficiency) appears to have a definite role. The influence of previous ill-health of the mother has not been so marked as in last year's investigation, the proportion of cases in which such a finding was obtained being much less. Prematurity has been the single greatest factor so far in the production of neo-natal mortality. The problem therefore may be said to resolve itself into an enquiry into the causes of premature birth.

Table 52.—Main factors concerned in deaths occurring at ages over 1 month and under 12 months.

Cause of Death	No. of Deaths	Feeding		Efficiency of Mother			Economic Circumstances			Legitimacy	
		Breast	Artificial	Good	Avg.	Bad	Good	Avg.	Bad	Legit.	Illegit.
Gastro-Enteritis ...	47	2	45	6	20	21	2	22	23	40	7
Broncho-pneumonia ...	14	1	13	4	8	2	3	6	5	11	3
Marasmus ...	3	0	3	0	1	2	0	1	2	3	0
Congenital Syphilis ...	3	0	3	0	1	2	0	1	2	2	1
Tuberculosis ...	2	0	2	0	2	0	0	1	1	2	0
Prematurity, Congen. Malformation etc.	9	2	7	2	4	3	4	3	2	8	1
Convulsions ...	6	0	6	2	1	3	0	3	3	6	0
Miscellaneous ...	10	1	9	2	6	2	1	7	2	9	1
Totals ...	94	6	88	16	43	35	10	44	40	81	13

So far as these later deaths are concerned (in contradistinction to neo-natal deaths) if one thing is more certain than another it is the role of *artificial feeding*. Of a total of 94 deaths this was the method of feeding in 88 instances. It is probable that it was actually so in 90 cases. There is every reason to doubt the truth of the answers given in the two cases of gastro-enteritis in which it was stated that the children were breast fed. Gastro-enteritis and broncho-pneumonia are the two great killers at these ages and it is remarkable what a persistent part *artificial feeding* plays in both these diseases. The direct connection between bottle feeding and gastro-enteritis is easy to comprehend when one contemplates the hygienic perils to which the infant is exposed by this method of feeding but over and above this there is some other factor. In 1943 the Medical Research Council reported that the incidence and death-rate of gastro-enteritis in breast-fed babies was much *lower* than in infants artificially fed and the experience of one Dublin hospital has led to the conclusion that breast milk contains some active principle preventing neo-natal infection. That this observation also applies to conditions other than gastro-enteritis is clear enough from the figures obtained by our own observations. It will be noted in the above table of the 14 babies who died from broncho-pneumonia, 13 were bottle fed. In the three years covered by the enquiry 54 deaths from this disease were investigated and in no less than 50 cases artificial feeding had been resorted to. These figures are too outstanding to be open to any other interpretation, so it would seem that (as in the case of prematurity in relation to neo-natal deaths) the problem here is to ascertain why mothers cannot or will not nurse their babies. As was to be expected inefficiency of the mother plays a more definite part in later infant deaths than in neo-natal deaths. In 35 instances this was classed as definitely bad. This is a very high proportion and gives rise to serious misgivings as to

the qualifications for motherhood of many who embark on married life. That this is becoming a matter for concern to many interested in maternity and child welfare problems is apparent from the extracts cited in last year's report from two leading authorities. These articles may be said to have summarised the difficulties experienced in dealing with what have come to be termed "problem families". That is families which, through the ignorance of the parents or through sheer lack of intellectual endowment, are unable to benefit permanently by the facilities placed at their disposal. It is apparent from the growing literature on the subject that the "problem family" is becoming recognised as indeed a major problem.

One notes in Table 52 that in the case of the 47 infants who died from gastro-enteritis, nearly half of the mothers had to be classified as inefficient while only 6 were classed highly efficient. There are, of course, probably a good many border-line cases between each of these groups and the group headed "average" but taken by and large the classification may be said to represent a good average picture of conditions as they actually exist. It does not afford any grounds for self-congratulation. Until such time as mothers, (and potential mothers) can be educated up to a much higher sense of corporate and individual responsibility we cannot expect any real improvement in our child mortality statistics. Dr. Leslie Housden (as quoted in last year's report) has put forward a very strong case indeed for such an educational campaign, pointing out the almost complete ignorance of most married young women in regard to the nurture, care and bringing up of children and the trail of unhappiness following from such ignorance. The rigid standards of family behaviour have been broken down by modern concepts of individual "freedom" but, unfortunately, no other standards have been set up to replace them. In our own time we have witnessed a rapid intensification of the employment of female labour under the factory system and in offices so that it would seem that each succeeding generation is actually more ignorant of housecraft than the one before it, instead of being a little more proficient as would be expected in a rational community. But we live in very abnormal times and values (acquired as the result of long experience) are being discarded with little regard to the consequences.

"The more parents know about their children, the less those children will cost the State. All normal infants can be reared through a healthy and happy childhood by their own parents, with small expense to the state, *provided those parents are instructed*. Yet millions of pounds sterling are spent annually on hospitals, convalescent homes and clinics, on juvenile courts, approved schools and probation systems, in endeavouring to recover physical and mental health which should never have been lost. Parentcraft-teaching in school is a money-saving plan and would enrich the Treasury. Much money is wasted on "education". The parents of all . . . the juvenile delinquents went to school. If some of their "education" had been replaced by the teaching of parentcraft, it is unlikely that their children would have cost the State so much in money and the nation so much in reproach".

Dr. Leslie Housden—The Need for National Instruction in Parentcraft (Biology, Health and Sociology 1944).

“The practice of placing families with a low standard of cleanliness next door to a clean, well run family on new housing estates is to be deprecated”.

Dr. R. C. Wofinden Depy., M.O.H., Rotherham C.B. (Public Health, Sept. 1944).

Table 53.—Éire. Principal causes of Infant Deaths (ratio per 1,000 Births). The corresponding figures for Cork City are shewn in Table 50.

Year	Congenital Debility	Prematurity	Diarrhoea and enteritis	Pneumonia	Convulsions	Congenital Malformations	Bronchitis	Whooping Cough
1931	16.00	8.58	8.27	7.72	6.78	3.38	3.17	1.16
1932	16.46	8.53	9.33	8.44	6.54	3.40	3.96	2.60
1933	14.38	9.59	8.92	6.99	5.61	3.59	2.79	2.54
1934	13.78	8.05	7.50	6.72	5.41	3.54	3.26	2.97
1935	14.19	9.76	10.65	8.08	4.50	3.90	3.40	1.05
1936	14.44	11.31	10.38	8.96	5.32	4.44	2.96	2.20
1937	13.65	12.16	9.95	8.34	4.99	4.39	2.92	2.46
1938	12.79	10.96	9.12	8.43	4.43	4.38	2.71	1.74
1939	12.68	11.02	9.33	7.67	4.48	4.82	2.35	1.37
1940	13.25	10.67	9.67	7.70	3.55	4.59	2.62	1.77
1941	14.14	11.57	14.18	7.93	4.23	5.57	2.34	1.46
1942	13.66	9.24	14.32	7.11	4.05	5.13	2.51	1.18
1943	15.20	11.58	18.26	8.91	3.99	5.85	2.93	2.87
1944	14.55	11.72	15.82	8.60	4.40	5.30	2.16	2.19

The figures for 1945 not yet available.

(B) NOTIFICATIONS OF BIRTHS.

The Acts bearing on this subject are the Notification of Birth Acts, 1907, which was adopted by the Corporation in September, 1922, and the Notification of Births (Extension) Act, 1915. These Acts place an obligation on certain individuals to notify to the Medical Officer of Health within thirty-six hours, births which have occurred in the area. The object of the Acts is to enable the Local Authority to afford advice and assistance to parents on the care and upbringing of children.

The general procedure in connection with the notification of births was outlined in my Report for the year 1932. The total number of such notifications received during the year amounted to 1,677. The number of live births registered during the same period, according to the Annual Summary of the Registrar-General was 1,690.

(C) MATERNAL MORTALITY.

There were 4 deaths under this heading during the year.

Table 54.—The number of deaths of women directly attributable to or associated with pregnancy or childbirth during each of the years from 1924, together with the rate per 1,000 births during each of these years, for the City of Cork. (Corrected for Births and Deaths in public institutions).

Year	Deaths from Puerperal Septic Diseases		Deaths from accidents of Pregnancy or Childbirth		Total Deaths from Puerperal Septic Diseases and accidents of Pregnancy or Childbirth		Deaths from causes associated with Pregnancy or Childbirth (not included in foregoing)		Total Deaths caused by, or associated with Pregnancy or Childbirth	
	No.	Rate per 1000 Births	No.	Rate per 1000 Births	No.	Rate per 1000 Births	No.	Rate per 1000 Births	No.	Rate per 1000 Births
1924	5	2.55	6	3.05	11	5.60	1	0.51	12	6.11
1925	5	2.54	5	2.54	10	5.08	1	0.51	11	5.59
1926	3	1.66	8	4.42	11	6.08	—	—	11	6.08
1927	5	2.74	6	3.28	11	6.02	—	—	11	6.02
1928	3	1.64	9	4.92	12	6.56	1	0.55	13	7.11
1929	—	—	4	2.24	4	2.24	—	—	4	2.24
1930	1	0.46	3	1.37	4	1.83	—	—	4	1.83
1931	1	0.52	7	3.63	8	4.10	—	—	8	4.10
1932	1	0.55	8	4.28	9	4.95	—	—	9	4.95
1933	1	0.54	8	4.32	9	4.85	1	0.54	10	5.40
1934	5	2.60	2	0.52	7	3.60	—	—	7	3.60
1935	1	0.51	5	2.56	6	3.08	—	—	6	3.08
1936	1	0.52	4	2.08	5	2.60	—	—	5	2.60
1937	—	—	—	—	—	—	—	—	—	—
1938	—	—	6	3.51	6	3.51	—	—	6	3.51
1939	1	0.58	3	1.75	4	2.3	—	—	4	2.3
1940	—	—	8	4.6	8	4.6	—	—	8	4.6
1941	—	—	5	2.9	5	2.9	—	—	5	2.9
1942	—	—	3	1.7	3	1.7	—	—	3	1.7
1943	1	0.56	2	1.12	3	1.6	—	—	3	1.6
1944	2	1.14	6	3.42	8	4.56	—	—	8	4.56
1945	—	—	4	2.36	4	2.36	—	—	4	2.36

In Table 55 is set out the comparative maternal mortality for Cork, Dublin, Belfast, Limerick and Waterford County Boroughs, and for the whole country.

The papers and discussion have given the impression that all civilized peoples eat wheat bread and that they like to have it white ; some speakers have mentioned ill effects said to be connected with the eating of wholemeal bread. I come from Denmark and we consider ourselves fairly civilized. In Denmark we eat, and have done for thousands of years, brown rye bread, 100 per cent. wholemeal, more than 100 per cent. in fact as during the war even the 17 per cent. discarded from the wheat flour was added to the rye flour. If what has been said about brown bread is true, we should get rickets, and yet we have very little rickets in Denmark. Denmark has one of the lowest death rates of the world and, next to Holland, the lowest tuberculosis death rate in Europe. The Danish experience speaks decidedly against the supposition that the eating of large amounts of wholemeal rye bread involves any inconvenience whatever.

Professor L. S. FRIDERICIA (Institute of Hygiene, University of Copenhagen). Proceedings of Nutrition Society, Vol. 4, No. 1. p. 28.

Table 55.—Maternal Mortality in different areas from 1920.

Year	Whole Country		Cork City		City of Dublin		Belfast		Limerick County Borough		Waterford County Borough	
	No. of deaths	Rate per 1000 births	No. of deaths	Rate per 1000 births	No. of deaths	Rate per 1000 births	No. of deaths	Rate per 1000 births	No. of deaths	Rate per 1000 births	No. of deaths	Rate per 1000 births
1920	326	4.8	13	5.8	55	6.0	95	7.7	3	2.9	2	2.7
1921	336	5.5	8	4.0	53	6.5	53	4.7	1	1.0	3	5.1
1922	370	6.3	7	3.6	61	7.1	55	5.1	12	11.8	—	—
1923	328	5.3	4	1.9	46	5.5	58	5.3	16	5.6	3	4.9
1924	330	5.2	12	6.1	46	5.0	46	4.4	1	0.9	4	5.9
1925	312	5.0	11	5.6	42	4.9	29	2.8	3	2.8	4	6.4
1926	329	5.4	11	6.1	31	3.5	57	5.5	5	4.8	—	—
1927	291	4.8	11	6.0	23	2.8	36	3.7	5	4.8	3	4.7
1928	318	5.4	13	7.1	31	3.5	43	4.6	5	4.5	2	3.0
1929	283	4.9	4	2.2	30	3.4	43	4.8	7	6.2	1	1.6
1930	294	5.0	4	1.8	43	4.1	44	4.6	4	3.7	3	4.6
1931	272	4.7	8	4.1	29	2.1	54	5.7	4	3.5	3	4.5
1932	235	4.9	9	4.9	33	3.1	49	5.5	8	4.0	6	8.6
1933	255	4.4	10	5.4	22	2.1	42	5.2	7	7.1	2	2.8
1934	304	5.2	7	3.6	41	3.7	57	6.3	2	1.9	—	—
1935	272	4.6	6	3.0	38	3.3	54	6.0	6	5.5	4	4.0
1936	273	4.7	5	2.6	42	3.5	57	6.2	2	2.0	3	4.5
1937	204	3.3	—	—	33	2.8	56	6.1	3	2.9	4	5.8
1938	204	3.6	6	3.5	29	2.5	48	5.2	4	4.0	3	4.8
1939	150	2.7	4	2.3	23	2.0	—	4.4	1	1.0	1	1.6
1940	227	4.0	8	4.6	21	1.9	37	4.2	3	3.0	7	10.3
1941	209	3.7	5	2.9	21	1.8	31	3.6	3	3.0	1	1.6
1942	163	2.4	3	1.7	20	1.6	31	3.2	1	0.9	2	2.5
1943	162	2.5	3	1.6	15	1.2	32	2.9	1	0.9	—	—
1944	176	2.7	7	3.8	18	1.4	24	2.3	1	0.9	2	2.8
1945	147	2.2	4	2.4	14	1.1	18	1.8	4	3.8	—	—

The above figures were obtained from the *Annual Reports* of the Registrar-General with the exception of those for the year 1945 (which were taken from the *Annual Summary* for that year) and those for Belfast, from 1922 onwards, which were kindly supplied by the Superintendent Medical Officer of Health. All figures include deaths from sepsis arising from abortion and miscarriage.

(D) SUPERVISION OF MIDWIVES.

1. Number of Midwives in Practice :—				
Certificate of C.M.B. ....	...	...	...	61
Other recognised certificates ...	...	...	...	19
				—
Total	...	...	...	80
2. Number of Midwives according to type of practice :—				
Attached to public institutions	...	...	...	6
Conducting only private maternity or nursing homes	...	...	...	12
Dealing with less than five cases per year	...	...	...	7
Monthly nurses	...	...	...	29
Others	...	...	...	26
				—
Total	...	...	...	80
3. Number of visits of inspection of midwives	...	...	...	296
4. Disinfection of appliances	...	...	...	1
5. Reasons for summoning Medical help :—				
Abnormal presentation	...	...	...	11
Obstructed and delayed Labour	...	...	...	15
Post partum haemorrhage	...	...	...	4
Ante partum haemorrhage	...	...	...	7
Rise of Temperature	...	...	...	1
Ruptured perineum	...	...	...	11
Thrombosis	...	...	...	1
Retained (&c.) Placenta	...	...	...	2
Miscellaneous	...	...	...	10
6. Notifications of still births	...	...	...	40
7. Notifications of artificial feeding	...	...	...	145
8. Notifications of having laid-out dead bodies	...	...	...	1
9. Suspensions for twenty-four hours on account of contact with cases of infectious disease	...	...	...	2
10. Notifications of liability to be a source of infection	...	...	...	1
11. Notifications of deaths	...	...	...	87
12. Puerperal Pyrexia	...	...	...	—

It was unnecessary to undertake any legal proceedings against midwives during the year.

ARTIFICIAL FEEDING.

Cracked or inverted nipples	...	...	...	...	38
Health would not permit	...	...	...	...	33
Insufficient	...	...	...	...	34
Refusals (no cause assigned)	...	...	...	...	40
Illegitimate births	...	...	...	...	—

(E) WORK OF THE MATERNITY AND CHILD WELFARE
SCHEME.

The following is a summary of the work carried out during the year by the staff of the Centre.

Attendances of children under one year :—

(a) New Cases	...	...	2797
(b) Old Cases	...	...	3864

Attendances of Mothers with Children	...	8605
--------------------------------------	-----	------

Cases seen by the Medical Officer :—

(A) Under one year			
(1) New Cases	...	...	1236
(2) Old Cases	...	...	2682
(B) One to two years			
(1) New Cases	...	...	653
(2) Old Cases	...	...	893
(C) Two to five years			
(1) New Cases	...	...	548
(2) Old Cases	...	...	354
(D) Expectant Mothers			
(1) New Cases	...	...	416
(2) Old Cases	...	...	392

Analysis of cases dealt with by the Medical Officer :—

Consultations on infant feeding	976
Diseases of respiratory system	432
" new born	3
" reproductive system	—
" urinary system	12
" nervous system	2
" circulatory system	1
" alimentary system	603
" skin	235
" ears	53
" eyes	37
Exanthemata	43
Mental defects	3
Congenital defects	2
Orthopaedic defects	5
Rickets	14
Avitaminosis	16
Number of cases dealt with	2437
Number of attendances	6366

Ante-natal work—

Number of cases dealt with	...	416
Number of attendances	...	808

Return of Health Visitors' work—

(A) Under one year		
(1) Primary visits	...	1690
(2) Secondary visits	...	3942
(B) One to two years		
(1) Primary visits	...	1142
(2) Secondary visits	...	1467
(C) Two to five years		
(1) Primary visits	...	700
(2) Secondary visits	...	2000
(D) Expectant Mothers		
(1) Primary visits	...	746
(2) Secondary visits	...	519

The following cases were dealt with at the artificial sunlight clinic during the year :—

Avitaminosis ...	...	...	16
Debility ...	...	...	55
Rickets ...	...	...	14
Anaemia ...	...	...	1
Number of cases treated	...	...	86
Number of Exposures	...	...	1062

Flour has been bolted more and more thoroughly and thus deprived of its most useful components. Such treatment permits of its preservation for longer periods and facilitates the making of bread. The millers and the bakers earn more money. The consumers eat an inferior product, believing it to be a superior one. And in countries where bread is the principal food, the population degenerates. Enormous amounts of money are spent for publicity. As a result, large quantities of alimentary and pharmaceutical products, at least useless, and often harmful, have become a necessity for civilised men. In this manner, the greediness of individuals, sufficiently shrewd to create a popular demand for the goods they have for sale, plays a leading part in the modern world.

CARREL, A., *Man the Unknown*.

Section—V. Control of Food Supplies

The following report has been compiled by Mr. S. R. J. Cussen, Chief Veterinary Officer :—

(A) SUPERVISION OF MILK.

839 samples of milk were examined in our laboratory during the year. These samples may be roughly divided into two groups :

1. Detailed bacteriological examination	...	516 samples
2. Dirt test only	... ..	323 "
Total	...	839

1. The first group *i. e.*, those submitted to full examination comprised samples collected as follows (according to designation) with the addition of 13 samples of pasteurised milk.

Standard	...	33
New Milk	...	458
Pasteurised	...	13
*Pre-pasteurised	...	12
Total	...	516

The following tests were applied to these samples :—

(a) Sedimentation (or Dirt) Test.

The procedure was identical with that outlined in previous reports and the results obtained in the various grades were :—

	Standard	New Milk	Pasteurised	Pre-Past.
Very Clean	14	30	1	—
Clean ...	19	263	6	4
Fairly Clean	—	320	6	5
Dirty ...	—	140	—	3
Very Dirty	—	28	—	—
	33	781	13	12

(Note—Col. 2, New Milk, comprises *all* samples submitted to the sedimentation test. This includes samples of ordinary market milk which were submitted to this test *only* as well as samples submitted to full bacteriological examination. Hence the discrepancy between the total for this column and the group above).

The Sediment (or Dirt) test is a simple and reasonably reliable one. It does not pretend to absolute scientific accuracy, but as a rough and ready index of general trends in the direction of cleanliness it maintains

* The term *pre-pasteurised* denotes raw milk that has been collected at a pasteurising station and which is intended for pasteurisation.

its position in the armamentarium of the dairy bacteriologist. Since its chief value is that of an indicator of general tendencies the results obtained over a number of years are set out below.

Table 56.—Result of Dirt Test.

Year	No. of Samples	Very Clean	Clean	Fairly Clean	Dirty	Very Dirty
1930	412	8	72	118	156	58
1931	408	23	61	82	139	103
1932	630	4	27	108	265	226
1933	485	3	27	105	221	129
1934	339	—	19	51	148	121
1935	223	—	7	21	103	92
1936	227	3	21	43	106	54
1937	206	5	31	80	70	20
1938	174	3	36	83	49	3
1939	714	61	184	224	193	52
1940	736	163	251	176	115	31
1941	440	120	162	82	59	17
1942	516	119	223	88	67	19
1943	534	138	248	87	53	8
1944	540	159	235	80	54	12
1945	839	45	292	331	143	28
Totals	7423	854	1896	1759	1941	972

In order to test the general tendency in regard to cleanliness the last two columns of this table have been taken together and further analysed. The results are shown in the next table.

Table 57.—Proportion of Samples classified as "Dirty,"

Year	No. of Samples	Dirty	Proportion
1930	412	214	51.9 per cent.
1931	408	242	59.3
1932	630	491	77.9
1933	485	350	72.2
1934	339	269	79.3
1935	223	195	87.4
1936	227	160	70.9
1937	206	90	43.6
1938	174	52	29.8
1939	714	245	33.9
1940	736	146	19.8
1941	440	76	17.2
1942	516	86	16.6
1943	534	61	11.3
1944	540	66	12.2
1945	839	171	20.3

(b) Microscopic Test.

516 samples were submitted to routine microscopic examination. Acid-fast organisms were detected in 5 of those samples, streptococci were present in 1 and pus cells in 10, and blood in 7. In 493 instances the samples were free from suspicious organisms.

(c) Bacteria of Faecal Origin.

Determination of organisms of this character has been a routine for a number of years. Included in this group is *B. Coli*, the presence of which may be regarded as proving carelessness in the production and handling of milk. A full account of the test has been given in previous reports. The findings for the year were as follows:—

Table 58.—Results of Tests for presence of *B. Coli* in Milk.

Designation	No. of Samples Examined	<i>B. Coli</i> Present	Proportion Free from <i>B. Coli</i>
Standard ...	33	9	72.8 „
Ordinary Market Milk ...	483	96	80.2 „

(d) Pathogenic Bacteria.

Under this heading our principal concern is the presence of the *tubercle bacillus* in milk. Other organisms (*e.g.*, streptococci) are also concerned in a minor role and have been alluded to under the heading of microscopic examination. The biological test (involving the use of guinea pigs) is the only reliable test for *tubercle bacillus* and the results obtained over a number of years are set out in columnar form as follows:—

Table 59.—*Tubercle Bacilli* in Milk—Results of Biological Tests.

Year	No. of Tests	Positive	Proportion Positive
1931	2	—	—
1932	14	1	7.1 per cent.
1933	63	—	—
1934	10	—	—
1935	25	4	16.0 „
1936	201	13	6.4 „
1937	23	—	—
1938	90	7	7.7 „
1939	71	5	7.0 „
1940	94	4	4.2 „
1941	96	4	4.1 „
1942	105	2	1.9 „
1943	75	6	8.0 „
1944	68	4	5.8 „
1945	99	4	4.0 „
Total	1034	54	5.2 „

The figures for individual years are, on the whole, on the small side so far as reliable information is concerned. The sum total, however, of some 1034 tests yielding an approximate proportion of 5.2 per cent. positive may be regarded as a fairly accurate index of the amount of tubercle infection in the local milk supply. This is one aspect of the milk problem which recent legislation has done nothing to solve.

(e) **The Reductase Test.**

The modified method of Wilson has been used. As in the case of other tests mentioned, this method has been fully described in previous reports. Briefly, by means of a colour index which takes into account the rate of decolourisation of a standard solution of methylene blue added to given quantities of milk maintained at a standard temperature, the bacterial content (in numbers) can be estimated. The results obtained are set out below and in order to assist in the interpretation of these results it seems desirable to specify the values attached to the various grades :

Grade I	...	Less than 500,000 bacteria per c.c.
Grade II	...	500,000 to 4 million bacteria per c.c.
Grade III	...	4 million to 20 million bacteria per c.c.
Grade IV	...	Over 20 million per c.c.

Particulars of the various samples and the results obtained are set out below :

Standard Milk—

Grade I	...	23
Grade II	...	6
Grade III	...	3
Grade IV	...	1
		—
		33

Ordinary Milk—

Grade I	...	369
Grade II	...	52
Grade III	...	27
Grade IV	...	10
		—
		458

For *pasteurised* milk and *pre-pasteurised** milk plating on nutrient media with direct colony counts was substituted for the Reductase test and by this method the following results were obtained :

Pasteurised		Pre-pastuerised*	
Sample Number	Bacteria per c.c.	Sample Number	Bacteria per c.c.
1	45,000	1	160,000
2	16,000	2	237,000
3	160,000	3	780,000
4	18,000	4	2,400,000
5	15,000	5	960,000
6	10,000	6	1,280,000
7	92,000	7	520,000
8	27,000	8	142,000
9	1,632,000	9	972,000
10	28,000	10	4,560,000
11	608,000	11	672,000
12	64,000	12	1,656,000
13	60,000		

*See footnote on page 74.

Bacteriological Examinations.

125 Samples of milk collected in Creameries and examined in our laboratory on behalf of the Local Govt. Department were submitted as follows :—

By the Cork Co. M.O.H. ... 108 samples
 „ Local Govt. Inspector ... 17 „

On behalf of the Local Govt. Dept. 46 samples of designated milk and 12 samples of pre-pasteurised milk were collected in the urban area and examined in our laboratory.

Prosecutions.

(A) MILK AND DAIRIES ACT, 1935.

57 persons were prosecuted for non-observance of the above Act.

51 convictions were obtained and fines amounting to £23 6s. 6d. imposed. 5 cases were marked proved. 1 was withdrawn on payment of costs.

With reference to the successful prosecutions—

4	summonses	were	brought	under	Section	24
38	„	„	„	„	„	59
13	„	„	„	„	„	60
2	„	„	„	„	„	59 (3)

Table 60.—Prosecutions under Milk and Dairies Act 1935.

Section	Number Prosecuted	Number Convicted	Fines Imposed	Marked Proved	Withdrawn
24	4	2	10/- with Costs	1 With Costs	1 on Payment of costs
59	38	36	£17 3s. „ „	2 „ „	
60	13	11	£4 11s. „ „	2 „ „	
59(3)	2	2	£1 2s. 6d. „ „		
Totals	57	51	£23 6s. 6d. „ „	5 „ „	1 „ „

Maximum fine imposed was 20/- and costs.

Minimum fine imposed was 1/- and costs.

Section 24 :—Relates to the prohibition of the sale of milk by unregistered dairymen.

Section 59 :—Relates to the prohibition of the sale of dirty milk.

Section 59(3) :—Relates to the prohibition of the sale of milk having an offensive taste or smell, is found to contain visible matter, or bacteria to a number per unit volume greater than the prescribed number.

Section 60 :—Relates to the sale of milk in public places and prescribes for the conspicuous inscription of the dairyman's name and address on the vehicle, car or receptacle and the words *Bainne ar diol Uachtar ar diol* or *Blathach ar diol*.

(B) THE MILK AND DAIRIES REGULATIONS, 1936.

92 persons were prosecuted for non-observance of the above Regulations.

69 convictions were obtained and fines amounting to £22 5s. 6d. imposed.

23 cases were marked proved, with payment of costs.

With reference to the successful prosecutions, particulars are appended herewith of the enactments concerned with the summonses which were undertaken.

(a) The Milk and Dairies Regulations, 1936.

1 under article	9	1 under article	8 (6)
19 „ „	22 (3)	1 „ „	42 (2)
10 „ „	22 (5)	4 „ „	22 (2)
1 „ „	27	3 „ „	41 (4)
28 „ „	28	1 „ „	39
10 „ „	40	1 „ „	39 (2)
4 „ „	8 (4)	2 „ „	42
6 „ „	8 (2)		

NOTICES SERVED.

The number of notices sent out under the Milk and Dairies Act and Regulations was 53.

Table 61.—Prosecutions under Milk and Dairies Regulations, 1936.

Article	Number Prosecuted	Number Convicted	Fines Imposed	Marked Proved	Withdrawn
8(2)	6	4	22/6 and costs	2 with costs	
8(4)	4	1	5/- „ „	3 „ „	—
8(6)	1	—	—	1 „ „	—
9	1	1	5/- „ „	—	—
22(2)	4	3	42/- „ „	1 „ „	—
22(3)	19	13	107/- „ „	6 „ „	—
22(5)	10	6	33/6 „ „	4 „ „	—
27	1	—	—	1 „ „	—
28	28	25	108/- „ „	3 „ „	—
39	1	—	—	1 „ „	—
39(2)	1	1	17/6 „ „	—	—
40	10	9	55/- „ „	1 „ „	—
41(4)	3	3	30/- „ „	—	—
42	2	2	15/- „ „	—	—
42(2)	1	1	5/- „ „	—	—
Totals	92	69	£22 5s. 6d. „	23 „ „	—

Maximum fine imposed was 20/- and costs.

Minimum fine imposed was 2/- and costs.

Article 8(2) :—Relates to the prevention of any employee of a dairyman exposing milk to infection or contamination.

Article 8(4) :—Relates to the provision of clothing etc., by a dairyman in a dairy under his control.

Article 8(6) :—Relates to the keeping in good order and repair of all utensils machinery and apparatus in dairies by a dairyman.

Article 9 :—Relates to the General Duty of an Employee.

Article 22(2) :—Relates to vessels and appliances used in connection with the sale of milk which are incapable of being easily cleaned.

Article 22(3) :—Relates to the cleansing of milk vessels and appliances.

Article 22(5) :—Relates to the storing of vessels and appliances.

Article 27 :—Relates to the Prohibition against keeping milk in uncovered vessels.

Article 28 :—Relates to the Cleanliness of Persons having access to milk.

Article 39 :—Relates to the conveyance and distribution of milk and milk receptacles.

Article 39(2) :—Relates to the conveyance of milk churns by a common carrier, having the name and address of the dairyman by whom they were so filled clearly marked on such churns and the day of the week on which the milk therein was produced.

Article 40 :—Relates to vehicles used for conveyance of milk.

Article 41(4) :—Relates to sale containers being composed of non-absorbent material and the cleanliness of such sale containers before being filled with milk.

Article 42 :—Provides that every sale receptacle be provided with a Tap.

Article 42(2) :—Relates to the taking of milk from a sale receptacle otherwise than by means of a Tap in such sale receptacle.

Mr. Cussen has sub-joined the following remarks, (referring to conditions in regard to the milk supply) to this part of his report.

“I would like to end this section of my report with a brief survey of the trend of events in connection with the milk supply during the years 1939-1945.

Under an enactment known as the Milk (Regulation of Supply and Price) Act, 1936, the Minister for Agriculture is empowered to regulate the supply and price of milk for human consumption in areas where the Act is in operation. In the Cork area the Act came into force in 1937 and under it a Board was established—The Cork District Milk Board—whose function is to administer the Act in this area. The Board consists of persons elected by producers, wholesalers, and retailers and presided over by a chairman appointed by the Minister. The area of supply, which is at the moment a radius of four miles from the G.P.O., was fixed by the Minister after consultation with the different trade interests. All persons engaged in the production and sale of milk are required to register with the Board. No person outside the four mile radius is entitled to register unless he had supplied milk in the area during the fifteen months prior to the establishment of the Board.

The Local Authority has no powers under this Act. The Act does not confer any powers regarding the quality of the milk supplied on the Minister for Agriculture. If the milk supply to the city runs short at any period of the year permission is given by the Board to wholesalers and retailers to supplement their supplies by milk purchased from unregistered persons anywhere outside the scheduled area. As soon as the supply within the area becomes normal this permission is withdrawn. The principal source of supply when shortage occurs is the outlying creameries. The milk from this source is not everything to be desired. Firstly it is not from creameries licensed by the Department of Local Government and Public Health to pasteurise milk and secondly there is no supervision whatever over the production and handling of the milk at the source, where such supervision is necessary to ensure a pure, clean

and wholesome milk supply. It must be understood that suppliers to creameries are not required to be registered under the Milk and Dairies Act, 1935. It is not to be wondered at, therefore, that when this milk reaches the city it is often sour or on the turning point. Milk from this source is produced on some farmers premises under very primitive conditions, from dirty cows, housed in dark, badly ventilated, insanitary cowhouses. The only supervision exercised over these suppliers is an inspection of their churns for slime deposit, and their milk for visible dirt, on the way to or at the creamery by an inspector appointed for the purpose under the Dairy Produce Act. This Act provides for the inspection of all premises where dairy produce is manufactured, handled and stored for sale, with a view to maintaining cleanliness and good order, but the farmers' premises where the milk is produced and where inspection is desirable are not included.

The quality of the milk produced in the Cork Milk Board area was reasonably well maintained during the year under review. I am sorry to say that the two suppliers of Highest Grade Milk went out of business in 1943. It is no easy matter to maintain a tubercle free herd. High production costs, coupled with the difficulty of procuring suitable labour, are hard to overcome. It seems to me that there is a lack of appreciation of the value of High Grade Milk in Cork. The housewife, who could afford to pay, is more concerned with quantity rather than quality.

The handling of milk in the course of delivery to the consumer was not up to the desired standard, evidently the fines imposed on persons for infringements of the Act and Regulations are not having the desired effect. The chief infringements were by persons using milk utensils which were not properly cleansed, as shown by deposits of slime on the inside of churns, delivery cans and measures; persons using dirty vans and vans that had gone into a state of disrepair; the delivery of milk by individuals whose person and clothing were not clean; the sale of milk in bottles that were not marked with the name and address of the dairyman by whom they were filled, and the day of the week on which the milk was produced. There is a number of retailers of milk, who supply a little of their milk in bottles; I don't believe that these retailers have installed the necessary plant for handling bottled milk. To my mind no person should be allowed to use bottles unless he had installed all the necessary machinery for washing, sterilizing, filling and capping of same and, furthermore, he should have a milk cooling plant. A person who sells Highest Grade Milk, Standard Milk or Pasteurised Milk in bottles is required to have a Milk Bottlers Licence, which is issued by the Minister for Local Government and Public Health, but there is no such licence required by a person who sells ordinary milk in bottles.

Consumers have complained on a few occasions of having seen a milk boy filling from the churn on the street, bottles collected on his rounds and capping them with discs taken from his pocket. In the course of my inspection I have not seen this occur, but it is likely to happen, more particularly in the case of the retailer who sells the bulk of his milk loose and keeps a few pints in bottles for special customers who may prefer to get it in a bottle. This is a most dangerous practice and is an obvious way of spreading disease.

The price of milk increased during the war years, not a great deal considering the cost of production and handling.

The following was the average price per gallon for loose milk from producer to wholesaler :—

					s.	d.	
1939	...	...	...	...	0	11½	per gallon
1940	...	...	...	...	0	11½	„ „
1941	...	...	...	...	1	1½	„ „
1942	...	...	...	...	1	1½	„ „
1943	...	...	...	...	1	3	„ „
1944	...	...	...	...	1	5½	„ „
1945	...	...	...	...	1	6	„ „

The retail price of milk was fixed in September, 1940. The prices from 1940 to 1945 are as follows:—

1-9-40 to 31-10-40	...	...	...	2½	per pint loose
1-11-40 to 30-4-41	...	...	...	3d.	„ „ „
1-5-41 to 31-8-41	...	...	...	2½	„ „ „
1-9-41 to 31-10-41	...	...	...	2½	„ „ „
1-11-41 to 30-4-42	...	...	...	3d.	„ „ „
1-5-42 to 31-10-42	...	...	...	2½	„ „ „
1-11-42 to 30-4-43	...	...	...	3½	„ „ „
1-5-43 to 30-6-43	...	...	...	2½	„ „ „
1-7-43 to 31-10-43	...	...	...	2½	„ „ „
1-11-43 to 30-4-44	...	...	...	3½	„ „ „
1-5-44 to 30-6-44	...	...	...	2½	„ „ „
1-7-44 to 30-9-44	...	...	...	3d.	„ „ „
1-10-44 to 30-4-45	...	...	...	3½	„ „ „
1-5-45 to 30-5-45	...	...	...	2½	„ „ „
1-7-45 to 31-10-45	...	...	...	3d.	„ „ „
1-11-45 to 31-12-45	...	...	...	3½	„ „ „

The consumption of milk increased during the period under review. The average daily consumption in gallons from 1939 to 1945 was as follows:

MONTH	1939	1940	1941	1942	1943	1944	1945
January	8,400	8,184	7,731	8,416	8,547	8,714	8,799
February	8,604	8,443	8,130	8,615	8,796	8,917	9,074
March	8,661	8,260	8,090	8,696	8,929	8,936	9,143
April	8,602	8,916	8,442	8,582	9,037	8,986	9,279
May	8,933	8,642	8,309	9,004	9,342	9,266	9,623
June	9,119	8,836	8,938	9,232	9,633	9,422	9,879
July	8,616	8,381	8,485	9,042	9,473	8,975	9,555
August	8,437	8,367	8,660	9,678	8,903	8,881	9,194
September	8,586	8,371	8,926	9,079	9,232	9,178	9,649
October	8,456	8,673	8,900	9,054	8,949	9,113	9,639
November	8,407	8,015	8,552	8,728	8,912	9,074	9,418
December	8,180	8,178	8,793	8,563	8,691	8,869	9,021
Average	8,582	8,444	8,497	8,808	9,037	9,028	9,356

These figures apply to the Cork Milk Board Area. There are no figures regarding the amount of milk consumed available for Cork County Borough. I am indebted to the Secretary of the Cork Milk Board for the figures.

(B) MEAT INSPECTION.

Meat Inspection Depot :—3,918 bovine carcasses were examined. Of this number 877 (22.4%) were found to be affected with varying degrees of tuberculosis. It was found necessary that 9 such carcasses (0.22%) should be totally condemned as unfit for consumption, while 868 (22.0%) were partially condemned. In addition to the 3,918 bovine carcasses above referred to 2,001 sheep carcasses were also examined and of this number 8 carcasses (0.39%) were totally condemned and 3 carcasses (0.14%) were partially condemned for diseases other than tuberculosis. 483 veal carcasses were examined and of this number 3 carcasses were totally condemned and 11 carcasses partially condemned as being affected with tuberculosis. 671 pork carcasses were also examined and of this number no carcass was totally condemned and 67 carcasses (9.9%) partially condemned as being affected with tuberculosis. For diseases other than tuberculosis 2 bovine carcasses (0.05%) were wholly condemned and 2 carcasses (0.05%) partially condemned. For similar reasons 1 veal carcass (0.20%) was condemned.

Table 62.—The amount (by weight) of meat examined and condemned at the Depot was as follows :—

Variety	Quantity Examined	Tuberculosis		Other Diseases	
		Quantity Condemned	Pro-portion	Quantity Condemned	Pro-portion
	lbs.	lbs.		lbs.	
Beef ...	1,959,000	8,203	0.42%	650	0.03%
Mutton ...	100,050	—	—	450	0.44%
Veal ...	96,600	235	0.24%	150	0.15%
Pork ...	134,200	1,100	0.81%	—	—

The amount of offals condemned at the Depot for Tuberculosis and other conditions was as follows :—

Part	Tuberculosis	Other Diseases	Total
Lungs ...	1,384	14	1,398
Heart ...	667	7	674
Livers ...	298	271	569
Kidneys ...	20	4	24
Head and Tongues ...	298	2	300
Total	2,667	298	2,965

Meat seized in shops and voluntarily surrendered during the year :—

	Seized	Surrendered
Beef ...	670 lbs.	55,202 lbs.
Pork ...	35 "	28,744 "
Bacon ...	5	— "
Veal ...	80	2,048 "
Fish ...	—	894 "
Fruit ...	—	— "
Poultry ...	—	4,104 "

Slaughterhouses and Bacon Factories.

Table 63.—**Tuberculosis.** The following are particulars of animals killed in local slaughterhouses and the incidence of tuberculosis therein.

Species	Number	Affected	Totally Condemned	Partially Condemned
Cattle ...	2,697	763 (16.2%)	11 (0.23%)	752 (16.0%)
Sheep ...	11,763	—	—	—

32,704 lbs. of Beef (representing 2.4% of the quantity examined) were condemned on account of Tuberculosis.

Bacon Factories :—Particulars of pigs slaughtered in bacon factories and reserved for local consumption in the form of pork and sausages were supplied to us by the Veterinary Inspectors of the Department of Agriculture. The number of pigs was 1,470 of which 405 (27.5%) were found to be affected with Tuberculosis. 16 of these (1.08%) were totally condemned and 389 (26.4%) partially condemned.

19,040 lbs. (3.2%) of pork were condemned on account of Tuberculosis.

Table 64.—**Diseases other than Tuberculosis.** Particulars of incidence found in slaughterhouses killings :—

Species	Number	Affected	Totally Condemned	Partially Condemned
Cattle ...	2,697	4 (0.22%)	2 (0.03%)	2 (0.18%)
Sheep ...	11,763	4	0	—

440 lbs. of Beef (representing 0.04% of the quantity examined) were condemned on account of diseases other than Tuberculosis.

Bacon Factories :—Less than 0.10% of Pork was condemned on account of diseases other than Tuberculosis.

Table 65.—Inspections carried out in *slaughterhouses* by our veterinary staff were as follows :—

Species	Carcases Examined	Condemned		
		Wholly	Partially	Meat & Offals
Cattle ...	2,697	13	754	35,712 lbs.
Sheep ...	11,763	4	—	240

THE SLAUGHTER OF ANIMALS ACT, 1935.

The provisions of this Act were outlined in the 1937 Annual Report, it is not proposed to make further reference to them here.

The provisions of the Act were not reasonably observed by some occupiers of slaughterhouses and slaughtermen. Consequently there were 5 prosecutions under the Act during the period under review.

The Sections under which summonses were effected were :—

2 under Section 15 :—Failure to use an Approved Instrument.

1 under Section 18 :—The Owner or Proprietor of a Slaughterhouse permitting an offence on his premises.

2 under Section 19 :—Not being licensed to use an Approved Instrument.

Fines amounting to £2 10s. 0d. and costs were imposed in these 5 cases which brings the total amount of persons convicted under the Act since its inception to 53 and the total amount of fines to £21 14s. 0d.

There are at present 60 persons licensed to use the humane slaughter instrument.

The number of premises within the Cork Urban Sanitary District where meat and meat products are prepared for human consumption is as follows :—

Slaughter Houses—

Licensed (under Public Health Act, 1878)	...	...	16
Registered (being in use before the 1878 Act)	...	...	3
Registered (under the Fresh Meat Act)	...	...	5

Bacon Factories—

Where Pigs are slaughtered for Production of Bacon	...	...	4
Where Pigs are slaughtered for Bacon and Pork	...	...	4
Where Cattle are slaughtered in addition to Pigs	...	...	4
for Bacon and Pork	...	...	4

Sausage Factories	15
-------------------	-----	-----	-----	----

Triperies	6
-----------	-----	-----	-----	---

Number of inspections made of premises where meat is prepared and sold :—

Slaughter Houses	...	...	...	5,103
Sausage Factories	...	...	...	927
Triperies	...	...	...	1,067
Meat Markets	...	...	...	1,028
Butcher Shops	...	...	...	5,399
Pork Shops	...	...	...	683

In addition to the above the following inspections were made :—

Provision Shops	...	...	...	1,632
Fish Shops	...	...	...	566
Fruit Shops	...	...	...	149
Hawker's Stands	...	...	...	1,036

Prosecutions.

For the sale or exposure for sale of Tuberculosis Meat 2 persons were prosecuted and fines amounting to 27/6 and costs imposed.

For the sale or exposure for sale of Unsound Meat 6 persons were prosecuted and fines amounting to £3 17s. 6d. and costs imposed.

For the sale or exposure for sale of Unsound Fish 2 persons were prosecuted and fines amounting to 40/- and costs imposed.

For the unseemly conveyance of meat 18 persons were prosecuted under the Bye-Laws and fines amounting to £8 7s. 6d. and costs imposed.

Under the Slaughterhouse Bye-Laws 6 persons were prosecuted and fines amounting to £3 5s. 0d. and costs imposed.

The number of Notices served to abate nuisances and remedy defects in Slaughterhouses and Triperies—33.

Meat Inspection.

For a number of years a system of voluntary meat inspection has been carried out. This has been utilised to an increasing extent in recent years. The following butchers now avail of the service. (The number of butchers in the City who still do not bring their meat for inspection is 50).

Buckley, Daniel J., 19, George's Quay.
 Barrett, John V., 59/60, Grand Parade Market.
 Barrett, Michael, 64/65, Grand Parade Market.
 Barry, Joseph, 38, Dublin Street.
 Carroll, Michael J., 85, Oliver Plunkett Street.
 Connery, Michael, 71, Grand Parade Market.
 Coughlan, John, 3, Thomas Davis Street.
 Delicacies, Ltd., 55, Oliver Plunkett Street.
 Desmond, Denis, 1 and 2, Grand Parade Market.
 Desmond, Wm., 347 Blarney Street.
 Dillon, Edward, 14a, Castle Street.
 Dineen, William, 74b, Oliver Plunkett Street.
 Economy Shop, Anglesea Street.
 Economy Shop, 33, Patrick Street.
 Fitzgerald, Michael, 2, Parliament Street.
 Griffin, Leo, 55, Grand Parade Market.
 Harris, Mrs. Mary, 101, North Main Street.
 Long, Mrs. Mary, 82, Shandon Street.
 Long, Peter P., 11 Douglas Street.
 Mackey, John, 86, Oliver Plunkett Street.
 Millard, Cornelius, 4, Coburg Street.
 Murphy, John, 19, North Main Street.
 Murphy, Bros., Metropole Buildings.
 McNamara, Mrs. Nora, 73, Grand Parade Market.
 Nagle, John, 3, Market Lane.
 Nagle, Michael, 18 and 19, Grand Parade Market.
 Nagle, Mrs. Helena, 38, Oliver Plunkett Street.
 Nolan Frank, 22 & 23 Shandon Street.
 O'Callaghan, Daniel, 16, MacCurtain Street.
 O'Flynn, Benjamin, 70, Grand Parade Market.
 O'Neill, John J., 25, Grand Parade Market.
 O'Leary, Daniel, 17, Gerald Griffin Street.
 O'Flynn & Sons, 61, Oliver Plunkett Street.

O'Hare, Edmond, Coburg Street.
 O'Leary, Richard, 353, Blarney Street.
 O'Reilly, John J., Dillon's Cross.
 O'Hare, James, 44, Prince's Street.
 Ryan, Joseph, 36, Washington Street.
 Sheehan, John, 100, Douglas Street.
 Spillane, Jas., 11 & 12 Grand Parade Market.
 Tracey, John, 7, Castle Street.
 Walsh Bros., Gurranabraher Road.
 Waugh, John G., Grand Parade Market.

(C) SALE OF FOOD AND DRUGS ACTS.

MILK.

Appended herewith is the Report of the City Analyst (Mr. D. J. O'Sullivan, M.Sc., F.I.C.).

Table 66.—Showing the number of samples of Milk submitted for Analysis during the year and the results thereof.

Quarter ended	No. of Samples	Genuine	Adul- terated
March 31st, 1945 ...	123	123	—
June 30th, 1945 ...	163	144	19
Sept. 30th, 1945 ...	134	131	3
Dec. 31st, 1945 ...	145	145	—
Totals ...	565	543	22

BUTTER.

Table 67.—Showing number of Samples of Butter submitted for analysis during the year and the results thereof.

Quarter ended	No. of Samples	Genuine	Adul- terated
March 31st, 1945 ...	3	3	—
June 30th, 1945 ...	14	14	—
Sept. 30th, 1945 ...	12	12	—
Dec. 31st 1945 ...	13	13	—
Totals ...	42	42	—

SPIRITS.

Table 68.—Showing the number of samples of Spirits submitted for analysis during the year and the results thereof.

Quarter ended	No. of Samples	Genuine	Adul- terated
March 31st, 1945 ...	8	8	—
June 30th, 1945 ...	13	12	1
Sept. 30th, 1945 ...	6	6	—
Dec. 31st, 1945 ...	22	20	2
Totals ...	49	46	3

Table 69.—Showing the number of miscellaneous samples submitted for analysis during the year and the results thereof.

Quarter ended	No. of Samples	Genuine	Adul- terated
March 31st, 1945	143	123	20
June 30th, 1945 ...	123	118	5
Sept. 30th, 1945 ...	104	102	2
Dec., 31st 1945 ...	125	125	—
Totals ...	495	468	27

There is much evidence that modern methods of "scientific feeding" are producing a cumulative deterioration in health of farm animals. It is difficult to particularize, but the increasing annual wastage in dairy herds (now over 25 per cent.), the rising incidence of sterility in cows and bulls, of mastitis and general metabolic disturbance in all classes of farm livestock, and the almost paralysing effects of mortality in poultry kept on the intensive system, point to deficiencies or inaccuracies in the present regimes of feeding. Without doubt, some of these troubles can be traced to excessive use of imported vegetable proteins, especially from tropical oleaginous seeds after removal of the oil. Quality of proteins is more important than quantity of crude protein or protein equivalent, which are practically the sole standards at the present day.

MILLER, W. C. (Professor of Animal Husbandry, Royal Veterinary College)
Proceedings of National Conference of Nutrition, 1939.

I know how I like to feed the animals on my farm to get the best results in growth and production. I am convinced that fresh food grown in our own soil has virtues far excelling the imported feeding stuffs, artificially prepared and preserved, which are now so freely used. The farmer has turned largely to compound cakes just as the housewife has turned to preserved goods and the tin-opener. These are excellent supplements, but I believe the basis of proper feeding must be the produce of our own soil.

HURD, A. Proceedings of National Conference on Nutrition, 1939.

Table 70.—Showing details in regard to miscellaneous samples examined during the year.

Articles	No. of Samples	Articles	No. of Samples
Margarine ...	55	Groats ...	3
Confectionery ...	49	Cooked Meat ...	3
Custard Powder ...	39	Coffee Essence ...	3
Pearl Barley ...	29	Sponge Mixture ...	3
Sausages ...	31	Pepper Compound ...	3
Drugs ...	28	Condensed Milk ...	3
Cheese ...	26	Lard ...	2
Cocoa ...	25	Blanc-mange Powder	2
Beer ...	20	Sausage Roll ...	2
Flour ...	17	Salad Cream ...	2
Cornflour ...	11	Cider ...	2
Coffee ...	11	Milk pudding mixture	2
Vinegar ...	13	Gravy Powder ...	2
Oatmeal ...	10	Drisheen ...	1
Cream ...	10	Pea Flour ...	1
Black Pudding ...	10	Ginger Marrow ...	1
Prepared Barley ...	10	Sweets ...	1
Mineral Waters ...	8	Dripping ...	1
Jam ...	6	Spice ...	1
Jelly ...	5	Vegetable Extract ...	1
Tapioca ...	7	Egg Substitute ...	1
Wine ...	5	Ice Cream ...	1
Soup ...	4	Tinned Meat ...	1
Bread ...	4	Lentils ...	1
Semolina ...	4	Salt ...	1
Sauce ...	4	Sardines ...	1
Rice ...	4	Salad Oil ...	1
Sugar ...	4		
		TOTAL	495

Table 71.—Return of offences detected by the Food and Drugs Inspectors during the year.

Particulars of Offence					Result of Proceedings
Milk deficient in fat 3%					Proceedings Not Instituted
"	"	"	3%	...	" " "
"	"	"	3%	...	" " "
"	"	"	3%	...	" " "
"	"	"	3%	...	" " "
"	"	"	6%	...	Fine 6d, Costs 15/9
"	"	"	6%	...	Fine 5/-, costs 15/9
"	"	"	6%	...	Fine 5/-, costs 15/9
"	"	"	6%	...	Fine 5/-, costs 15/9
"	"	"	6%	...	Fine 5/-, costs 20/9
"	"	"	8%	...	Fine 2/-, costs 15/9
"	"	"	10%	...	Fine 5/-, costs 15/3
"	"	"	10%	...	Fine 7/6, costs 15/9
"	"	"	11%	...	Fine 5/-, costs 15/9
"	"	"	11%	...	Fine 5/-, costs 15/9
"	"	"	11%	...	Fine 5/-, costs 15/9
"	"	"	13%	...	Fine 5/-, costs 15/9
"	"	"	21%	...	Fine 20/-, costs 15/9
"	"	"	23%	...	Fine 15/-, costs 15/9
"	"	"	46%	...	Fine 20/-, costs 15/9
"	"	"	18%	...	
and in solids-not-fat	1%	...	...	...	Fine 40/-, costs 15/9
"	18%	...	...	...
and in solids-not-fat	2%	...	...	...	Proved and dismissed
Custard powder infested with mites		...	...	...	Fine 10/-, costs 16/-
Pearl barley infested with mites		...	...	...	Fine 7/6, costs 16/8
do. do. do.		...	...	...	Fine 10/-, costs 16/8
do. do. do.		...	...	...	Fine 5/-, costs 16/3
do. do. do.		...	...	...	Fine 20/-, costs 16/3
do. do. do.		...	...	...	Fine 10/-, costs 16/4
do. do. do.		...	...	...	Fine 7/6, costs 16/6
do. do. do.		...	...	...	Fine 7/6, costs 16/6
do. do. do.		...	...	...	Fine 10/-, costs 16/6
do. do. do.		...	...	...	Fine 10/-, costs 17/-
Prepared barley infested with mites		...	...	...	Fine 20/-, costs 17/-
do. do. do. do.		...	...	...	Fine 20/-, costs 17/-
do. do. do. do.		...	...	...	Fine 10/-, costs 17/-
Oatmeal infested with mites		...	...	...	Fine 5/-, costs 15/11
Cornflour prepared from potatoes		...	...	...	Fine 7/6, costs 17/5
do. do. do.		...	...	...	Fine 7/6, costs 15/5
do. do. do.		...	...	...	Fine 7/6, costs 15/6
do. do. do.		...	...	...	Fine 7/6, costs 17/5
do. do. do.		...	...	...	Fine 7/6, costs 16/6
do. do. do.		...	...	...	Fine 7/-, costs 16/-
do. do. do.		...	...	...	Fine 7/6, costs 17/5
do. do. do.		...	...	...	Fine 7/6, costs 16/6
do. do. do.		...	...	...	Fine 7/6, costs 16/-
do. do. do.		...	...	...	Fine 7/6, costs 17/5
Whiskey containing 16% added water		...	...	...	Fine 40/-, costs 21/-
do. do. 5% do.		...	...	...	—
do. do. 2% do.		...	...	...	—

Here I may refer to one fault in the average diet which seems to me to be of great importance: the almost universal use of white flour in preference to whole wheat flour. This imprudent practice involves a reduction in the nutritive value of the proteins of wheat, a serious lowering of the content of calcium, phosphorus, iron, carotene, vitamin B complex and vitamin E, all of which represent dead loss of highly important nutrients . . . I cannot but view this practice with grave concern. Taken in conjunction with the high consumption of white sugar, which has no protective value at all, it must often give rise to relative deficiency of vitamin B₁, and be a potent source of subnormal or ill health.

McCARRISON, Sir Robert. Proceedings of National Conference on Nutrition, 1939.

Section VI.—Water Supply.

BACTERIOLOGICAL EXAMINATIONS.

In the report for 1931 I outlined the procedure adopted in connection with the examination of the supply at the bacteriological laboratories of University College, Cork, by Prof. W. J. O'Donovan. In the year 1928 Dr. O'Donovan undertook a detailed and systematic examination in which a very large number of samples were studied. Our subsequent procedure has been based on his findings of that year and his recommendations have resulted in a supply of a consistently high degree of purity. In 1945, as in former years, samples were collected and examined on five days during each week. The procedure included an estimate of the number of bacteria growing at 37° C. in 24 hours. The total number of samples examined amounted to 255. The average number of bacteria in 1 c.c. was 2.45 and the number of samples sterile in 1 c.c. was 49.

The routine procedure in connection with these examinations is that samples are collected by the staff of the Public Health Department in special sterilised bottles. These samples are transmitted to the Laboratory for examination. A report is sent daily to the Medical Officer of Health who, in turn, sends a copy to the Water Engineer. In the event of an unsatisfactory sample coming to light in the laboratory the subsequent cycle of events is speeded up by telephonic communications between the various departments pending receipt of a subsequent formal report. In this manner there is exercised a triple check in the purification and distribution of the supply.

In the following tables are summarised the results of the various examinations carried out during the year (and previous years) at the Bacteriological Laboratories, U.C.C., by Prof. O'Donovan and his staff.

Table 72.—Summary of results of routine examinations of water

Total Routine Samples of Tap Water	Bacillus Coli Test					Average daily No. of Bacteria per c.c.	No. of Samples sterile in 1 c.c.
	100 c.c's —ive	100 c.c's +ive	50 c.c's +ive	10 c.c's +ive	1 c.c's +ive		
255	246	—	3	4	2	2.57	29

As stated above, the examinations carried out during the year included an estimation of the numbers of bacteria growing at 37° C. in 24 hours. The findings are set out in the following table and compared with those of the previous twelve years.

Table 73.—Average number of bacteria per cubic centimetre growing at 37° C. from daily sample for each month.

Month	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945
Jan.	14.0	1.8	1.1	2.9	1.2	4.1	1.8	1.7	1.8	2.2	3.4	2.3	2.6	2.2
Feb.	0.8	1.0	1.6	2.7	1.2	2.8	2.2	1.4	5.3	0.7	2.7	1.2	2.0	2.3
Mar.	1.6	1.1	1.3	1.6	0.9	1.4	1.9	2.9	1.8	2.8	7.0	1.3	2.2	2.4
Apr.	4.6	1.5	1.4	1.0	1.6	1.2	1.5	2.6	1.0	1.6	2.6	1.7	2.2	2.3
May	4.5	1.8	3.4	2.7	1.9	0.7	0.9	1.7	1.3	10.1	2.5	2.4	1.3	1.8
June	5.4	4.1	21.2	2.1	1.9	0.2	1.4	21.5	4.4	7.3	3.9	6.0	1.4	2.1
July	44.1	19.2	18.4	2.9	5.0	3.7	2.0	6.6	11.8	4.6	5.8	5.1	2.5	3.7
Aug.	20.3	14.6	7.4	5.2	1.8	1.0	1.4	6.7	4.2	4.1	4.9	1.2	4.6	3.7
Sept.	2.2	2.7	1.7	8.9	3.4	2.8	2.2	3.0	4.5	1.4	6.4	4.7	3.1	2.7
Oct.	4.6	2.1	4.0	7.9	1.4	6.4	2.0	30.8	4.5	1.6	2.1	2.3	1.9	3.2
Nov.	4.7	1.3	4.2	4.4	2.7	2.8	2.6	9.4	4.5	7.2	4.8	1.9	1.8	2.4
Dec.	2.2	3.9	4.0	1.2	3.9	5.4	2.2	3.5	2.8	1.4	3.0	2.5	2.9	2.1

Table 74.—Showing average consumption of Water per Head, per Day (in gallons).

Month	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945
Jan. ...	39.6	38.5	47.6	42.7	41.5	45.6	44.7	38.5	36.7	35.5	35.2	38.8
Feb. ...	40.0	40.2	44.1	43.1	40.3	40.9	43.1	39.1	36.5	35.6	36.8	50.0
Mar. ...	39.1	40.1	44.0	41.8	39.5	39.9	39.8	39.2	36.3	36.4	38.1	40.3
April ...	39.9	41.2	44.4	41.6	41.4	40.1	39.3	37.9	37.4	38.0	37.6	41.0
May ...	39.2	41.2	46.5	45.1	40.5	40.0	40.2	38.9	37.7	37.7	38.8	41.2
June ...	42.1	43.6	47.1	45.9	40.5	44.2	44.0	40.8	38.5	39.3	38.5	43.2
July ...	42.8	46.8	47.1	45.9	40.9	42.8	44.9	43.1	41.1	43.3	35.0	44.2
Aug. ...	40.6	48.1	46.4	46.3	39.8	41.6	42.6	42.6	39.6	40.4	36.3	42.6
Sept. ...	41.4	46.5	44.5	45.7	41.3	41.8	41.9	42.0	39.7	42.1	40.8	44.0
Oct. ...	38.6	43.5	44.8	45.0	40.6	39.5	38.6	40.4	37.7	40.2	36.7	41.3
Nov. ...	39.0	43.4	44.1	43.1	39.7	37.5	36.7	38.8	37.6	35.7	35.9	39.0
Dec. ...	40.2	35.2	43.8	42.7	41.8	37.2	39.3	37.5	36.4	37.8	36.8	40.0

Mr. Riordan, Water Engineer has commented on Table 74, as follows:—

It can be seen from the accompanying table that the annual consumption of Water per head of the population shows a considerable increase over the previous year's figures. This increase was due to the very heavy frost which we experienced towards the end of January, 1945. These frosts were responsible for the breakage of a very large number of the domestic water service pipes throughout the City and suburbs. These breaks resulted in a considerable wastage of water, which was augmented by people leaving their taps running night and day with a view to preventing a freeze up of their supply system. Some appreciation of the magnitude of the waste may be gleaned from the following figures. Normal night flow before frosts 77,000 gallons per hour, maximum night flow during frosts—315,000 gallons per hour, a figure equal to our normal maximum daily flow during peak hours.

As could be expected all this wastage put a very heavy strain on our pumping and filtration plants. A certain amount of relief was obtained by sending out all available members of our service and Inspection Staffs with instructions to batter up all visible broken services, thus restricting the waste of water until such time as the plumbers could attend to them. It took twelve weeks of concentrated effort before the night line assumed its normal reading. The effects of the frost were felt for a considerable period afterwards, as a number of repaired service pipes broke again in different places. The reason for this being that the whole section of pipe had been weakened by the original freeze up, with the result that it was unable to withstand the increased pressure as wastage on the whole distribution system was being reduced.

It has been estimated that the procedure of leaving taps run to prevent freezing up wasted about 500,000 gallons per day during the frost period. A much more effective method of prevention would be to insulate all exposed sections of the service pipe by wrapping them with any insulating material such as old worn clothes, straw or old newspapers, paying particular attention to the pipe supplying the storage tank. This tank is generally located in some draughty position under the roof. It is amazing how effective these simple precautions are.

The so-called milling offals deserve a better name. They are rich in important nutrients, in protein, iron, all the members of the vitamin B complex, manganese and magnesium. All these are present in higher concentration than in the rest of the wheat berry, and the protein is of higher biological value. Giving offals to farm animals, therefore, amounts to nothing less than giving them the most, and human beings the least, nutritious part of the wheat. It should be the other way round. The so-called enrichment of white flour by the addition of some B vitamins and other nutrients does not make sense. To remove by an elaborate process some of the most important nutrients of wheat and then to manufacture, with still greater trouble, a few of these nutrients and add them to white flour, from which they and several others have been extracted, is as near to being crazy as anything could well be. Anyhow, it is not possible at present to add more than three out of the 11 known factors of the vitamin B complex, the unknown factors being altogether ignored. This is not enriching, it is tinkering.

DR. H. E. MAGEE (Ministry of Health). *Proceedings of Nutrition Society*, Vol. 4, No. 1, 1936. p. 28.

Table 75 —Comparative results of examinations of tap water made during each of the years from 1928 to 1944.

Year	Total number of samples examined	BACILLUS COLI TEST				
		100 c.c.'s -ive	100 c.c.'s +ive	50 c.c.'s +ive	10 c.c.'s +ive	1 c.c. +ive
1928	245	187 (76.3%)	10 (4.0%)	32 (13.1%)	14 (5.7%)	2 (0.8%)
1929	251	153 (60.9%)	44 (17.5%)	40 (15.9%)	9 (3.6%)	5 (2.0%)
1930	268	216 (80.6%)	15 (5.6%)	14 (5.6%)	13 (4.5%)	10 (3.7%)
1931	260	242 (93.0%)	9 (3.5%)	9 (3.5%)	—	—
1932	260	245 (94.2%)	3 (1.2%)	12 (4.6%)	—	—
1933	253	244 (96.4%)	4 (1.6%)	4 (1.6%)	1 (0.4%)	—
1934	261	249 (95.4%)	4 (1.5%)	6 (2.3%)	2 (0.8%)	—
1935	252	235 (93.2%)	3 (1.2%)	7 (2.8%)	5 (2%)	2 (0.8%)
1936	252	244 (96.8%)	2 (0.8%)	5 (2%)	1 (0.4%)	—
1937	253	235 (92.9%)	11 (4.3%)	6 (2.4%)	0 —	1 (0.4%)
1938	254	251 (98.8%)	1 (0.4%)	0 —	1 (0.4%)	1 (0.4%)
1939	259	254 (98.0%)	1 (0.4%)	3 (1.2%)	1 (0.4%)	—
1940	261	244 (92.7%)	2 (0.8%)	10 (3.8%)	5 (1.9%)	2 (0.8%)
1941	266	255 (92.1%)	10 (3.7%)	8 (3%)	1 (0.4%)	2 (0.8%)
1942	254	244 (96.1%)	3 (1.2%)	2 (0.8%)	5 (1.9%)	—
1943	255	253 (99.2%)	—	—	2 (0.8%)	—
1944	255	239 (93.7%)	—	6 (2.4%)	7 (2.7%)	3 (1.2%)
1945	255	246 (96.5%)	—	3 (1.2%)	4 (1.5%)	2 (0.8%)

The bacteriological results indicate that a high degree of purity was maintained during the year, indicating a corresponding degree of efficiency in the purification plant. The positive B.Coli findings occurred in nine tests, six of which were during the months of July and August. The types isolated were :—Faecal type II—6, Intermediate types—2, Irregular Types—1.

Section VII.—Sanitary Department.

Table 76—Return of work performed by Sanitary Inspectors.

District	INSPECTION OF											SERVED	
	Houses and Yards	Tenement Houses	Tenement Rooms	Infected Dwellings	Common Lodging Houses	Milk Shops	Bakeries	Work Shops	Slaughter Houses	Factories	Out-workers	Justices Orders	Notices to abate nuisance
No. 1 ...	8500	410	1134	31	3	51	—	97	—	—	—	4	574
No. 2 ...	4630	1602	5416	94	11	—	—	—	2	—	—	21	332
No. 4 ...	7412	984	3139	114	—	118	22	143	78	—	—	10	296
No. 5 ...	7150	5857	173	18	79	—	—	7	48	—	—	2	243
No. 6 ...	3725	2512	3269	138	92	6	3	21	4	—	—	27	425
No. 7 ...	9057	2698	6355	67	11	—	5	48	14	—	—	10	568
Female Inspector	—	—	—	—	—	—	361	2294	—	1424	194	—	12
Totals ...	40474	16063	19486	462	196	175	391	2610	146	1424	194	74	2450

District No. 3 is divided for purposes of supervision between Districts No. 2 and 4.
The number of inspections carried out by the Corporation Drain Tester was 3,464

Table 77.—Summary of Inspections, etc.

				No. of Inspections
Houses, yards, etc.	...	...	...	40,474
Tenement Houses	...	...	...	16,063
Tenement Rooms	...	...	...	19,486
Infected Dwellings	...	...	...	462
Common Lodging Houses	...	...	...	196
Bakeries	...	...	...	391
Workshops	...	...	...	2,610
Outworkers	...	...	...	194
Factories	...	...	...	1,424
Milk Shops	...	...	...	175
Slaughter Houses	...	...	...	146
Drains and W.C.'s Tested	...	...	...	3,464
Number of Notices to abate nuisances	...	...	...	2,450
Number of Justices' Orders	...	...	...	74
Amount of fines imposed in respect of same				£13 16 0

Table 78.—Return of Work carried out by **Veterinary Staff** during the year :—

Slaughter Houses	...	...	...	5,103
Butcher Shops	...	...	...	5,399
Tripe Houses	...	...	...	1,067
Meat Markets	...	...	...	1,028
Milk Shops	...	...	...	2,159
Milk Vans	...	...	...	3,401
Cowsheds	...	...	...	64
Sausage Factories	...	...	...	927
Hawkers' Stands	...	...	...	1,036
Provision Shops	...	...	...	1,632
Pork Shops	...	...	...	683
Fish Shops	...	...	...	566
Fruit Shops	...	...	...	149
Cold Stores	...	...	...	58

No of Prosecutions

Amount of Fines imposed }

See Section V., Prosecutions

SHOPS (CONDITIONS OF EMPLOYMENT) ACT, 1938.

In the following table are set out particulars of the work done by the Shops Inspectors during the year.

Number of Inspections. 1,543

Particulars of Defects Found.

Insufficient Ventilation ...	...	2
Insufficient Heating ...	...	8
No Heating Provided ...	...	6
No Seating Accommodation ...	...	13
Insufficient Sanitary Accommodation		3
No Sanitary Accommodation ...	...	2
No Washing Accommodation ...	...	2
Total ...	...	36

Exemption Orders served (re Sanitary Accommodation)	...	—
Works Notices served	... ..	5

As in former years recommendations of the inspectors have been generally complied with and, in fact, it was not found necessary in any instance during the year to initiate court proceedings. In addition to the particulars given above (which represent cases in which formal notices were served) cases of insufficient heating were remedied in 18 instances and of insufficient seating accommodation in 15. Shortage of fuel continues to be a source of trouble and hardship during the winter months.

The staple foods may not contain the same nutritive substances as in former times. Mass production has modified the composition of wheat, milk, fruit and butter, although these articles have retained their familiar appearance. Chemical fertilisers, by increasing the abundance of crops, without replacing all the exhausted elements of the soil, have indirectly contributed to change the nutritive value of cereal grains and vegetables. Hens have been compelled by artificial diet and mode of living to enter the ranks of mass producers. Has not the quality of their eggs been modified? The same question may be asked about milk, because cows are now confined to the stable all the year around and are fed on manufactured provender.

CARREL, A. Man the Unknown.

The most serious loss of vitamin B occurs in machine-milling to make white flour, white rice, pearled barley and cornflour. The most valuable parts of the grain are removed and fed to farm stock. Preparations of bran or germ are sold at greatly enhanced prices to cure the constipation of human beings who eat white cereals and suffer from deficiency of vitamin B₁.

PLIMMER, V. G. Food Values at a Glance.

Section VIII.—Housing

Houses erected and let	...	...	...	...	3054
Houses erected and bought out	...	...	...	...	123
Houses erected and still repaying mortgage	...	...	...	...	199
Houses erected and ready for occupation	...	...	...	...	90

Assistance to private persons and Public Utility Societies :—

(a) Under Section 6 of the Housing Acts, 1925–28...	£4,685	0	0
(b) Under the Housing Acts	...	...	£10,405 0 0

Assistance under Small Dwellings Acquisition Acts :—

(a) To houses built by Public Utility Societies	...	£103,125	0	0
(b) To houses built by Private Individuals	...	£58,347	10	0

Amount expended by Corporation on Working Class Dwellings,
£1,123,622 0s. 0d.

Cereals are the staple food. The tendency is to replace more and more cereal by meat, sugar and fat. The refined white cereals which were introduced with machine-milling are impoverished foodstuffs, although chemical analysis shows little difference. Whole cereals approach very nearly to a complete diet and require only such supplements as milk and green leaves. The proteins of the bran and germ are of better quality than those of the white core or endosperm. The germ of cereals contains vitamin E. Three-quarters of the mineral salts, practically the whole of the vitamin content and the best quality proteins are removed in the process of roller-milling to make white flour.

PLIMMER, V. G. Food Values at a Glance.

Children have a right to attain their full inherited capacity for health and growth, and adults to the enjoyment of healthy manhood (or womanhood). A diet of milk, butter, cheese, wholemeal bread, oatmeal, lettuce, cabbage, parsley, carrots, potatoes, together with some eggs and meat, contains in abundance all the food items necessary for the manifestation of the full inheritance of life, namely quick growth to vigorous adolescence, a long prime of life, persistence of youthful appearance, ability for much work, a feeling of bodily well-being, and a high resistance to invading disease organisms.

Prof. E. J. SHEEHY and Miss K. O'SULLIVAN. Food and Dietetics.

Table 79.—The number and rents of the various houses built by the Corporation to date.

Location	No. of Houses	Year Built	Weekly Rents (Including Rates)
Madden's Buildings ...	76	1886	4/4 to 6/6
Ryan's " ...	16	1886	2/4 to 5/-
Horgan's " ...	126	1891	2/8 to 6/5
Roche's " ...	128	1892	2/11 to 6/8
Corporation " ...	33	1900	5/-
Sutton's " ...	46	1905	5/9 to 6/7
Kelleher's " ...	50	1906	5/7 to 7/5
Barrett's " ...	89	1906	4/3 to 6/7
MacCurtain Villas ...	76	1922	11/4 to 11/10
McSwiney " ...	40	1923	11/-
French's " ...	30	1923	10/- and 10/8
Capwell ...	148	1928	* 8/6, 10/6 and 14/-
Turner's Cross ...	152	1930	* 8/-, 10/- and 13/-
Turner's Cross Extension ...	168	1932	11/6 and 12/6
Gurranabraher 1 ...	252	1934	† 2/6 to 12/6
" 2 ...	108	1935	† 2/6 to 12/6
" 3 ...	78	1936	† 2/6 to 12/6
" 4 ...	82	1936	† 3/6 to 18/-
Commons Road 1 ...	170	1936	† 3/6 to 18/-
" 2 ...	106	1937	† 3/6 to 18/-
Bandon Road ...	86	1936	† 3/- to 12/6
Baker's Lane 1 ...	266	1938	† 3/6 to 18/-
" 2 ...	242	1940/1	† 3/6 to 18/-
Farranferris 1 ...	206	1939	† 3/6 to 18/-
Assumption Road ...	70	1941	16/-
Greenmount ...	210	1941/2	† 3/6 to 18/-
Total ...	3054		*Exclusive of Rates. †Differential Rents

TABLE 80

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SUMMARY CORK CORPORATION HOUSES—MARCH, 1946.

NAME OF SCHEME	No. of Houses in Scheme	Erected	Cost of Scheme in Pounds	Cost Per House in Pounds	No. of Rooms	Cubic Contents of House	Cost of Construction per Cu. Ft.	Density Index	WEEKLY RENTS
MADDEN'S BUILDINGS	76	1886	6,500	£85 10 0	3	5,630	3½d.	44	4/4 to 6/8d. (F)
RYAN'S do. ..	16	1888	1,291	81 0 0	2	3,960	5d.	40	2/4 to 4/- (F)
HORGAN'S do. ..	126	1891	10,000	79 10 0	3	4,480	4½d.	52	2/6 to 7/8d. (F)
ROCHE'S do. ..	128	1892	9,933	77 10 0	3	4,400	4½d.	80	2/11 to 7/8d. (F)
CORPORATION do. ..	33	1900	5,900	179 0 0	3	3,108	1/1½d.	94	5/- (F)
SUTTON'S do. ..	46	1905	26,578	143 10 0	3	4,680	7½d.	61	5/7 to 6/8d. (F)
KELLEHER'S do. ..	50	1906		143 10 0	3	4,680	7½d.	78	5/7 to 7/7 (F)
BARRETT'S do. ..	89	1906		143 10 0	16 @ 2 73 @ 3	4,680	7½d.	61	4/3 to 5/8d. (F)
McCURTAIN'S VILLAS ..	76	1922	108,325	£777 732	5 4	9,600 9,050	1/7½d.	14	11/4 to 12/4d. (F)
FRENCH'S do. ..	30	1923		732	5	9,050	1/7½d.	15	10/- to 10/8d. (F)
MACSWEENEY'S do. ..	40	1923		732	5	9,050	1/7½d.	15	11/- to 12/- (F)
CAPWELL	148	1928	65,072	4 @ 391 136 @ 430 8 @ 601	4 @ 3 136 @ 4 8 @ 5	7,820	1/1½d.	16	8/- to 13/10 (F)
TURNER'S CROSS ..	152	1930	75,591	417	5	7,820	1/0½d.	16	10/- to 16/10d. (F)
TURNER'S CROSS EXTENSION ..	168	1932	103,512	415	5	7,950	1/0½d.	16	11/6 to 14/- (F)
GURRANABRAHER 1 ..	252	1934	102,223	306 365	70 @ 3 182 @ 4	6,734 8,032	11d.	19	2/6 to 12/6d. (D)
GURRANABRAHER 2 ..	108	1935	40,628	341	4	8,380	9½d.	18	2/6 to 12/6d. (FD)
GURRANABRAHER 3 ..	78	1936	29,215	346	4	8,380	10d.	19	2/6 to 12/6d. (D)
BANDON ROAD ..	86	1936	29,503	283	4	7,480	9½d.	20	2/6 to 12/6d. (F)
GURRANABRAHER 4 ..	82	1936	31,161	336	4	8,415	9½d.	16	3/6 to 12/6d. (D)
COMMON'S ROAD ..	170	1936	79,652	14 @ 530 14 @ 397 142 @ 384	14 @ 5 186 @ 4	11,583 8,662 8,380	11d.	16	3/6 to 18/- (FD)
do. 2 ..	106	1937	43,146	100 @ 350 6 @ 341	4	8,826 8,662	9½d.	16	3/6 to 18/- (FD)
BAKER'S LANE 1 ..	266	1938	127,712	12 @ 542 120 @ 413 86 @ 435 20 @ 338 28 @ 363	12 @ 5 206 @ 4 48 @ 3	11,583 8,826 9,306 7,224 7,774	11½d.	18	3/6 to 18/- (FD)
FARRANFERRIS 1 ..	206	1939	116,590	8 @ 467 14 @ 625 50 @ 476 102 @ 501 14 @ 389 18 @ 419	14 @ 5 152 @ 4 40 @ 3	8,662 11,583 8,826 9,306 7,224 7,774	1/1d.	15	3/6 to 18/- (D)
ASSUMPTION ROAD ..	70	1939	28,709	356	6	6,048	1/2d.	14	16/- (F)
BAKER'S LANE 2 ..	242	1940	132,410	126 @ 451 116 @ 476	4	8,826 9,306	1/0½d.	18	3/6 to 18/- (D)
GREENMOUNT ..	210	1941	123,295	182 @ 508 28 @ 498	4	8,826 8,662	1/1½d.	16	3/6 to 18/- (D)
CATHEDRAL ROAD ..	90	1946	63,000 (Est.)	868 662 (Est.)	22 @ 5 68 @ 4	11,583 8,826	1/6d.	15	20/- (F) (Exclusive of Rates)

During the year a sworn Inquiry was held into the method whereby the rents of certain houses provided by the Corporation are fixed by reference to the means of the tenants and to alternative methods proposed to be adopted for fixing the rents and also into the manner in which the rents of the houses are collected.

The following conclusions of the Minister for Local Government and Public Health on the evidence at the Inquiry are set out hereunder:—

1.—No evidence was adduced at the Inquiry that the manner of the determination of rents was inequitable. The statements of tenants who attended as witnesses at the Inquiry did not indicate any inability on the part of tenants to meet the rents fixed under the differential system. The representatives of the Tenants' Association took exception to the fixing of rents higher than 9/- or 10/- a week. It was stated by one witness on behalf of the Association that he would prefer in his own case to have 15/- fixed instead of 18/- maximum. The evidence submitted by the Corporation as to the distribution of incomes of tenants would indicate that more than 9% of them should be able to pay a rent of 12/- a week or over.

2.—From the evidence tendered at the Inquiry it appears that the City Council and the Rents Committee took an active part in regard to the fixing of rents by dealing directly with tenants' representatives and by passing resolutions for the modification of the system so as to permit a reduction in the rents and that the Tenants' Association were thereby encouraged to look to the Corporation for a modification of the differential system, and this in turn had an unsettling effect on the general administration of the scheme.

3.—The proposals submitted by the Corporation as a new basis for the determination of differential rents would operate mainly to the benefit of tenants in receipt of incomes of £4 a week or over and the adoption of the change suggested would not be warranted. The housing programme of the Corporation in so far as it has already been undertaken imposes a charge on the ratepayers of approximately 1/9 in the £ and the Corporation at this stage must recognise that if their housing programme is to be carried out to completion within a reasonable time a fair contribution by way of rent must be made by the tenants, if an undue burden is not to fall on the general body of ratepayers.

4.—A considerable variety of maximum rents exist due to variations in costs of each scheme to which differential rents are applicable, and to differences in size and types of houses. The maximum rents under the differential rents scheme should not be entirely governed by individual costs of schemes. It is suggested that they be based on average cost of all houses to which the differential renting system applies, but a higher maximum rent could be fixed where the size and situation of the houses would warrant it.

5.—The onus of proving his claim to a rent lower than the maximum should be placed on the tenant. While the evidence at the Inquiry was not directly concerned with this aspect of the question, experience elsewhere has shown the necessity for a close check on statements of income submitted by tenants. Under the existing system it appears that much trouble and expense is involved in such work, and that only a proportion of the statements can be checked. The arrangement might be altered to one requiring the tenant to obtain and furnish signed statements on standard forms setting out the income of each earner in the family from salary or wages, social insurance, assistance, or any other source whether assessable for rent purposes or not. In the case of members of families in receipt of wages, verification by the employers of the returns of incomes submitted should be forthcoming.

Also during the year a Public Inquiry was held to determine the right of the Corporation to acquire by Compulsory Purchase the houses and lands in a further section of the North West Slum Clearance Area and comprising property in, Ballymachthomas St., Kearneys Ave., Sives Lane, Pordhams Lane, Daly's Lane, First and Second Burnt Lanes, Mannix's Lane, Corbetts Lane, Hardings Lane, Farrell's Square and Wolfe Tone Street.

The necessary steps were taken under the 1940 Derelict Sites Act, to acquire 53 Derelict Sites in or adjacent to the above Area and these sites have been Vested in the Corporation.

Whole wheat flour cannot be handled in commerce without danger of deterioration since the wheat-growing regions are generally far from the centres of population. The keeping properties of highly milled flour are a great advantage to the distributor and baker. Whole unmilled wheat can be shipped long distances more safely than can flour, for the reasons cited. There are sound reasons why the population should continue to use white flour as a breadstuff; these rest on commercial expediency.

McCOLLUM, E. V. *et alia*—The Newer Knowledge of Nutrition, 1939.
P. 554-5.

In extenuation of over-indulgence, it is said that children have a *natural* craving for sugar and that therefore it must be good for them. Since concentrated sugar is the least natural and most artificial of foods, this claim is nonsense. A craving for sugar is an acquired habit like that for alcohol or tobacco. Nature carefully avoids sweetness as a stimulant to appetite . . . The bad effect of sugar upon the teeth is due not so much to direct local action in favouring bacterial infection as to its indirect action. In replacing milk, fruit and greenstuff, sugar deprives the body of materials required for the construction of sound teeth able to resist bacterial invasion.

PLIMMER, V. G. Food Values at a Glance.

Indeed the child of well-to-do parents, frequently suffers from the availability of a choice of expensive food, which, from the nutritive point of view, is very much less valuable than the more ordinary items of diet. To allow a child, day after day, to indulge so freely in pastries, in expensive dessert dishes (containing the minimum of the protective foods) and in highly sweetened, highly flavoured concoctions that an insufficiency of the ordinary foods is consumed is a grave dis-service to the child.

SHEEHY, Professor E. J. and O'SULLIVAN, Miss K., Food and Dietetics.

Section IX.—Port Sanitary Administration

Constitution of the Port Sanitary Authority.

The port was constituted a port sanitary district by the Local Government Board (Ireland) on 27th April, 1903. The Authority consists of twenty members chosen by the respective riparian authorities who elect representatives to the joint board as follows:—

By the Lord Mayor, Aldermen and Councillors of the			
County Borough of Cork	...	...	12
By the Cork County Council	...	...	6
By the Urban District of Cobh	...	...	2

The South Cork Board of Public Health was dissolved by virtue of Section 36 of the County Management Act of 1940 and its powers, functions and duties transferred to and vested in the Cork County Council.

Apportionment of Expenses.

Cork County Borough contributes	...	62½ per cent. of the total
Cork County Council	...	27½ "
Cobh Urban District Council	...	10 "

Limits of Jurisdiction.

These are defined in Act 18 of the Cork Port Sanitary Order No. 3 as follows:—"The jurisdiction of the said Port Sanitary Authority shall extend to the whole of that part of the customs port of Cork that lies between Power Head and Cork Head in the County of Cork, together with the waters of the said port of Cork within such limits and all docks, basins, harbours, creeks, rivers, channels, bays and streams within the aforesaid limits and the places for the time being appointed as the customs boarding station or stations for such part of the said port and the places for the time being appointed for the mooring or anchoring of ships for such part of the said port under any regulations for the prevention of the spread of diseases issued under the authority of the statutes in that behalf."

Issue of Deratisation and Deratisation-exemption Certificates.

By letter dated 12th Dec., 1942, the Minister for Local Government and Public Health authorised the issue of the above certificates in pursuance of the Public Health (Deratisation of Ships) Regulations, 1930. This is, therefore, now an approved port for the issue of such certificates. During the year 5 Deratization Exemption Certificates were issued.

Quarantine Anchorage.

Anchorage for vessels with cases of infectious disease on board is between the town of Cobh and the Spit buoy.

Cuskinny Intercepting Hospital.

The intercepting hospital is situated about two miles east of the town of Cobh and about half-a-mile from Cuskinny Strand on the northern shore of the harbour. The hospital was built in the year 1880 by the old Cork Board of Guardians and was acquired by the Port Sanitary Authority in the year 1902 from the Commissioners of Public Works (Ireland) and since has been kept in good repair and condition. The function of the hospital is to deal with the more serious types of infectious disease (e.g., small pox, plague, cholera, typhus, etc.) should any such cases arrive in the port necessitating hospital treatment or isolation. Infected vessels would moor at the quarantine anchorage, the patient being removed by motor launch and landed at Cuskinny Strand or some suitable slipway and transferred to the Authorities' ambulance for transport to the hospital.

Procedure for granting Pratique.

Deepladen vessels arriving in the lower harbour and bound for Cork may be detained there for tide. Such vessels are boarded by an officer of the Customs and Excise, who puts the usual questions to the master in regard to the prevalence of illness on board and especially in relation to cholera, plague and yellow fever or as to the prevalence of same at any ports of call en route. If the answers are in the *negative*, free pratique is granted and the vessels allowed to proceed to her moorings. If any answers are in the affirmative, pratique is not granted until the vessel has been visited by the Port Medical Officer. Vessels of light draught able to proceed to the City at any state of the tide are hailed while passing Cobh and if the answers are satisfactory are allowed to proceed to Cork where they are boarded by the Customs Officer and the usual questions are put. In addition, instructions have been sent to all shipping agents for companies using the port of Cork that masters of vessels approaching the port with cases of infectious disease on board are to notify the Authority by wireless.

Measures against Rodents.

All vessels from foreign ports are boarded immediately on arrival by the Port Sanitary Officer who, after satisfying himself as the documents relative to health and deratisation certificates proceeds to the examination of the vessel in regard to rat infestation, particular attention being paid to cargo surfaces as soon as the holds have been opened up. The various cargo compartments are searched for sick or dead rats, which, if found, are submitted at once for bacteriological examination. So far a positive result has not been obtained, but such a result would necessitate suspension of discharge of cargo. In addition, traps are laid in various parts of the ship and rats caught are submitted to examination. Precautions adopted to prevent migration of rodents ashore, comprise the placing of rat guards on all mooring ropes and wires of all except cross-channel vessels. In addition, vessels from plague infected areas have to keep their gangways lime-washed daily and well lighted at night whilst alongside the quays.

The following measures would be adopted in this port in the event of a vessel being found effected with human or rodent plague to prevent egress from ship to shore :—

- (1) Vessel would be breasted off at least six feet from the quayside by placing wood floats between it and the quay wall.
- (2) Besides the adjusting of rat guards, moorings would be parcelled with old canvas on shore side of rat guards and same smeared with Stockholm tar.
- (3) Gangway would be required to be lifted from sunset to sunrise.
- (4) Intensive trapping and examination of rodents caught in the immediate neighbourhood of the ship's berth.

Of all diseases liable to be introduced by shipping, *plague* is without doubt the most to be feared, hence the necessity for the stringent precautions in regard to its prevention. Several of the ports from which shipping arrives in Cork are situated in countries in which plague is endemic, even though the ports themselves may not actually be infected at the time of departure. There is, however, the ever present danger of the importation of *plague infected rats* from such ports and it is in consequence of this danger that so much importance is attached to the systematic trapping and examination of rats taken on vessels coming into this port. As there is always a certain amount of migration of rats from ships to the shore while vessels are tied up at their moorings it is also necessary to maintain a constant sampling and examination of the shore rats taken in warehouses adjacent to the quays. It will be noted from the appropriate tables that of 42 rats taken during the past year, 28 were submitted to post-mortem examination and that all gave negative results. In the previous year 34 were trapped, of which 21 were examined, also with negative results. The rats are examined in the first instance by the Inspector, under the supervision of the Chief Veterinary Officer. In the event of a suspicious finding, the carcase would be referred to the Bacteriological Department of University College for a further examination.

The fact that so many rats have been examined and found negative is not by any means an indication for relaxation in the measures which have been adopted in connection with their reduction and the prevention of plague. One infected rat coming ashore might be the cause of an outbreak among the shore population and from time to time we are reminded of this ever present danger by the discovery of plague infected rats in other ports. Plague is rarely transferred from one human being to the other, such transfer requires an intermediary and the agent is almost always the rat flea. It is only when an epizootic breaks out among the rats and large numbers die that the infecting flea seeks a new host and may transfer his attention to human beings. In countries where the disease is endemic, outbreaks among human beings are always heralded by excessive mortality among rats. Excessive rat mortality on board ship is a very suspicious sign of plague infection and masters are bound to notify any such happening at the port of arrival. Plague is such a deadly disease that no relaxation in preventive measures can be tolerated and for this reason it is necessary to keep up a constant watch over vessels arriving from foreign parts and for systematic examination and extermination of rats.

Water Supply.

Drinking and boiler water is obtained directly from the public supply. There are upwards of 80 such hydrants available in this port. As mentioned in the section dealing specifically with the supply to the City, the water is subjected to systematic sampling and bacteriological examination throughout the year. 255 samples were examined during the year and the results indicated that the water was of first-class quality.

Disinfestation of Crews' Quarters by D.D.T.

A heavy infestation in the foc'sles of a cross-channel ship by bugs, was discovered during a routine inspection of the vessel during the year. Traces of these pests were found in the grooves of the timber tongue and groove bulkhead partitioning the sailors' foc'sle from that of the firemen. Bugs were found in the crevices where the timber lee bunk boards entered the supporting brackets provided on wooden uprights and also on bedding. The crew using these quarters reported having been bitten severely, especially during warm weather. With the exception of steel deck head and partially sheathed shell plating, this accommodation was built entirely of timber. Being of old construction, two timber chutes (one in each forecabin) had been built to carry anchor cables from the windlass into the chain locker. From the above description it will readily be understood why a heavy infestation was present and how some of the old disinfestation methods failed to eradicate the bugs completely. It was decided to carry out disinfestation in this port by using D.D.T. in solution and D.D.T. powder. Using the former in a high pressure sprayer, fitted with a very fine nozzle, all timber work was treated, special attention being paid to dividing bulkhead between the foc'sles and around the bunks, (the bedding in the meantime having been removed). When this had been completed the bedding was dusted very liberally with D.D.T. powder and replaced. This operation took place about four hours before the vessel proceeded to sea. No inspection of these quarters was found possible until three months had elapsed. On re-inspection, no traces of bugs were found. The crew were interrogated to confirm the absence of these pests and stated that they had not been disturbed with either bugs or fleas since the accommodation had been treated. Needless to remark, only trained personnel were employed, and it is recommended that only operatives with adequate protection should undertake this work. It may be added that seven months after treatment of this accommodation, no further infestation was reported or observed.

Everything that we know about biology and nutrition is opposed to the practice of artificial enrichment, for man can only put back what he knows he has taken out. He would be a very bold miller who offered to replace all the valuable amino-acids, minerals, and vitamins in the outer parts of a grain of wheat. "It must be recognised that synthetic vitamins and vitamin concentrates are expedients that cannot form the basis for a sound nutrition programme. In the last analysis, good nutrition must be built upon a foundation of an optimum diet of natural foodstuffs." (Boudreau, 1945).

If the health of the people is the first consideration in our bread policy, the cheapest, safest, and easiest way to maintain this is to keep up the extraction-rate of the flour used for bread-making.

Much could be done by frankly and honestly putting the case for its own health before the public. If we revert to a flour of 70 per cent. extraction, it will be much more difficult and much more expensive on purses and imports to ensure that Mr. Tom, Mrs. Dick, and Master Harry get their supplies of nutritional minutiae, and I personally would not care to undertake it.

McCANCE, Professor R. A., *The Lancet*, January 19th, 1946.

Table 84.—Return of Shipping entering the Port since 1930.

Year	Number of Arrivals			Tonnage		
	Foreign	Coastwise	Totals	Foreign	Coastwise	Totals
1930	297	1,636	1,933	364,650	617,783	982,433
1931	272	1,566	1,838	345,430	647,327	992,757
1932	315	1,375	1,690	352,459	602,509	954,968
1933	399	893	1,292	371,757	462,047	833,804
1934	404	817	1,221	407,188	463,169	870,357
1935	285	1,015	1,300	323,631	525,062	848,693
1936	249	1,053	1,302	277,779	583,922	861,701
1937	250	1,098	1,348	300,730	594,396	895,126
1938	239	1,084	1,323	280,403	598,114	878,517
1939	202	1,074	1,276	274,660	521,801	796,461
1940	116	1,053	1,169	174,087	373,841	547,928
1941	—	522	522	Nil	203,976	203,976
1942	Figures not available.					
1943	do.			do.		
1944	do.			do.		
1945	do.			do.		

Table 85.—Summary of Inspections and Defects.

Description	Number of Arrivals	Tonnage of Arrivals	Number Inspected	Number Defective	No. of Defects Remedied
<i>Foreign</i> Steamers	Figures not available		22	11	11
<i>Coastwise</i> Motor	Figures not available		338	95	64
Total	Figures not available		360	106	75

Table 86.—Return of Vessels entering the Port which were dealt with by the Department each month during 1945.

Month	Foreign	Coastwise	Total
January ...	—	21	21
February ...	—	11	11
March ...	—	15	15
April ...	—	19	19
May ...	—	25	25
June ...	—	33	33
July ...	4	40	44
August ...	5	40	45
September ...	2	12	14
October ...	5	39	44
November ...	4	45	49
December ...	2	38	40
Totals ...	22	338	360

Table 87.—Return of Imports and Exports from 1930.

Year	Imports (tons)	Exports (tons)
1930	906,340	120,610
1931	861,782	85,704
1932	890,377	104,884
1933	710,149	89,319
1934	784,174	66,606
1935	743,939	63,219
1936	788,545	73,673
1937	829,704	78,530
1938	802,238	65,147
1939	900,644	105,659
1940	734,888	74,517
1941	262,222	37,448
1942	Figures not available	
1943	do.	do.
1944	do.	do.
1945	do.	do.

Sanitary defects and nuisances dealt with during 1945.

Dirty Focsls	...	...	...	...	46
Dirty Galleys	...	...	...	...	6
Dirty Store Rooms	...	...	...	...	2
Dirty Mess Rooms	...	...	...	...	10
Damp Quarters	...	...	...	...	9
Leaky Deckheads	...	...	...	...	7
Defective Port Frames and Discs	...	...	...	...	8
Defective W.C. Fittings	...	...	...	...	10
Defective Bogie Stoves, Galley Stoves and Funnels	...	...	...	...	6
Defective Flooring Boards	...	...	...	...	1
Defective Steam Heaters	...	...	...	...	1
Defective Lockers...	...	...	...	...	1
Overcrowding	...	...	...	...	1
Verminous Quarters	...	...	...	...	4
Foul Water Closets	...	...	...	...	15
„ Bilges	...	...	...	...	2
Dirty Refrigerators	...	...	...	...	1
Defective „	...	...	...	...	1
Accumulation of offensive Rubbish	...	...	...	...	8
Total					139
Verbal Notices Given	...	...	...	...	70
Written Notices Left on Board	...	...	...	...	39
Statutory Notices Served	...	...	...	...	1
Total					110

A total of 693 inspections of vessels were carried out during the year.

TABLE 88—RATS TRAPPED ASHORE.

Month	No.	Mus Decumans	Mus Alexandrinus	Mus Rattus	Species Unknown	No. of P.M. Exam.*
Jan. ...	1	—	1	—	—	1
Feb. ...	5	—	1	4	—	4
March ...	11	4	2	5	—	3
April ...	—	—	—	—	—	—
May ...	2	2	—	—	—	1
June ...	1	1	—	—	—	1
July ...	—	—	—	—	—	—
August ...	1	—	—	1	—	1
Sept. ...	1	1	—	—	—	1
Oct. ...	—	—	—	—	—	—
Nov. ...	9	1	1	7	—	9
Dec. ...	2	—	2	—	—	2
Total ...	33	9	7	17	—	23

* All P.M. Examinations proved Negative.

TABLE 89—RATS TRAPPED ON VESSELS

Month	No.	Mus Decumans	Mus Alexandrinus	Mus Rattus	Species Unknown	No. of P.M. Exam.*
January	—	—	—	—	—	—
Feb. ...	—	—	—	—	—	—
March	—	—	—	—	—	—
April	—	—	—	—	—	—
May ...	—	—	—	—	—	—
June ...	3	—	3	—	—	1
July ...	—	—	—	—	—	—
August	6	—	3	3	—	4
Sept. ...	—	—	—	—	—	—
October	—	—	—	—	—	—
Nov. ...	—	—	—	—	—	—
Dec. ...	—	—	—	—	—	—
Totals	9	—	6	3	—	5

* All P.M. Examinations proved negative.

Section X—Meteorology.

I am indebted to Prof. H. N. Walsh, University College, for the following particulars concerning the weather conditions during the year, and more especially for the trouble which he has gone to to bring up to date the Tables which follow.

Table 90.—Rain fall in inches for each quarter and for each year, 1901–1945.

Year	I.	II.	III.	IV.	Total
1901	10.07	7.62	10.75	10.12	38.56
1902	9.29	7.80	7.31	12.88	37.28
1903	16.89	8.80	14.95	12.13	52.77
1904	13.63	5.71	10.41	7.47	37.22
1905	11.70	6.59	9.82	9.14	37.25
1906	9.46	5.76	5.58	9.03	29.83
1907	4.06	10.10	7.40	16.02	37.58
1908	7.67	5.28	10.16	9.53	32.64
1909	7.61	9.94	2.62	9.74	29.91
1910	10.70	7.24	8.64	11.98	38.56
1911	5.94	6.89	7.87	18.47	39.17
1912	13.46	7.07	9.30	7.05	36.88
1913	13.92	10.32	7.73	12.49	44.46
1914	13.72	3.60	9.85	15.20	42.42
1915	11.62	6.27	9.26	15.68	42.83
1916	8.68	9.19	7.37	21.11	46.35
1917	8.75	6.93	9.40	7.25	32.33
1918	14.75	5.59	13.37	13.73	47.44
1919	10.78	7.11	6.77	6.97	31.63
1920	11.75	14.12	8.90	13.24	48.01
1921	8.04	2.22	8.71	9.90	28.87
1922	13.08	5.45	10.57	8.15	37.25
1923	14.41	5.38	10.71	10.54	41.04
1924	12.32	9.76	11.82	17.66	51.56
1925	10.31	10.49	8.43	11.92	41.15
1926	15.42	8.19	4.68	9.55	37.84
1927	12.20	6.16	11.45	16.06	45.87
1928	16.14	13.86	8.31	17.35	55.66
1929	11.28	6.72	7.27	20.91	46.18
1930	14.98	5.91	12.67	14.35	47.91
1931	12.30	10.35	8.34	13.27	44.26
1932	8.54	8.11	7.31	13.62	37.58
1933	8.61	8.74	5.22	6.47	29.04
1934	9.66	7.13	11.49	13.75	42.03
1935	5.33	9.33	9.98	10.97	35.61
1936	16.77	4.51	9.13	9.88	40.29
1937	19.67	6.12	7.90	8.52	42.21
1938	9.22	7.38	7.99	15.14	39.73
1939	13.01	4.94	7.43	16.53	41.91
1940	14.74	6.64	3.80	17.96	43.14
1941	12.82	5.47	5.73	14.40	38.42
1942	11.39	8.43	8.21	8.17	36.20
1943	11.59	7.47	8.80	10.99	38.85
1944	4.79	5.16	11.43	16.34	37.72
1945	8.90	6.23	10.30	12.25	37.68

The mean temp. for 1945 was 51.5° F. The warmest day was 2nd Aug., with a maximum shade temp. of 77° F. The warmest night was 11th Sept., with a minimum shade temp. of 62° F. The coldest night was 28th January, with a minimum shade temp. of 15° F.

Table 93—Temperature at Cork (in the Shade) from 1884 to Present Year.

111a

YEAR	January			February			March			April			May			June			July			August			September			October			November			December			Mean Temper- ature of Year
	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean				
	Degrees			Degrees			Degrees			Degrees			Degrees			Degrees			Degrees			Degrees			Degrees			Degrees			Degrees						
1884	55-31-45.5			54-31-46.5			54-30-45.5			57-34-48.5			68-37-55.5			73-40-59.0			72-45-61.5			74-44-62.2			71-45-58.5			60-34-52.2			60-28-45.2			55-28-41.3	51.8		
1885	54-27-41.7			50-27-43.5			54-30-43.5			62-30-48.2			61-34-52.0			73-42-59.2			80-43-62.0			74-46-60.5			65-36-55.2			57-35-46.7			58-31-46.7			54-25-39.5	49.9		
1886	52-23-38.0			52-28-41.5			57-25-41.5			65-32-46.7			65-33-50.5			76-45-57.7			79-44-59.5			76-45-60.5			65-39-56.5			64-37-51.5			58-29-45.0			50-22-39.0	49.0		
1887	54-30-43.0			54-27-43.5			58-25-42.0			62-26-44.5			70-35-52.5			81-47-62.5			80-47-64.2			76-42-60.7			69-39-55.0			61-28-48.2			54-24-42.0			55-25-39.7	50.0		
1888	54-26-43.0			52-26-38.2			56-26-40.7			59-28-46.5			68-39-53.2			73-39-57.0			70-40-57.5			74-42-60.0			66-37-55.5			63-31-50.5			58-27-48.0			56-28-44.7	49.6		
1889	58-26-43.0			57-27-42.2			59-29-44.7			58-32-46.7			68-40-48.0			77-46-58.0			77-45-60.0			72-43-58.7			70-38-57.2			59-32-48.2			60-29-48.2			56-29-44.2	49.9		
1890	55-29-44.0			54-29-42.5			58-28-45.2			61-29-48.0			70-39-53.0			73-45-58.0			72-43-58.4			72-40-58.4			75-42-50.2			66-34-53.0			60-24-44.6			52-25-39.0	50.3		
1891	53-23-40.3			56-31-45.7			61-22-42.1			60-31-46.9			73-34-50.0			78-40-58.6			75-44-59.0			73-40-58.0			71-39-56.5			61-29-48.5			53-28-42.6			55-26-44.0	49.4		
1892	55-20-39.2			55-25-42.3			57-24-40.0			62-27-47.2			66-37-53.1			73-39-56.2			73-44-59.0			70-44-60.0			68-37-55.0			56-28-45.0			56-31-47.2			53-27-42.7	49.7		
1893	53-21-40.5			53-24-42.5			60-34-47.5			67-31-51.5			69-43-56.5			80-46-59.8			74-46-61.2			77-45-61.7			71-33-55.2			63-31-49.0			59-30-43.0			53-26-42.5	50.9		
1894	53-11-39.5			56-28-44.6			57-33-44.8			62-37-49.0			67-34-50.0			71-38-57.0			72-45-69.0			71-44-57.5			66-36-53.5			66-33-49.5			59-28-46.0			54-29-44.5	49.6		
1895	47-23-36.5			48-22-34.5			63-27-44.0			61-31-48.2			70-33-53.0			74-40-58.7			70-44-58.7			70-43-59.0			71-46-58.9			62-28-46.0			56-30-45.0			54-26-42.5	48.7		
1896	53-26-43.0			55-32-45.2			56-31-46.5			65-34-50.0			74-33-56.2			82-47-60.5			75-42-60.0			73-41-57.5			68-41-55.0			65-30-43.2			53-29-42.0			53-23-40.0	49.9		
1897	50-22-37.5			56-32-46.0			55-31-44.0			58-29-46.0			70-35-51.0			75-41-59.0			77-43-61.0			80-45-59.5			67-38-53.2			61-31-57.2			58-32-47.2			53-29-44.0	50.3		
1898	55-32-45.8			54-26-41.5			58-28-41.0			60-31-47.7			67-34-51.0			74-39-56.8			78-44-59.5			73-46-69.5			72-40-58.7			64-34-51.3			59-30-44.0			55-27-45.4	50.1		
1899	53-26-40.1			52-29-43.0			64-22-43.0			63-29-46.6			65-34-50.6			78-41-59.5			76-45-60.0			76-46-62.3			71-31-54.1			60-29-47.9			55-39-47.2			51-24-40.0	49.5		
1900	54-27-39.5			52-14-35.4			51-25-38.6			65-33-47.8			68-36-50.7			75-42-56.8			75-45-60.1			71-42-57.0			67-38-55.1			63-32-48.1			57-29-41.7			52-26-42.3	47.9		
1901	49-24-37.8			49-22-35.8			51-34-38.9			59-39-45.0			68-34-51.9			72-37-54.2			76-46-60.2			75-41-57.5			67-39-54.0			61-31-47.0			54-19-41.2			51-26-37.5	46.8		
1902	50-25-40.6			52-19-36.6			57-30-44.0			57-29-44.0			67-31-47.3			74-38-53.1			74-40-56.0			68-40-56.2			68-36-53.6			62-34-57.4			55-30-43.5			52-25-39.0	46.8		
1903	50-22-39.5			52-29-42.7			52-29-41.1			57-27-43.7			69-36-50.4			70-35-54.0			74-43-56.6			68-40-54.3			64-36-52.4			60-28-46.2			55-24-41.0			48-22-37.0	46.4		
1904	49-27-38.5			49-24-37.2			52-25-39.1			60-32-44.4			65-32-48.6			69-49-54.2			73-40-57.3			69-41-56.4			63-38-52.5			63-35-50.2			57-25-43.5			52-28-43.0	47.4		
1905	51-29-42.0			55-23-41.6			53-30-42.6			58-33-46.4			68-36-52.6			75-42-58.0			76-45-60.0			70-42-55.5			68-39-53.6			62-26-45.0			52-23-39.0			50-30-43.3	48.3		
1906	50-28-41.1			47-25-38.0			58-30-42.6			59-29-44.3			64-33-49.7			75-42-57.8			74-44-59.0			73-44-59.8			71-40-55.0			63-29-49.0			55-29-44.0			53-20-39.0	48.4		
1907	49-18-39.6			52-25-38.4			57-32-45.8			64-30-45.4			65-35-48.7			69-49-53.5			78-41-58.6			68-43-57.0			68-38-57.0			60-28-45.9			52-29-49.8			49-27-39.5	47.5		
1908	52-23-38.5			53-31-43.0			52-29-40.4			56-26-43.4			68-37-52.0			71-40-55.7			80-46-59.5			74-44-58.2			67-38-53.5			64-33-53.0			56-28-45.7			51-30-41.1	49.0		
1909	51-28-40.3			52-22-39.6			56-23-40.6			61-31-46.8			66-33-51.0			69-41-54.0			71-45-58.6			79-43-59.7			65-37-52.3			64-26-49.0			55-20-38.2			50-24-38.3	47.4		
1910	50-25-38.5			53-27-39.0			55-30-41.0			60-29-43.9			66-44-55.5			70-45-57.5			69-46-57.0			68-37-54.5			62-34-49.0			53-24-39.0			50-28-41.5			47.3			
1911	50-27-39.2			53-22-39.7			56-29-40.3			59-27-40.9			70-37-52.2			72-45-56.7			79-44-61.0			73-45-60.2			73-39-54.3			57-31-48.0			53-26-39.9			49-27-39.3	48.0		
1912	50-27-40.8			50-32-40.0			57-32-41.8			61-32-47.0			63-36-51.2			66-32-52.9			74-44-55.7			61-36-51.3			68-36-53.5			61-31-50.1			59-33-49.2			54-30-44.3	48.1		
1913	52-27-40.6			54-32-43.6			55-34-45.0			59-29-44.7			64-36-49.5			75-38-54.4			74-47-55.9			74-40-58.8			72-44-57.6			61-32-51.5			60-34-48.9			56-33-45.6	49.6		
1914	54-43-48.5			55-50-53.0			55-50-52.4			60-53-56.9			62-55-58.2			70-59-64.4			69-53-64.8			67-63-64.6			66-60-62.6			62-55-58.4			58-50-53.4			53-46-50.0	47.2		
1915	50-37-43.5			45-25-35.0			58-35-46.5			50-35-42.5			62-40-51.0			64-40-52.0			62-42-52.0			65-43-54.0			62-40-51.0			55-37-46.0			48-28-38.0			40-28-34.0	44.9		
1916	50-36-43.3			47-30-39.1			45-30-37.8			49-36-42.6			60-34-47.4			65-40-52.5			66-40-52.5			70-46-56.8			66-40-52.5			56-36-46.4			47-32-40.4			40-24-32.5	44.8		
1917	52-22-36.0			50-24-35.0			52-23-39.25			59-30-41.5			70-32-50.25			66-40-52.25			68-40-55.4			70-46-56.12			66-26-51.25			56-36-40.8			588						

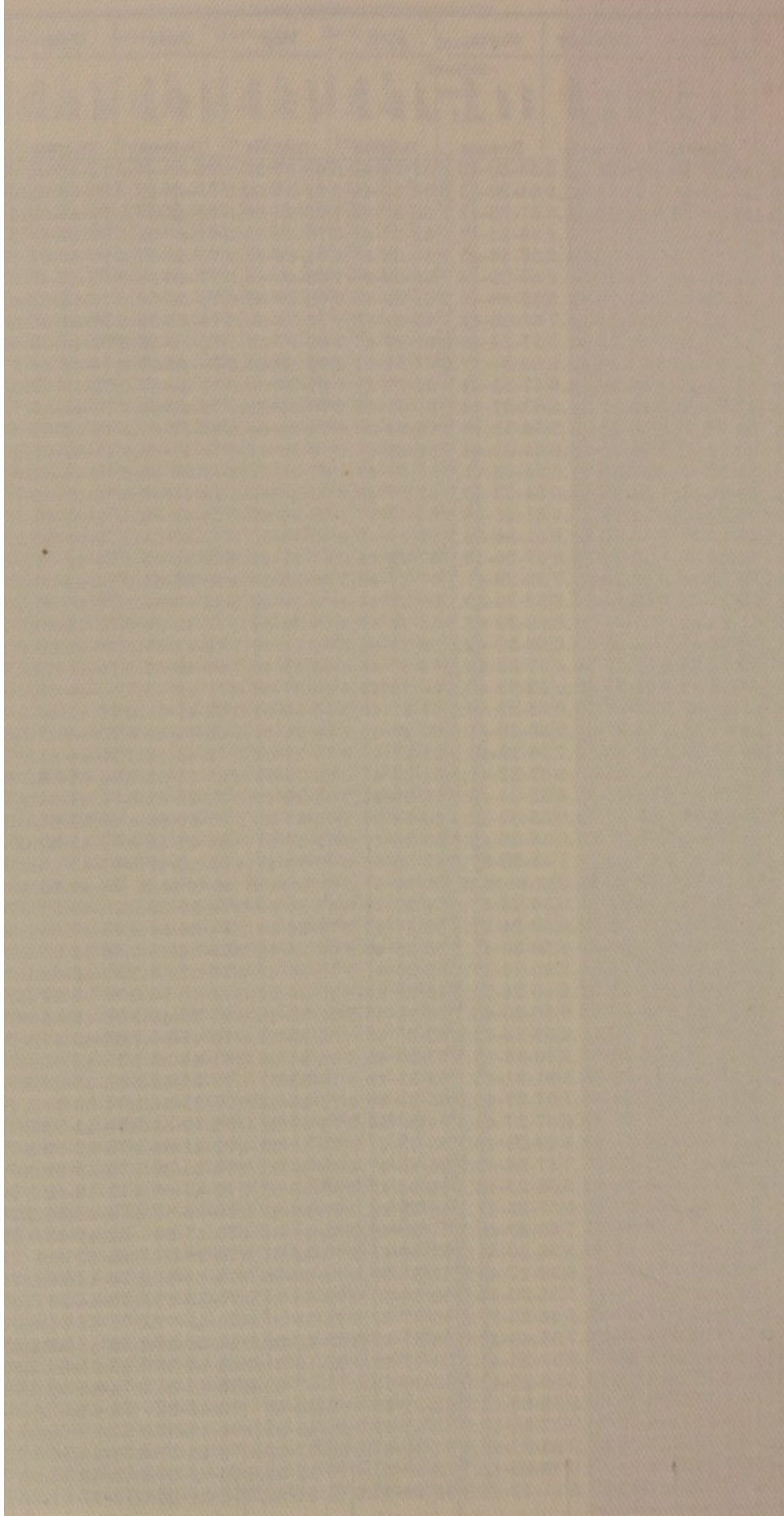


Table 92.—Showing Monthly Rainfall in Cork from 1872 to Present Year

SUNSHINE.

Total *bright sunshine* for 1945 was 1263.8 hours.

	Hours		Hours
1930	... 1,478.1	1938	... 1,350.9
1931	... 1,313.8	1939	... 1,393.1
1932	... 1,282.5	1940	... 1,493.9
1933	... 1,465.8	1941	... 1,246.5
1934	... 1,480.1	1942	... 1,482.5
1935	... 1,442.0	1943	... 1,093.8
1936	... 1,357.5	1944	... 1,209.1
1937	... 1,259.4	1945	... 1,263.8

Table 91.—*Mean Temperature* (°F.) for each quarter and for each year from 1901 to 1945, inclusive.

Year	I.	II.	III.	IV.	For whole year
	°	°	°	°	°
1901	37.5	50.4	57.2	41.9	46.8
1902	40.4	48.1	55.3	43.3	46.5
1903	41.1	49.4	54.4	41.4	46.6
1904	38.3	49.1	55.4	45.6	47.1
1905	42.1	52.4	56.9	42.4	48.4
1906	40.6	50.6	57.9	44.0	48.3
1907	41.3	49.1	57.5	42.1	47.5
1908	40.6	50.4	57.0	46.6	48.6
1909	40.2	50.6	56.9	41.8	47.5
1910	39.5	50.3	56.3	43.2	47.4
1911	39.7	51.3	58.5	42.4	47.5
1912	40.9	50.4	53.5	47.9	48.2
1913	43.0	49.4	57.4	48.7	49.6
1914	40.3	51.4	56.7	43.5	48.1
1915	38.3	49.2	52.7	39.2	44.9
1916	40.0	45.9	53.7	39.7	44.8
1917	36.7	48.1	54.2	43.9	45.7
1918	40.0	51.3	55.0	42.0	47.0
1919	37.6	48.5	54.4	40.0	45.5
1920	40.3	48.9	52.6	42.0	45.9
1921	39.6	48.3	54.3	42.7	46.2
1922	40.2	49.9	57.8	46.4	48.6
1923	44.0	50.7	58.4	43.8	49.2
1924	42.6	51.4	56.7	47.6	49.6
1925	43.3	51.8	57.9	44.5	49.4
1926	45.1	52.1	61.1	44.0	50.6
1927	44.1	52.2	58.5	45.5	50.1
1928	44.7	52.0	58.0	46.4	50.3
1929	43.2	52.3	59.4	45.7	50.1
1930	40.7	52.9	57.8	46.5	49.5
1931	42.3	53.1	58.2	46.7	50.1
1932	43.2	52.1	59.7	46.4	50.4
1933	42.3	54.5	62.1	44.9	51.0
1934	42.4	52.8	59.8	47.6	50.6
1935	44.1	52.7	59.4	44.2	50.1
1936	42.8	52.6	59.9	47.1	50.5
1937	42.6	53.8	59.2	44.9	50.1
1938	45.3	52.3	58.4	46.6	50.6
1939	44.6	53.9	59.8	45.9	51.0
1940	43.2	55.6	58.9	45.4	50.8
1941	40.4	51.8	60.0	47.5	49.9
1942	42.6	53.4	59.6	45.5	50.2
1943	44.9	53.8	57.0	46.3	50.5
1944	44.4	53.9	58.7	45.3	50.5
1945	43.9	52.5	60.3	49.3	51.5

BAROMETER.

The mean reading for 1945 was 29.90 ins. The highest was 30.83 ins., on the 3rd March. The lowest was 28.43 ins., on the 18th Dec.

Appendix I.

OPERATION OF THE SCHEME FOR THE TREATMENT OF VENEREAL DISEASES.

Table 94—Record of Work Done in the V.D. Treatment Centre.

	Cork City		Cork County		Other Districts		Total		Total Male and Female Cases
	M.	F.	M.	F.	M.	F.	M.	F.	
<i>New Cases (1st time) ...</i>									
Syphilis ...	15	25	7	12	—	—	22	37	59
Soft Chancre ...	—	—	—	—	—	—	—	—	—
Gonorrhoea ...	30	15	17	1	—	—	47	16	63
Not V.D. ...	49	31	20	7	—	—	69	38	107
Total ...	94	71	44	20	—	—	138	91	229
<i>Total Attendances :—</i>									
Syphilis ...	503	1768	321	427	—	—	824	2195	3019
Soft Chancre ...	—	—	—	—	—	—	—	—	—
Gonorrhoea ...	223	138	123	24	—	—	346	162	508
Not V.D. ...	56	36	21	10	—	—	77	46	123
Total ...	782	1942	465	461	—	—	1247	2403	3650
<i>Cured :—</i>									
Syphilis ...	6	2	3	2	—	—	9	4	13
Soft Chancre ...	—	—	—	—	—	—	—	—	—
Gonorrhoea ...	32	1	7	1	—	—	39	2	—
Not V.D. ...	—	—	—	—	—	—	—	—	41
Total ...	38	3	10	3	—	—	48	6	54
<i>Pathological Exams. :—</i>									
Wassermann ...	152	136	66	17	—	—	218	153	371
Gonococci ...	41	40	20	2	—	—	61	42	103
Kahn ...	—	3	—	—	—	—	—	3	3
Exam. for T.P. ...	2	—	3	—	—	—	5	—	5
Total ...	195	179	89	19	—	—	284	198	482
<i>Therapy :—</i>									
Stabilarsan or other									
Arsenicals ...	293	1090	204	288	—	—	497	1378	1875
Bismuth Preparations ...	228	498	144	145	—	—	372	643	1015
Irrigations ...	78	—	37	—	—	—	115	—	115
Douches ...	—	35	—	11	—	—	—	46	46
Sulphonamides ...	156	67	75	4	—	—	231	71	302
Iodides ...	4	2	2	—	—	—	6	2	8
Vaccines ...	6	15	1	—	—	—	7	15	22
Total ...	765	1707	463	448	—	—	1228	2155	3383

Table 95.—Record of *new cases* treated annually at Centre.

Period	Syphilis	Soft Chancre	Gonorrhoea	Not V.D.	Total
1937	29	2	34	30	95
1938	29	—	42	34	105
1939	37	1	27	42	107
1940	34	8	30	46	118
1941	25	6	42	68	141
1942	54	4	63	67	188
1943	113	4	79	101	297
1944	81	1	49	116	247
1945	59	—	63	107	229

Table 96.—Record of new cases treated during 1945 (non V.D. Cases not included).

Period	Males	Females	Total
Jan.	6	10	16
Feb.	—	2	2
Mar.	5	5	10
Apr.	5	1	6
May	7	5	12
June	8	5	13
July	8	1	9
Aug.	7	7	14
Sept.	9	3	12
Oct.	4	3	7
Nov.	9	6	15
Dec.	1	5	6
Totals	69	53	122

Table 97.—Monthly attendances at V.D. Centre, 1945.

Period	Males	Females	Total
Jan.	124	171	295
Feb.	96	182	278
Mar.	106	234	340
Apr.	92	222	314
May	106	176	282
June	106	195	201
July	117	191	208
Aug.	118	181	299
Sept.	116	211	327
Oct.	96	216	312
Nov.	118	225	343
Dec.	52	199	251
Totals	1247	2403	3450

The total number (122) of new cases, male and female, of gonorrhoea and syphilis shows a reduction of 8 on last years figures. Last year (1944) showed a reduction of 62 new cases on the figure for 1943. There is reason to hope, therefore, that we have passed the peak of this the most serious outbreak of venereal diseases ever recorded for this city. The new cases (47) of gonorrhoea in males showed an increase of 10. The number of new cases of syphilis in males (22) shows a decrease of 7. There is an appreciable reduction in the number of new cases of syphilis in females (37). Last year 52 new cases were treated. The figure for gonorrhoea in females (16) shows an increase of 4. In 1943 42 cases of this disease presented themselves for treatment. The figure for total attendances (3,650) is less by 1,384 than that of last year. The reduced figure for total attendances of males is the main contributory factor to the reduction.

The facilities afforded to provide practitioners under the scheme were availed of by eight doctors during the year. The particulars set out in table 98 relate to the patients treated by them and the results obtained. The number of ampoules supplied to them was 1,005 (in comparison with 722 provided in 1944).

Table 98.—Particulars of cases treated by Private Practitioners.

Form of Disease	Number of Cases		Cured	Discontinued Treatment	Remaining under Treatment	Wassermann or other Tests
	Males	Fem's				
Syphilis ...	85	23	7	69	32	111
Gonorrhoea ...	29	7	26	10	—	21
S. Chancre ...	—	—	—	—	—	—

These figures shew an increase on the corresponding figures for the previous year, mainly under the heading of syphilis. 144 persons were treated (as compared with 109 in 1944.) The number of cases of syphilis was 108, the corresponding figure for 1944 being 76.

Appendix II.

OPERATION OF THE COUNTY BOROUGH SCHEME FOR THE WELFARE OF THE BLIND.

The following are the terms of the Scheme drafted for this purpose and now in operation within the Borough :—

In this scheme the term "Blind Person" shall mean any inhabitant of the County Borough who is so blind as to be either unable to perform any work for which eyesight is essential, or unable to continue his or her ordinary occupation; the term "The Corporation" shall mean the Lord Mayor, Aldermen and Burgesses of the County Borough of Cork, acting by the City Manager; the term "The Minister" shall mean the Minister for Local Government and Public Health.

2. The Corporation will establish and maintain a Register in which shall be entered the name and address, age, sex, religion and other necessary particulars of every blind person who shall produce a certificate from a recognised Ophthalmic Surgeon that the acuity of vision of such person (refractive error being corrected) is below 1/20th normal (3/60th Snellen), or that such person is so blind as to be unable to continue his or her ordinary occupation. Any person between the ages of 30 and 70 may, however, be registered without producing such certificate on furnishing evidence of being in receipt of a pension in pursuance of Section 6 of the Old Age Pensions Act, 1932. The Register shall be kept written up-to-date, and shall be revised annually in the month of January. The Corporation shall be empowered to pay reasonable fees to Ophthalmic Surgeons for certifying in cases of necessitous persons.

3. Arrangements will be made by the Corporation with the Authorities of one or more of the Institutions for the Blind mentioned in the Schedule hereto on such terms as may be approved by the Minister for the following purposes :—

- (a) the education or industrial training of suitable blind persons between the ages of five years and thirty years ;
- (b) the employment in workshops for the Blind of blind persons suitable for such employment, their maintenance in a Hostel, and the augmentation of their wages ;
- (c) the maintenance in Homes of blind persons who, owing to age or infirmity, are incapable of work.

4. The Corporation may in cases of unemployed and necessitous blind persons ineligible for education or industrial training under Article 3 (a) of this Scheme and living in their own homes or in lodgings, grant assistance to such persons in accordance with the following scale :—

Classification of Blind Persons	Amount of weekly allowance
(a) Blind person over 15 years and under 30 years of age	12s. 6d.
(b) Blind person 30 years of age and upwards	... 6s. 0d. (with pension)
(c) Married man under 30 years of age with wife dependent on him ... ..	... 19s. 0d.
(d) Married man 30 years of age and upwards with wife dependent on him ... ..	... 12s. 0d. (with pension)
(e) Additional allowance for each child ... ..	... 2s. 6d.

In considering the grant of allowances on this scale to the classes of blind persons at (a) and (c) above, the Corporation will not take into account casual earnings of any such person where they are satisfied that such earnings do not exceed six shillings per week.

5. Nothing in this Scheme is to be construed as giving blind persons irrespective of their means or conduct, a right absolute to assistance. The Corporation will not grant an allowance under Article 4 above to any blind person under 30 years of age who is capable of instruction and who declines without a satisfactory reason to take advantage of the facilities for education, training or employment under the Scheme, or who is by conduct or otherwise deemed unsuitable for assistance. No habitual mendicant shall be granted an allowance under the Scheme unless the practice of mendicancy is discontinued. No person shall be eligible to receive assistance under this Scheme who shall not have been resident within the County Borough for two years previous to date of application for assistance.

6. The Corporation may incur such expenditure in the execution of this Scheme as the Minister may from time to time approve.

7. This Scheme shall come into operation on the 1st October, 1932, and shall continue for a period of three years, but may during the period with the consent of the Minister be modified, extended or revoked by the Corporation, and with the like consent may be continued for such further time as may be deemed necessary. Any question, dispute or difference arising in connection with the interpretation of this Scheme shall be determined by the Minister whose decision shall be final.

SCHEDULE.

Institutions for the Blind Approved by the Minister	Class of Blind Persons Received
1. St. Mary's Institution for Female Blind, Merrion, County Dublin	Females, also boys up to 7 years of age
2. St. Joseph's Asylum for Male Blind, Drumcondra, Dublin	Males
3. Richmond National Institution for Industrious Blind, 41, Upper O'Connell Street, Dublin	Males
4. Cork County and City Asylum for the Blind, In- firmery Road, Cork	Males and Females

The number of persons receiving weekly allowances in their own homes from the Corporation during the year was 235, and the disbursements under the heading amounted to £4,282 4s. 6d. 26 applications were received for allowances. Other disbursements amounted to £82 12s. 0d. (examinations, grant to National Council and other expenses). In addition to the above-mentioned 25 cases maintained in Institutions by direct grants from the Corporation, viz. :—Cork Blind Asylum (5 males and 6 females) ; St. Mary's, Merrion (13 females) ; and Richmond National Institution (1 male). The total cost of the maintenance amounting to £520 6s. 0d.

The following note is contributed by the Hon. Secretary of the local branch of the National Council for the Blind of Ireland.

Home Teaching for the Blind.

Under the National Council for the Blind, this very essential service has been inaugurated in Cork City, to which the Corporation has granted a small annual contribution towards the expenses incurred by employing trained and qualified Home Visitors and Teachers.

The work of the Home Visitor is varied and broad, embracing social as well as mental instruction. She must help the blind to become active members in their homes, teach them to read embossed type, various handicrafts, such as knitting and rugmaking, and to bring an interest and hope into their otherwise hopeless lives.

The Home Visitor can help to prevent blindness in children, who often, through parental ignorance and negligence, or want of interest, lose their sight, which under proper care and supervision can be cured by seeing that they are provided with glasses where necessary and sent for treatment. She also gives her assistance and advice over pension applications, appeals and better accommodation.

Wireless sets are distributed on loan where most required, entertainments organised and free seats at musical shows secured.

Voluntary visitors also give their services to read and spend some time talking to the lonely blind, who greatly appreciate these visits.

Classes are held weekly for instruction in basket making, chair-caning and other forms of handicraft. The finished articles are presented for sale only if up to standard—no inferior goods labelled "Made by the Blind" are passed for sale. Efficiency is the definite aim.

The Home Teacher becomes a real friend of the Blind, who turn to her in all their difficulties, knowing that they will obtain help and encouragement to become as useful and important as their sighted brothers and sisters.

Suitable cases are urged to enter institutions for the blind and arrangements made for this purpose.

The Home Teacher has office hours daily where any blind or defective sighted person can get in touch with her and make enquiries. Over the Home Visitor is an Executive Council who meet monthly, receive the reports of the Home Visitor, deal with various cases, arrange the financial side of the work and follow closely and with interest the progress which is being made.

The following is a resume of the work done by the Home Visitors of the National Council for the Blind.

Number of Cases on Register on 31st December	...	...	413
Visits paid to the Blind	...	...	2,503
Visits paid on behalf of the Blind	...	...	153
Interviews at the Office, City Hall	...	...	833
Number of Braille Readers	...	...	18
Number of Moon Readers	...	...	3
Number attending Men's Handicraft Class	...	...	7
Number attending Women's Handicraft Class	...	...	9
Number of Home Workers whose work is of saleable standard	...	...	29
Number sent to Convalescent Home	...	...	2
Number helped to obtain spectacles and artificial eyes	...	...	6
Number given Fuel and Christmas Gifts	...	...	149
Number given help over Dentures	...	...	11
Number given Nourishment and Relief	...	...	68
Helped to purchase Furniture and Bedding	...	...	12
Individuals issued with Penny Dinner Tickets	...	...	3

Appendix III.

Physical Features of the Area

The City of Cork is situated on the river Lee, fifteen miles from its mouth in Cork Harbour. On the north bank of the river there is steep rising ground almost prohibiting building development, save in the form of hillside roads and open building of large houses, with the exception of the marked break of the Blackpool valley, very full use of which has been made. Next comes the flat island comprising the centre of the City. This island is almost entirely artificial, and consists of six feet of filled-in material, with ten feet of slob below that and then gravel overlying old red sandstone. Southwards is a gently undulating tract of land about one and a half miles wide enclosed by a range of hills. There is a considerable amount of land liable to flood in the Lee Valley, west of the city, towards Carrigrohane, and the flatness of the islands on which the city is built and the height to which unusual tides ascend being nearly to the crown of the arches of the old bridges, render certain portions of the city itself also liable to flooding.

The geological formation of the city region is simple and clearly marked in its effect on the landscape. There are only two systems visible, both paleozoic rocks, the carboniferous limestone and the older underlying Devonian, representing the old red sandstone. Each of these formations is in two series; the carboniferous in a crystalline limestone and in a dark shale (with some 10 feet slate); The Devonian in the upper old red sandstone (yellowish and reddish) and in the lower, old red sandstone (red and purple). The characteristic aspect of the countryside has been caused by the crinkling of these strata into regular parallel folds. Further the limestone which should have formed the ridge of the anticlines has been denuded or dissolved away, so that the highest ground consists of old red sandstone, and even the lower series of this; the hollow folds, floored by limestone, have been subsequently protected from further denudation by a covering of boulder clay. In this immediate region there are thus three old red sandstone ridges and two limestone valleys, in the northern of which the city stands under the brow of the northern sandstone ridge. If this sandstone ridge had possessed its original limestone capping, it would probably have been at least 2,000 feet high.

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BINDING

OBSCURES

TEXT IN PLACES

