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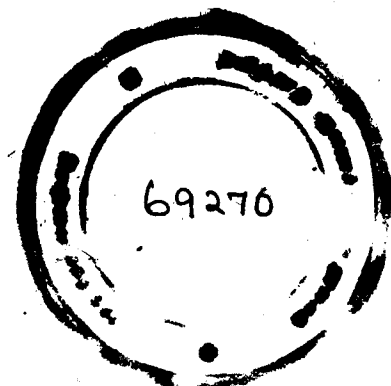
Editorial.

National Health Week.

NATIONAL Health Week is being celebrated in practically every district in the country during the period October 3rd—9th, and this opportunity is taken to express the hope that wherever it is in progress success is attending the efforts of all concerned. The objects of Health Week are such as the Society must approve, and no more certain proof of this is to be found than that no matter where the celebration is in progress the figure most prominent in connection with it is the local Medical Officer of Health. The reason for this prominence lies in this: that in Health Week there is the opportunity of bringing more prominently before the people than is the case at other times, the extreme importance attaching to personal hygiene. In pressing for the acceptance of his views on this subject and for the practice of hygiene by the individual on his own account, the Health

Officer hopes to have filled up what may safely be regarded as a very real and definite gap in the health organisation of this country. Our people are not sufficiently imbued with the personal hygiene spirit. They do not know personal hygiene as they should know it, or if they do, they do not sufficiently practise it. In his wonderful book, "25," Beverley Nichols describes a conversation he had with Elinor Glyn on the subject of modern girls. In the course of the discussion, the lady made use of the following words: "Perfect dentistry, perfect knowledge of hygiene and a universal common sense have made the American girl the most wonderful type in the world to-day." No words derogatory of our own young woman were used, nor was it definitely suggested that to any extent she neglected dentistry, that her knowledge of hygiene was defective, or that she lacked common sense. Very safely, however, they

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might have been suggested not only in respect of the individual under discussion, but as regards a very large part of the population. The weak part of our Public Health is in relation to the individual. We have not taught him personal hygiene so that he grasps it and practises it. Workers in dirty trades in this country do not clamour for changing rooms and baths at the works; even in the refuse disposal depôts of local authorities it is the exceptional case in which baths are installed, or if installed, used as they should be used. *And the men do not demand bathing facilities.* In this failure is implied, on the part of this class, a failure to recognise and practise the elements of hygiene. But are matters much more forward amongst other classes? Think up the scale; how wide is the demand amongst the majority of the population for the general apparatus of hygiene? To what extent is there evident a discontent because of the lack of care and cleanliness on the part of the producer, the preparer and the purveyor of food? How many resent the dirt of the cook-shop and the eating-house; how many complain of the loose-milk dairy, or the methods adopted and appliances provided by the ice-cream vendor, or in the run of barber-shops? Because the demand made, and the discontent and the resentment entertained in regard to these things are limited, the grasp of hygiene must be inadequate, the teaching imperfect, and the gibe implied in the statement quoted almost justified. In National Health Week an opportunity is offered to teach and to awaken a spirit of discontent with and resentment against neglect of hygiene. That it gives such an opportunity is one of the reasons why Medical Officers of Health should, and so many do, play the leading part in the celebration of National Health Week. It is a reason, too, why the Society as such should each year offer for this week something definite in the shape of guidance on health matters not only to its members but to the population as a whole.

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The State of the Public Health.

THE purpose of this Annual Report," says Sir George Newman in his summary, "is to survey in general terms the state of the Public Health in England and Wales in 1925." This purpose, it need hardly be said, the report fulfils, and in fulfilling it provides information, some grati-

fying, some not at all pleasing to the individual jealous of the reputation of his country from the health point of view.

As to gratification, reasons for this are to be found in various parts of the report, which as usual deals with all the more important health activities, not only in relation to disease but also such matters as food and environmental hygiene, the insurance medical service and propaganda. In regard to disease, it is gratifying to learn that the number of notifications of infectious cases received in 1925 was less than in the previous year—392,078, as against 409,482. That amongst the diseases contributing to the reduction diphtheria has no place is disappointing. It is, indeed, one of those items in the report that give rise to feelings other than those of gratification that there was so much of this disease and that in face of it so little that was definite was done by way of prevention. It is too much that we should have 47,720 cases of diphtheria with 2,774 deaths, a fatality rate of 5·8 per cent. True as it may be that this rate is just about half of what it was in 1911, it is still too high, and it is possible to wish that more heed should be paid to the repeated warnings as to the danger of delay in treatment, and the words in praise of the Schick test and immunisation by toxoid-antitoxin that are continually appearing in these reports of Sir George Newman. That there was a decrease in the total number of deaths from all causes in the year may probably also be accounted gratifying, even though the figure for 1925 (472,841) was only smaller by 394 than that for 1924. It is gratifying to note also that the infantile mortality rate was no higher than in 1924 (75) and that it seems to show a definite tendency to decline. In relation to works done with the object of keeping this rate down and of improving matters for the child generally there is perhaps a good deal of room for gratification. It is quite a big thing to be able to say that there are 2,195 welfare centres in England alone, and that it is the exceptional and very rare maternity and child welfare authority that has failed to establish one or more centres for the purpose of advising mothers in infant hygiene and management. It is better still to find that new lines are being sought and followed: that, for example, in some districts "breast feeding clinics" have been set up; that schemes are being steadily extended to take in orthopaedics; that attention is being

focussed to an increasing degree on the mental health of the child as distinct from the bodily health, and that more and more it is being recognised that it is vastly important to press for attention to dietetics by mothers, expectant and other, with a view to the prevention of rickets. Feelings of gratification are those that are in the main uppermost in reading the section of the report relating to food. This deals with the activities of a department that has developed at a tremendous rate during the past few years and that since its establishment has seen, and has no doubt been responsible for initiating and carrying out, great advances and improvements in this highly important branch of health work. Of the existence of these improvements and of the making of progress in the year under review and of the certainty of further improvements to follow, the report gives evidence. For feelings of gratification there is less room in the word given to us of, amongst other diseases, smallpox, cancer and tuberculosis. That there should have been so many as 5,354 cases of smallpox under observation during the year is disappointing; because of what might have been it is almost more disquieting to see that the areas in which the numbers were high were few, and to learn that the several in which few cases occurred escaped more intense involvement by adopting prompt and efficient measures of control. In the case of cancer, though feelings of gratification may not be engendered it is no atmosphere of hopelessness that is created. The rate of mortality from cancer continues to go up and nothing that has been done up to the present appears to have had any effect. That is reason for regret but not for despair. We have tried, and are trying to do *something* in this country; and the chances that we are on the right lines and as likely to devise an effective scheme of prevention are as great as for anybody else: this, despite the opinion of some that in this, as in so many other matters, we here are so far behind other countries. In the case of tuberculosis there is not too much room for gratification. Having regard to the vast amount of work done the results are not really good. The number of notifications keeps up and any reduction in the number of deaths does not seem to contain any promise of permanence. The report contains information of the more or less complete failure of the scheme of vocational training and as to experiments with various materials that

aim at producing cure or conferring immunity. The note struck generally is not bright, and the inclination is to hasten to other and more cheerful sections of the report. Limitation of space alone forbids the yielding to this inclination and what has been said must serve to support the view expressed at the opening that there was information in the report that was gratifying and some not at all pleasing to the individual jealous as to his country's standing. So far as this last is concerned, there remains this to be said, that if in some of the details there may be found by anyone anywhere reason for saying that there are weaknesses here and there in the English system, of the report itself there is no one who could say otherwise than that it is a wonderful piece of work; perfectly written, truthful, accurate, scientific, helpful and inspiring.

* * * *

Cancer.

PERHAPS the outstanding feature in the development of preventive medical work during the present century is the direct attack which has been made by the preventive forces of the country on individual diseases or groups of such diseases. Not only is this so, but following upon this type of work there has developed a more intimate touch between preventive and curative medicine along the indefinite border which has hitherto separated these two sections of medical science. In the current day's work this is probably best exemplified by the work done in the schemes dealing with venereal diseases and tuberculosis, but the increase in the incidence of cancer and the concurrent rise in the cancer mortality has focussed both professional and public attention upon the need for a wider and more accurate knowledge of this scourge. The Ministry of Health has taken a leading part in this work. A Departmental Committee on Cancer has been sitting for some time now at the Ministry, and has formed various sub-committees to deal with different aspects of the problem. The Committee is not specifically concerning itself directly with the experimental investigation into the actual cause of cancer, but is directing its attention more particularly to the collecting of information which can be made of practical use at the present time in the treatment and general control of the incidence of cancer and its effects upon the populace. The value of work

of this description can scarcely be over-estimated, and the fuller the enquiry made the greater is shown to be the need for more accurate knowledge on these points.

During the present year, there have appeared* three reports by the Ministry, and one by the Medical Research Council, each of which adds considerably to our knowledge of cancer as it occurs in this country, and which it is appropriate to refer to in this issue which is so largely devoted to a discussion of the subject generally.

The two reports on cancer of the breast are of special significance in that they form sequels to the first report written by Dr. Janet E. Lane-Clayton. Dr. Lane-Clayton's previous report was based almost entirely upon returns of cases from countries other than Britain. The report which has appeared recently over her name is particularly valuable in that it gives the results of an analysis of breast conditions, many of which subsequently become cancerous, the analysis being made possible by careful comparison with a controlled series of non-cancerous women. The principal point established in this enquiry is that the occurrence of injury to the breast is definitely a predisposing cause of cancer. After that the next most common predisposing cause appears to be a transient inflammation. In relation to the civil condition of the patient, the married state, far from favouring the onset of cancer has a directly opposite effect, and where fertility is high, cancer is less frequent than in women whose fertility is relatively low. It is not possible to give in any sense a survey of the reports in a note so short as this, but some of the principal points have been referred to, and an admirable summary is given at the end of each part of the report embodying the conclusions arrived at. These conclusions are phrased in the most careful way so that even the hyper-critical cannot carp at the claims presented.

*"A further report on Cancer of the Breast, with special reference to its associated antecedent conditions." By Dr. Janet E. Lane-Clayton. Ministry of Health Reports on Public Health and Medical Subjects. No. 32.

"The Natural Duration of Cancer." By Major Greenwood, F.R.C.P. Ministry of Health Reports on Public Health and Medical Subjects. No. 33.

"The Late Results of Operation for Cancer of the Breast." (Leeds.) Ministry of Health Reports on Public Health and Medical Subjects. No. 34.

"An Investigation into the Statistics of Cancer in Different Trades and Professions." By Matthew Young and W. T. Russell. Medical Research Council, Special Reports Series. No. 99.

The report, apart from its consideration of incidence factors, again emphasises the late stage of the disease at which medical advice is sought, quite two-thirds of the patients coming for treatment when the likelihood of a really good result has become almost negligible.

The second of these reports on mammary cancer, gives the result of an enquiry in the City of Leeds. This is the first published result of a series of investigations which have been carried out by the Medical Officers of Health's Sub-Committee of the Departmental Committee on Cancer, and it is anticipated that it will be followed by other similar analyses before long. No more striking series of facts have been presented for many years. The work has been done most carefully and the analysis of the cases is unimpeachable. The three groups into which the cases have been divided are, first, those in which the disease is purely local; secondly, those in which the axillary glands are involved, and thirdly, those in which there is extension to other tissues. In the first group, 90 per cent of the cases were alive 10 years after operation. In the second and third groups the proportion was more than reversed, in that 91 per cent in the second group, and 94 per cent in the third group were dead within 10 years after operation. Where deaths occurred from other causes than cancer the cases were excluded from the calculation. The definite establishment of such an outstanding fact is of incalculable value for the purpose of informing the public on the true view to take of cancer and the value of ordinary care in applying early to recognised medical sources for treatment.

The report by Major Greenwood on "The Natural Duration of Cancer" is one which perhaps will not appeal to the general professional reader, inasmuch as it is largely concerned with the values of the different forms of statistical enquiry. To the careful student of the results of treatment, however, it must be of real interest. Perhaps the point which will appeal to most is the statement of summary results in the form of expectation of life, viz., if in the normal case it is 18.87 years, in the case of untreated mammary cancer it is 3.25 years, in cases operated on under average conditions 5.74 years, and when the operation is under the best conditions 12.93 years. Taken generally this report is an emphatic re-statement of the fundamental importance of early diagnosis and treatment of cancer of the breast, and a re-assurance that if this course

be adopted, a reasonably long, comfortable and useful life is more than probable to the patient.

In the report issued by the Medical Research Council on the relationship of occupation to the incidence of cancer, there is evidence that a great amount of useful work has been expended, the general bulk of the report being of a most interesting and stimulating character. The views as to the relationship of tar and oils to chimney sweeps' cancer, and mule spinners' cancer, and to cases occurring in various other oil industries are remarkably substantiated by statistical investigation. Even on the summary figures presented it is shown that in these two special groups cancer of the scrotum is 1,400 per cent in excess of the normal expectation of the disease in males generally. Table III. of the report is particularly interesting, and the high percentages of excessive incidences in many employments should stimulate enquiry into such trades with a view of elucidating what, on the surface it would appear, must be a common predisposing influence. The group of miners may be taken as an example, inasmuch as many of these are associated in their work in arsenic containing ores, a relationship which has already been the subject of many medical studies. The report in addition, shows an ingenious statistical enquiry into the relationship of syphilis and the onset of lingual cancer.

Sufficient indication has been given of the scope of the enquiries which have been proceeding under the ægis of the Ministry, and we need only reiterate the opinion earlier expressed in this note that the practical value of these enquiries, if properly used by the Public Health Service, should lead before many years, to an enhanced longevity amongst the sufferers from this, up till now, most fatal disease.

Seventh Annual Report of The Ministry of Health.

"WE have just had a Ministry of Health established in England; Heaven knows what for!" So observed a certain distinguished English author in the course of an American lecture tour some years ago.

An effective reply—the seventh of such—is to be found in the Annual Report of the Ministry of Health for 1925-1926.

Four chief sections are dealt with: Public Health, Local Government and Local Finance, Administration of the Poor Law, and Administration of National Health Insurance,

while an additional section on the Welsh Board of Health is given—in English. Space forbids detailed comment, for the Report can be reviewed from many angles; let that of the hygienist suffice.

Infectious diseases, of necessity, form the bulk of Public Health activities. Tuberculosis is still a mighty problem, and accounted for over 40,000 deaths, despite a grant of £1,341,555 for dispensary services and residential treatment. The mortality from tuberculosis is certainly decreasing, but the rate of reduction is depressingly slow. The issue of Memorandum 37/T. has resulted in greater uniformity in the administration of tuberculosis schemes; clinical uniformity, or standardisation, should be the next step. Under the Public Health Act, 1925, compulsory removal to hospital of tuberculous patients is now possible; this is not without value, but in how many cases has much damage been done even before notification? The same Act permits of health propaganda, and it is here that the tuberculosis Medical Officer can well devote some of his energies. The need for further co-ordination, systematic effort and broader vision is indicated in all tuberculosis schemes.

To read that 46,654 new cases of venereal disease attended the various treatment centres, and that a total of 30,495 patients ceased to attend before a full course of treatment is not too satisfactory. In a more enlightened age curative measures will be merely a part of an organised campaign against the most easily prevented of all diseases. The International Agreement between Great Britain and other countries to arrange for the free treatment of all merchant seamen is a wise step, but it must not be left at treatment alone. The statement that improvements have been effected for the treatment of gonorrhoea is interesting, in view of the decision in Belgium to abandon the idea of a subsidy for the treatment of that disease on the ground of the ineffectiveness of present methods.

Little change is shown in the principal notifiable diseases. Scarlet fever and diphtheria—two controllable diseases—account for the usual 3,000 or so deaths, puerperal sepsis maintains its steady level of over 1,000 deaths, while "The Captain of the Men of Death"—pneumonia, claimed over 42,000 victims. Measles and whooping cough are still a veritable scourge and were responsible for over 11,000 deaths. Smallpox continues to

increase steadily as is to be expected in a country which refuses to recognise the value of vaccination. The amazing indifference of certain Sanitary Authorities in the North-Eastern Counties is described as regrettable. That is a mild expression. Encephalitis lethargica appears to be decreasing, but it has left an unpleasant legacy in the form of much permanent mental instability in many of its victims who recovered from the acute stage.

Port Sanitary Administration, with which is included the Medical Inspection of Aliens, is briefly dealt with. It is interesting to note that grants were withheld from two Port Sanitary Authorities for failure to reach a reasonable standard of efficiency. In most other countries this would not be permitted, but then "Great Britain and her colonies tend to follow rather than lead other nations in quarantine matters." (Brooke.) The general health of the merchant seamen still continues to be a serious omission from Port Sanitary activities, despite the more than obvious indication that the Board of Trade should be relieved of that responsibility.

Infantile mortality is the same as in 1924 (75 per 1,000). Improvements in the training of Health Visitors, increased hospital accommodation for maternity cases, and a still further effort to eliminate that survival of the past—the handywoman—show that the lot of the mother and her child is receiving more and more attention as time passes.

The work of Inspection and Supervision of Food is of paramount importance, and the long war against impure milk has resulted in this commodity being a little less of a national poison than heretofore. The wiles of manufacturers in their efforts to preserve and to adulterate food have received a check, but the information that a consignment of chocolate was found to contain quartz, glass, zinc, copper and sawdust, and that a sample of tea contained additional ingredients in the form of iron filings and pieces of wire and nails, proves that constant vigilance must ever be exercised in the supervision of the sale of all foodstuffs.

That disease knows no frontiers is no idle phrase, and is accentuated by the account given of the excellent work carried out by the Health Organisation of the League of Nations. Not the least important of the activities of the League is the scheme of interchange visits of health officials of various countries. These valuable tours must have a very broadening

effect on the minds of the fortunate officers who participate therein; there is no room for the myopic mind in preventive medicine.

Voluntary hospitals appear to have recovered somewhat from their financial difficulties, but the question of State assistance, and with it a certain amount of State control, will one day have to be faced.

Sanitary administration shows little change; the number of whole-time Medical Officers of Health is still relatively small, 559 out of a total of 1,609; save for a few notorious exceptions, Local Authorities have adopted the scale of salaries suggested by the Society and the British Medical Association; finally, it is obvious that a direct effort has been made to improve the qualifications—in more senses than one—of that valuable official, the sanitary inspector.

In several large towns, extensive sewage schemes have been commenced; over 173,000 new houses have been built throughout the country, while that heartbreaking task, the demolition of unhealthy areas, has accounted for the final condemnation of 1,597 houses and other buildings.

The sections relating to the Poor Law and to National Health Insurance are concerned with the financial aspect chiefly—a not inconsiderable question in these days—and it is perhaps only a matter of time before they will have a much closer relation to the Public Health service.

Health problems in Wales appear to be very similar to those in England, as also are the various schemes in force throughout the Principality.

While the Report gives ample indication of the stupendous task with which the Ministry of Health has to cope, it also clearly shows that the war which humanity has declared against disease is in its earliest stage. So much done; so much more to do.

Factories (No. 2) Bill, 1926.

THIS Bill attempts to consolidate, with amendments, the law relating to factories, and it was introduced in August last to give the parties concerned in different industries an opportunity of examining its proposals and submitting any representations thereon to the Government.

The present Bill can hardly be said to herald any great changes. For the most part it is merely a re-shuffling of an old pack,

dropping one or two of the cards on the floor in the process. But it retains and increases the power of the now familiar legislative "joker" whereby a Minister can make orders special or otherwise; and the effect of the Bill, if it ever becomes law will largely depend on the orders the Secretary of State makes. Like all attempts at legislation, it will raise many new difficulties in getting rid of the old. At present a doubt often arises as to what is a factory, but in the future apparently the doubt will be what is *not* a factory, as the old distinction between factory and workshop is done away with, and the meaning of the word factory is explained by one of those unsatisfactory definitions which says that the expression includes what were workshops. So far as local health work is concerned, however, this may not greatly affect the position, as the Secretary of State may order the councils to carry on as before, if they are willing to undertake the duty.

A notable proposal gives power to the Secretary of State to require an occupier of a factory, or class of factories, to make arrangements for the special medical supervision and otherwise of his employees, where some special reason exists. Under the present law, the Secretary of State has ordered special medical examinations in certain trades (e.g., accumulator works) which he certifies as dangerous, but the new proposal, which is not in substitution for the old, since this is retained in a modified fashion, is more far reaching and is only defective to the extent that an employee himself may apparently refuse to undergo such an examination.

The general provisions with respect to welfare are not new, but to a large extent replace the Welfare Orders made under the Police Factories, etc. (Miscellaneous Provisions) Act, 1916, Sec. 7, which it is proposed to repeal. These deal with such necessary things as drinking water, first aid, seating facilities for female workers, and the like. The new prohibition of spitting in workrooms is welcome, and the attempt to restrict, or prohibit, work in numerous trades in underground rooms is commendable, although the definition of underground rooms as places with more than half their height below the surface adjoining is very defective. Underground bakehouses will become basement bakehouses, but the powers will remain unchanged.

No change appears in the notification and investigation of accidents and industrial diseases.

Generally, the changes proposed in the part dealing with the employment of women, young persons and children, are small, except where the certification of fitness for employment of children under 16 is concerned. Here the proposals that such a certificate may be limited to a particular kind of work, and may be given for a limited time, or subject to other conditions, are excellent ones. The proposal for bringing the School Medical Service into closer touch with this work may be set out in detail:—

Clause 85 (4) "The Secretary of State may, after consultation with the Minister of Health, by order transfer to the county council the duty of arranging for the medical examination and certification of young persons under the age of sixteen years under this Section."

At the best this is only a half-hearted proposition, and the suggested power of transfer to county councils alone, will give rise to much criticism, as much of the best co-ordinated work done in this matter has been carried out in the smaller boroughs and urban districts. In the same clause a duty is placed on the local education authority to arrange for the production of the school medical records to the appointed doctor, and a certain involved method of making rules is devised to this end. The whole procedure is clumsy and confusing, and greater efficiency would be attained by simpler arrangements. In the following clause power is given to an Inspector to require a certificate of capacity for work in certain circumstances. This is almost a repetition of the present power under Section 67 of the 1901 Act, which has been of so little service.

These are the main propositions so far as they affect health, and generally it may be taken that they do not mark much progress; it is too much to expect that they should do so. The Bill has been drafted by a Department anxious to conserve and elaborate powers, which in any well designed system of state health administration would not be vested in them. Its outlook is narrow, and the health powers it gives cannot possibly be efficiently carried out by those whose duty it will be to undertake them. If progress is to be made under the suggested arrangements, there must follow a very large increase of the

medical staff of the factory department, and a much closer co-operation between that department and the health and school medical service of the country generally. The Bill puts duties on factory inspectors, for which they are not qualified; factory inspectors have done much excellent work in the past, but it is unreasonable to expect of them the ability to detect young persons adversely affected in health from factory work; or to advise as to the special provisions required for the protection of the health of women and young persons employed in particular circumstances, or in regard to the weights individual young persons or women can carry or move without injury to their health, and many similar questions. The congregation of persons at their places of work does something more than allow the State merely to protect the workers from unwholesome conditions in the factory; it gives vast opportunities to the State to supervise general and individual health, to check dangers to health in their initial stages, and to raise the standard of the personal health in all. Such an end cannot be reached by the procedure outlined in this Bill, which only serves to delay its attainment. The Government department concerned in the Bill is proposing to legislate without ideals and with little regard to work already being done. To those deeply interested in the health and welfare of the worker, the Bill will appear as a bad Bill, whose faults can only be modified by the possible orders issued by the Secretary of State. And in these days of rapid changes of Government it is unfair to the people to make their health depend on the susceptibilities or prejudices of itinerant ministers.

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Romance in Water Supplies.

THE first sensation on casually opening Sir Alexander Houston's 20th Report on the results of the chemical and bacteriological examinations of the London water supplies was one of surprise. Instead of a table showing chemical constituents we were confronted with quotations from "The Diverting History of John Gilpin." This was startling, but hastily turning to the title page we saw that it was indeed a Report issued by the Metropolitan Water Board, and further investigation showed that we had dipped into a fascinating story, "The Romance of the New River." Sir Alexander gives as the

explanation of this, that he is anxious that the Reports of his closing years of office should not be marred by dullness or mediocrity—faults, we may say at once, which have never existed in any of those that have gone before. There is no subject under the sun, in his opinion, which cannot be relieved of some of its dull trappings by the display of a little imagination, a touch of the *joie de vivre*. Alas, it is not given to all of us to be able to enliven our annual reports in this way. If we could, not only the public, but even the members of our local authorities would read them. Monthly reports with a thrilling serial story running through them dealing with various aspects of our work would be eagerly purchased by the public and thus the problem of educating our fellow citizens in public health matters would be simplified.

Sir Alexander, with the modesty characteristic of his nation, fears that his talents are unequal to the task of doing full justice to what he believes to be one of the finest achievements in the annals of preventive medicine, viz., Sir Hugh Myddelton's conception of safeguarding the health of the metropolis by bringing to London pure water from the Chadwell and Amwell Springs by an artificial channel 40 miles long. Sir Alexander need not fear the judgment of his readers.

The story of the New River has already been told by others, but Sir Alexander has written it from a new point of view, his aims being to exalt preventive medicine and to surround the subject of the provision of a pure water supply with the attributes of altruism, romanticism and humanitarianism. Here and there he pulls aside the veil of class consciousness which still unhappily divides the body politic and looks into the heart of things. Health and the greatest happiness of the greatest number were Myddelton's creeds and these are emphasised throughout the story. The Romance is embellished with maps and many photographs both interesting and instructive, and will no doubt be obtainable separately, for the price (21s.) of the whole Report is a prohibitive one to many who would like to possess it.

While the Romance forms the outstanding feature of this Report, there is besides, the usual information relating to the valuable work carried out under Sir Alexander's direction. Chlorination of water supplies is without doubt the most important advance.

For ten years the water derived from the Thames has been so treated, and the process has now been adjusted to a nicety. There can be no question of its success from a bacteriological point of view, and with it a heavy capital expenditure has been saved, for under the old methods increased storage and filtration accommodation would have been necessary to meet the growing population of the immense area served by the Board.

A new problem in waterworks biology has lately arisen and has been the subject of investigation. It has been suggested that there is a possibility of spirochaetal jaundice being produced by the leptospiras in the water. Consumers of the Water Board's water need not feel anxious, for these organisms exist almost universally in raw sources of supply, in filtered water and in pure deep well water, but with one puzzling exception the leptospiras found in untreated London water were non-pathogenic; moreover, none of them survive in chlorinated water. There is a strong feeling that infection may be spread by rats who may infect or be infected by slime which may be a breeding ground for the organisms, but the whole subject is one for future research. In view of the possibility of their existence in slime, Sir Alexander suggests that "dead ends" should be avoided in any water system, that drinking water should be taken direct from the main, and that cisterns be kept clean, well covered, and inaccessible to rat pollutions. Old defective "washers" may be a nidus for leptospiras, so a dripping tap, apart from the question of waste, should convey a warning of possible danger. All will agree in the need for a continuous warfare against rats, and generally in the avoidance of damp and filthy places and impure surroundings of the dwelling house.

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The Salmonella Group and Food Poisoning Outbreaks.

THE study of the Salmonella Group by Mr. Bruce White, recently published,* a continuation of earlier studies by this author and Dr. Savage, supplies important additions to our knowledge of this complex group, and is of much scientific value. The Medical Officer of Health anxious to appreciate the precise bacteriological causation of outbreaks

* "Further Studies of the Salmonella Group," by P. Bruce White, B.Sc., Medical Research Council. Special Report Series, No. 103. London: His Majesty's Stationery Office, 1926. Price 5s. net.

of food poisoning will view it with mixed feelings since it adds to, rather than diminishes, his difficulties. That the majority of outbreaks of food poisoning are due to infection of the food with bacteria of the Salmonella Group seems to be a firmly established fact, but the number of types within this group has steadily increased from a mere 3 or 4 to a considerable number (at least 15). It remains true that the majority of food poisoning outbreaks are concerned with only a few types, and mostly with *B. Aertrycke* and *B. Enteritidis*, but "Newport," "Derby," "*B. Suipestifer*," "Stanley," etc., all occasionally take a hand. A new type, "Type L," is included in the present report, isolated in connection with a food poisoning outbreak at Reading.

The bacteriologist investigating an outbreak of food poisoning frequently has none of the suspected food available for examination, nor may any *post mortem* material be forthcoming. Failing these sources, the most reliable material on which to base his diagnosis is from the serological examination of the blood of sufferers, collected after the specific agglutinins have had time to be elaborated. These sera must now be tested against a larger number of Salmonella types, while dysentery strains (as shown in the earlier reports) cannot be ignored. A sufficiently varied series of types for this purpose are not usually available in the smaller laboratories and this fact suggests that the bacteriological side of these complex outbreaks is best investigated by those who have specialised in the subject. Fortunately it is not necessary to test these sera samples individually against all the types now known before a preliminary diagnosis can be made.

Much of Mr. White's report is of a highly technical nature and mainly of interest to bacteriologists interested in serological studies. It includes a detailed study of the three forms of serological variation found to occur within the Salmonella Group. There are the "rough" and "smooth" variations, the "H" and "O" forms which are related to heat-labile and heat-stable receptors, and the specific and non-specific phases which are found to occur with some of the types. Another large section of the report deals with observations on the antigenic structure and relationships of the Salmonella types, and an endeavour is made to elucidate their phylogenetic relationships and evolution. These

abstruse considerations are mainly of theoretical importance at the present time and are not of particular interest to the Medical Officer of Health. They do, however, suggest possibilities of great interest as regards the evolution of these types and their primary habitats and may be ultimately of considerable importance from the preventive point of view.

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Public Health in Madras.

FROM the Annual Report for 1924 of the Director of Public Health, Madras Presidency, may be learned the great advance the science of Public Health and its practice have recently been making among the Native races of Southern India.

The Director, Major A. I. H. Russell, C.B.E., I.M.S., shows clearly how by the exercise of infinite patience and tact, with consideration for the peculiar customs and cast prejudices of the various creeds, their apathy, inertia, and passive resistance may be surely and steadily overcome.

In connection with various returns, attention is drawn to the defective state of the registration of vital statistics, with the consequent incomplete enumeration of births and deaths, incorrect posting of causes of death, and inaccurate compilation of returns due, as stated, to incompetent registrars. The transfer of this work from the Collectors' offices to those of the District Health Officer is strongly advocated, and has, in fact, been for some time under consideration at Government headquarters. This change would not only help the District Health Officer to detect villages where registration is very defective, but also enable him to make prompt investigation of the cause of any unduly high mortality. The Birth Rate during the year was for Hindus 34.7, for Mohammedans 37.6, and for Indian Christians 34.1; the Death rates being 24.7, 24.4, and 21.5.

The importance of a systematic record of the history and periodicity of epidemic diseases for each district is very properly stressed in the report, and monthly figures for cholera, smallpox, plague, and relapsing fever are at present being recorded by means of a coloured card index system, recently introduced. With the knowledge thus gained means for conducting preventive measures which will save hundreds of lives are made possible.

The most striking features are the large increase in cholera, and the decrease in plague.

A feature of the preventive campaign was the inoculation of over 5,000 contacts with anti-cholera vaccine. Only five of these took cholera

(of whom four died), but all five must have been infected before inoculation.

A simple and efficient method for chlorination of wells has been circulated and adopted all over the Presidency. A definite six yearly cycle or periodic wave for the prevalence of cholera has resulted from a study of the cholera statistics of the Presidency. This means that every six years the incidence of cholera reaches its maximum.

The deaths registered from smallpox were less than in 1923, 18,810, against 24,434.

The total number of deaths from plague reported during the year was 3,922, one of the lowest figures recorded since it first appeared, and as usual the disease was most prevalent during the first quarter of the year.

A special plague staff was employed throughout the year, and a total of 20,516 persons were inoculated.

In the opinion of the writer of the report, there is only one way to eliminate the rat, it must be built out of existence.

As regards malaria, in one of the districts, spleen rate was 50 per cent. and all varieties of malaria parasite were found, while in another 95 per cent. of the children under 10 years of age were found to be suffering from enlarged spleens.

The education of the people in the principles and practice of hygiene has long been recognised as an integral part of all advancement in Public Health Administration. The importance of education in hygiene in schools is not lost sight of in Madras; the Health Council which was organised in 1923, continuing to act during 1924, as the central co-ordinating agency for the various bodies engaged in health propaganda work. A Health Week organised during one of the holidays gave results which were very gratifying, and it is considered certain that a Health Week will in future become a regular annual function. During the year 33,846 lectures were delivered, in 27,346 centres, the meetings being well attended.

The report generally is a most interesting one, and most stimulating.

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Toxin-Antitoxin Immunisation in New York.

ACCORDING to "Health News," the weekly bulletin of the New York State Department of Health, reports from all available sources indicate that a total of approximately 55,000 children in the State, exclusive of New York City, have been immunised against Diphtheria during the first six months of 1926, as compared with 19,486

who received the three treatments during 1925, and 83,424 who were immunised during the four-year period 1922-1925. From January 1st to June 30th, 1926, 323,435 cubic centimetres, representing over 100,000 complete immunisations of 3 injections each (not allowing for wastage), were sent out from the State Laboratory, as compared with 115,335 cubic centimetres during the same period of

1925. While it is still too early to expect startling results in lowered diphtheria rates, morbidity and mortality rates for this disease, it is claimed, have been steadily decreasing. Though no figures are given, the death and case rates for diphtheria for the first six months of 1926 are stated to be by far the lowest on record in the Department.

Cancer

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In the opening papers of this symposium, the problem of Cancer is viewed from the standpoint of a Health Officer, a Surgeon, a Pathologist, and a General Practitioner. That the subject is one of interest was shown by the fact that the Ordinary Meeting of March 19th, 1926, at which it was held, was one of the largest of the session, and that the Openers had been interesting and stimulating by the thoroughness of the discussion.

DR. W. D. CHAMPNEYS.

The point of view of the Public Health Administrator.

OUR President has asked me to say something this afternoon about Cancer from the point of view of the Medical Officer of Health, and I think you may find it of interest to hear something first of what Public Authorities in this and other countries have done to control Cancer. For help in collecting this information for you, I am very greatly indebted to Col. A. B. Smallman, Secretary to the Departmental Committee on Cancer, and to all those Medical Officers who have kindly answered my questions.

I will take first the *United States of America*, where the American Society for the Control of Cancer, founded so long ago as May, 1913, has been doing excellent work throughout the States ever since. The objects for which this Society was formed—as set out in its certificate of incorporation—areas follows: "To collect, collate and disseminate information concerning the symptoms, diagnosis, treatment and prevention of Cancer; to investigate the conditions under which Cancer is found and to compile statistics in regard thereto." The Society though not actually a

Public Authority has the full approval and support of the Local and State Health Departments, with which as with the Medical profession in general it maintains most cordial relations. I have not the time to give you details of this interesting organisation, but I should like to tell you something of the form which its activities have taken, and of the results which it claims. Firstly, it conducts an *educational campaign*, and its methods of disseminating information include lectures, newspaper and magazine articles, moving pictures, radio talks, posters, circulars, handbooks, a periodical and private correspondence. The Society endeavours to give information and advice which shall be encouraging and helpful rather than alarming and distressing.

Secondly, it conducts *special campaigns* periodically, such as the National Cancer Week held in October, 1921. It is estimated that during this week not less than ten million people received knowledge of the vital facts of Cancer control either directly or indirectly. This effort has since been twice repeated on an even larger scale. Thirdly, the Society has

promoted the establishment of *Cancer Clinics* of two kinds, viz., *temporary* clinics, formed in a city for educational purposes in connection with one of the Society's campaigns, and *permanent* clinics, of which there are a large number. These are usually set up in a Hospital, the object being to secure prompt and efficient diagnosis and treatment for those persons who cannot afford to pay the fees cancer specialists usually receive.

Fourthly, the Society initiates and encourages *statistical and other researches* on the part of outside persons.

It is interesting to note that an aspect of the propaganda work on which great stress is laid is the *education of the medical profession* in regard to Cancer. In the report of the Pennsylvania Cancer Commission issued in 1924, it is estimated that in 1923, 10 per cent. of the doctors consulted for Cancer of the breast delayed on an average 25.9 months per case before recommending operation. Moreover, in 3 per cent. of cases consulting the doctor for the first time for this condition, the doctor did not even make a local examination. Some of the advice given by these doctors is interesting. A woman with breast Cancer was told "Wait until it begins to bleed and then come back and I will tell you what to do." Bleeding from a cancerous uterus was ascribed to "rheumatism," "return of menstruation," "a cold in the pelvis." A woman with cancer of the body of the uterus was told her condition was "not yet ripe for operation." "Don't bother it till it bothers you," "Go home and forget it," "It is your menopause" were familiar and constant standbys. This deplorable state of things is however said to be a great improvement upon that existing in 1910! To come now to *results*. The Society is convinced, chiefly on the strength of a questionnaire which they circulated, that—

- (1) Patients are going to doctors in increasing numbers.
- (2) Patients are applying to doctors at an earlier stage in the disease.
- (3) There is an increasing realisation of the desire for sound information.
- (4) The improved conditions are mainly due to the Society.

Apart from this, the only real evidence of good results from Cancer education in the States is contained in the report of the Pennsylvania Cancer Commission referred to

previously. It is here stated that comparing the years 1910 and 1923, the thirteen years of Cancer education intervening have resulted in regard to superficial Cancer in cutting down the average time between the discovery of the first symptoms and the first call on the doctor from 18 months to 14.6 months, or 20 per cent. In the case of deep seated Cancer, the interval has been reduced by nearly one half.

In *France* the policy of the Ministry of Health has been based upon the report of the Ministry's Cancer Commission produced in 1922, and embodied in a circular issued by the Minister in December of the same year. The basis of the programme here set forth is the organisation of *Regional Centres*. These are to be established in large towns having Medical Faculties or Schools, and are to be centres for treatment, information and research. It is directed that special attention shall be paid to the instruction of students in the diagnosis of Cancer. Existing buildings are to be used for the housing of these Centres pending the provision of special accommodation. Emphasis is laid on the fact that the centres are not to become hospitals for incurables, but that such cases are to be referred or transferred elsewhere to make room for curable cases. The minimum number of beds to be made available is put at 20. As regards equipment, the most up-to-date apparatus for short ray therapy is to be provided and so utilised that the maximum number of patients are treated in the minimum time and then sent home, being called up at a suitable interval for further examination. All surgical facilities in the institution are to be available to the Cancer patients. As regards personnel, this should be drawn from the existing staff of the Faculty or School, and should comprise a clinician and a pathologist for diagnosis, a surgeon for operative treatment, a radiologist, and a physician to advise on treatment, either as a routine or when required.

In accordance with this programme, centres have been created at Bordeaux, Montpellier, Toulouse, Lyons, Strasbourg, Nancy, Rennes, Nantes, Tours, Marseilles, Alger, and Clermont-Ferrand. It is too soon yet to say what results have been achieved. Recently it has been proposed to alter the legal status of these centres so as to empower them to receive gifts and legacies from private individuals or special foundations (such for instance as the Rockefeller Foundation), but I do not know if this change has yet been effected.

As regards other countries; in *Holland* there is the Institut Leuwenkoek at Amsterdam, which conducts both experimental and therapeutic work on Cancer, chiefly the former. In *Belgium*, in Brussels particularly, much propaganda work is done through the Radium Institute, but in other countries, so far as I can ascertain, efforts for the control of Cancer have been confined to private research work and the increase of facilities in general hospitals for the diagnosis and treatment of the disease.

Coming now to England and Wales, it will be as well to explain first of all the policy of the *Ministry of Health* as regards Cancer. The Minister set up in 1923 a Departmental Committee on Cancer which operates through five different sub-committees, entitled respectively:—

- (1) Propaganda and Public Action.
- (2) Surgical Statistics.
- (3) Treatment.
- (4) Nutrition and Biochemistry, and
- (5) Medical Officers of Health.

Since August, 1923, four interesting memoranda on different aspects of Cancer have been issued by the Committee, the object of which is not only to give reliable information to the medical profession and others specially interested in this disease, but also to form a sound basis for any work which might be undertaken by local authorities. The Ministry has also organised an investigation in certain large towns into the history of patients dying from cancer of the breast, and the results of this investigation as regards patients dying in 1923 have already been collected and certain broad conclusions drawn from them, which are now serving as a guide to further researches.

Passing now to the measures taken by *Local Authorities* for the control of Cancer, such measures are at present, so far as my information goes, confined to certain large towns, and the form these efforts have taken in the towns in question may be described very briefly as follows:—

Special Cancer Committees have been formed, in response to the suggestion of the Ministry, in the following towns:—

Manchester, Sheffield, Leeds, Birmingham, Bradford, Nottingham, Leicester, Bristol and Cardiff.

Investigations into the statistics of *Cancer of the Breast* have been and are being carried

out, at the suggestion of the Ministry at Cardiff, Leicester, Sheffield, Bristol, Leeds, Liverpool, and Newcastle-on-Tyne, though the two last towns have no special Cancer Committee.

At Leeds, an investigation into the statistics of *Cancer of the female generative organs* is also being carried out, and a special Medical Officer, whose salary is being paid by the Health Committee of the Town Council, has been put in charge of these two investigations.

At Manchester the Cancer Committee has appointed an After-Care, Follow-up and Treatment Sub-Committee which is undertaking the continuous supervision of all Cancer cases in the City, the provision of treatment for cases of recurrence, the establishment of a regular and complete system of record keeping of Cancer cases in all the City Hospitals and in private practice and the examination of histological specimens from every case. A special Medical Officer has been appointed to take charge of this work.

At Cardiff, a system of *voluntary notification* of cases of Cancer is in operation with the object of obtaining more complete data.

At Bradford an apparatus for *Deep X-Ray Therapy* has been installed at the Municipal General Hospital.

The history of *direct Cancer Propaganda* in this country is interesting. The pioneer work of this kind was instituted at Portsmouth by the City's Medical Officer, Dr. Mearns Fraser, upon whose advice a leaflet, setting forth the chief known facts about the disease, and urging the public to consult a doctor for certain conditions, was distributed as long ago as January, 1914. This leaflet was also inserted once a fortnight in the local Press, but this practice has now been discontinued for some time on the grounds of economy. The leaflet is however still issued to Nursing Bodies, Midwives, and other workers among the poor. Dr. Mearns Fraser tells me that he finds it difficult to say what the effect of these measures has been, but he has been informed by surgeons that in a certain number of cases patients have applied to them at an early stage of disease through the reading of this notice. Similar leaflets have also been issued at Bristol, Leeds, Leicester, and Cardiff, the leaflet issued in Cardiff treating only of Cancer of the Breast. Leaflets on Cancer of the Womb and Cancer of the Breast drawn up by the Chairman, have been issued by the Central Midwives Board ever since 1908.

At Manchester there has been appointed a Special Propaganda Sub-Committee to which the Public Health Committee has delegated its powers with regard to propaganda under Section 67 of the Public Health Act, 1925.

As regards *Lectures on Cancer*, so far as I can ascertain, nothing of this kind has yet been attempted by local authorities, but at Cardiff the Cancer Advisory Sub-Committee recommended that the Education Committee be advised to institute a health talk by one of the Lady Medical Officers to each senior class of girls in each Girls' School giving information with regard to the possibility of Cancer in later life, along with other health matters.

Finally, an attempt was made at Ealing, on the initiative of the Guardians, to start a *Cancer Clinic* at the West Middlesex Hospital (the Poor Law Infirmary), but this attempt came to nothing owing to the decision of the Ministry of Health that under the existing law the Guardians could only deal with persons coming within the scope of the Poor Law.

In the short time still at my disposal, I should like to make a few suggestions as to the measures that might be taken by Local Health Authorities in the future for the Control of Cancer.

It will, I hope, be clear, even from such a brief review of what has been already done in this and other countries, that there are many methods of attacking this problem which have been little, if at all, exploited. I realise, of course, that the methods applicable to such a country as the United States are not necessarily applicable to England, but many of them, I think, are worth trying, in a form modified to suit our different conditions. I will therefore touch on some of them very briefly, leaving a fuller consideration of them to the discussion of the Society.

I. *Education*.—This may be considered in two sections—

(a) The Education of the Medical profession.

(b) The Education of the Public.

The Education of the Medical Profession. However proud we may be of our profession, we can hardly doubt that we also have a "Backward 10 per cent." of doctors in this country who need—and I think would welcome—some education in Cancer. The means for this that I would suggest are:—

(1) A *Booklet* issued by the Ministry of Health giving the main facts about Cancer,

such as are contained in the very valuable memoranda already issued, but produced in a more attractive form, and specially designed to meet the needs of the general practitioner.

(2) *Meetings* of local medical practitioners convened by the Local Authority or its Cancer Committee, to consider the best means of combating Cancer in the locality.

(3) *Post Graduate Lectures* or Demonstrations for local practitioners (as already suggested by the Ministry).

The Education of the Public. The means I suggest are:—

(1) *Leaflets* such as I have already referred to as being in use in various towns.

(2) *Posters*, preferably pictorial, teaching a single lesson only in a forcible but strictly truthful manner.

(3) *Advertisements* in the local Press.

(4) *Articles* in the same place.

(5) *Lectures*.

(6) *Cinematograph Films*, which should, I think, be produced under the direction of the Ministry, and lent to Local Authorities for demonstration purposes at lectures or otherwise.

II. *Diagnosis*.

The necessity for increasing the facilities for accurate diagnosis is obvious, but all projects to this end bristle with difficulties. Personally, after prolonged and very careful examination of the matter I have come to the conclusion that there is one method still untried in this country that is eminently deserving of a trial, viz.,

The Cancer Clinic.—I have no time here to discuss the various problems connected with such a scheme, but I would like to make the following suggestions:—

(1) The Clinic should be for the purpose of providing *free* diagnosis for anyone caring to attend.

(2) It should be formed either in a good general hospital or in an existing Municipal Hospital or Clinic.

(3) The Surgeon in Charge should be a man who could command the respect of the local medical practitioners.

(4) The local practitioners should be invited to bring their patients to the Clinic for consultation with the expert in charge.

(5) X-Ray apparatus, a good radiologist, and beds for the temporary admission of patients for diagnosis should be available if possible.

III. *Treatment*, the facilities for which are also inadequate.

The possible lines of attack here are:—

(1) The improvement of ambulance facilities for the conveyance of patients to treatment centres (as suggested in the Ministry's Circular, 426).

(2) Deep X-Ray Therapy might be installed in the Municipal Hospital (as at Bradford), or be made available by arrangements with other Local Authorities or Hospitals.

(3) Surgical Treatment might be arranged for in a similar manner.

IV. *Research Work*, details of which I will leave entirely in the hands of Dr. Newcomb.

Whether any of these suggestions appeal to you or not, I am sure that you will all admit that vast fields remain still unexplored, and that there are important measures for the control of Cancer which must be taken *now*—measures which it would be criminal to neglect any longer and which it is our duty as Medical Officers of Health to urge upon our Local Authorities with all the eloquence and energy at our disposal.

PROF. G. E. GASK.

The Point of View of the Surgeon.

A great deal of the time of a general surgeon at a large hospital is taken up by operating on Cancer, and only too often the operations performed are perforce only of a palliative nature, owing to the large extent of the growth or the presence of metastatic deposits.

Accordingly I welcome such a discussion as this, which tends to promote co-operation on a large scale.

The opener of the debate has indicated to me certain points on which he wishes information, so to avoid discursiveness I will confine my remarks to these:—

I. The first point is:—

For what conditions should patients be advised to consult a doctor?

A very long list might be made out, too long to enlarge on in the space at my disposal, and many of them are obvious, such as soreness of the tongue, a lump in the breast, or a lump in any part of the body. In the majority of instances patients suffering from such troubles seek advice early; but Cancer in the hidden parts of the body, such as the alimentary canal, the ovaries and uterus, or the kidneys and prostate, are much more

likely to be overlooked, and the early symptoms which are indicative of grave disease neglected. Such symptoms are difficulty in swallowing, constipation, occasional bouts of diarrhoea, passage of mucus or blood per rectum, or even the presence of piles. It might be possible to make a list of dangerous symptoms to issue to the general public, but it would not be easy, and I am not at all sure that it would be wise or, if it were done, what effect it would have.

I would like to hear the opinion of general practitioners and Medical Officers of Health as to the result such a publication would have on the public.

II. *Can a good general surgeon arrive at a good provisional diagnosis in all forms of Cancer, or what varieties require a specialist? This is in view of the possibility of establishing Municipal Cancer Clinics.*

The answer to this is that a good general surgeon equipped with efficient apparatus should be able to arrive at a good provisional diagnosis in the great majority of cases. The apparatus the general surgeon should have and be able to use, beyond his own eyes, fingers, and clinical acumen, are:—

A laryngoscope, proctoscope, sigmoidoscope, and cystoscope. It would be essential also that he should be aided by an X-ray apparatus and presumably have the services of a technician, so that examination of the alimentary tract with the help of bismuth meals or enemata could be made. In my opinion, such an X-ray apparatus would be an essential part of any Cancer Clinic. It might be argued that the services of an expert Roentgenologist, i.e., a medical man, would be necessary, but in my opinion, a general surgeon should be able to interpret the pictures himself, and he should need only the services of a technician.

III. *What forms of Cancer require special apparatus for a provisional or final diagnosis?*

Cancers of the deeper parts of the body, such as larynx, oesophagus, stomach, small and large intestine, kidneys, and bladder, require special apparatus in addition to those already mentioned. It is sometimes requisite also that a piece of a tumour should be removed for histological examination before a definite diagnosis can be made.

IV. *What methods of treatment are effective in favourable cases?*

There can be no doubt that the most effective method of treatment which we have

is a complete and early removal of the Cancer by a cutting operation. This is undoubtedly still superior to all other methods which have been suggested, such as radium, X-ray therapy, diathermy, and injections of various drugs. It is true that radium is useful in surgery, and that by its means rodent ulcers can be cured. Some remarkable results have been secured by the use of radium in a number of other cases, some of which I have seen personally. I have seen some Cancers of the breast which seem to have disappeared under its use; it is also reported that carcinoma of the rectum has disappeared. Treatment by radium, however, is in its infancy, and it is quite clear that it is still better to make a complete surgical removal wherever possible.

Almost precisely the same remarks apply to treatment by deep X-ray therapy, which had such a boom some years ago, and which now is being tried out under research conditions in more than one Institution. The brilliant results claimed for this method have not been substantiated; but it is clear that in some instances and under some conditions, of which we are not at all certain at present, growths do entirely disappear. More often they reappear, even as they do after surgical removal.

Of other methods of treatment recently reported, such as injections of Colloidal Lead, it is too early to speak. I think, however, it is perfectly clear that for the purposes of treatment on a large scale, such as is purposed here, the one thing that we must keep steadfastly in mind for the present is that the best treatment to be adopted is early removal after early diagnosis.

V. Now comes a most important and difficult question to answer, namely: What are the results of the operations which are performed?

I am sorry to say that there is really very little accurate information to be gathered on this subject. The reasons are that statistics are not kept in the same form, or tabulated uniformly, nor are the after histories of the patients ascertained. The result is that if a surgeon is asked what is the exact result of any given operation, he can offer only his own impressions, or the result of his own experience which must of necessity be small.

I would like here to make two definite suggestions which seem to me would be of advantage if any big scheme for combating Cancer was undertaken by any central authority.

The first of these is that all hospital statistics should be kept in a uniform manner. As it is, all the London Hospitals keep their statistics differently; one might say indeed that there are not two hospitals in the kingdom that keep their statistics in the same way. It should not be at all difficult to arrange a Pro-forma, so that when information is required as to the numbers of cases of Cancer of different organs, and types of operations done, it would be possible to give the exact figures of a large number of cases.

This, however, is not sufficient; because unless the after results of the operation performed are collected carefully and tabulated, the figures are not of any great value.

The information required can be collected by the institution of "Follow Up" departments attached to all the large hospitals. Such departments may be seen in America, and in some of our own hospitals, and in my opinion there is no doubt that they collect information of a most valuable character. It appears to me to be a business-like suggestion in attacking a problem such as Cancer, that we should have accurate information on the results of treatment, and at the present time we do not possess it.

DR. W. D. NEWCOMB.

The Point of View of the Research Worker.

The pathological aspect of the Cancer Problem is so wide a subject that it is obviously impossible to do more than touch the fringe of it in the short time at my disposal. I propose therefore to try and keep the more practical aspects of the problem to the fore.

Diagnosis.—Cancer starts as a localised process, and if the whole of the disease be removed, it does not recur. It is therefore essential to diagnose the condition as early as possible; there the pathologist can help the clinician, provided he can obtain the material to work on. This is one of the greatest of the pathologist's difficulties. How is the pathologist to be given the material, and how soon is the diagnosis to be made?

Let us consider the breast as an example. It is an organ particularly susceptible to neoplastic changes of various kinds both innocent and malignant, and the majority of women between the ages of 35 and 50 have some kind of lumpiness in their breasts. All these cases can be divided roughly into two classes—those with a single tumour, and

those with multiple or diffuse nodules. Cases of the first class include single cysts, fibroadenomata and carcinomata. There is no real doubt as to the procedure here. Generally the surgeon is sure of the diagnosis and will perform a large or small operation accordingly. However, even in these cases every tumour should be examined microscopically to make assurance doubly sure. Every now and then a carcinoma may be found growing into an apparently innocent cyst, or a suspected carcinoma prove to be a fibroadenoma.

It is in the second class of case that difficulty arises as to how the pathologist is to co-operate. The various changes grouped under the heading "chronic mastitis" are numerous. Only rarely is the condition a true inflammation; more usually it is a hyperplasia, probably the result of an abnormal involution or evolution of the breast tissue.

These hyperplastic changes are of several types. There may be an almost pure connective tissue hyperplasia, which is always innocent, or there may be a diffuse hyperplasia of both connective tissue and epithelium, the latter being comparatively slight and purely within ducts and acini. Here again there is no suspicion of Cancer.

A third stage is where the epithelial change occurs in patches and is well marked in these areas, frequently forming small cysts with papillary ingrowths. This is Cheate's desquamative epithelial hyperplasia. Lastly, the epithelial cells may grow more rapidly, become hyperchromatic, irregular in size and shape and contain mitotic figures, yet they still remain within dilated ducts and acini. This condition Cheate calls dysgenetic hyperplasia, but others have called it a carcinomatous hyperplasia. It shows all the appearances of carcinoma, except infiltration, and in my opinion should be treated as carcinoma. It is often said that no one has ever seen a pre-cancerous condition become malignant. This of course is true, as obviously the dead tissue examined on a slide cannot grow, but there are many cases which strongly point to a pre-cancerous condition. Some years ago, I saw a case which made a great impression on me. The greater part of the breast disc was removed, and showed numerous nodules of advanced epithelial hyperplasia, but, in spite of a careful examination, no infiltrating carcinoma. The surgeon

refused to undertake any further operation, and within two years the patient was on the P.M. table with generalised carcinoma.

What is wanted is a means of diagnosing these cases clinically before operation. As far as I can judge this cannot be done at the present time, and is only likely to come after many years' work between surgeon and pathologist. At present the surgeon confronted with a difficult case has 4 possibilities.

(1) Wait and See.—This cannot be too strongly condemned. If the tumour be malignant the prognosis becomes worse with every day's delay. I have recently seen a case where the practitioner visited a patient twice a week for six months to watch a lump in the breast. When the skin was dimpled and enlarged glands felt in the axilla he called in a surgeon. Of course, by that time the diagnosis was certain, but equally certain was the bad prognosis.

(2) Incise that part of the breast about which he is most suspicious, and be guided by its appearance with the naked eye.

(3) Excise a small portion for rapid examination by means of frozen sections.

(4) He may remove the whole breast disc and wait for a careful examination by means of paraffin sections.

Personally I feel that a rapid frozen section rarely tells one more than a naked eye examination. In a doubtful case the most difficult part of the investigation may be to decide from which portion of breast sections should be cut. Frequently many sections from several parts, or even whole sections of the breast may be needed. These cannot possibly be prepared in the few minutes while the patient is under an anæsthetic.

Probably the best course to adopt is to incise the breast and if there is any suspicious looking part, remove the whole breast disc and have that examined carefully later. Even with a careful and detailed microscopical examination a certain diagnosis may be difficult, but here the patient's point of view and not the academic must be considered. The patient is better off if an innocent tumour be widely removed than if part of a malignant one be left behind.

With regard to other organs, the same arguments against rapid frozen sections apply. It is in early and unusual cases where the clinician is doubtful as to the diagnosis and it is here that the pathologist may have great difficulty also. A tumour with an

obvious microscopic appearance has an obvious naked eye appearance too. The microscope merely magnifies what is there. The cases with atypical macroscopic appearances are generally atypical microscopically and require the best possible sections to aid the diagnosis. In these cases also, tiny snippets from the middle of a tumour are frequently useless. They may be entirely necrotic. It is essential that the pathologist should receive enough of the material to make a proper examination of both the tumour and adjacent normal tissue. It rarely incommodes the patient more to have a reasonable sized piece of tissue removed.

Even with suitable material and good sections the pathologist may sometimes be unable to give a definite opinion. It is here where close co-operation between surgeon and pathologist is so important. Together they may frequently be able to arrive at a correct diagnosis, while what one might call "penny in the slot" pathology will fail. The worst example is when one is asked for a diagnosis of tumour removed by Mr. X. and is given no further particulars. The young house surgeon sometimes says, "Why do you want to know where the material comes from? Surely you can diagnose the organ when you see it?"

The answer is that in many cases one can, but not always; and when one has a difficult job to do it seems unnecessary to make it more difficult. A few years ago, I saw a section of a tumour removed from the shaft of the humerus. It was exactly like normal thyroid tissue, and the correct diagnosis of secondary thyroid carcinoma in the humerus could only be made with the knowledge of the site of the tumour.

To pass on to the experimental side of Cancer research. In this field progress now seems likely to be rapid. The pioneer work of the Imperial Cancer Research Laboratory under Bashford and Murray is now bearing fruit. For many years, observations have been patiently recorded, and progress in founding a theory to explain them has been slow. Now Gye and Barnard's work has given an explanation of many of the known facts. The filtrable virus acting with a specific chemical factor combines the old parasitic and biological theories in a wonderful way. Experiments are being done in many laboratories on this virus now, and the theory should be confirmed or disproved shortly.

There is an excellent article by Cramer on this subject in the British Medical Journal, of January 30th, 1926.

Also, following from the early experimental work is that of Dr. Lumsden. He attacked the problem at first with the weapon of tissue culture. Here again the technical difficulties are great, but Lumsden's methods have conquered them brilliantly. He first succeeded in growing portions of organs and tumours in serum. This was followed up by forming a Cancer antiserum by injecting portions of a mouse carcinoma into the peritoneum of a rat or rabbit. This antiserum killed mouse carcinoma, but normal mouse organs survived in vitro for several days. He has now gone a step further, and shown that the antiserum can be used to cure tumours in the living animal. Here again the work is recent and is still progressing, but it does appear that a definite curative serum has been produced. If this can be carried further and applied to man it seems in many ways more likely to be successful than chemical methods.

This brings one to a consideration of the work of Blair Bell at Liverpool. He started to investigate the pathogenesis of lead abortions. Previously it had been thought that lead stimulated the uterus to contract and expelled a living foetus. He found that it killed the chorionic cells and then the dead foetus expelled. The lead did not seriously injure the mother. Here, he argued, is a substance which will destroy the rapidly growing chorion but does not injure the slowly growing cells of the mother. Carcinoma is a mass of rapidly growing cells. Can we kill them by lead and leave the normal tissues unaffected?

The problem is to obtain a suitable form of lead or other substance which will destroy the Cancer cells and not seriously damage the rest of the body. With regard to this work, it is difficult to speak yet. Some of the results seem brilliant, others have failed. A few cases have been tried at St. Mary's Hospital, so far without success.

DR. F. ALLEN.

The point of view of the General Practitioner.

As my own experience is not of great length, I have used the data of my two partners, both of whom have had over 25 years experience of general practice.

Ours is what is called a "mixed practice," about one-third of our work being among

panel patients, and the rest being taken from all classes.

We have no large factories near, and no staple trades locally, so I have nothing to say as to the occupational cancers.

After some years of resident appointments in Hospitals, I was surprised, when I went into general practice, to find that my ideas of certain signs and symptoms as a help to diagnosis were rudely shaken. Taken as a whole, Cancer is not a common complaint in general practice. Less than 1 per cent. of my visits and attendances are to cancerous patients. I find that Cancer accounts for 14 per cent. of our mortality. In hospital it is important to remember that a great many patients arrive there either because their local doctor, or they themselves, are dissatisfied with their progress, and therefore, a fair proportion of such cases show signs of serious illness and perhaps of Cancer; but I want to show how difficult it is for the general practitioner often to detect a sudden incidence of one grave symptom among a plethora of other symptoms; but I hope to enlarge on this point as I deal with the more frequent Cancers we meet with.

(1) I have not seen a *carcinoma of the tongue or lip* in the last four years, but I have seen three carcinomata of the larynx in six months. In my opinion, persistent hoarseness requires expert laryngeal examination, not once, but at intervals of a month, until the condition has cleared up, however cheerful the throat specialist's first opinion may have been.

(2) *Carcinoma of the Oesophagus* is not usually very difficult to recognise, but twice I have had cases where a comparatively well-nourished man suddenly could keep nothing down, and required immediate operation, without any previous history at all.

(3) With *Carcinoma of the Stomach* I have been surprised several times that the first time I have been called in I have found secondary deposits on the liver. Carcinoma of the stomach often seems remarkably lacking in signs and symptoms in its early stages.

(4) *Carcinoma of the Rectum* is very difficult for the practitioner to detect. We all know the importance of such signs and symptoms as constipation and diarrhoea, blood and slime, piles and backache, but you must remember that we must make many hundreds, literally hundreds, of rectal examinations without finding a cancer. The lumbago and sciatica are often well hidden by a number of other pains. If one takes a typical case of a

middle aged man, inclined to constipation, who attends occasionally for rheumatism in various joints, due perhaps to bad teeth and constipation; if he adds sciatica and lumbago to his symptoms, it is difficult to realise the significance the first time they are mentioned, and of course as a rule they are not significant of Cancer.

(5) *Epitheliomata* I think we diagnose early, and our results are good.

(6) *Carcinoma of Breast*. I think women are much more sensible in coming to the doctor with lumps on the breast, and with operative treatment and X-ray they usually seem to do pretty well.

(7) *Carcinoma of Uterus*. Here again, I think women are becoming more alive to the dangers of waiting, and usually tell us early, but here I must say that metrorrhagia at the menopause *does* occur, and frequently in non-cancerous conditions, despite some of the text books.

(8) *Rarities*. Of course, we do encounter rarities, even in private practice. We had a small girl patient not long ago, who fell down while playing in the school playground. She then had pain in the right side of her back and hæmaturia. When my partner operated he found a large swelling in the kidney region, which proved to be a sarcoma.

I had a patient a few months ago who had tachycardia which persisted, despite rest and digitalis. I suspected a growth with involvement of the vagus, but there was no alteration in his voice. His voice disappeared next day, and I really thought my questioning had caused it, but sure enough, there was a left abductor paralysis, and the man died shortly afterwards of carcinoma of the oesophagus.

I feel that all I have said is very elementary, but if I can explain how much more often than not the various signs and symptoms one meets with are not of any serious import, you will understand how wide awake the general practitioner has to be. We *can* help in one way, and that is in noting the general condition, weight, etc., of our regular patients, and marking any definite and persistent change.

As a rule, the fatal delays in diagnosis are due to economic reasons. The family man postpones a thorough examination because he is frightened to stop earning, while the mother of a family, perhaps never feeling very fit, takes little notice of early signs of ill-health and keeps going because there is no one to take her place. One is hampered, too, amongst one's wealthier patients who should know

better, by the present feeling against the registered practitioner, and it seems to be considered clever to have a preliminary course of dietary, osteopathy and massage before consulting their own doctor. The panel patient class is, as a rule, much more sensible, and much more grateful, and is usually sent to a hospital for examination at an early stage. He also has the additional safeguard of seeing the Regional Medical Officer if he is drawing insurance benefit for more than a few weeks.

With regard to cancer clinics, I cannot say that I am in favour of them; there are a surprising number of neurotic people who are always suspecting cancer, and asking for overhaul, and the general practitioner, being human, is more apt to miss the genuine cases if he is constantly having his time wasted and his energy used up in futile examinations of people with "wind up." And what is more important, we know nothing of the causes of cancer. We know very little of how to prevent it, and our treatment is on the whole, very discouraging, so I am afraid a Cancer Clinic at the present time would not be much of a success. I think a few quiet hints by the medical man are more likely to help his patients without scaring them. I am also in favour of free medical examinations by the Life Assurance Societies at six monthly or yearly intervals, as a good bit of preventive medicine for the middle-aged middle class.

In conclusion, I can only hope and pray that a more effective treatment for cancer can speedily be found.

DISCUSSION.

THE PRESIDENT (DR. G. F. BUCHAN), said that there was a general desire to know what to do to help to reduce the death rate from cancer, and the gratitude of the Society was due to the leaders of the discussion for the mass of information on the subject contained in their excellent contributions. Particular interest centred in what Dr. Allen had said from the general practitioner's standpoint; Dr. Newcomb and Prof. Gask had explained how it was possible to secure the early diagnosis of the disease, and Dr. Champneys had given details of what had been accomplished in the direction of cancer clinics in various places. In declaring the subject open for discussion, the President extended a special welcome to representatives from Austria, Canada, Greece, Japan, Poland, and Russia.

DR. W. J. HOWARTH, C.B.E. (Medical Officer of Health, City of London), said that as on all occasions where a subject of such complexity as that under discussion was dealt with from several points of view, it was very difficult to select particular items to which special reference might be made. There were, however, one or two aspects which he desired to mention. Mr. Gask was to be congratulated on the very moderate tone of his views on the success of treatment. There was probably no disease which called for more moderation at the present time than cancer. Mr. Gask had summed up the position quite clearly in stating that cancer for the present was only capable of successful attack by early diagnosis followed by early surgical treatment in operable cases. A suggestion had been made that some new form of *ad hoc* institution should be created. Personally, he was very loath to recommend the establishment of such institutions in cases where the object of the institution was based on such indefinite and incomplete knowledge. Two dangers could be foreseen; the value of the scheme would be apt to be magnified, and there was a possibility of draining resources that might very well be directed into other channels. Dr. Howarth put in a plea for the fireside philosopher to be given a place in the campaign against cancer. Without good team work there was bound to be a one-sided view, and many research workers would do much better work if they were for a period to cease their labours and contemplate their own results and those of others. The solution of the cancer problem was only to be obtained by honest laboratory research work in respect of fundamentals. How far had this Society taken up the study and consideration of the question? In regard to the education of the Medical Officer of Health, it seemed to him that a small section of their Society could be set apart for the acquirement and study of knowledge obtained by other people. Such a body—more a contemplative body—would be doing a useful service to the public and to the profession. Dr. Howarth desired to ask Mr. Gask if he had any information as to multiple spontaneous cancers; whether he had any experience of a second cancer in the same individual after a successful operation. He also wished to ask Mr. Newcomb if he could offer a suggestion as to what the nature of the assumed specific factor was in the case of a healthy person who subsequently contracted the disease.

DR. LOCKHART E. W. STEPHENS, C.B.E., dealing with the subject from the propaganda viewpoint, said that he had personally addressed over seven thousand people at meetings arranged by women's institutes, brotherhoods, and other bodies, on what ought to be known about cancer. The distribution of leaflets amongst the public he did not greatly favour, but he did feel that there was an opportunity for the Society to draft a leaflet for circulation amongst general practitioners, each of whom ought to be a centre for spreading knowledge on the subject. The public wanted to be told the truth, and they would listen to the man they knew and trusted. As Prof. Gask had truly said, the only thing that could be offered to the public to-day was early diagnosis and early treatment, and it was therefore essential that there should be a means of reaching the general public with information of the right kind.

DR. HANS LEONHARTSBERGER, Ministry of Health, Vienna, speaking on behalf of the foreign medical officers present, said they had followed with the keenest interest the papers which had been read, and while time would not permit of each one of them contributing to the discussion from the point of view of his own particular country, he desired to take the opportunity of expressing their sincere thanks for the very kind reception accorded them, and to assure the members of the Society that they would take back with them a happy remembrance of all that they had been shown in London and the districts adjoining. The British Public Health Service was well known to be one of the foremost in the world, and there were many things they had seen during their visit which could be adapted and put to good use in their own countries.

DR. CHAMPNEYS, invited by the President to reply to points raised, said that he felt that more alarm was caused amongst the public by telling too little rather than too much on the subject of cancer. They must be given the absolute ascertained facts and be told that if they come early enough, the disease can very often be eradicated. That was the only possible way of reducing the mortality, and the public should therefore be encouraged to come for diagnosis. It was of great help to have the views of the general practitioner, who ought not to be discouraged in his search for early cases of

cancer, because he was often shown cases which were not cancer. As regards periodical medical examination, that idea had not only been mooted before; it was actually in operation in the case of several of the large insurance companies in America. What effect it was having was not known, but it could hardly be doubted that good results would accrue. Dr. Howarth had criticised the creation of new institutions, but there was one point that should be brought out. The general hospitals were undoubtedly the best places to which patients could go for diagnosis, but apart from the fact that they were understaffed and over-worked, it had to be borne in mind that there were large numbers of people living away from the cities who would be glad to go to a local municipal clinic to obtain the opinion of an expert as to whether or not they had cancer. Dr. Champneys expressed the hope that the Society would not be put off cancer propaganda by the pitfalls believed to be ahead. The true method of preventing cancer was obviously far in the future; meanwhile the medical profession must educate the public and the public, he felt sure, were most anxious to be educated.

PROF. GASK, replying to Dr. Howarth's query, said that multiple spontaneous cancers were very rare in the human, and that the information was much more likely to be obtained from the research laboratories where animals were dealt with.

DR. NEWCOMB, in answer to Dr. Howarth's question relating to the specific factor, expressed the view that if more were known of it the solution of the problem would be much nearer. The only information so far obtained was that it was a substance which was very unstable.

DR. ALLEN advocated personal discussion in preference to the suggested leaflets to general practitioners, and held that far better results would be obtained where the Medical Officer of Health himself had a keen interest in the subject, and formed a personal liaison with the general practitioners of the district. Dr. Allen explained that in pointing out the difficulties associated with the search for cancer in a general practice, he had not desired to convey the impression that one should give up looking for the disease, and added that it was necessary for the general practitioner to keep in touch with his original hospital or the local hospital in this and other matters.

Ut Ita Dicam.

(Being Comments, apropos and otherwise, on Sundry Matters.)

An Appeal—

Like the players, this journal has only one true intent—your delight. You want news, news of each other, and *Public Health* longs to furnish it. Through secretaries of branches and groups, who might be supposed to know something worth telling, and otherwise attempts have been made to obtain news. The net result has been what the enquirer who sends round questionnaires almost invariably describes as "pitiful." And so it comes to this, that if you want news of each other you must provide it for each other yourselves, sending it either to the secretary of your branch or group or, preferably, to the Editor. The kind of information to send is, of course, the kind of information about yourself or the work of your department that you think you would like to read about a colleague and his work or department—increases of salary, knighthoods and suchlike baubles conferred upon you, increases of staff, police court cases in which you triumphed, action under the Housing Act, local enquiries, important addresses delivered or to be delivered, and so on.

—And a Threat.

The above note is serious; it is an appeal; and here is a threat to couple with it. This is the last attempt that will be made to obtain news items. If it fails, news items will be provided, and more or less the lines followed will be those indicated below.

Talk and Tidings.

Le Sport.—"On the last day of the Royal Sanitary Institute Congress in London, conspicuous amongst those present was the well-known Medical Officer of Health of ———. It was noted that he was particularly debonair, that his hat was cocked at an intriguing angle, that the pockets of his trousers were square, and that he carried field-glasses. He said he was going on the river."

A Record.—"During the period January 1st to December 31st, ———'s gifted and eloquent Medical Officer gave advice publicly as to the number of glasses of water to be drunk per day on no fewer than 1,460 occasions. In leap year the total will be greater by 4. This will constitute a record."

A Bon Mot.—"A young member of the service at a meeting of the Society recently held, declared that the new scales would be useless if they did not ensure a balance. A motion to refer the question to the Branches was defeated."

Propaganda.—" 'Soap or Child Welfare,' said an authority, 'which is the more likely, as a subject, to produce the greater effect?' The question being apparently entirely rhetorical, no answer was given."

So you see what you may expect.

Second Class Matter.

Somebody (unknown) has sent me a copy of a little paper calling itself "The Vaccination Inquirer," and proudly declaring itself as "Entered at the New York Post Office as second class matter." The reasons inspiring the unknown to send me the copy are obscure, except, perhaps, that it contains more names of Medical Officers of Health than an ordinary number of *Public Health*. This fact alone should be sufficient to send all New York to the department of the Post Office where second class matter is to be found. Most of the names appear in a discussion of what is neatly and briefly described as "Schick Bunkum," and prominent amongst them are those of Dr. Robertson of Edinburgh and Dr. King Brown of Bermondsey, the latter put forward as the expresser of views definitely contradictory of those of the former. Dr. Robertson comes under the lash not merely for recommending parents to accept the offer of immunisation, even if it involves the administration of six separate injections spread over a period of roughly seven months, but also for repeating the belief that an individual once protected remains so for life.

What D'yah Know About That?

Dr. King Brown is brought in to bear witness to the unsoundness of this belief as to the duration of the immunity which, expressed by Dr. Robertson, is held by the majority of observers. In the course of a lecture at the Institute of Hygiene, Dr. King Brown, it appears, compared artificial immunity with that produced by an attack of disease, and stated generally, it would seem, that the latter was more enduring than the former, and added, giving an instance, that "in the case

of inoculation by diphtheria anti-toxin the immunity only lasts for weeks." In order to permit itself to say, with some niceness, that this is "the best comment on this nonsense" of Dr. Robertson's, "The Vaccination Inquirer," for the benefit of the New Yorkers thronging the post office in that city, affects to believe that Dr. King Brown and Dr. Robertson are referring to the same procedures. As all the New Yorkers have already exclaimed over and forgotten the paragraph and it would be useless anyway, it is probably unnecessary to take the trouble of trying to make clear to "The Vaccination Inquirer" that the two officers were talking of different things and neither was contradicting the other.

Oh! be Careful.

Another Medical Officer of Health mentioned is Dr. Garrow of Chesterfield. He gets a heading all to himself and nearly a column and a half of chidings and quotations for "falling foul" of somebody or other apropos smallpox and vaccination. The chidings, it may be said, are very gentle since Dr. Garrow is not regarded with entire disfavour, being "one of the few notable dissidents from the view favoured by the Ministry of Health that the current infection is only a mild form of true smallpox." How difficult it may be to retain the favour of the periodical it is impossible to say, but probably Dr. Garrow will have to walk warily. Otherwise, no doubt, there will be notes with "expressions" in them about him. How good "The Vaccination Inquirer" is at "expressions" may be gathered from some of the quotations given. Practically the only one I missed was "bugaboo." "Mugwumps" I met and, of course, "bunkum" and "misbegotten nonsense"; but not "bugaboo" which is the best of them all, and looks so nice in print.

Unsolicited Testimonial.

"I like *Public Health* better than any of the journals one gets. The print is so nice and big I can read it easily—if I want to."

Dr. John Farquhar Davidson, lately a demonstrator in the department of pathology, Aberdeen University, has been appointed Assistant County Medical Officer of Health for Dumfries.

Society of Medical Officers of Health.**COUNCIL MEETING.**

A meeting of the Council was held at the House of the Society, on Friday, September 24th, 1926. The President (Dr. George F. Buchan) was in the chair, and there were present: Profs. H. R. Kenwood, and F. E. Wynne, Drs. Sanders, Pearce, Porter, Cates, Wheatley, F. C. Linton, Jameson, Stirk, E. Ward, Ridley Bailey, Howard-Jones, Stella Churchill, Greenwood, Naylor Barlow, Snell, J. T. C. Nash, Allan, and Major G. S. Parkinson.

The Minutes of the last meeting having been approved and signed, apologies for absence were received from Dr. Cyril Banks, Prof. A. Bostock Hill, Lt.-Col. F. E. Fremantle, M.P., Dr. Frederic Thomson, Dr. R. Veitch Clark, Dr. R. H. H. Jolly, Prof. H. Kerr, Dr. T. Eustace Hill, Dr. James Fenton and Dr. G. W. N. Joseph.

Correspondence.—(1) Enquiries were received from two Medical Officers of Health regarding the responsibility for medical examinations under the Superannuation Act. It was agreed that it was not a duty of the Medical Officer of Health to undertake such examinations, and that preferably a private practitioner should be appointed medical examiner under the Act. (2) From the Commissioners of Customs and Excise, inviting the Society to submit any observations likely to be useful to the inter-departmental Committee which has been set up to report on duties and restrictions, if any, to be imposed on substitutes for ethyl alcohol from the point of view of revenue, public health and industrial considerations. It was agreed that the Society was not in a position to render any helpful service in this matter. (3) From a Medical Society asking for a pronouncement on the custom in certain areas of charges by nurses after attendance on infectious cases, for one week's quarantine in addition to their ordinary fees. The letter continued: "It seems to our Society that this system is most unsatisfactory. If the quarantine is necessary to make sure that the nurse herself has not acquired the disease before attending another patient, then the time of quarantine should be a day or two over the usual incubation period of the disease in question, sometimes a long way over a week. If on the other hand, the quarantine is on behalf of any other patient to whom the

nurse is likely to go, then the question of the third person carrying is the most important point, and theoretically, at all events, thorough disinfection and change of garments should be sufficient without inflicting the cost of a whole week on the people who have had the nurse during the infectious disease." It was decided that this letter should be referred for careful consideration by the Officers of the Society assisted by Dr. Frederic Thomson as representative of the Fever Hospital M.S. Group. (4) From a M.O.H.: "I understand that since the case of "Tate" v. "Income Tax Commissioners" the Income Tax Authorities will not allow to Medical Officers of Health as reasonable expenses such charges upon income as subscriptions to various Societies and Medical Libraries, and the cost of professional books, etc., unless the Local Authority has passed a Minute to the effect that it is the duty of the Medical Officer of Health to belong to such Societies and to keep himself up-to-date in his professional knowledge. Would you kindly let me know if such a Minute has been passed by any Authority at the request of its Medical Officer of Health, and if so, what was the wording of the Minute?" No member of Council could report the adoption of such a Minute by his Council, and it was decided to publish the above extract in "Public Health" in the expectation that any relevant information would be forwarded by members of the Society to the Executive Secretary. (5) From the Metropolitan Branch, forwarding representations from the Metropolitan Tuberculosis Sub-Group (a) that under the scheme for Poor Law Reform the T.O. should continue to be tuberculosis physician at the local infirmary, and (b) that in any negotiations between the Society and the L.C.C. re Poor Law Reform, the Tuberculosis Group should be represented. The representations were approved. (6) From a M.O.H.: "Has there ever been any definite pronouncement by the Society on the important question as to whether it is not unwise for cases of Typhoid Fever to be admitted or treated in the wards of General Hospitals? I think the enclosed cases prove that in a Children's Hospital the disease may spread more rapidly than is generally thought to be the case. Some of these children should have been sent to M.A.B. Hospitals, but have they, even there, separate wards for Enteric? I hear they have not. Once admitted, removal

may of course carry the risk of perforation. In any case, they might have sent some of them to the M.A.B. in the first instance, I think—not admitted them. In General Hospitals cases are sometimes admitted for instructional purposes, but is not this knowledge acquired at Fever Hospitals?" No general agreement could be reached on this matter, and it was decided that no definite pronouncement should be made by the Society in this connection at the present time. (7) Resolutions from Conference of Health Visitors held in connection with Congress of Royal Sanitary Institute: (a) "That this meeting suggests the employment of a female clerical staff, adequate to relieve the Health Visitors from purely statistical work." (b) "That this meeting is of the opinion that a greater degree of unification in the administration of Public Health measures is desirable in order to avoid the present uneconomic multiplicity of official and voluntary visitors in the homes of the people." (8) From the British Medical Association, drawing attention to Minute 121 of A.R.M., 1926, viz., "That midwives should not be allowed to use pituitary preparations in any circumstances," and asking if the Society had evidence of harm being done through the administration of any drugs, but particularly opium and pituitary by midwives. Agreed that this letter be referred to Midwives Acts Committee. (9) From Dr. A. S. M. Macgregor, enclosing a report of Town Planning Conference held in Glasgow, which he attended as representative of the Society. It was agreed that Dr. Macgregor be thanked for his service in this matter. (10) From Dr. Thos. Orr, reporting progress in reference to the Conference on Milk in Relation to Public Health, postponed from June 8th, to November 16th. It was agreed that Dr. Orr be asked to continue as representative of the Society on the organising committee. (11) From Dr. A. M. Watts, reporting his attendance as representative of the Society at Annual Congress of the Sanitary Inspectors' Association. Agreed that the thanks of the Society be forwarded to Dr. Watts.

Elections to Council.—The following were elected to seats on the Council for the Session 1925-26 under No. 19 (d) of the Society's Articles of Association:—Dr. T. W. Naylor Barlow, Dr. T. Eustace Hill, Dr. W. J. Howarth, Dr. C. Sanders, Prof. H. R. Kenwood, Dr. R. A. Lyster, and Dr. R.

Veitch Clark. Lord Dawson of Penn and Lieut.-Col. F. E. Fremantle, M.P., were re-elected under Article 19 (f).

Representation of the Society.—The following were nominated for election to B.M.A. Committees: *Public Health Committee*, Drs. E. H. Spell and T. W. Naylor Barlow; *Special Committee re Poor Law Reform*, Drs. G. F. Buchan and R. A. Lyster; *Insurance Acts Committee*, Dr. J. Fenton; *Special Committee re Extension of National Health Insurance Benefits*, Dr. J. Fenton; *Parliamentary Sub-Committee (Medico-Political Committee)*, Dr. E. H. Snell; *M. and C.W. Sub-Committee (Medico-Political Committee)*, Dr. T. W. Naylor Barlow, Dr. J. Cates. The Council agreed that the President of the Society, and the Chairman of the Organising Committee for League of Nations' Interchanges, should become *ex-officio* members of executive committee of the International Society of Hygienists (U.K. Group). Dr. C. J. Thomas was re-elected to represent the Society on the Council of the Central Association for Mental Welfare.

The Annual Dinner.—It was agreed that the Annual Dinner of the Society on Thursday, November 18th, shall be held at the Piccadilly Hotel, W., and that the arrangements be made by the President-elect (Dr. E. H. Snell), the retiring President, and the Executive Secretary.

Editorial Expenses.—The President, the Honorary Treasurer and the Editor were asked to submit a recommendation at next meeting of Council in reference to a grant for editorial expenses.

Tuberculosis in Factories.—The following memorandum was submitted by Dr. Ward on behalf of the Tuberculosis Group:—

Having in view the Factories Bill about to be introduced to Parliament, the Tuberculosis Group desire to submit this memorandum so that, if approved by the Council, it may be brought to the early notice of the Ministry of Health.

It is clear that there are no organised methods for dealing with Tuberculosis in Factories, that there is scope for improvement and for co-ordination with Local Authorities.

It has been proved that the opportunity for recovery is much greater if the disease is detected in an early stage, and that, under certain conditions, there is danger of spread from infective cases. Measures, therefore, should be directed on these lines.

The establishment of Maternity and Child Welfare Centres and of School Clinics has been responsible for the much earlier detection of the disease in children. The insured person, however, comes under the ægis of the National

Health Insurance Acts, and only consults his panel doctor when feeling ill. An opportunity is thus lost for the early detection of disease. Extension of medical examination to all workers would detect tuberculosis in its early stages. Co-ordination between the examiners and the Local Authority would be of great value, and the expert services of Tuberculosis Officers and the methods for diagnosis they have at their disposal would improve the measures for the control of the disease. Periodic review of the health of these workers should be carried out as experience dictates.

Definitely established cases of infective tuberculosis should be considered carefully and, if it can be proved that the worker is a danger to others, he should cease to be employed in that particular department of the factory. Any hardship that may be entailed in the public interest will need to be met by some agreed method.

Recommendations:—

1. Medical examination of entrants into industry.
2. Periodic re-examination as experience dictates.
3. Co-operation with the Local Authority, and utilisation of the services they supply for the early detection of tuberculosis.
4. Treatment for the "rejects," followed by provision of suitable employment either by industry, the Local Authority, or both.
5. Compensation in established cases prevented from working because of danger of infection to others.
6. Alternative employment to be supplied either by industry, the Local Authority, or both.

It was agreed to refer the above Memorandum to a special Committee, to be appointed at next meeting of Council, to consider the Factories Bill in all its public health aspects.

Annual Report of Council.—The Annual Report of the Council was then approved and adopted as follows:—

REPORT OF THE COUNCIL, SESSION 1925-26.

Your Council report:—

(1) That one hundred and thirty three candidates have been elected as Fellows or Associates of the Society during the Session, 1925-26. Within the same period thirty-six resignations were received from members who are retiring from active work, or leaving the Public Health Service for other branches of medical practice. Seven members were removed from the Roll after repeated notices that their subscription payments were more than two years overdue;

(2) that the Society has to deplore the loss by death of three Past-Presidents, Dr. George Reid, O.B.E., Dr. G. P. Bate, C.B.E., and Dr. J. C. McVail, LL.D., and of two members of Council, Dr. R. W. Stocks and Mr. R. D. Pedley. Other Fellows of the Society who have passed away during the Session are Dr. A. G. R. Cameron (Durham C.C.), J. Chadwick (Milnrow U.D.), G. H. Fosbroke (Worcs. C.C.), G. M. Fox

(Walsall R.D.), Thos. Horne (Stockton-on-Tees M.B.), A. G. Jenner (Stockport C.B.), R. McCoull (Prudhoe U.D.), J. Macdonald (Carlisle R.D.), S. G. Mostyn (Darlington C.B.), W. Nettle (Liskeard U.D.), Lancelot Newton (Huntington R.D.), James Niven (Manchester C.B.), E. A. B. Poole (Taunton U. and R.D.), H. Renney (Sunderland C.B.), J. Maxwell Ross, M.B.E. (Dumfries C.C.), J. A. Sutherland (Cleckheaton U.D.), and G. B. Buttery (Oldbury U.D.);

(3) that allowing for these losses the membership of the Society (1888) shows a net increase of 69 as compared with 73 and 63 respectively, in the two preceding sessions;

(4) that they must again urge the importance of securing the support of every member of the Public Health Service for the work of the Society. It is a matter for regret that in some areas no effective steps are taken to encourage the enrolment of Assistant Medical Officers, so that many who benefit by the Society's activities are bearing no share of the cost. More especially it should be realised that the influence of the Society in negotiations with other bodies must largely depend on the strength of our membership;

(5) that Dr. George F. Buchan delivered his Presidential Address on "Methods of Prevention in Diphtheria and Scarlet Fever," at the annual meeting of the Society on October 16th, 1925. For the ordinary meetings of the Session, the President arranged the following series of symposia:—

"Measles" from the point of view of: (a) Public Health Administration: R. M. F. Picken, M.B., B.Sc., D.P.H., M.O.H., Cardiff; (b) Private Practice: J. F. Walker, M.B., M.R.C.S., L.R.C.P., Southend-on-Sea; (c) Fever Hospital Practice: E. W. Goodall, O.B.E., M.D., Medical Superintendent, North Western Fever Hospital (M.A.B.).

"Industrial Hygiene" from the point of view of: (a) Public Health Administration: Professor Harold Kerr, O.B.E., M.D., Ch.B., D.P.H., M.O.H., Newcastle-upon-Tyne; (b) The Physician: Sir Thomas Oliver, D.C.L., M.D., F.R.C.P.; (c) The Works Director: Angus Watson, Esq., Chairman, Angus Watson and Co., Ltd.; (d) The Welfare Supervisor: B. L. Lelliott, Esq., Welfare Supervisor, Sir James Laing and Sons, Ltd., Sunderland.

"Dental Defects and Public Health," openers: C. Edward Wallis, M.R.C.S., L.R.C.P., L.D.S., Dental Surgeon and Lecturer on Dental Surgery, King's College Hospital, and F. Breese, L.D.S., Pres.-Elect, Dental Group, Society of Medical Officers of Health.

"Heart Disease" from the point of view of: (a) Public Health Administration: A. K. Chalmers, M.D., F.R.F.P.S., D.P.H., M.O.H. Glasgow; (b) the Physician: G. A. Allan, M.B., F.R.F.P.S., Physician-in-Charge, Cardiograph Department, Western Infirmary, Glasgow; (c) The School Medical Officer: E. T. Roberts, M.D., F.R.F.P.S., D.P.H., P.M.O., Glasgow Education

Authority; (d) the Factory Surgeon: D. McKail, M.D., F.R.F.P.S., D.P.H.

"Cancer" from the point of view of: (a) Public Health Administration: W. D. Champneys, M.A., B.M., B.Ch., D.P.H., A.M.O.H., Willesden; (b) the Surgeon: Professor G. E. Gask, C.M.G., D.S.O., Director, Surgical Unit, St. Barts. Hospital; (c) the Research Worker: W. D. Newcomb, M.A., M.B., Ch.B., Assistant Pathologist, St. Mary's Hospital; (d) the General Practitioner: F. E. Allen, L.R.C.P.E., and L.M., M.R.C.S., London.

A notable feature of the Session was the holding of ordinary meetings of the Society at two provincial centres. The first, at Newcastle-upon-Tyne, was largely attended by members from the North of England, and the admirable arrangements made by the Northern Branch were much appreciated by visitors from other branches. The second provincial meeting, held at Glasgow, was equally successful, and over one hundred members of the Society were entertained at luncheon by the Lord Provost and the City Corporation. Thanks are due to the Scottish Branch, and to Dr. A. S. M. Macgregor, M.O.H., for the excellence of the arrangements made for the Glasgow meeting;

(6) that eight meetings of the Council were held during the session, and committees of the Council met on twenty occasions. The proceedings of the Council have been duly recorded in "Public Health" for the information of members;

(7) that they have had official communications with the Ministry of Health, the Board of Education, the Ministry of Agriculture and Fisheries, the Home Office, the Board of Inland Revenue, the War Office, the Admiralty, the Air Ministry, and other Government Departments on numerous matters affecting Public Health Administration and Officials;

(7a) that at the request of the Ministry of Health, they have submitted observations and recommendations in reference to various draft Orders and Regulations, including (a) the Public Health (Ophthalmia Neonatorum) Regulations, 1925, (b) Milk and Dairies Order to be made under Section 1 of the Milk and Dairies (Consolidation) Act, 1915; and (c) the Public Health (Imported Milk) Regulations to be made under the Public Health (Regulations as to Food) Act, 1907, and Section 8 of the Milk and Dairies (Amendment) Act, 1922, (d) the Sanitary Officers' Order, 1926, and (e) the Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations, 1926;

(8) that they have been in communication with a number of representative bodies concerning principles and details of Public Health Administration, including the League of Nations, the American Public Health Association, the General Medical Council, the British Medical Association, the Smoke Abatement League, the Bread and Food Reform Association, the Association of Public Vaccinators, the British Dental Association, the Royal Sanitary Institute, the National Association of Local Government Officers, the Association of Municipal Corporations, the Institute of Municipal and County Engineers, the British Dairy Farmers' Association, the National Union of Teachers, the National Council for Combating Venereal Diseases, the National League of Health and Infant Welfare, the Incorporated Midwives Institute, the National Association for the Prevention of Infant Mortality, the College of Nursing, the Central Midwives Board, the Sanitary Inspectors' Association, the National Baby Week Council, the College of Pestology, the Early Closing Association, the Central Association for Mental Welfare, the New Health Society, the National Clean Milk Society, the Health and Cleanliness Council, the Association of Headmistresses of Boarding Schools, and the Queen Victoria Jubilee Institute of Nurses;

(9) that during the Session, representations were made in writing and by deputation in reference to the Milk and Dairies (Consolidation) Act, 1915, the Registration of Nursing Homes, the Smoke Abatement Bill, and other measures before Parliament. Arising out of a suggestion by the Home Secretary to a deputation of the Society in reference to the Factories Bill, the Chief Inspector of Factories (Sir Gerald Bellhouse) invited representatives of the Society to meet Inspectors of Factories at the Home Office, and an interesting conference resulted. The report of the joint committee appointed by the Society and the Royal Sanitary Institute, on the handling and preparation of foods, was submitted by a deputation to the Ministry of Health, and afterwards published for the information of the public. The report was welcomed by the Ministry, and having been very widely discussed in the lay newspapers, it has undoubtedly been the means of drawing attention to the need for more hygienic methods in the display, distribution and storage of food supplies;

(10) that representatives of the Society have been nominated to serve on the Central Midwives Board, the N.C.C.V.D., the National Milk Publicity Council, the Central Council for Infant and Child Welfare, the British Medical Association, the Central Association for Mental Welfare, the National Clean Milk Society, the Industrial Health Education Council, and numerous other bodies dealing with matters affecting Public Health administration;

(11) that by request of the Ministry of Health a Committee of the Society again organised a Demonstration Course for Foreign Health Officers visiting Great Britain under the auspices of the Health Section of the League of Nations. The Course dealing with Health Administration in London and the Home Counties, was held during February-March, and was attended by fifteen Medical Officers representing fourteen different nations. Two members of the Society, Dr. G. F. Buchan and Dr. R. M. F. Picken were afterwards nominated by the Ministry of Health as participants in the Interchange held by the League of Nations in Denmark during June and July;

(12) that by request of the Government of the Irish Free State, arrangements have been made during the session for fifteen Medical Officers from Ireland to acquire experience of county health administration in England and Scotland. Your Council have, during recent years, arranged study courses in health administration for many foreign Health Officers on behalf of the International Health Board of the Rockefeller Foundation, and a number of these visitors have been attached to health departments during the past session;

(13) that a provisional committee was appointed to consider how the Society could assist in the promotion of investigations and research of the Public Health Service, and in pursuance of their report, a standing committee is to be constituted to make recommendations in this connection;

(14) that they have appointed a Special Committee to consider the need for a central bureau to assist and co-ordinate the activities of local health authorities in connection with Section 67 of the Public Health Act, 1925. This Committee is making preliminary enquiries of bodies engaged in various branches of Public Health work, and will report in due course;

(15) that the Committee on the Remuneration of Medical Officers of Local Authorities continues to watch the operation of the Scale of Salaries, and to advise members in reference to the terms of their appointments, and on such matters as increments, security of tenure, office and travelling expenses and superannuation. This work involves close co-operation with the officials of the British Medical Association, and many interviews and much correspondence with members of the Society. The experience of the past session has justified the expectation of the Committee that consistent enforcement of the Scale would simplify the fixing of salaries by Local Authorities, and would relieve individual Medical Officers of Health of the invidious responsibility of assessing the remuneration of their assistant colleagues. In some cases, where Local Authorities have failed to offer the approved salary it would appear that trouble might have been avoided if the Scale had been brought to their immediate notice, and the Committee have arranged that copies of the Scale can be supplied at any time to Medical Officers of Health for the information of Local Authorities. Only a few Authorities of any standing now advertise at less than the Scale Salary, and if they are able to fill their posts on such terms the effect is damaging to Medical Officers who have previously accepted approved appointments on the same staff. In consequence, vacancies occur as often as the seniors can obtain posts under Local Authorities who recognise the Scale. The Committee feel that the time has now arrived when Local Authorities should be pressed to apply the Scale and the recommended increments, not only in the case of new appointments but also in regard to posts filled before the adoption of the Scale. In the circular addressed to Local Authorities by the British Medical Association in June, 1925 (para. 10), it was indicated that the Scale would be a guide in adjusting the salaries of existing appointments, and it may be hoped that the Association will again draw attention to this suggestion, especially in the case of Health and School Medical Departments where the senior Medical Officers are notoriously underpaid. In this connection the Committee believe that influential deputations organised by the local branches of the Association, with representatives from headquarters of the Association and this Society, would be the most effective means of

convincing Local Authorities that experienced Medical Officers are entitled to remuneration bearing some fair relation to their professional standing;

(16) that they are glad to know that the appointment of Dr. Charles Porter as Editor of "Public Health" has been widely approved by members of the Society. Dr. Porter has already introduced a number of improvements and it is hoped that the expected increase in the revenue of the Society will justify expenditure on other features which will increase the usefulness of the official journal;

(17) that congratulations are due to Fellows of the Society who have gained various distinctions during the past Session. These include Sir George Newman, and Sir John Robertson, who received the Hon. LL.D. at Edinburgh University, Dr. A. K. Chalmers awarded the like honour at Glasgow, and Lord Dawson who returned from Canada and the United States with several doctorates to receive the further honour of a K.C.B. from his Sovereign. The Society will also claim some share in the knighthood conferred on Sir Robert Bolam, whose efforts on behalf of the Public Health Service have formed a considerable part of his work for the British Medical Association. Of the Service members of the Society promotion has come during the year to Lt.-Genl. Sir Matthew Fell, who now fills the high office of Director-General, A.M.S., to Maj.-Genl. H. P. D. Barrow (also appointed Hon. Surgeon to the King), to Surg. Rear-Adml. R. St. G. S. Bond (also decorated C.B.), and to Surg. Rear-Adml. R. J. Mackeown, lately President of our Southern Branch;

(18) that the annual exchange of Officers and the re-election of the Council involves the retirement of valued colleagues, viz, Dr. Herbert Jones (nominated for Hon. Fellowship), Dr. J. Howard-Jones, Prof. F. E. Wynne, Dr. A. Greenwood, and Dr. F. T. C. Linton.

We recommend that the thanks of the Society should be conveyed to these gentlemen for their services as members of the Council;

(19) that the cordial thanks of the Society are due to Dr. George Frederick Buchan for his conspicuous services as President of the Society during the past Session, and for his untiring efforts on behalf of the Public Health Service.

(20) that your Council desire once more to express their appreciation of the devoted

labours of Mr. G. S. Elliston, as the Society's Executive Secretary.

BRANCH AND GROUP ELECTIONS: Session 1926-27.

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Dr. Ridley Bailey.
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and Treasurer ... Dr. Harold Kerr, O.B.E.
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Hon. Secretary ... J. E. Magraw, Esq.,
L.D.S.

Representative on
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M.R.C.S., L.R.C.P., L.D.S.

Review.

LEAD POISONING. By Joseph C. Aub,
Lawrence T. Fairhall, A. S. Minot, and
Paul Reznikoff. London: Baillière,
Tindall and Cox. 1926. pp. 265.
Price 18s. net.

This is one of the medicine monographs, a series of publications on medical subjects which originally appeared in "Medicine," a quarterly periodical edited by Dr. Edsall, of Harvard, and Drs. Howland and Amoss of Johns Hopkins. For the monographs it is claimed that they are "comprehensive reviews that adequately discuss a disease, certain aspects of a disease or subjects that allow a better comprehension of disease processes. So far as this on Lead Poisoning is concerned, there can be no question of its comprehensiveness, for vast as the literature on the subject undoubtedly is, the authors have managed in a comparatively small space to refer to, at any rate, the most important aspects, and to deal with the more noteworthy of the numerous observations upon and investigations into the condition. This they have done under a series of headings, Chemistry, Pathology, Physiology, and Clinical, giving a long list of references to publications in which fuller details may be obtained. This adds greatly to the usefulness of a book which is certain to be appreciated by all interested in occupational hygiene.

CONGRATULATIONS are due to Dr. F. H. Thomson, Medical Superintendent of the North-Eastern Fever Hospital, M.A.B., who has been appointed Chief Medical Officer of the Infectious Hospitals Service of the Metropolitan Asylums Board. Dr. Thomson was President of the Metropolitan Branch of the Society during the session 1923-4, and is now a Vice-President of the Branch and a Member of the Council of the Society.

Correspondence.

The Editor does not accept responsibility for the opinions of correspondents.

PREVENTIVE INOCULATION.

To the Editor of *Public Health*.

Sir,—In your last issue you invited correspondence on the above. In order to arrive at a conclusion, the first need is statistically collated observations concerning inoculations.

While it would be difficult to make a statistical study of the remote effects (if any) of the more modern inoculations, it should not be impossible to do so in the case of the long established vaccination for smallpox.

More than a third of the infants born are vaccinated. Deaths from smallpox have for many years been negligible, both in the vaccinated and unvaccinated. Data are available in the routine medical examination of school children for, by direction of the Board of Education, one of the facts noted is the vaccinal condition of the child, while the other facts noted are intended to record a summary of the child's medical condition. If then existing medical cards of school entrants were statistically examined, in numbers sufficient to neutralise individual medical idiosyncrasies and other variable factors, a conclusion might be arrived at as to whether vaccination did or did not predispose to other diseases.

In 1896 the Royal Commission on Vaccination came to the conclusion, on the evidence then available, that vaccination had no deleterious after-effects, but as fresh material is available this negative conclusion merits re-investigation. The virus of vaccinia is a live one, and findings about it would be suggestive rather than conclusive as regards toxine inoculations, though if vaccine causes no remote ill effects this would be presumptive evidence in favour of the lesser inoculations being also harmless. Whatever one's views may be on the large question of infant vaccination, the suggested statistical examination of the medical cards of school entrants seems worth doing and, for a Medical Officer of Health of a large County or County Borough would only entail supervising the work of clerical assistants.

All preventive inoculations are insurance propositions, a platitude so obvious as not to require mention were it not for the fact that

the desirability of infant vaccination having for so many assumed the position of a tenet of belief, the insurance aspect of the subject is worth stressing. It may be considered under three heads:—

(1) The premium to be paid, i.e., the inoculation and all that it entails.

(2) The risk insured against, i.e., the liability if not inoculated, of contracting the disease and all it entails.

(3) The efficacy and duration of the insurance effected by the inoculation.

To assess the value of an inoculation in terms of an insurance problem is both complicated and difficult; under the second head it obviously may differ for both localities and individuals.

Dr. McIntosh also seems to advance as a speculation that though a single preventive inoculation may be harmless, yet a multiplicity of such inoculations might produce a cumulative remote prejudicial effect. I hope his speculations may stimulate the statistical experts to make the necessary investigations, in which connection one wonders why, the London Hospitals being loosely connected with London University, that University has not a medical statistical department on the lines of that at Johns Hopkins. At present, cases and students here seem somewhat wasted seeing that the latter could be so usefully employed on questionnaires about the former.

I am, Sir, Yours faithfully,

R. W. JAMESON.

West Wickham, Kent.

September 13th, 1926.

To the Editor of *Public Health*.

Sir,—The interesting letters by Dr. R. A. O'Brien and Dr. T. S. McIntosh, published in the current issue of *Public Health*, certainly merit further discussion on the point raised by the latter.

In my opinion, there should be no compulsion as regards the Schick test or subsequent immunisation—particularly in rural areas. Apart from tracheotomy cases in diphtheria—which I assume are far less common than they were—is there much evidence that nurses properly trained in fever nursing often contract the disease? Considering the repeated exposure to infection, there is more justification for the protection of nurses in fever hospitals than for any other class of the community. Should diphtheria

in a virulent form be evident in a residential institution, Schick testing is again indicated and parents or adult residents should be given the option of immunisation. I am, however, totally against compulsion.

It is interesting to note that Prof. Calmette of France, is suggesting a vaccination or "premunition" against tuberculosis, the premunition by means of B.C.G. (Bacillus Calmette-Guerin) to be administered to young infants not more than 14 days old. No doubt experience will before long decide whether this "premunition" should be administered to all young babies in consumptive families. Under present conditions I personally would advise it only in known tuberculosis families, and not as a routine "premunition" for all infants.

I am, Sir, Yours faithfully,
J. T. C. NASH.

The Shirehouse, Norwich.
September 20th, 1926.

To the Editor of *Public Health*.

Sir,—The correspondence on the Schick Test which has appeared, has been read here with great interest. I make no apology for a reference to the concluding paragraph in Dr. O'Brien's letter published in the September issue. The paragraph reads:—

"Whether the risk of incurring diphtheria is, for the average child, 'considerable' or not, it would appear reasonable to ask that the parent should have freely open to him, as in almost all the large American cities, the opportunity of insuring his children against that risk if he desires. *It can hardly be said that in England he has that opportunity.*"

It is to be hoped that Dr. O'Brien used the word "England" deliberately. Certain it is that in Scotland a little more courage has been shown, and in more than one area the parents are provided with that opportunity which Dr. O'Brien rightly considers to be reasonable. In Edinburgh propagandism began through the medium of the School Parents' Associations. These bodies were addressed by the Medical Officers, and afterwards approach was made to the individual parents through the schools. Practically every parent of children under ten years of age attending the Education Authority schools has been invited to submit a child to the diphtheria test. Over 10,000 Edinburgh children have been protected during the last three years. Other areas have also had equally satisfactory progress.

A very natural pride in achievement would tempt me to elaborate the success of this work carried on in the Department over which I preside. I do not wish, however, to say more than is necessary to indicate that Scotland has not been slow to appreciate the great value of the Schick test.

Dr. Alexander Joe, Assistant Medical Officer of Health, Edinburgh, is very shortly to give a paper on this subject to the Fever Group of the Society of Medical Officers of Health, in London. I am confident that his contribution, based as it will be on his valuable experience among Edinburgh school children and also children of pre-school age, will go far to prove that here, at any rate, the parent has no excuse if he fails to insure his child against the risk of incurring diphtheria.

I am, Sir, Yours faithfully,
W. J. HARVEY.

Chairman of the Public Health Committee,
City of Edinburgh.
September 22nd, 1926.

DR. WILLIAM ALLAN YOUNG, D.S.O., Assistant Medical Officer of Health, Manchester, has been appointed Medical Officer of Health, Metropolitan Borough of Poplar, in succession to Dr. F. W. Alexander, Medical Officer of Health of the Borough for thirty-four years, who is shortly to enter upon a well-earned retirement.

A committee has been appointed to consider and report whether any modifications are necessary or desirable in the Poisons and Pharmacy Acts—(1) in regard to the conditions relating to the sale of poisons; (2) in regard to the procedure for the modification or extension of the Schedule of Poisons to which the Acts apply; (3) in the system of making and enforcing Regulations in regard to the keeping, selling and dispensing of poisons; (4) in regard to the Central Authority for the purposes of the Acts; and (5) in regard to any other matters to which the attention of the Committee may be drawn. The Committee will inquire generally into the existing machinery regulating the sale (retail and wholesale), keeping, distribution and supply of poisons. Any person wishing to give evidence or place views before the Committee should communicate as soon as possible with Mr. M. D. Perrins, Home Office, Whitehall, S.W., who is joint secretary with Dr. E. W. Adams of the Ministry of Health.

PUBLIC HEALTH

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PUBLIC HEALTH, the Official Organ of the Society of Medical Officers of Health, is prepared to receive a certain number of approved advertisements.

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Editorial.

The President of the Society.

THERE appears in this issue the Address delivered by Dr. E. H. Snell on the occasion of his installation as President of the Society of Medical Officers of Health, for the Session 1926-1927. Within the Society it is the convention that without the permission expressed by the President there shall be no discussion of such an address. Faithfully observing this rule leave is taken here to say of this address that the new President in choosing to speak on Administration chose exactly as his fellows would have had him choose from the practical side of their work, and speaking out of a wide experience in the health service

spoke wisdom, offered opinions and submitted views that were sound and helpful, and in offering them did not omit those little illuminating and quietly humorous touches that such as know him best look for, and so usually find accompanied by evidences of an inward enjoyment on the part of their producer. Forbidden to discuss the Address of the President none is under a ban prohibiting discussion of the President himself in the offering of congratulations on his elevation to this place of honour, and in wishing him a happy and useful year of office. The congratulations to Dr. Snell set down here are an echo only of those offered by the Society as a

whole. No one of the thousands of members of the Society deserved better than the choice of those thousands should fall upon him. Absolutely unanimous, the choice was made for a number of very sound reasons—particular, professional, and personal. The particular reasons were that amongst the members there were few, if any, who had given more devoted service to or worked harder for the Society than Dr. Snell. Possibly only members of the Council know fully just the extent of the indebtedness to the new occupant of the Presidential Chair. Member of that body for a long period, in his quiet and unassuming way he has put in a vast amount of hard work, accepting appointment on any committee without a murmur, and without protest taking on any duty pleasant or unpleasant that such membership might involve. Even if there was no other reason than that he had given of himself for such purposes it would have been sufficient to justify the honour, the highest the Society has to offer, that has been conferred. It is not, however, the only reason. Professionally, as Medical Officer of Health of the City of Coventry for a great many years, Dr. Snell has earned a place of definite prominence in the service. The work he has done in that office has not been purely routine, and for much of the progress that has been made, not only in his own area, but in the general field of Public Health, there is no question that he must be given credit. There is credit for him too in this, that he has laboured in the interest of the medical profession and of his fellows in the special branch to which he belongs. Prominent in the Society of Medical Officers of Health, he has been equally prominent in the British Medical Association. In this body he has held several offices in his own local branch, and is known and appreciated in the counsels of those whose concern is with the wider field covered by the Association itself. In both places in whatever work he has done while trying to help the profession as a whole, his thought has been always for the health service. How often he has been turned to for advice and assistance because of the place he has occupied in the two societies it is impossible to say, but no appeal has ever been made in vain. Of personal reasons for the choosing of Dr. Snell there is little need to speak. He is one of the best known members of the Society; he is widely esteemed and greatly liked. Quietly genial and un-

assuming, he will make an excellent President and add worthily to the record made by the line of distinguished men who have preceded him in the Chair. Much of what is said here was said on the occasion of Dr. Snell's installation and at the conclusion of his address. It is repeated because it is worth repeating even though the warmth that characterised it is impossible to reproduce. With all the warmth the printed word can convey the congratulations that were offered and the good wishes that were uttered are repeated also.

* * * * *

The Past President.

WITH the pleasure that is experienced in giving a welcome to a new President there is always associated pain, since there is involved in the act the taking leave of the old. On this occasion the leave-taking being with Dr. George Buchan was rightly accompanied by so many expressions of gratitude for the great services he had rendered to the Society not only during his tenure of the Presidency, but for years before that there was little room for words of regret. The pain of parting also was to a great extent mitigated by the fact, made abundantly clear at the meeting, that his vacating of the chair did not mean any lessening of the interest he has taken or in the amount of work he has done on behalf of the Society and its members. Of the value of the service Dr. Buchan has given there is neither room nor need to speak, and it will be a great relief to all to know that though he may have ceased to preside over us he will still contrive to work for us and help us. In congratulating him on the admirable manner in which he has carried out his duties as President, in praising him for the dignity he showed in carrying out those duties and in offering him our thanks we cannot and need not add conventional wishes that he may be long spared in health to enjoy his retirement happily. Instead we hope he may continue to enjoy health and strength in order to be able to help us; and it may safely be taken that while he has health and strength he will use it to help us and to forward the interests of the service of which he is so distinguished a member.

* * * * *

Education in Health.

THOUGH the suggestion made by Sir Thomas Horder in his address on "The Aims and Methods of Health Education" has

almost universally been described in the newspapers as "novel," to any member of the Public Health Service it must have been clear from the beginning that there was no other that could be offered than that, in order to overcome the difficulties associated with the publication of medical articles in the lay press the proper course to adopt was to arrange for their distribution by a selected and selecting body, and in the name of that body. On the part of Sir Thomas and some others there appears to be some uncertainty as to the method of formation of the body envisaged and some difficulty, it is gathered, is anticipated in deciding what the body should be called and as to its membership. To members of the Society of Medical Officers of Health there can only be surprise that such doubts and uncertainties and hesitations should exist. There is need for none of them, and if the search for a body and for individuals to fulfil the purposes indicated has in fact begun, it need go no further. The body is in being and the individuals. No need to miss the forest because of the trees, nor to lose the trees because of the forest. There exists the Society of Medical Officers of Health and the Medical Officers of Health that compose it; and what body and what individuals could be more appropriate in relation to health education? The Society is the first and most important in the field of preventive medicine; its members, specialists in the subject, experts in the care of the people's health; experts, too, in educational and propaganda work, as indeed they must be, since the authorities they serve, by law given duties and responsibilities in this regard, look to their Health Officers for guidance and help in carrying them out. Add to all these things that there is no body with more influence, and no body of individuals that individually have greater influence than Medical Officers of Health, where health matters are concerned, and no body and no individuals of whom it could be said, vowed as they are to the public service, that they have any object other than the service of the public, the education of the public in health, and the betterment of the public health. All the influence possessed by itself and its members the Society is ready and willing to give. The ability to give it none with knowledge of what is required and of the character of the Society can doubt; nor can anyone who knows the composition of the Society, recognising it as a body of trained and experienced organisers

and administrators, doubt its capacity to organise and carry out an appropriate and acceptable scheme. Over and over again the Society has demonstrated the need for a central health education and propaganda body and no less often has declared its willingness and shown its capacity to undertake the duty. These facts are made plain again here, and once more the claim is made that there is no body to which the functions could more safely be entrusted since there is none that could be more reliable, less partisan, more single-minded or with less to gain no matter how great the success that might attend their efforts.

* * * * *

Rat Week, 1926.

RAT WEEK has been fixed to begin on Monday, November 1st, 1926. The importance of the annual attack on the rodent population has long been recognised, and forms a fitting opportunity to remind the public of their duties under the Rats and Mice (Destruction) Act, and by means of suitable propaganda to urge on all the necessity for destroying rats. To deal, with any measure of success, with the rat problem calls for constant vigilance not only by local authorities, but by the public, whose interest and comfort are so vitally concerned. If civic interest flags or public co-operation becomes inactive, the rat surges back triumphant. The commerce of cities, industries of towns, shipping of dock sides, fields, farms and factories, even the homes of private citizens, are alike menaced by this only too common foe. The prodigious economic loss caused by the ravages of the rat leads perhaps to a stressing in most of the anti-rat propaganda in this country of the material damage, and there is a tendency to forget the constant menace to Public Health resulting from the presence of rats in the neighbourhood of collections of human beings. It may be said that although plague rats had an undisturbed run in East Suffolk for 18 months, only three deaths were recorded, but the rat is the carrier of other diseases, a fact too well known to dwell on. Professor Borg (Senior) of Copenhagen lends his valuable support to this view.

Until the public in general and those responsible for the construction or repair of buildings in particular are better educated in all that the rat problem involves progress in the direction of efficiently meeting the menace

will be slow; "Rat Week" affords a suitable opportunity for propaganda directed to this end. The "Week" would, however, fail to achieve its purpose if propaganda only was secured. More perhaps than any other, of the specialised "Weeks" to which the Public Health Service has become inured, "Rat Week" demands determined action as its immediate practical result; six days intensive propaganda which is unaccompanied with equally intensive (but less limited) practical attack on the rat, may be regarded as a failure.

There are certain more or less defined principles which must be kept in mind for the attainment of a successful "Rat Week." First, preparation. It would be a mistake to regard "Rat Week" as an end in itself, a unit of activity. Rather it should be the climax of a year's careful organisation for concerted effort. To concentrate all effort into the first few days of November will at best produce a sporadic response, and court comparative failure. The Rat Officer or the Sanitary Inspector may, and should, always have "Rat Week" in mind, but his preparation for it, if success is to be assured, must be systematic routine work all the time.

Secondly, co-operation. This is an essential condition for success; indeed the need for concerted action against rats can hardly be over emphasised, and is admitted by everyone who has any experience of the subject. Individuals are handicapped in their efforts to destroy rats by the difficulty or impossibility of dealing with conditions beyond their own immediate control; the solution of the problem often depends on co-operation for concerted action by all occupiers and owners of premises in infested areas. The failure of one occupier in an infested island block will effectually mitigate against the successful extermination of rats in the area concerned; an undisturbed breeding place is left, and in due time the rat will find its way back to former haunts. It is in ensuring this complete co-operation between the occupier of adjoining premises on infested sites that the work of the Rat Officer becomes so valuable. But co-operation, to be effective, must extend beyond that between adjoining occupiers of infested premises. Local Authorities themselves must be the first to establish active co-operation not only with residents in their areas, but also between themselves and adjoining civic authorities. This need for co-operation applies as much in rural

areas, probably more so, as in town districts. In the absence of complete co-operation all that is effected is the driving of the enemy from one breeding ground to another.

Thirdly, continuity of action. The danger of a specialised week is the risk of subsequent slackness. The campaign against rats can only be successful if it is continuous and systematic. It is failure to keep up the effort that so often results in re-infestation. One of the difficulties that a Rat Officer has to meet is to persuade occupiers of premises where rats are no longer seen that continued vigilance and activity are required to keep the pest at bay.

Much might be said on the various methods of attack. Rat destruction was once the monopoly of professional rat-catchers, but modern conditions have brought the subject within the purview of the economic biologist and chemist. No method which does actually kill rats can be called bad, but obviously some are of more general application and approximate more nearly to the ideal than others. Every rat infestation is a definite problem, and the actual destruction of rats, although a most necessary palliative, is seldom a complete success unless steps are taken to deal with the cause at the root of the infestation.

In some cases, many perhaps, the solution is found in rat-proofing, but this is by no means always a simple matter, since it may involve anything from the bricking or cementing up of a few holes in a cellar to the virtual reconstruction of large buildings.

The Rats and Mice (Destruction) Act places on the "occupier" of rat-infested premises the onus of taking necessary and reasonably practicable steps for the destruction of rats and mice, and for preventing the land from becoming infested. Where the "occupier" holds under only a short term agreement it would appear unreasonable to require any considerable outlay for rat-proofing, and it is a weakness of the Act that the onus does not extend to the owner in such cases. Rat-proofing, however, wherever practicable, is the first step in the prevention of infestation and even where this is not entirely possible much can usually be done to secure conditions unfavourable to the rat by depriving him of opportunities of obtaining food, water and shelter.

It is not our function here to enter into the respective merits of the various modes of killing rats; we, however, must deplore that

standard practical handbooks on agriculture still include formulæ for rat baits containing arsenic, strychnine and phosphorus. In rural areas "gassing" might with advantage be more frequently used.

For the future it may be anticipated that some strengthening of the powers of local authorities will become necessary; in the meantime the English Act is to some extent pioneer, and its operation is being watched with interest from many countries where the rat problem is more difficult than here.

The obligation on local authorities is to use the Act wisely and well. With careful, consistent, and continuous work, there seems no reason why the rat population should not be so reduced that it will no longer menace either health or industry.

The Report of the Metropolitan Asylums Board.

THE Metropolitan Asylums Board is a body whose activities are almost stupendous, and to make reference to all of them within the bounds of one report must be no mean task. Among these activities the medical, and more particularly those in respect of the infectious conditions dealt with, bulk very large, and the part of the report in which the work done on that side is discussed is by no means the least interesting. From the figures given, the notifications of scarlet fever and diphtheria cases for the past year appear to be almost identical, and though higher than those for 1924, do not approach those for 1921. The death rate for diphtheria for the year was 5 per cent, and for scarlet fever 1.1 per cent. This is the lowest death rate yet recorded in both diseases since the Board was instituted, with one exception, the death rate for scarlet fever being 1.0 per cent in 1921. Dr. Foord Caiger, in his observations on the statistics notes that, in view of the low mortality of scarlet fever and the relatively high mortality of measles (7.6 per cent for the year 1925-26), a suggestion has been made that priority should be given to measles over scarlet fever as regards hospital isolation. This question he states, is being carefully considered by the Board in conjunction with other Public Health authorities. Eleven cases of smallpox were admitted to hospital during the year, and one death is recorded.

Dr. J. E. McCartney in his report, describes the two group laboratories, one at the Park Hospital, which is still under construction,

and the other at the North-Eastern Hospital. The work to be undertaken by these laboratories include the examination of specimens for all the Board's institutions as well as research. In the latter connection he mentions the investigation of diphtheria carriers at the North-Eastern Hospital and of puerperal fever at the South Western, North Western, and Eastern Hospitals. In the case of puerperal fever, the majority of the bacteriological work is being carried out by Dr. Leonard Colebrook at St. Mary's Hospital.

So far as activities in respect of other conditions are concerned, the statistics relating to mental cases show a general increase in the number of patients over those of 1924. The general health of the patients was good, and the incidence of infectious diseases low.

Dr. Kinnier Wilson describes the formation of a post-encephalitis unit at the Northern Hospital, and is in a position to report that the majority of patients show marked improvement under the influence of an open-air life, discipline and regular hours. The number of cases of pulmonary tuberculosis treated in the appropriate institutions during the year was about the same as for the previous year. The percentage of recoveries shows an improvement on the average for the three preceding years. The section dealing with surgical tuberculosis contains an interesting article by Dr. Gordon Pugh on the relative values of open air, sunlight, and artificial light treatment, in which he urges that in surgical tuberculosis artificial light should only be used if conditions render the other forms of light treatment impracticable. The percentage of deaths in non-pulmonary cases was 4.9, tuberculosis of the spine being the cause in the greatest number of instances.

In a special section dealing with the provision made for sick children and the work done therein, much useful information is given. Dr. J. M. H. Macleod in his report on the Goldie Leigh Homes states that a certain number of cases of ringworm of the scalp are still being admitted who have been treated with anti-parasitic applications, and emphasises the risk in delaying X-ray treatment. There were no cases of X-ray dermatitis during the year.

Smallpox in London.

PERHAPS it is natural that while the fact that there are occurring each week in other parts of the country a considerable

number of cases of smallpox attracts little or no attention, the mere occurrence of a few isolated cases in London should produce a stir amounting almost to a sensation. It may be, of course, because it is the metropolis that is involved, and it means something that in the metropolis there are cases of a disorder so peculiarly liable to keep a hold on a district it has once invaded, so ready to spread and that is so apt, because it is so definitely objectionable to the majority of people, to lead to disorganisation and interference with business and other movements. Or may be it is only because the occurrence is chronicled in a press that is regarded as general rather than local. Whatever the cause, however, it is the case that when smallpox appears in Town, there are more definite signs of perturbation than are shown when there is an outbreak elsewhere, even though it be actually very much more extensive and serious. During the last few weeks a certain number of cases have cropped up in London, and have been accompanied by such manifestations as are indicated. The cases have been few, and in the main, those who have been concerned with them have shown no more than the usual readiness and resource in dealing with them, and yet the note of sensationalism has crept in. The facts with regard to the cases are interesting. The first to be detected was that of a woman in a nursing home in Willesden. This proved to be smallpox of the hæmorrhagic type, and ended fatally. The source of infection was shown to be the husband of the patient, who, though suffering from the disease in the discrete form and so ill as to require medical treatment and removal to a nursing home, was nevertheless passed over and allowed to occupy a room in a large hotel during the early stages, and to go freely about his business and pleasures from the onset until the date on which his wife fell a victim. Having regard to the amount of freedom enjoyed by this man and the complete absence of isolation and other precautions in the early stages, it is remarkable how little damage he did, so far as actual cases at least are concerned. In all he was responsible only for four, one being his wife, and the three others members of the hotel staff. Of the four, two died, the wife of hæmorrhagic smallpox, and the other, also a woman, of a confluent attack. The remaining two cases were quite mild, one being described as "of the type so common in the north," though the patient, a boy of fifteen, had not

been vaccinated in infancy, and not at all until a few days before the rash appeared, and even then not with complete success. That none of the four cases secondary to the case of the man have so far given rise to further trouble may be taken to be due to the fact that two were isolated while still in the prodromal stage, and the two others on the first day of the rash. Further, it was possible to find practically all those most intimately in contact, to vaccinate these and a number of others, and to maintain a very close medical supervision. The second case was that of a woman who, like the first case in the other outbreak, apparently acquired the infection while on a visit to Paris, and residing, as did the other, in the Montmartre quarter of that City. Diagnosis in this instance was to some extent delayed, and was difficult on account of the fact that the woman was suffering from psoriasis, and had, in fact, been admitted to the Royal Northern Hospital for treatment for this disorder. Fortunately, in the hospital, a certain amount of isolation had been in operation for the greater part of the period prior to the diagnosis being confirmed and actual contacts were few and easily traced. These and others who, being in hospital, were readily accessible and under supervision willingly submitted to vaccination and it is probable that if any extension should occur it will be no greater than in the previous case. The circumstances in these two cases lend support to the view stressed in the last report of Sir George Newman, that if active and obvious measures are taken at the earliest possible moment smallpox can be controlled. Judging from the facts of the first case, it seems too, that from the same case it is possible to have infections of varying intensity even down to that "of the type so common in the north" that some appear to consider it necessary to label alastrim or pseudo-smallpox or something other than what it actually is—variola in a mild form.

* * * * *

Ultra Violet Light in the Treatment of Tuberculosis.

ULTRA Violet Light Treatment for Tuberculosis was commenced at Tyne-mouth, in January, 1925, and in an interesting report Dr. J. O. Murray, Tuberculosis Officer, describes the work done during the first year. In all 72 cases were treated. Whilst it is

impossible to express an opinion as to the permanency of the effect of the treatment, or to base definite conclusions on a short trial and a limited number of cases, there is no doubt that the results obtained are encouraging.

In *lupus vulgaris*, healing proceeds to a very marked extent, but it would seem that the general Ultra Violet Light baths alone fail to produce a complete result. There are in most cases a few nodules, which are resistant to Ultra Violet Light, when applied as a general sun bath. The results produced are, nevertheless, striking. Nine cases were treated. Two have been discharged well. The remainder show a decided improvement in the condition of the local lesion and in their general health, and in no case has the disease extended into the surrounding tissues.

In *tuberculous bones and joints*, especially where there is sinus formation, healing occurs much more rapidly when Ultra Violet Light is administered. Fifteen cases were treated. Four were discharged well. In five, healing has been effected, but treatment continues to improve their general health. Four cases are very much improved. In one case there has been no appreciable change, and the remaining case, an adult with a tuberculous spine, developed carcinoma of the tongue, and had to cease treatment.

In *tuberculous adenitis*, where there has been involvement of the skin, the skin lesion heals rapidly in comparison with the healing which occurs with other modes of treatment. Where the disease has not spread to the skin the glandular enlargements subside slowly, and in some cases not at all. Nine cases were treated. Three were discharged well. Four showed signs of diminution in size and number of the glands. In two there was no change in the local lesion, but in all cases the general health was improved, as evidenced by increased appetite, weight and vigour.

Eight cases were treated for *abdominal or suspected abdominal tuberculosis*. In only three cases was a definite diagnosis made. One case was fatal. The other two cases were discharged with no signs of active abdominal disease. The five cases in which no definite diagnosis was made all improved and were probably non-tuberculous.

Ten cases of *pulmonary tuberculosis* with tubercle bacilli in the sputum received treatment. Two cases did remarkably well, and after ten months' treatment no physical signs

of disease were detected in one patient. Both had pigmented very deeply. One case showed slight improvement. Three cases did not improve. Three cases became rapidly worse, and one died. All cases had advanced disease. All the febrile cases became worse, apparently from the effects of the treatment, which was discontinued after a few exposures.

Five cases of pulmonary tuberculosis with no tubercle bacilli in the sputum were treated. Three improved. In two there was no appreciable change.

There are numerous patients, chiefly children, who are sent to a Tuberculosis Dispensary, in whom the disease is suspected chiefly because they are not thriving, and have vague symptoms suggestive of infection. Sixteen of such cases were given treatment. In three there was no improvement. Ten cases improved, some markedly, and others only slightly. Three were discharged well.

The general impression drawn from the cases which have been treated is that an Ultra Violet Light Clinic is a valuable adjunct in the treatment of tuberculosis generally, and especially in the non-pulmonary forms.

Where there is skin involvement or a purulent discharge from diseased bone or joint, healing can be promoted with very much greater rapidity than with any other agent which is available to a patient being treated while residing at home.

The increase in the appetite and the bodily vigour of the patients was most marked; all put on weight and were much more cheerful. This statement applies only to afebrile cases. The few febrile cases of pulmonary tuberculosis treated became rapidly worse.

The great advantage of the treatment is its cheapness and simplicity. The cost of running the lamps is under a penny per patient for each exposure. There have been no untoward results experienced except in the febrile cases of pulmonary tuberculosis in which, if treatment is decided on, the greatest care in dosage must be taken.

It is not suggested that equally good results, or even better results, are not obtained by other means of treatment, but what is encouraging is the fact that results are obtained with the patients residing at home, which would be unattainable if Ultra Violet Light were not available. Again, its administration is cheap which is a decided advantage in tuberculosis treatment.

Health Administration.

Presidential Address delivered by E. H. SNELL, M.D., B.Sc. (Lond.),
M.O.H. City of Coventry, to the Society of Medical Officers of Health, on
October 15th, 1926.

HAVING conferred on a newly elected President the honour of being inducted into the Chair, it is the custom of our Society to allow him the privilege of discoursing on any topic he thinks proper. I opine that it is quite possible that some even of my distinguished predecessors have consumed quite a large amount of tobacco in determining the subject of their addresses.

The problem is especially difficult to one, who year in and year out, finds his time engulfed in the routine—I had almost said the ruts—of administrative matters. I am therefore letting the problem solve itself, by directing your attention to matters with which I am to some extent familiar, and asking you to bear with me while I review sketchily the growth of health administration in this country, some of its anomalies and some of its obvious deficiencies.

Sir George Newman, in "An Outline of the Practice of Preventive Medicine," has shown that every advance in the knowledge of Medicine means also a corresponding advance in the knowledge of Preventive Medicine.

We have to distinguish the latter from "Health Administration," which comprises that portion of Preventive Medicine which by legislative enactments, bye-laws, regulations and custom, has been incorporated among the duties and powers of central and local administrative bodies.

Health Administration generally lags behind Preventive Medicine and is dependent of course on many other factors than those introduced by administrative officers.

It would be an easy matter to set out in tabular form the history of health administration for the past so many years; to contrast it with the wonderful strides recorded in our mortality and morbidity statistics for the same number of years and to conclude that everything is for the best in this best of all possible worlds.

I do not propose attempting anything of the sort. I submit that our health administration exhibits an extreme example of "muddling through" and that with a series of govern-

ments intent on effecting the best results, our house ought by now to be much more in order than it is.

Do not forget that it took this country nearly four years of war to come to the axiomatic conclusion that an army is likely to be most effective when it only has one leader.

Health administration is that aspect of local government which, in my experience, often fails to prove attractive to most of those citizens who are willing to devote large portions of their time to the management of local affairs.

It has not the financial glamour which follows in the wake of successful balance sheets of municipal commercial undertakings, which can credit the borough fund with substantial sums in relief of the rates. Its effects are not apparent to every casual visitor by a display of magnificent buildings and well-ordered and conditioned streets. On the contrary, the more successful local health administration is, the less there is heard about it. It is only when things go awry that there is any pow-wow worth mentioning. It is on this principle—as applied to countries—that Montesquieu makes the trite remark:—"Happy the people whose annals are tiresome."

The history of health administration in this country—in the modern meaning of this term—is not a long one. This is surprising in that it is nearly 2,000 years since the Romans first came here. They were here for about four hundred years and their presence had a great effect on the prosperity of the country, and doubtless their lasting influence was great, but the principal visible legacy left by them was in the form of a number of wonderful and excellent roads.

This is remarkable in that the ancient Romans not only had a system of Law which has been a pattern to the world ever since, but they also had a Public Health administration more elaborate than any existing in this country up to the beginning of the last century.

In Rome, as early as 500 B.C., were established officials known as Aediles, whose duties were related to sanitation and health.

To those early times there probably belong the enactments under which the four Aediles divided the City into four police districts, and made provision for the discharge of their equally important and difficult functions—for the efficient repair of the network of drains, large and small, by which Rome was pervaded, as well as of the public buildings and places; for the proper cleansing and paving of the streets; for preventing the nuisances of ruinous buildings, dangerous animals and foul smells for the removing of waggons from the highway; for the uninterrupted supply of the market with good and cheap grain; for the destruction of unsound goods and the suppression of false weights and measures.

This was considerably over 2,000 years ago. These duties correspond very nearly with those of the modern Sanitary Inspector. Yet it was not until the last quarter of the last century that such officials were appointed in this country.

It is surprising to contemplate the fact that ancient Rome and various other Roman cities had a water-carriage system of sewerage, i.e., the removal of sewage from dwellings by means of water-closets and drains, a method in advance of that existing in some English towns even to-day. (And we only have to visit the Continent of Europe to find even worse conditions than those in this country.)

The Romans, although without our scientific knowledge of water purity, undertook great engineering works to provide their towns with an adequate and satisfactory supply.

Their bathing arrangements were such that many modern towns might envy. Even the small town of Pompeii had three public bathing establishments, besides numerous private installations; and being of the sudorific variety they were more complicated than the simple modern hot and cold bath.

The wave of Christianity put a discount on bathing and many of the most eminent of the early saints deliberately cultivated personal filth.

It is reported that in the middle ages, when the extreme excesses of the early ascetics had died out, and monasticism became regulated, the monks generally took two baths a year when in health.

So far as England is concerned, such documents as Chadwick's Report on the sanitary condition of the labouring population of Great Britain, sufficiently illustrate the ideas and the practices as regards personal cleanliness which prevailed among the masses during the nineteenth century, and which to a large extent still prevail.

It was not until about 90 years ago that any really active movements were manifest to improve our sanitary conditions. The driving force of these movements centred around the enquiries and reports into the conditions of the houses of the working classes, which were initiated by Edwin Chadwick.

Chadwick was a great civil servant. He was born in 1800, and died in 1890. He retired from office, or rather was pushed out, at the age of 54, with more enemies than friends; he was regarded as a thorn in the flesh by most political parties; he would not let sleeping dogs lie; it was not until the year before his death that his value to the country was belatedly acknowledged by his receiving a knighthood.

But now we know that the advance of Public Health in this country owes more to Chadwick than to any other man. Brought up for the Bar, he was attracted to a more useful calling. He saw social evils existing and he laid himself out to reform them. His earliest efforts were with the Poor Law, which had existed unchanged from the time of Elizabeth and his efforts resulted in the passing of the Poor Law Amendment Act, in 1834. By sheer strength of character he cut away the rotten idea that wages could be paid out of Poor Relief and substituted in its place the idea of man's right to a living wage for honest work done.

He was put on the first Factory Commission. This country was then fast becoming an industrial community. The conditions existing in factories in those days hardly seem credible to-day, especially in the matter of child labour. Chadwick's remedy was a scientific improvement of the law by the tightening up of the executive power through a system of Government Inspectorship, a remedy which to-day has been applied to all State-controlled Departments of Public Health, Sanitation, Education, Post Office and Prisons.

Chadwick's main efforts were in the direction of Sanitation. He launched his "Sanitary idea." He thought that all illness

and disease were caused by filth. He was largely—but not altogether—right. In those days, however, it was a good working hypothesis. There was plenty of filth about. All refuse was flung into the streets. There were sewers for carrying off rain-water but house drainage was not allowed to go into these, and the house drainage went into cesspools. The Thames was an open receptacle for all garbage. Moreover there was no efficient water supply. In the provinces and Scotland the conditions were much the same. The new industrialism meant the crowding of workers in towns. Builders could build as and where they liked. Then came Cholera. In 1831, it ravaged England. No accurate statistics can be given. Death registration was not then in vogue. People prayed in churches, but no effort was made to stem the disease.

Chadwick insisted on bringing things to light by persistent research and reports, and his efforts culminated in the monumental—and now classical—Report of the Poor Law Commissioners on an enquiry into the sanitary condition of the labouring population of Great Britain, which was published in 1842.

Politicians were then busy about the Corn Laws, but the sanitary conscience of the people was aroused. A Royal Commission—under the Duke of Buccleuch—was formed to enquire into the sanitary condition of large towns and populous districts. This reported two years later, and in 1848, the Public Health Bill was passed, and Chadwick was appointed a Commissioner on the Public Health Board to administer that Act.

But Chadwick was imperious; he did not suffer fools gladly; his ideas were in advance of public opinion of that time; and the Board only existed for six years. Chadwick was relegated to private life, and the functions of the Board were transferred to the Privy Council.

In 1871, there was a severe epidemic of smallpox and a menace of further cholera, and in that year was issued the Report of the Royal Sanitary Commission. It had become urgent, in view of the deficiency and entanglements of legislative enactments affecting Public Health, and the want of system in the sanitary administration of England, that the law and methods of Public Health administration should be overhauled. The Commission made a vitally important recommendation, not even now fully acted on, viz.,

that “all powers requisite for the health of towns and country should in every place be possessed by one responsible local authority, kept in action and assisted by a superior authority.”

I shall show presently to what extent we have so far failed to reach this ideal.

In 1871 was passed an Act constituting the Local Government Board, and in 1872 an Act amending the constitution and powers of Local Authorities, and in 1875 the great consolidating Public Health Act, which even up to the present time, 51 years afterwards, remains the principal Public Health charter for sanitary districts outside London. Numerous supplementary and amending Acts have since been passed, in addition to several Food and Drugs Acts, Housing Acts, Pollution of Rivers Acts, and Factory and Workshop Acts. But now the whole wants consolidating and bringing up to date, in that many of its requirements have become archaic and inappropriate.

The Local Government Board then became the central government department for Public Health, as it already was for the poor law; the combination may have had its disadvantages administratively, but was due to the history of the order of reform; that of the poor law came first, and as Chadwick rightly pointed out, poverty is one of the main causes of ill-health, and must be reckoned with in any Public Health reform.

The Act divided the country (outside London) into Urban and Rural districts, the areas being determined by the existing Borough Councils, Locals Boards, and Guardians, and by adjustments where these overlapped. Some differences were made in the powers of Urban and Rural Districts.

But with the lapse of time it is not now possible from the character of a district to determine with certainty whether it is “Urban” or “Rural.” Further, many of the Unions extend into two or more counties, and as the tendency of Parliament in recent years has been to give important Public Health functions to Counties and County Boroughs, the overlapping of duties is gradually becoming more and more confusing.

I need not here attempt to iterate all the differences in Public Health functions of different local authorities, but perhaps I may be allowed to point out some outstanding features.

A County Borough is a self-contained unit for Public Health purposes and the Council is its local governing body. Outside the County Borough the local authorities for the Public Health Acts, etc., are the Urban and Rural District Councils, and for Educational purposes certain Boroughs are autonomous areas; otherwise the County Council is the educational authority and it is also the authority dealing with the institutional treatment of Tuberculosis, Venereal Diseases, for Maternity and Child Welfare (except in certain instances), Mental Deficiency, Blind Persons Act, Supervision of Midwives, and certain other more or less restricted powers of assistance or supervision.

I am not saying anything new when I state that the sub-division of the country into areas of such unequal size and importance has not worked well. When an area is too small, local personal interests are prone to predominate over those of Public Health.

As is stated by Sir Arthur Newsholme:—“There is needed a general overhaul of our local sanitary areas and abolition of all the smaller units of administration, these being merged into the larger units. The work done in these smaller areas is inefficient, both parsimonious and extravagant, besides being liable to favouritism which in large areas is greatly checked.”

On this point Sir George Newman says:—“The administration of the local Public Health Service (which is the application of preventive medicine to communities) is insufficiently co-ordinated and unified. The service has grown up as we have seen, almost haphazard; it is casual and anomalous in formation; often overlapping and sometimes redundant. Thus it is less effective than it might be.”

The Local Government Board on becoming the Department of the Government concerned with the administration of the Public Health Act, found that its powers were of a limited character; it could approve or disapprove bye-laws made under the Act; it could sanction or refuse to sanction the raising of loans required for certain purposes; this gave it the power to bring indirect pressure on a local authority that was slow in following its advice, e.g., the Act gave a local authority power to provide hospitals, but it did not compel it to do so, and the Board had no power to make it; but it has been known to

refuse sanction to a loan for one purpose until another purpose has been proceeded with.

One of the Board's most powerful levers, however, for moving local authorities, was by means of reports of inspectors. On the occurrence of an outbreak of illness or for various other excuses, an inspector was sent to the district to report on its sanitary administration; it was always a comparatively easy matter (especially with that wisdom which comes after an event) for an inspector to write a report reflecting on the negligence of the local council or its officers, or both. These reports were printed, and being of local interest, found a good press in the local papers. It must be admitted that this system of reports had a good effect, though its effects were necessarily sporadic and often slow.

It was not until much more recent years that the system of grants was applied to speed up local authorities, just as it had been found successful in regard to education. The underlying principle of course was that the subject matter was one of national as well as local significance, and so far as Public Health is concerned, these grants are available in regard to the institutional treatment of Tuberculosis, the treatment of Venereal Diseases, schemes of Maternity and Child Welfare, Mental Deficiency and Blind Persons. Grants varying from 50 to 75 per cent of the total expenses are available for approved schemes, and they have undoubtedly assisted largely in beneficial work being undertaken that might otherwise have been curtailed. They have, of course, the drawback—but I am not quite sure that it is entirely a drawback—that the Government Department, being partners in the payment, insist in having an effective say in the matter of how the money shall be spent.

It is quite common for diatribes to appear in the local press regarding the interference of a Government Department in the sacred realm of local Government. But it all comes back to this, that the man who pays the piper will insist in having a voice about the tune. If a local authority is willing to ignore grants, it could be much more of a free agent.

The following Government Departments and Statutory bodies are concerned with local Government, in some degree at least, independently of each other:—

The Ministry of Health.

The Central Midwives Board.

The Home Office.

The Board of Education.
The Ministry of Agriculture and Fisheries.
The Ministry of Labour.
The Ministry of Pensions.

And most of these central departments are concerned to some extent with problems of health.

This subject was ably discussed by a Departmental Committee, of which Lord Haldane was Chairman, in their "Report on the Machinery of Government" which was issued in 1918. This report discussed the question of overlapping in administration.

Thus, Education and Health are two great services in general demand for the community and form fairly natural divisions of Ministerial work. These Departments furnish conspicuous examples in which neglect of the principle of classification recommended in the above-named report has led to administrative confusion, e.g., the medical inspection and treatment of school children initiated in 1907, and still more recently, when both Departments claimed a share in the hygienic and medical supervision of children under school age. This results in the existence of two separate Central Medical Departments, and in each County and County Borough two correspondingly separate and generally distinct Medical Departments. It is usual to associate the two locally by making the Medical Officer of Health also the School Medical Officer; but the rest of the Departments are mostly separate and under different Committees; the School Nurses form generally a staff distinct from the Health Visitors; and the School Medical Staff is placed in a water-tight department in which their services are often not fully utilized and their occupation is of the blind alley variety where advancement is difficult. This results in many of them leaving the service for more promising occupations.

The Ministry of Agriculture and Fisheries furnishes a further example of confused distribution of functions in respect of standards of adulteration of milk and of control over the distribution of milk from tuberculous cows, with which the Ministry of Health is concerned. The interests of Agriculture are not always the same as those of the consumer of milk.

An outstanding instance of disregard of the rule that government should be arranged according to the chief function involved is the Poor Law, both central and local. Destitution from all causes has been treated under one

heading, the Poor Law; whereas it should, as recommended by the Report of the Royal Commission on the Poor Law, 1909—be treated according to the variety of destitution, by methods suited to their nature and causation. Vagrancy, for example, should be dealt with by the Home Office, while the vast problems of sickness and infirmity, etc., should be administered locally by the large local health authorities.

The Home Office, again, has a separate Medical Department, and the factories are under the supervision of governmental factory inspectors. The officers of the local Health authority have almost no right of entry into local factories except for seeing to the sufficiency of lavatory accommodation and gross nuisances.

The local sanitary authority records the deaths of sand blasters from Phthisis, the County Council or County Borough Council treats cases in Sanatoria when ill; but neither the local Sanitary Authority nor the County Council has anything to do with the prevention of the illness.

And the present Factories Bill, now before Parliament, proposes to remove the control of workshops from the supervision of the local Sanitary Authority and the Ministry of Health, and to put them, like factories, entirely under the Home Office and the Factory Inspector. The hygiene of the factory is an integral part of the hygiene of the town. Here a large section of the community spends a large portion of its waking hours. And it is here where one of the most neglected phases of health administration in this country requires exploration, viz., Industrial Hygiene.

I suggest that the devolution of all such powers to large and responsible Local Authorities is likely to result in a more efficient and intelligent administration than can follow from the mere mechanical fulfilment of central regulations.

The work of the Insurance Commissioners is now transferred to the Ministry of Health, and the local committees are specially appointed "Ad hoc" Committees in Counties and County Boroughs, who administer the medical benefit, though the insurance or money benefits and other additional benefits are administered by the Approved Societies.

This cannot be regarded as an ideal or national arrangement; the approved societies are not local institutions; they are not

territorial as the Committees are, and their membership is unequal in classification since they admit different types of lives, some types of lives and occupations being better from an insurance point of view than others. The result of this is that some societies are in a better position than others to provide additional benefits. This is not fair to the insured persons.

The insurance risks should be spread over either the whole country or large areas of the country, so that the benefits of insurance can be equalised.

A still further anomaly has recently been introduced in that the Maternity Benefit, which, formerly a fixed sum, is now a variable one varying in different approved societies.

Since their inception the functions of the Insurance Committees have tended to disappear, as will probably the Committees themselves in the course of time.

Most people will agree that the Insurance Act was rushed through Parliament without that consideration which was called for in such a measure. It was preceded by the Astor Committee—sometimes referred to as the "lightning Committee"—which attempted to evolve in the space of two or three months a successful plan for combating Tuberculosis, a problem that has been with us for thousands of years.

It had been recognised that some cases of Pulmonary Tuberculosis could be permanently benefited by treatment in open-air Sanatoria. The politicians jumped to the conclusion that the same treatment would be equally beneficial for all such cases. It is this over-doing of an idea which is liable to lead to disappointment. A stay in a sanatorium is, or should be, beneficial to most, but where is the benefit if the patient has to return to those insanitary and overcrowded housing conditions which were largely responsible for the illness?

Most people will agree that Acts of Parliament passed with a view to social betterment are more likely to prove efficient if they are not founded on considerations of political expediency.

The whole necessity of the situation is summed up by the absolutely sound recommendation made by the Royal Sanitary Commission, which reported in 1871:—

"All powers requisite for the health of town and country should in every place be possessed by one responsible local authority . . . so

that no area should be without such an authority, or have more than one."

I have already shown how, outside the County Boroughs, there are two bodies with Public Health functions, the County Councils and the District Councils. We know this does not tend to efficiency.

Take the case of a midwife; she starts in practice in a County area, she has to notify the "Supervising Authority," i.e., the County Council, of this fact; she attends a birth, she has to notify the District Council of this; the baby shows signs of having inflammation of the eyes, she calls in a doctor, she has to notify the County Council of this, and to the District Council she has had hitherto to notify the fact that the baby has inflammation of the eyes; and so forth and so on; and if her practice extends over a boundary into another area, her position in regard to her numerous notifications is, to say the least, mystifying.

Simplicity in organisation would count for efficiency. The remedy is obvious. The country wants re-division into areas of appropriate size and population for self-governing purposes. Many of the existing boundaries of administrative areas date back to various times before the Norman Conquest. Their mere age is no drawback and may afford diversion for the antiquarian student. But the growth of population, means of transport and modern requirements of local government, require at least some consideration. What excuse can be advanced, for example, for the continuing existence of "islands" of one county scattered throughout the area of another?

Much was expected from the Advisory Councils of the post-war Ministry. But nothing came of those expectations except one or two reports.

Look at the question of Hospital provision. In a typical County Borough, hospitals for the sick are provided by one or more voluntary agencies, by the Guardians, by the Council, by perhaps a Joint Tuberculosis Committee and various convalescent beds are provided by Philanthropic Societies and certain Charities.

On this question, I hold views which are not universally accepted, but I do not hesitate to express them on that account. I maintain that hospitals are as necessary for the community as water, gas and electricity supplies, as needful as schools, trams and fire brigades; and they should be provided by the community. I am for municipalising the

hospitals and causing them to be a charge on everyone according to their means, and not left to be provided by fortuitous charity. By being under one management, they could be more economically and usefully run for the benefit of the community.

The transference of the Poor Law beds to the Local Authorities and indeed, the transfer of the functions of the Guardians was recommended by the Poor Law Commission which reported in 1909. On this subject up to date, this country has been satisfied with reports; though Governmental promises appear to be bringing the reform nearer.

Some people seem to think that most of the hospitals are run on a voluntary system, and that this must be maintained at all costs as a distinguishing feature, and even a fetish of this country. The former is not the case. My latest available figures on this point show that there are 263,705 hospital beds in this country provided by Public Authorities and only 44,983 provided by voluntary hospitals.

Let us look at the matter of Mental Deficiency. The Mental Deficiency Act of 1913 was intended to simplify the dealing with mental deficients and to provide institutional accommodation for those who were mentally deficient from birth—apart and away from asylums. That is for idiots, imbeciles, feeble-minded and moral imbeciles. Unfortunately the war interfered with the development of these schemes, though they may be expected to grow in the course of time.

But the Mental Deficiency Act and its working are very complicated. In an ordinary County Borough the care of mental deficients devolves on the Council, the Poor Law Guardians and the Education Committee and in practice it is excessively difficult to see clearly where the line of demarcation lies. Local practice varies enormously and no guiding principles appear to emanate from the Board of Control.

Centrally, we have to deal with the Board of Control, the Board of Education and the Ministry of Health, and on the initiation of the Act Regulations concerning its working were issued by the Home Office, the Board of Education, the Home Secretary with the concurrence of the Local Government Board, and the Lord Chancellor.

I put in a plea for the simplification and unification of local and central Government.

Consider for one moment the matter of the health of the individual. His environment,

i.e., his existing housing conditions, his water supply, sewerage and everything else of this nature is in the hands of the District Council with its powers delegated to the various Committees. When born, the Health Committee through its Health Visitors and Welfare Centre concerns itself with his feeding and gives advice to mothers concerning child welfare (more or less, but largely less) until school age. If in a County Borough or a district that has its Welfare Scheme under the Maternity and Child Welfare Act, the Health Visitors are from the same district; if not, they are officers of the County Council.

During school age he comes under the cognizance of the School Medical Department; if in an autonomous Educational area the officers of this Department are officers of the Local Education Committee; if not, they are officers of the County Council; after that, if he enter a factory, he comes, generally on entry only, under the cognizance of the factory surgeon; if this were an important and effective supervision the factory medical service would have to be much larger than it is at present.

He then becomes insurable and comes under the insurance scheme, which makes provision for his medical examination *when ill*.

Confusion of function is often introduced into Local Government by the authorities concerned. Little can be said in favour of the delegation of powers relating to the contagious diseases of animals to a Health Committee. This is an agricultural matter in no way related, any more than are trams, buses, libraries, gas and electricity and various other matters, to the health of the community.

An extreme instance of such confusion arose on the passing of the Midwives Act, when an important County Borough referred its powers under the Act to the Watch Committee and the Police.

I have no time, nor does it seem desirable to trace the origin of the Ministry of Health. You all know it. It was urged nearly 100 years ago. Its birth was accomplished by the Act of 1919.

In theory, it was to place all health matters in the hands of one Minister. In practice it did nothing of the sort. A great London daily paper, in a leading article at that time summed up the position most tersely. It used words to this effect:—"Yesterday was accomplished the initiation of the Ministry of Health in the place of the Local Government

Board; it was a very simple matter; the name plate that faces Whitehall was changed."

The Committee of the House of Commons which dealt with the Bill was insistent on the Medical Inspection of School Children coming under the Ministry of Health, and twice was the Government defeated in Committee on this point. They were allowed to insert a clause, however, whereby the Board of Education in its health activities acts more or less as agents of the Ministry and under their sanction, until such time as the duties are entirely transferred. To all intents and purposes the position remains the same, the only connecting and effective link being the fact that the Chief Medical Officer of the Ministry is the Chief Medical Officer of the Board of Education.

The Home Office and other Government Departments still have their separate Medical Departments, and until we have central unification, we are unlikely to get local unification. And we shall continue to receive circular letters in which the word "Co-operation" appears in every few lines. I do not wish to decry the value of co-operation, but the best method of ensuring co-operation is to avoid its necessity.

They do say that too many cooks spoil the broth; doubtless if they co-operated more this disaster would not occur. But why not try having only one cook?

Scope of Health Administration.

It seems desirable that I should say something as to the scope of Health Administration.

In the early days of the last half century, efforts were directed mainly to the removal of gross nuisances causing noxious effluvia; the working of the Public Health Act specifies the kind of nuisance a local authority can deal with, and its meaning has since been stretched to cover many conditions not originally contemplated by its promoters. The officer to carry out these duties was dubbed "The Inspector of Nuisances," a name long since out of date, and now replaced by the title of "Sanitary Inspector." This change was brought about by a Bill promoted by the British Medical Association.

A healthy environment was sought by obtaining the proper removal of sewage, disposal of refuse, pure water supply, healthy housing conditions, etc.

It was possible to cleanse compulsorily a verminous house, but not the verminous person who infested the house.

An early infringement of personal liberty in

health matters was the penalty on exposing an infectious person in a public place and his compulsory removal to hospital. The local authority thus became responsible for his treatment.

The Public Health Act gave Local Authorities power to build and maintain hospitals for the sick poor of their district on obtaining the sanction of the Local Government Board. The power was not limited to fever hospitals, but in practice, sanction was not sought to construct any others. Though for many years there has been a small municipal Hospital for accidents at Barry, and more recently the Poor Law Infirmary at Bradford has been converted into a municipal hospital.

In the course of time, the close association of the cure of disease with its prevention became appreciated. The medical inspection of school children was made compulsory 18 years ago, and it was inevitable that this should be followed by provision for treatment. The commonest ailments of children were provided for, and now in most areas some provision exists for dealing with eye and throat defects, dental disease and certain skin diseases.

Then certain of the more progressive of the Local Authorities started providing sanatorium beds for Tuberculosis; a great fillip to this movement was given by the passing of the National Health Insurance Act of 1911, and subsequently it became the duty of Counties and County Boroughs to make this provision both for insured and uninsured.

Since then the *duty* has been imposed on these bodies to draw up schemes for the free treatment of Venereal Diseases. And the Maternity and Child Welfare Act of 1918 gives the *power* to these bodies to make provision for caring for the health and welfare of nursing and expectant mothers, and children below school age. It is curious to note that nothing in this Act is compulsory beyond the duty of forming a Maternity and Child Welfare Committee; that Committee once formed need never meet, and the Act will have been complied with. In practice, however, many if not most, authorities had already done much in this direction by the appointment of Health Visitors.

The cure and the prevention of illness are so intimately related that it seems inevitable that in the future the ordinary medical curriculum will have to cover both.

State services relating to both are represented in the Ministry of Health. And even the method of payment of the insurance practitioner is such that the more successful he is in averting illness from his patients the less work he has to do.

Much good work is possible from the practising medical profession, if they will endeavour to cultivate the spirit both of curative and preventive medicine. Curative medicine has a strong appeal to the charitable. Sympathy with the sufferer is natural. This has the effect, so to speak, of making our Sanatoria and Hospitals the shop-windows of Public Health, whereas they are merely the backwaters.

Propaganda.

It cannot be said that nothing has hitherto been done by Health Authorities in regard to Propaganda; but now, for the first time, this form of activity becomes statutorily one of the powers of Local Authorities. And it behoves us as the responsible medical advisers of Local Authorities to endeavour to see that such powers are used with due circumspection.

The object in view is the prevention of illness. This can probably be best obtained by the avoidance of sensationalism, fads and stunts. Let our advice be sound and founded on proved facts, or let it be nothing at all.

We now know that the same methods of prevention cannot be applied to all diseases that can be classified as infectious.

Isolation and disinfection were once regarded as the panacea for all infectious diseases. And probably most of us are familiar with circulars containing advice as to how to avoid this, that, or the other disease, the only value of which has been to the printer who printed them.

It may appear harmless to advise good food, exercise, open air and sanitary houses as assisting the combating of infection. But it is not altogether true. We now know that those children living under the least sanitary conditions are the least prone to contract Diphtheria.

Also such advice is founded on guesswork rather than on any evidence of its truth.

The last published Annual Report of the Chief Medical Officer of the Ministry of Health casts doubt on its value in the case of influenza. After giving particulars concerning an outbreak of influenza in a school, it concludes by saying "The report is interesting as an illustration of our helplessness

in controlling the spread of influenza, even in a school, where the boys are given every care and attention, and where they live in what appear to be ideal hygienic conditions."

Take the case of Encephalitis Lethargica. Now that its signs, symptoms and sequelæ are becoming recognised better, this disease looms largely on our horizon of fatal and malevolent maladies. But of its prevention we know practically nothing. A circular regarding its prevention would be as useful as one on the avoidance of thunderbolts.

We have reason to believe that the regular evacuation of the contents of the large intestine is of enormous and even incalculable advantage to the individual. Let us say so. But it is not necessary for us to assert that Cancer will be thereby avoided, or to endeavour to prescribe a diet which will eliminate all risks of this fatal malady.

Such statements—for which there is not one iota of evidence—we can well leave to those voluntary societies who are willing to make them.

I desire to draw a dividing line between responsibility and irresponsibility.

We now have some definite and positive information regarding the obtaining of immunity to diphtheria and possibly also to scarlet fever. We have had even *more* positive evidence regarding the prevention of smallpox for over 100 years. We cannot claim any marked success regarding the propaganda work undertaken in that behalf. We have to recognise that there is an antagonism to propaganda work both passive and active.

It is easy to arrange lectures; it is difficult to provide audiences. Even wireless broadcasting has its limits; educative lectures are turned off as relentlessly as most of us turn off jazz music. We must not forget that.

As Rabelais said:—

"When the devil was ill, the devil a monk would be.

But when the devil was well, the devil a monk was he."

In Conclusion.

I think it has to be regretfully admitted that our knowledge of preventive medicine is not sufficiently reflected and utilised in our administrative procedures. Probably this is largely owing to the fact that there is a want of exact knowledge among legislators, and too often matters of political expediency are allowed to govern our legislative enactments.

I cannot do better than quote from the ably written "Health and the State" of Dr. W. A. Brend, on this point. He says:—"The complexity of Public Health Administration is a result of the piecemeal way in which the Public Health system has grown up in this country. The health of the people and the causes of disease have never been dealt with as a whole, but the legislature has at different times made provision for different groups of people, and for treating different diseases."

This is well exemplified in, say, a moderate sized county borough—in county areas the position is even still more complicated. A clinic is started for the treatment of school children under one Committee; in the same town, in another part, is a clinic for tuberculosis under another Committee; a further and separate clinic for Maternity and Child Welfare under another Committee (which must contain two women members, and if co-opted, they must be "persons specially qualified by training or experience in subjects relating to health and maternity," whatever that may mean), and another and compulsory

clinic for Venereal Diseases, generally managed by the Committee of a voluntary hospital, though financed by the Local Council and the Government. And then it is discovered that for various reasons patients attending one clinic have to be referred to other clinics, with or without corresponding financial adjustments between the various Committees. It would be very amusing if it were not so sad.

Those four years of war taught us nothing.

Our municipal health services are gradually filling in various hiatuses of voluntary hospitals and supplementing their machinery in preventive matters. But if we are to have a municipal hospital, do let us have it under one roof and under one Committee.

So far as Health Administration is concerned, our great desideratum is a strong Government—and I do not think it matters very much what may be the name of the political party in power: we want a Government determined to simplify our administrative machinery and to bring the Practice of Preventive Medicine into line with its Science.

Ut Ita Dicam.

(Being Comments, apropos and otherwise, on Sundry Matters.)

Health Teaching.

The fault of health propaganda and those who indulge in it often seems to me to be very like that from which the Dutch are, or were, supposed to suffer; giving too little and asking too much. Certainly the troubles that are alleged to be the inevitable sequel of disobedience appear altogether overwhelming when compared with the somewhat vague benefits that are said to surely accompany the implicit following of the rules, often rather vague, that are laid down. Only too often more stress is laid on the former than the latter; and in general, the things that are promised fail to sound attractive to the ordinary citizen. Clearly, it may be supposed, he is little likely to be stirred to the depths to be told that if he will only follow some complicated system of dietary involving the use of a particular article that is troublesome to obtain and not too pleasant to consume he will never have any kinks in his bowel. And this is all the more likely to be the case

since he has discovered for himself that neither he nor any of his family have shown the slightest tendency to kinkiness despite the fact that they have never seen, much less tasted, the articles referred to. And so it is with promises of sure and certain attack with some fell disorder if the neglect of some particular hygienic precaution should chance to bring him in contact with the specific organism.

The Single and Simple Rule.

As a fact, the great trouble with health propaganda is that it is not sufficiently of the earth, and the heaven that is promised contains little or nothing that appears particularly desirable. It is because these things are so that health propaganda and teaching have not taken the hold that was expected. It is useless blaming the citizen because he pays little or no heed to exhortations and will not attend lectures. He is not to blame; it is the lecturer and the lecturer for not giving the citizen what he wants. What does he want? Mainly, I

imagine, very simple things, and to hear of simple, homely things, put in a homely way; homely rules that he can reasonably obey, and an assurance that if they are obeyed the effect he desires will be produced here and not hereafter. He does not want too much talk about the evils of neglecting precautions. In all probability he is prepared to believe that quite unpleasant results may follow neglect, and what he asks for is information about the things that have been neglected, what they are, how best to guard against neglecting them, how most easily to put them into practice. And if he can in any way definitely apply the things to himself or to somebody he knows, so much the better. He is not keen on generalities. One thing at a time is a rule he entirely approves, and the simpler the rule the greater the chance of its successful application.

Your Hair and Your Health.

All this is said because it has been suggested by the reading of a book bearing the title, "Your Hair and Your Health."* In this, the author, an American physician of some repute I imagine, since he is M.D., New York, and is Chief of Clinic, Cornell University Medical College and Clinic, sets out "to help the average person, man or woman, to an intelligent understanding of the nature of the hair, its care, its diseases, their treatment and prevention, and to emphasise the part that the health of the body plays in the health of the hair." Writing brightly, interestingly, and sometimes amusingly, without going too deeply into technical details he supports his thesis and shows that prevention of baldness is to a great extent possible if hygiene, general and local, is attended to. And dealing with baldness he is dealing with a subject of the greatest possible personal interest to a mass of the people. Showing that care of health means care of the hair, he brings hygiene and its importance very close up to the people. To get the people to listen to hygiene and to try to learn about it (I keep on repeating this) it ought to be brought very close up to them. The most effective thing of all, of course, would be to show its relation to the pocket. This has been tried and has not been a success. Let us try to show and set out to show that

* Your Hair and Your Health. By Oscar L. Levin, M.D., New York, Chief of Clinic, Cornell University Medical College and Clinic. London: William Heinemann (Medical Books), Ltd., 1926. pp. 163. Price 6s. net.

hygiene can keep the hair on; or that it can prevent corns and bunions and pimples—vulgar I admit, but it cannot be denied that these are things that people are definitely concerned about and would like to be taught about. To talking about hair there can be no objection, and to any who think of arranging a popular lecture on this subject Dr. Levin's book will be found invaluable. Personally, I should like very much to discover books so authoritative as this on the other matters I have referred to.

Dr. Howarth of the City.

I have one item of news at any rate as a result of my appeal. It is good news of one of our own number, Dr. Howarth of the City to wit, of whose health during the last few months the accounts received have been such as to cause his friends some concern. Looking better than he has appeared for some time, Dr. Howarth attended the meeting of the Council of the Society at which the proposal of a vote of thanks to Dr. George Buchan on his retirement from the chair was submitted. It was gratifying to note that in seconding the vote Dr. Howarth showed his wonted readiness and spirit and entirely dispelled any doubts that might have existed as to the completeness of his recovery. He himself, it may be said, has no doubts whatever and gives a great part of the credit to ultra-violet rays with which he doses himself daily from an apparatus he has installed at his office.

Unsolicited Testimonial.

"You will have to drop that frivolous note, ma lad. It won't do. And another thing, your print is too big." P.

DR. W. W. JAMESON, Medical Officer of Health, Hornsey, has been appointed Lecturer in Public Health, Guy's Hospital Medical School.

THE Minister of Health has issued a Memorandum (121/T) dealing with various points in regard to Returns under Memorandum 37/T, relating to the Treatment of Tuberculosis. The memorandum is particularly recommended for study by Tuberculosis Officers of Authorities by whom no returns have been made for 1925, with a view to the avoidance of difficulties in the compilation of the returns for 1926.

Ante-Natal Work.

By H. HARVEY EVERS, M.B., M.S., F.R.C.S., Hon. Assistant Obstetrician, Princess Mary Maternity Hospital, Newcastle-upon-Tyne.

This paper, read at a meeting of the Northern Branch in March, 1926, is described by its author as a "report and some criticisms." It is much more than that. Dr. Evers has had great experience in the class of work referred to, and the information he has to give is practical and of great value.

MY intentions in this short address on a comparatively wide subject are, primarily, to present a brief report on actual results, and secondarily, to draw your attention to a few points in routine which my extensive experience in the work has taught me to regard as very important. Finally, I will offer a few criticisms of modern tendencies in the conduct of Ante-Natal Clinics.

Those of us who are actively engaged in the work might feel, perhaps, that ante-natal supervision is an accepted principle of practice but, unfortunately, there is ample daily proof throughout the country that this is far from being the case. Here, in Newcastle-upon-Tyne, with our large Maternity Hospital, and exemplary Public Health Service, I feel that the expectant mother is exceptionally well provided for, and yet my investigations prove to me quite definitely that fully fifty per cent of our pregnant women are completely lacking supervision. If one considers the much less fortunate scattered rural districts, it gives some idea of the thousands of women throughout the country who pass through their pregnancies without any pre-maternity supervision or advice.

For these clear reasons, I make no apology for my choice of this subject. Moreover, I always feel that in Newcastle-upon-Tyne, we have a tradition to uphold in ante-natal work. Our Emeritus Professor of Surgery, James Rutherford Morison, in a paper entitled "The Prevention and Treatment of Puerperal Sepsis," read before the Northumberland and Durham Medical Society in 1897, lays great stress upon the importance of ante-natal supervision as a means of preventing the complications of pregnancy and labour. The following quotations from his paper clearly show how definite were his opinions on the subject:—

"From the commencement of her preg-

nancy, a woman should be carefully looked after. She wants information and reassurance, and has to get it as best she can by reading "Advice to a Wife," or other similarly edifying works, for friends, if consulted, are apt to laugh and believe that the complaints will go when the baby comes. That many serious illnesses might be averted by more timely advice, there cannot be any reasonable doubt."

"The pregnant woman should have skilled attention from the period of conception till she has recovered from her confinement."

It is surely matter for local pride that these views were expressed four years before Dr. J. W. Ballantyne first gave voice to the conviction "gradually developing within him" of the need for a special Department set aside in Maternity Hospitals for the treatment of the various disorders of pregnancy, and it was only in response to the appeal published in the "British Medical Journal," of April 6th, 1901, entitled "A Plea for a Pre-maternity Hospital," that there was endowed in the Edinburgh Royal Maternity and Simpson Memorial Hospital, the Hamilton Bed, the first to be set aside in any hospital for the treatment of the various morbid conditions of pregnancy.

As I remarked at the outset, it is not my intention to give any detailed description of the routine procedure at an ante-natal clinic, though some of the methods adopted will be alluded to in my report. The obvious ideal at which we aim is a full time, healthy breast-fed baby, and a naturally delivered undamaged mother. In other words, our object is to keep the whole process as physiological as possible. For this reason, it is of great importance that the woman should report as soon as she knows or thinks that she is pregnant, as the early detection of maternal abnormalities and early advice as to habits

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and hygiene will undoubtedly do much to diminish the number of abortions and miscarriages—such potent causes of maternal morbidity and mortality, as well as of much wastage of foetal life. According to the figures presented by Professor Malins to the Obstetrical Society of London, 16 per cent of pregnancies terminate by abortion or miscarriage, i.e., one to every five births of viable children. The occurrence is also stated to be nearly twice as common amongst women of the hospital class as compared with the better classes—a suggestive fact for workers in public ante-natal clinics and hospitals. Moreover, my own investigation of 1,000 hospital women shows that between 40 and 50 per cent of fertile women pass through one or more abortions or miscarriages during their period of child-bearing. Dame Janet Campbell's report also emphasises the great importance of this subject as a factor in the causation of puerperal sepsis, though we all naturally feel that the present available statistics are unreliable and misleading.

It would appear at first sight a very striking fact that just over 1 per cent of the pregnancies I have supervised at ante-natal clinics have ended in abortion or miscarriage, but it must be remembered that more than 90 per cent of the patients were beyond the third month of pregnancy at their first attendance, and my investigation of 150 hospital cases of abortion and miscarriage show that over 70 per cent occur in the first three months. These figures speak for themselves, and very strongly emphasise the great importance of early attendance and advice.

The importance of routine testing of the urine from the sixth month onwards requires no comment, and the seriousness of any hæmorrhage, discharge or toxæmic symptoms should be made clear to the mother, keeping in mind the fact that the toxæmias and the hæmorrhages come only second to puerperal sepsis as factors in the causation of the present maternal death rate.

The part of ante-natal supervision, however, upon which I would like to lay particular stress, is the final examination of the woman at the 36th or 37th week. This examination aims at ensuring a labour as safe as possible for mother and child, and is the one essential and indispensable part of the whole process. Here I would emphasise that any form of internal examination is very rarely called for. Vaginal examination is not only very dis-

tasteful to the patients, but also distinctly dangerous during the later months of pregnancy, and it should only be resorted to when very definite indications exist. My own rate of vaginal examinations over many hundreds of cases is between four and five per cent, and the reasons for its employment have been as follows:—

(1) When there is some real reason to suspect *Contracted Pelvis*. This will be further discussed in the report.

(2) *Hæmorrhage*, however slight, at any period of pregnancy.

(3) When the presentation cannot be definitely made out after *repeated abdominal examinations*, e.g., doubtful breech presentation in a primipara.

(4) Purulent vaginal discharge.

Any vaginal examination during the last three months of pregnancy should be performed with the same rigid antiseptic precautions as if the woman were in labour, and the examination carries with it the same risk of infection. For this reason, as well as its disagreeable nature, routine vaginal examinations as practised by some ante-natal workers cannot be too strongly condemned as likely to bring a great deal of discredit on the work.

Let us now consider some actual results of ante-natal work. For obvious reasons, I will confine my reports entirely to patients supervised at the Public Clinics, to the exclusion of an infinitely larger number attended by me at the Princess Mary Maternity Hospital. For this purpose, I have taken the complete records of the first five hundred cases who attended last year. I will roughly summarise some of the abnormalities dealt with amongst this comparatively small number of cases as an illustration of the great scope for good work which these clinics present.

1. *Malpresentations.*

(a) *Breech*.—There were 14 cases.

External Version was successfully performed, usually in the eighth month, in 8 cases (2 primips. and 6 multips.). All were easily delivered of full time living babies, and all mothers did well.

Spontaneous Version, in seventh and eighth months, occurred in 2 cases. Mothers and babies all did well.

Failure to convert occurred in 4 cases (3 primips. and 1 multip.) with following results:

3 *Primips.*—1 had Cæsarean Section successfully performed on account of an

under-average pelvis: 2 had very difficult labours at home, and both children were stillborn. Both mothers had stormy puerperia.

1 *Multip.*—Premature labour at 8 months, easy delivery, and did well.

The two primips, who lost their babies are a striking illustration of the great importance of converting all ordinary breech presentations to vertex at the first opportunity. One of them was told to return for a second attempt at external version, and did not do so. The other was advised hospital and anæsthetic, as two attempts at version had failed, but she refused to go.

Generally speaking, the best time for external version in these cases is the 36th week, as it is then unlikely that the breech presentation will recur. In any case, however, re-examination for recurrence is always advisable. Diagnosis is usually easy, but vaginal examination had to be resorted to for confirmation in two primiparæ, and in one case with much liquor an X-ray photograph was taken.

(b) *Occipito-Posterior.*

There were 40 cases. All were treated by the pad and binder method, together with postural treatment. Rotation forwards occurred in 28 cases, and all had natural labours with living children. The occiput remained posterior in 12 cases, eight of which had to be delivered by forceps. Two of these were associated with under-average pelvises and were very difficult, one of the babies being stillborn.

The pad and binder method of treatment is obviously of great value, especially in primiparæ.

(c) *Oblique.*

There were four cases only of oblique lie at the 37th week. One was associated with placenta prævia, the others were multips. with relaxed pendulous abdomens. The first is considered under placenta prævia—the others were all treated by external version, together with pads and firm binder, and all ended satisfactorily.

2. *Ante-Partum Hæmorrhage.*

There were 13 cases of hæmorrhage in the last four months of pregnancy. All were, of course, examined vaginally.

Placenta Prævia was diagnosed in four cases, all of which were immediately sent to hospital. All the mothers, but only one of

the babies survived. All occurred in the 7th and 8th months.

The other 9 cases were all diagnosed as accidental hæmorrhage and treated expectantly. Five of these cleared up and went to term with living babies; the other four, three of whom had albuminuria of marked degree, all came into premature labour, and three of the babies were stillborn. All mothers are alive and well.

3. *Albuminuria.*

The urine is examined fortnightly from the beginning of the sixth lunar month. The ordinary heat-coagulation test is generally used, but the Salicyl-sulphonic acid test is sometimes employed, and is infinitely preferable. Faint traces of albumen are ignored, but if persistent, great care is taken to exclude the presence of pus.

The blood pressure is taken as a routine by the auditory method. There were 17 definite cases, in two of which I have been unable to trace the ultimate results. Of the remaining 15:—

4 were symptomless cases and had no physical signs except the presence of distinct protein in the urine. All continued to attend on the usual dietetic and laxative treatment, and all went to full term with living children and normal labours.

4 were of moderate severity with œdema and general malaise but no rise of blood pressure. All were ordered to bed at home, and treated by their own doctor, the blood pressures being taken and the urines tested at weekly intervals. All went to term and had living babies.

7 were severe cases with marked symptoms and definite rise of blood pressure under treatment. Three of them had distinct pre-eclamptic symptoms. All of these were sent to hospital and treated on more drastic lines with the following results:—

1 went to term; child alive.

3 premature labour with living babies.

1 premature labour—twins which died soon after birth.

1 had successful induction of labour at 38th week.

1 had 3 eclamptic fits, but completely and rapidly recovered. The baby was stillborn.

Apart from the guidance afforded by the ordinary clinical signs and symptoms, the greatest possible help in prognosis and treatment is to be gained from regular readings of the Systolic Blood Pressure. If this is rising in spite of treatment, the outlook is always

serious, even if the albuminuria is less and the symptoms relieved. Such cases require prompt relegation to hospital.

One of these severe cases developed her high blood pressure (190 min. Hg.) a fortnight before any albumen appeared in the urine. She was sent to hospital immediately albuminuria developed, and gave birth to a 7 months child 3 days after admission.

4. Twins.

There were 8 cases. Four were diagnosed by ordinary palpation and auscultation; one was doubtful, and was confirmed by X-ray. The remaining three were not diagnosed; one owing to a large hydramnios (she refused X-ray) and two owing to failure to attend for final abdominal examination.

5. Contracted and Under-Average Pelvis.

The gross examples of contracted pelvis are generally marked by short stature, deformities, abnormal gait, signs of rickets, etc. The cases of less degree are sorted out by the following routine:—*In the primip.* abdominal examination at the 37th week should show the head fixed in the pelvic brim. If not fixed, the head is fitted to the brim and if any disproportion is suspected, a vaginal examination is made. If the head seems to push in all right the patient is told to return one week later for re-examination, and if the head is still not definitely fixed a vaginal examination is made, and unless disproportion can be definitely excluded, the case is recommended to go to hospital for her labour, as my investigations show that 12 per cent of such cases come to Cæsarean Section.

In the Multip., the previous obstetrical history forms a useful guide, and where the head does not definitely fit the brim at the 37th week a pelvic examination is made for contracted pelvis.

External measurements of the false pelvis are not used as a routine as in my experience they are apt to be misleading in the very cases in which one requires help. Their rôle in the routine is simply confirmatory if positively under-average.

There were 20 cases in all in this series:—

4 had natural labours.

9 were delivered by forceps.

1 was induced at 37th week.

6 had Cæsarean Section.

All cases were sent to hospital and all mothers and babies survived.

Of the 6 Cæsarean Sections, two had previous Cæsareans, two were primips., and

two were multips. with previous history of difficult labours and stillbirths.

One was a gross case of old Rickets, and had true conjugate of only $2\frac{1}{2}$ -in., three had conjugates of $3\frac{1}{4}$ -in. to $3\frac{1}{2}$ -in., and two had funnel shaped pelves with contracted outlet, one being a marked case of Pott's Disease.

6. Venereal Disease.

(a) *Gonorrhœa*.—All women complaining or giving a history of yellow discharge are locally examined, and if the yellow discharge is confirmed they are referred to a clinic for investigation and treatment. There were two positive cases of *Gonorrhœa*, both of which were successfully treated.

(b) *Syphilis*.—All patients with suspicious obstetrical histories have their Wasserman reactions taken, as well as the usual general and local examination. Five cases of repeated abortions or miscarriages were so investigated, and in two the Wasserman was positive. Both cases were immediately put under treatment with Novarsenobillon and mercurial cream, and each was successfully delivered in hospital of her first living healthy child.

The remaining three women had negative Wassermans even after small provocative doses. All were carefully instructed, and put on to 5 grain tablets of Potassium Chlorate thrice daily. Two of these successfully carried their babies to full term.

These results in cases of repeated miscarriage are amongst the most striking and gratifying achievements of ante-natal work.

In further illustration of the variety of material encountered in such a comparatively small number of cases, the following conditions are enumerated:—

Hydramnios, 2 cases.

Carcinoma of Breast, 1 case.

Sore and ulcerated Tongue, 3 cases.

Glycosuria, 6 cases.

Catarrhal Jaundice, 1 case.

Hyperemesis, 1 case.

Acute Pyelitis, 1 case.

Missed Abortion, 1 case.

Some Criticisms.

As I indicated at the outset, less than 50 per cent of the expectant mothers in this country are receiving ante-natal supervision. Furthermore, in my experience, only 7 per cent of the clinic patients attended in the first three months, and only 50 per cent in the first six months, the remaining 50 per cent put in their first appearance during the last three months of their pregnancies. Divers

remedies have been suggested for this somewhat deplorable condition of affairs. Compulsory notification of pregnancy, in my opinion, is fundamentally wrong in principle, and would naturally arouse considerable hostility in its attempt to interfere with one of the most sacred phases of social life. As an improvement on this plan, it has been suggested that for insured persons, a clause should be embodied in the Maternity Benefit Certificate stating that the woman has received ante-natal supervision during her pregnancy. To my mind, the ultimate success of any maternity scheme will depend upon the proved value of its results; it is much better to convince the mothers by successful results than to coerce them by legislation. This, of course, will take time; but that ante-natal work can amply justify itself by its success there cannot be any shadow of doubt.

I find that 35 per cent of my clinic patients come either voluntarily or recommended by friends; surely this is in itself proof that the old-time prejudice is rapidly disappearing. Patience, enthusiasm, good work and judicious propaganda are the principal requirements.

A disappointing aspect of my investigation is the relatively small number (only 12 per cent) of women sent to the clinics by midwives. Naturally, we must bear in mind that only 28.7 per cent of confinements in Newcastle-upon-Tyne are attended by midwives, compared with 50 per cent for the whole country but, even so, 12 per cent is much too low.

To my mind the ultimate place of the Public Ante-Natal Clinic in the Maternity Scheme is chiefly as an accessory to the Midwives Service. The present generation of medical students is receiving an extensive training in the ante-natal departments, and very obviously appreciates the great value of the work. Moreover, a large number of the older practitioners are availing themselves of opportunities of post-graduate instruction in pre-maternity methods, and they are most enthusiastic in their approval of the principles involved. Moreover, the expectant mother, largely educated by the Public Ante-Natal Clinics and Maternity Hospitals, is gradually learning to expect some form of supervision. Obviously then, in a comparatively short time, all doctors will be doing their own ante-natal work as part of their ordinary attendance on midwifery cases, and, in consequence, they

may justly expect some substantial addition to their ordinary midwifery fee.

The Ante-Natal Departments of Maternity Hospitals and the Public Ante-Natal Clinics should act in a supervisory capacity for cases referred by midwives, and in a consulting capacity for difficult or doubtful cases referred by doctors. In this way, no woman would escape ante-natal supervision and care.

In order to satisfy these requirements, it is my firm opinion that all ante-natal clinics should be directed by doctors actively engaged in the practice of obstetrics. I have stated that the ultimate success of the work depends upon its results, and as the work is so essentially clinical and so highly technical, I feel it will only be carried to a successful issue by the clinician rather than the official. Consequently, I feel that the appointment of whole-time ante-natal officers is a distinctly retrograde step, and is likely to retard rather than to accelerate progress in this very important work.

In Newcastle-upon-Tyne we are particularly fortunate in regard to hospital accommodation. It is in the scattered rural areas that hospital treatment for ante-natal cases is so difficult. The difficulty, however, is obviously not insuperable.

The public ante-natal clinic is undoubtedly making rapid strides here, and will surely be a very important factor in the reduction of maternal mortality and morbidity, as well as in saving much foetal life. There are, however, a large number of other factors which must operate at the same time if any really appreciable improvement is to be expected; such factors naturally include a well trained service of doctors and midwives, better housing and living conditions generally, and much increased hospital accommodation.

THE successor to the late Dr. S. G. Mostyn as Medical Officer of Health of Darlington is Dr. G. A. Dawson. There were thirty-six applications for the post, and amongst those selection were Dr. Belam, of Brighouse; Dr. Blackburn, Deputy M.O.H., St. Helens; Dr. Brodie, Deputy M.O.H., Croydon; and Dr. Stott, of Lowestoft. Dr. Dawson qualified in Medicine in Ireland in 1921, and was the youngest of the applicants. At the time of his appointment he was acting M.O.H. of Darlington.

Society of Medical Officers of Health.

COUNCIL MEETING.

The first meeting of Council for the Session 1926-27 was held at the House of the Society, on Friday, October 15th, 1926. The retiring President (Dr. G. F. Buchan) was in the chair, and there were present: Dr. E. H. Snell (President-Elect), Drs. Lyster, E. Ward, Jameson, Jolly, Eustace Hill, Sanders, Ridley Bailey, Allan, Nash, Milligan, McIntosh, Annis, Evans, Porter, Stirk, Wilshaw, Gibbons Ward, Stella Churchill, Howarth, Cates, Prof. H. Kerr, and Major G. S. Parkinson.

The Minutes of the last meeting having been approved and signed, apologies for absence were received from Dr. Cyril Banks, Lord Dawson, Dr. T. W. Naylor Barlow, Dr. G. H. Pearce, Dr. R. Veitch Clark, Dr. James Wheatley, Dr. H. R. Kidner, Dr. F. H. Thomson, and Lt.-Col. F. E. Fremantle, M.P.

The Supervision of a Health Department.—The Council considered the conditions of appointment forwarded to candidates for the post of M.O.H. of a county borough. It was agreed to bring to the notice of the Ministry of Health and the British Medical Association the following stipulation: "The Department will be under the supervision and direction of the Town Clerk." It was further agreed that the grant of three weeks' annual holiday was inadequate for the M.O.H. of a county borough. The Executive Secretary was directed to forward a protest in reference to the conditions specified direct to the Borough Council concerned.

The London School of Hygiene and Tropical Medicine.—A letter was received from the Secretary of this School asking to be informed of the name of the person to be appointed by the Society to the Court of Governors of the School as from January 1st, 1927.

Reference to previous Minutes of Council in this connection (September 21st, 1923, March 14th, 1924, May 16th, 1924) recalled that under the Royal Charter granted to the School the Society is entitled to appoint one member of the Court of Governors, which consists of 35 persons. At the first election of Governors in March, 1924, it was submitted that such representation was inadequate recognition of the Society as the representative organisation

of the Public Health Service, the body most closely concerned with the future of the School. In the circumstances the Society had asked to be excused from making a nomination. On May 16th, 1924, the Council considered a letter from the Ministry of Health expressing regret at this decision, and asking that the matter be reconsidered. After full discussion the Council again agreed that representation on the Court of Governors could not be accepted as sufficient recognition of the position of the Society in relation to the development of the School. It was pointed out that under the Charter "the sole management, supervision and control of the School" is vested in the Board of Management, a smaller body of nine members, and thus the Court of Governors, meeting probably once a year, would have no real voice in shaping the policy of the School. The Council therefore asked if it would be feasible for the Ministry to invite the Society to nominate one of the three members of the Board of Management to be directly appointed by the Minister of Health. This suggestion was not accepted, and in default of an election by the Society, the vacancy on the Court was filled by a nominee of the Minister of Health.

After some discussion, it was agreed, by a majority, that the Society having recorded its protest, should now elect a member to the Court in the expectation that the claims of the Society to representation on the Board of Management would eventually be recognised. Dr. G. F. Buchan consented to accept nomination, and his election was carried unanimously.

Election of Committees.—The following Committees was appointed for the Session 1926-27, viz.—

Special Committee on Remuneration of Medical Officers of Local Authorities:—

The President, Dr. G. F. Buchan (Chairman), Dr. R. A. Lyster, Prof. H. R. Kenwood, Drs. E. Ward, Barlow, Sanders, J. Cates, J. M. Clements, J. Fenton, H. R. Kidner, Joseph, Petgrave Johnson, A. F. Cameron, C. E. Wallis, and the Editor.

Special Committee on Food Problems in Relation to Public Health:—

The President, Dr. James Wheatley (Chairman), Prof. Kenwood, Drs. Allan, Lyster, Scurfield, Jameson, Howarth, Veitch Clark, Orr, Barlow, Snell, Ernest Ward, and the Editor.

League of Nations' Courses for Foreign Health Officers:—

The President, Dr. R. A. Lyster (Chairman), Prof. Kenwood, Drs. Barlow, Jolly, Fenton, McIntosh, Ward, Veitch Clark, G. F. Buchan, Cates, and the Editor.

Public Health Research Committee:—

The President, Profs. Bostock Hill and Kenwood, Drs. Buchan, Lyster, Clements, and the Editor.

Health Education Work by Local Authorities:—

The President, Prof. Bostock Hill, Drs. Wheatley, Buchan, Ridley Bailey, Ward, Jameson, Lyster, and the Editor.

Factories Bill:—

The President, Lt.-Col. F. E. Fremantle, Prof. H. Kerr, Dr. G. W. N. Joseph, Dr. Milligan, and the Editor.

It was agreed that representatives of Groups and other members of the Society should be co-opted by Committees when their special experience would be helpful.

The Neech Prize.—Drs. G. F. Buchan and J. Cates were appointed to act with the President and Editor as assessors for the Neech Prize, 1925-26.

Representation of the Society.—The following were elected as representatives of the Society for the ensuing year:—*Joint Tuberculosis Council:* Prof. H. R. Kenwood. *Jubilee Institute of Nurses:* Dr. Lyster. *Smoke Abatement League:* Drs. Barlow and Banks. *National Clean Milk Society:* Drs. Annis and Wheatley. *National Baby Week Council:* Dr. J. Fenton.

Health Education Work by Local Authorities.—Dr. G. F. Buchan reported progress in the preliminary work of the Committee dealing with this subject, and promised a further report for an early meeting of Council.

Chairs for the Council Room.—Gifts of chairs for the Council Room were gratefully accepted from the Metropolitan Branch (7), the Southern Branch, the Northern Branch, and the Midland Branch (5).

Report of the Honorary Editor.—The Hon. Editor (Dr. Charles Porter) submitted his report as follows:—

The period referred to in this report extends only from March of this year, when the Council were good enough to honour me by appointing me Editor of the Society's Journal. The number of pages for the year was 368, as against 380 for the previous year, though had it not been for the General Strike it is possible that the number might have been higher.

In the Annual Report of the Council flattering remarks were made with regard to improvements which had been carried out to the Journal, and as Editor, it is naturally gratifying that the fact that an attempt has been made to make "Public Health" more attractive to readers has been appreciated. I desire that the credit for such improvement as has been made should be fairly allocated, and that the expressions of the Council's appreciation, to which I have referred, should be properly distributed. I have appealed to many members of the Society for assistance in preparing articles, annotations, etc., and have never appealed in vain. I have on more than one occasion discussed the make-up with the printers, and all my suggestions have been received and carried out with the utmost readiness. From Mr. Elliston, the Executive Secretary, I have received the

greatest possible help, and having regard to the extent of Mr. Elliston's journalistic experience, it will readily be accepted that this help and advice were always of an extremely practical and valuable character.

During the ensuing session I look forward to receiving assistance similar to that referred to, and from the same and other sources, and with that assistance trust that the Journal may continue to deserve the appreciation expressed in the Report of the Council.

Report of the Honorary Treasurer.—The Hon. Treasurer (Dr. J. Cates) submitted his report as follows:—

I beg to submit my report as Honorary Treasurer of the Society for the year ended September 30th, 1926.

The Revenue Account and Balance Sheet indicate that the finances of the Society are on a sound basis, although the average annual income of recent years has been barely sufficient to cover the increased expenditure resulting from post-war conditions. Thus during the period 1919-26, there have been excesses of expenditure over income in three years amounting to £416 12s. 8d., the credit balance in the four remaining years totalling £464 19s. 5d. It will be seen, therefore, that the Society has been working on a very narrow margin, and but for the severe economies enforced by my predecessor our position to-day would have been much less favourable. It may be hoped that the revised scale of subscriptions which come into force for the new Session will justify increased but cautious expenditure in directions which will greatly advance the efficiency of the Society as the representative body of the Public Health Service.

As regards the Revenue Account and Balance Sheet the following matters call for comment:—

Income.—The subscription revenue for the seventh year in succession exceeds all former records, the increase on the previous year being £122 19s. 8d. The Journal Account also shows a gratifying increase of £50 under the heading of Sales and Subscriptions, as "Public Health" is now published direct from the House of the Society, with a consequent saving in discount allowances.

Expenditure.—It will be seen that Ground Rent, Lease Redemption and Bank Charges for Overdraft represent the equivalent of a total rental of £307 0s. 9d. for the Society's House. This compares with £175 per annum payable under the old lease, but judging by the revised rentals of other property in the neighbourhood of Russell Square, the Society has retained possession of its headquarters on very favourable terms.

The outstanding item of expenditure is under the heading of Repairs (£273 5s.). With the exception of exterior repainting at long intervals, and some interior work in 1919, no general repairs appear to have been undertaken since the Society first occupied the house in 1905. A complete scheme of repairs and redecoration could therefore be no longer postponed, and the work has been thoroughly done from roof to basement, under the supervision of an Architect who reports that the house is now in first class condition. The total cost will approximate £550, only the first moiety falling due for payment in the session under notice.

The item of £92 10s. for editorial expenditure under the Journal Account, includes an honorarium of £50 voted to the acting Editor for his services during the illness of Dr. Herbert Jones, and charges for reporting, indexing, and sub-editorial work.

The Deficit.—The year's working shows an excess of expenditure over income of £97 7s. 10d.

In reference to the Balance Sheet, it is only necessary to note that in accordance with the wish expressed last year, your Auditor has added a certificate stating the value of the Society's investments as on September 30th, 1926.

In conclusion, I desire to express my appreciation of the very valuable help which has been afforded to me by Mr. Elliston, the Executive Secretary.

The Retiring President.—At the close of business Dr. Sanders expressed the warm thanks of the Council to Dr. G. F. Buchan for his very able occupation of the Chair during the past year. Other members followed with personal tributes to Dr. Buchan's skilful management of the Society's affairs, and the vote of thanks was carried by acclamation. In response, Dr. Buchan stated that although he was vacating the Chair, he hoped he might still render useful service to the Society as a member of Council and Committees.

The Council then adjourned.

ANNUAL GENERAL MEETING.

The Annual General Meeting was held at the House of the Society on Friday, October 15th, 1926, the retiring President, Dr. G. F. Buchan in the Chair.

The Minutes of the last Annual Meeting having been approved and signed, messages of apology for absence were received from Drs. Banks, Barlow, Veitch Clark, Wheatley, Kidner, and D. A. Powell, Lord Dawson, Col. Lyle Cummins, and Lt.-Col. F. E. Fremantle, M.P.

Dr. G. F. Buchan then invested his successor Dr. Ernest Hugh Snell with the Presidential Badge, and in the name of the Society congratulated him on attaining the highest honour in the gift of his colleagues.

On the proposal of Dr. Howarth, seconded by Dr. Charles Sanders, a hearty vote of thanks was accorded to the retiring president.

Annual Reports.—The reports of the Council, the Hon. Editor, and the Hon. Treasurer (see Proceedings of Council) were received and adopted.

Election of Auditor.—Mr. J. T. Harris was re-elected Auditor to the Society for the session 1926-27.

Elections.—The following candidates having

been duly nominated, were elected to the Society:—

As Fellows.—

Back, Marjorie, M.D., B.S. Lond., M.R.C.S., L.R.C.P., D.P.H.; Balsillie, Jessie, M.B., Ch.B., St. And.; Bradford, Robert George, M.B., Ch.B., Glasg.; Bulman John Roderick, M.B., Ch.B., Edin.; Butler, Lily Clarkson, M.R.C.S., L.R.C.P., D.P.H.; Carroll, John Donal, M.C., M.B., B.Ch., N.U.I., D.P.H.; Chatfield, Herbert Troughton, M.C., M.B., B.Ch., Belf., D.P.H.; Crowley, Timothy, L.R.C.P. and S., I.L.M.; Cumming, William Melrose, M.B., Ch.B., Ph.D., St. And., D.P.H.; Dakshinamoorthy, S., M.B., B.S., B.S.Sc.; Dudley, Geoffrey, M.B., Ch.B., Birm., M.R.C.S., L.R.C.P.; Falk, Olive B. (Mrs.), M.B., B.S., Lond.; Findlay, Elizabeth Jardine, M.B., Ch.B., Glasg., D.P.H.; Fyfe, David, M.D., Durh., F.R.C.S., Ed., F.R.F.P.S., Glas., D.P.H., Barr.-at-Law. Gill, John Galbraith, D.S.O., O.B.E., M.C., Major, R.A.M.C., M.B., Ch.B., Ed., D.P.H., D.T.M.; Harvey, George Alfred Douglas, C.M.G., Major, R.A.M.C., L.R.C.P. and S., I., L.M.; Henderson, Eleanor Maud, M.B., Ch.B., Aberd., D.P.H.; Hopper, Madge, M.B., B.S., Durh.; Houghton, John William Hobart, D.S.O., Col. A.M.S., B.A., M.B., B.Ch., Dub., D.P.H.; Hutchison, Peter, M.B., Ch.B., Glasg., D.P.H.; Kemp, Philip Rowland, M.B., Ch.B., Edin.; Laing, Alex. Walker, M.B., Ch.B., Aberd., D.P.H.; Leiper, Robert Thomson, M.D., D.Sc. Glasg., F.R.S.; Marsden, James Aspinall, M.R.C.S., L.S.A., L.S.Sc., Durh.; Marsden, James Pickford, M.A., M.B., B.Ch., Cantab., M.R.C.S., L.R.C.P.; McCreedy, Cedric Cowan, M.B., B.Ch., Dubl., D.P.H., (Capt. I.M.S. ret.); O'Leary, Mary M., M.B., B.Ch., N.U.I., D.P.H.; Priston, Julian Lionel, Surg.-Cdr., R.N., M.B., B.S., Lond., F.R.C.P., M.R.C.S., D.P.H.; Samual, P., M.B., B.S.; Scamman, Clarence L., M.D.; Snodgrass, Margaret Witherow, M.B., Ch.B., Belf., D.P.H.; Strandring, Helen, M.B., Ch.B., Liv.; Thierens, Mildred May, M.B., Ch.B., Liv.; Thomson, Elsie, M.B., Ch.B., Ed.; Thornton, Lewis Henry Douglas, M.R.C.S., L.R.C.P., D.P.H.; Turner, Eileen Maud, M.A., Cantab., M.B., B.S., Lond., M.R.C.S., L.R.C.P., D.P.H.; Wallace, William Semple, M.C., M.B., Ch.B., Glasg., D.P.H.

As Associate.—

Rose, Gilbert John Stuart, L.D.S., Eng.

A number of nominations were received for the November election.

Honorary Fellowship.—On the nomination of the Council, Dr. Herbert Jones was elected by acclamation an Hon. Fellow in recognition of his conspicuous services to the Society.

Presidential Address.—Dr. Snell then delivered his Presidential Address on "Health Administration," which is reproduced in full in this issue.

A vote of thanks to the President was moved by Dr. T. Ridley Bailey, seconded by Dr. Sanders, supported by Dr. C. S. Thomson, and carried unanimously.

The meeting then adjourned.

THE YORKSHIRE BRANCH.

President: Dr. S. Fox Linton, M.O.H., Scarborough.
Hon. Secretary: Dr. G. H. Pearce, M.O.H., Batley.

The Annual Dinner of the Branch was held at the Grand Restaurant, Leeds, on September 30th, 1926, the retiring President, Dr. R. L. Thornley, Medical Officer of Health, East Riding County Council in the chair. With song and story, and some most excellent speeches from, amongst others, Dr. Charles Sanders, Dr. Cecil L. Williams, Dr. T. Gibson, Alderman Dr. D. Walker, J.P., and the Chairman, a most enjoyable evening was passed.

THE METROPOLITAN BRANCH.

President: Dr. G. Quin Lennane, M.O.H., Battersea.
Hon. Secretary: Dr. James Fenton, M.O.H., Kensington.

A meeting of the Branch was held at the House of the Society, on October 1st, 1926, the President occupying the Chair. Fourteen other members were present, and apologies for absence were received from Sir Henry Gauvain and Drs. Howarth, MacMillan and Menzies.

After the minutes had been signed, Dr. G. Quin Lennane delivered his Presidential Address to the members, choosing as his subject "Administrative Housing Problems." Keen interest was taken in the President's excellent paper, following the reading of which a hearty vote of thanks was proposed by Dr. Porter and seconded by Dr. Annis. This vote was supported in an appreciative speech by Dr. Clark Trotter, and carried unanimously. It was resolved that the paper should be sent to the Editor of "Public Health" for publication.

After a consideration of the Public Health (Puerperal Fever and Puerperal Pyrexia) Regulations, 1926, the Branch expressed the opinion that the obstetric consultant to be appointed in connection with cases of puerperal pyrexia should not be (i) an Assistant Medical Officer doing other work under a council (ii) a medical officer under a maternity and child welfare scheme, or (iii) a medical officer in charge of a maternity home, but a recognised obstetric specialist in private consulting practice, who should be paid a fixed honorarium per annum and not a fee per case.

The Branch considered correspondence from the County Medical Officer on the

subject of the disinfection of midwives after cases of puerperal fever, and decided that they were in favour of leaving this duty entirely to the London County Council, the local supervising authority under the Midwives Acts. The Branch further indicated that they favoured the proposal that the London County Council should supply a certificate to the Borough Medical Officer when the County Council, as local supervising authority, was satisfied that the midwife could return to work. The opinion was expressed that such a certificate should be sufficient for the Borough Medical Officer of Health, but that this rule should not apply if there should be some other infectious disease in addition to puerperal fever.

A Sub-Committee of the Branch appointed in the matter of the Draft Revised Drainage Bye-laws for London, reported that they had drafted a communication indicating certain amendments to the Draft Bye-laws, and that this communication had been submitted to the Metropolitan Boroughs' Standing Joint Committee, the London County Council and the Metropolitan Borough Councils. The Branch expressed approval of the action taken.

During a consideration of the Milk and Dairies Order, 1926, attention was called to the fact that persons who do not sell milk, except in unopened containers exactly as received, do not require to be registered with the local authority. The Branch approved of the suggestion that each Medical Officer of Health should keep an unofficial register of those unregistered traders who sell bottled milk, in order that their premises and trade practices might be kept under careful supervision.

The attention of the Branch was called to Section 42 of the London County Council (General Powers) Act, 1926, which confers on the County Council and Metropolitan Borough Councils powers similar to those granted to non-metropolitan authorities by Section 67 of the Public Health Act, 1925, in connection with the publication of information on questions relating to health, the delivery of lectures and the display of pictures (including cinematograph exhibitions). The Branch expressed the opinion that propaganda in regard to those matters under the supervision of the County Council should be left to that authority and that propaganda in regard to those matters administered by the Borough Councils should be left to such bodies.

The Honorary Secretary suggested that attendances at meetings of the Branch might be improved if a day were fixed in each month for the holding of meetings of the Council of the Branch at which matters of special interest to the Medical Officer of Health might be discussed. In addition there should be three or four meetings of the Branch each session for the reading of papers, and for the receipt of reports of the proceedings of the Council meetings. Dr. Lethem suggested that a programme of meetings for some months ahead should be circulated so that the dates of meetings of interest to individual members might be noted in appointment books. It was decided that the question of the arrangement of the future meetings of the Council and of the Branch should be placed on the next Council agenda for consideration.

THE NORTHERN BRANCH.

President: Dr. Roderick Macleod, M.O.H., Hetton, Durham.

Hon. Secretary: Prof. Harold Kerr, O.B.E., M.O.H., Newcastle-upon-Tyne.

The Annual Meeting of the Branch was held in the Medical Institute, 7, Windsor Terrace, Newcastle-upon-Tyne, on October 8th, 1926, the President and 18 other members being present.

The Minutes of the last Annual Meeting (October 2nd, 1925) were taken as read. The Minutes of the Summer Meeting (June 26th, 1926) having appeared in "Public Health," were taken as read and signed by the Chairman.

Letters of apology for absence were received from Drs. T. Eustace Hill, Jas. W. Smith, A. Smith, Jas. Hudson and Mabel Campbell.

A letter from Mrs. Mostyn conveying her gratitude to the Branch for the expressions of sympathy in her loss was ordered to be entered in the Minutes.

Letter from the Executive Secretary regarding Gift of Chairs for Society's Meeting Room.—The following resolution from the Council of the Branch was submitted:—

"That the Northern Branch defray the cost of providing one chair for the Society's Meeting Room in London."

Installation of Dr. Roderick MacLeod as President of the Branch.—The retiring President vacated the Chair, and after introducing

his successor, Dr. Roderick Macleod, said that his two years as President of the Branch had been very pleasant. He was glad to see that the Society was getting stronger, and in his opinion the scale of salaries which had been fixed for Public Health Officers was something for which the Society could be proud.

Dr. MacLeod thanked the members for the honour they had conferred upon him in electing him President of the Branch, and paid tribute to the able and kindly manner in which Dr. Dickinson had carried out his duties.

The Annual Report of the Council was read and approved.

Election of Branch Council.—The following were elected as members of Council:—Drs. W. H. Dickinson, T. Eustace Hill, James A. Hislop, Mary E. Howie, W. Hudson, Isabel Lane, R. F. Lunn, J. M. MacLachlan, T. N. V. Potts, Jas. W. Smith, A. F. G. Spinks, W. F. J. Whitley, and the President (Dr. R. MacLeod), Vice-President (Dr. Jas. Bannerman), and Honorary Secretary (Dr. H. Kerr) *Ex-officio*.

Date of next Meeting of the Branch and of the Annual Dinner.—It was resolved that the date of the next Meeting of the Branch, and the arrangements for the Annual Dinner be left in the hands of the President and Honorary Secretary.

Members' Attendances at the Meetings.—Dr. M'Gonigle referred to the return of attendances issued by the Honorary Secretary for the past session, and said that he observed that School Medical Officers' attendances were very poor. In his opinion this was due to School Medical Officers having to plan out their school visits so far in advance that it meant the cancelling of an afternoon clinic to attend the Branch Meetings.

After discussion it was decided to leave the matter to the Honorary Secretary, who would write the Chief School Medical Officers within the area of the Branch.

Presidential Address.—Dr. R. MacLeod gave his Presidential Address on "Public Health Questions and Public Health Medical Officers," and invited discussion in which the following took part:—Drs. Bannerman, Dickinson, Young, Kerr and M'Gonigle. On the motion of the Vice-President (Dr. James Bannerman), which was seconded by Dr. Dickinson, the President was accorded a hearty vote of thanks for his interesting address.

THE MIDLAND BRANCH.

President: Dr. G. B. Dixon, Chief T.O. and Medical Superintendent, Birmingham.

Hon. Secretary: Dr. R. H. H. Jolly, M.O.H., Wolverhampton.

The first meeting of the Session was held at the City Sanatorium, Yardley Road, Birmingham, on October 7th, 1926, twenty members being present.

The retiring President (Dr. W. H. Davison) introduced Dr. G. B. Dixon, and referred to his important position in the Tuberculosis Medical Service and his great knowledge and experience as a clinician. Dr. Dixon suitably thanked the members for electing him President for the year.

Apologies for unavoidable absence were received from Drs. Auden, Gibbons Ward, Goldie, Hamilton Wood, Clarke, Millard, Peebles, Petgrave Johnson, Sharpley, Parker, and Clendinnen.

The Hon. Secretary reported with regret the recent death of one of the senior members of the Branch, Dr. G. B. Buttery, M.O.H., Oldbury, and stated that a wreath had been sent in the name of the Midland Branch.

The following communications were read: (1) From the Editor of "Public Health," stating that he would be glad to receive news items of local interest, etc. This was referred to the Branch Correspondent.

(2) From the Executive Secretary suggesting that the Branch might be willing to offer as a gift to the Society special chairs of approved design to be used by their representatives of the Council. It was resolved that the Midland Branch offer to provide five chairs for their own representatives, and for others elected directly by Council.

(3) From Dr. Ridley Bailey calling attention to the Annual Dinner on November 18th, and expressing the hope that members of the Midland Branch would attend in force in support of the President, Dr. Snell.

An extremely instructive collection of uncommon cases constituted the basis of Dr. Dixon's Presidential Address on "Some interesting cases of Pulmonary Disease other than Tuberculosis." There were instances of Silicosis, Echincoccus Disease and Pulmonary Syphilis. The history and clinical symptoms of every case were given in full, and the appearances revealed by X-rays were reproduced on the screen by means of lantern slides. The subject, as handled by the

lecturer, became the most valuable address to clinical and administrative officers alike.

Dr. Snell moved a warm vote of thanks to Dr. Dixon for his address, and alluded to the value, particularly to clinicians, of the somewhat unusual cases recorded. The vote was carried with acclamation.

Dr. Jolly then proposed, and Dr. Bertram Smith seconded, a vote of thanks to the retiring President for his valuable services during the past year, and this too was carried unanimously.

At the conclusion of the meeting the President entertained the members to tea.

THE SOUTHERN BRANCH.

President: Dr. A. D. Edwards, M.O.H., Bournemouth.

Hon. Secretary: Dr. H. D. Kelf, Asst. M.O.H., Hants. County Council.

The first meeting of the Session 1926-27 was held at Winchester on October 1st, 1926.

There were present: Drs. A. Druitt, A. D. Edwards, W. J. Hart, H. D. Kelf, Lockhart Livingston, J. G. McNaught, A. B. Shed, W. Simpson, T. S. Stirling, G. Tate, Surg.-Capt. P. F. Alderson, Mr. R. E. Hodgson (Dental Officer), and Dr. B. L. Lloyd (visitor).

Dr. W. J. Hart, the retiring President formally introduced the new President, Dr. A. D. Edwards, to the Chair.

A hearty vote of thanks was passed to Dr. Hart on his successful year of office as President.

Dr. A. D. Edwards then gave his Presidential Address on "Perspective in Public Health," taking Man, the Biped, through his evolutionary stages—anatomical, mental, and resistant powers against infection, etc. An interesting discussion followed.

The Branch resolved unanimously to vote the sum of £3 for a special chair with desk attachment for the use of its representative at the Council meetings.

A message of congratulation was sent to Surgeon Rear-Admiral R. J. Mackeown (who was President of this Branch 1921-22) on his recent promotion.

Clinical notes were given by Dr. W. Simpson on a case of Spina Bisida, and questions were asked concerning the working of the new regulations on Puerperal Fever and Puerperal Pyrexia.

THE DENTAL OFFICERS' GROUP.

President: Frederick Breese, Esq., L.D.S., D.O., London County Council.

Hon. Secretary: J. Eric Magraw, Esq., L.D.S., D.O., London County Council.

The Annual Meeting of this Group was held at the House of the Society on September 21st, 1926.

The Minutes of the previous meeting were read and approved.

The following were elected officers for the Session 1926-27:—

President, Mr. F. Breese; Vice-president, Mr. C. E. Wallis; Treasurer, Mr. George Thomson; Secretary, Mr. J. Eric Magraw; Editor, Mr. H. W. Breese; Group Representative on the Council of the Society, Mr. C. E. Wallis.

The next General Meeting was arranged for November 10th, 1926, at 8.0 p.m. at the rooms of the Society.

THE NORTH-WESTERN BRANCH.

President: Dr. C. W. Paget Moffatt, M.O.H., Bolton.
Hon. Secretary: Dr. G. W. N. Joseph, M.O.H., Warrington.

An Ordinary Meeting of the Branch was held in Manchester on October 15th, 1926, twenty-five members being present.

Dr. Veitch Clark introduced Dr. Paget Moffatt to the Chair as President for the ensuing Session. A hearty vote of thanks to the retiring President was proposed by Dr. Wood, seconded by Dr. Stallybrass, and unanimously carried.

The President then delivered his Address, on "The Milk Problem." He dealt first with its value as a food, and quoted statistics from the report of Dr. Corry Mann to the Medical Research Council on "Diets for Boys during School Age," which went to show that milk cannot be replaced by any other article of diet for children and adolescents. However, the average consumption of this valuable food in this country is only $\frac{1}{4}$ pint per person per day, compared with $\frac{3}{4}$ pint in America. He considered that we should recommend milk as an addition to the diet of all children and growing youths. He next instanced the diseases that could be conveyed by milk,

especially tuberculosis, and therefore the extreme necessity there was for a pure milk supply.

Although recent regulations with regard to certified and graded milks were a step in the right direction they failed to give the supply we needed. There appeared to be no alternative to pasteurisation. Although pasteurisation had been looked on with disfavour in this country it was a fact that 99 per cent of all milk in the large towns in the United States was pasteurised. In conclusion, Dr. Moffatt showed that there was no foundation for the objections which had been raised to the process.

A vote of thanks to the President for his excellent address was accorded him on the proposition of Dr. Barlow, seconded by Dr. Butterworth.

A recommendation from the Committee that 3 chairs should be purchased and presented to the Council of the Society for the use of the Representatives of the North-Western branch was approved.

The Annual Dinner of the Branch will be held at the Queen's Hotel, Piccadilly, Manchester, at 7 p.m., on Friday, December 10th, 1926. Tickets (exclusive of wines) 12s. each, obtainable on application to the Hon. Treasurer, Dr. H. H. I. Hitchon, Rock House, Heywood.

THE Minister of Health has addressed a circular (No. 736) to local authorities on the subject of the provision of facilities for practical training of candidates for sanitary inspectors' certificate. Such training is essential for compliance with the regulations of the Royal Sanitary Institute and Sanitary Inspectors' Examination Joint Board, and it is suggested in the circular that local authorities can assist, either by appointing an intending candidate an assistant to the sanitary inspector or assistant in the Public Health Department for a year at a small salary or by arranging a course of instruction and training in the work and duties of a sanitary inspector, which could be approved by the Joint Board. The instruction, no doubt, would have to be given by the staff. The circular adds that "the candidates attending such a course might fairly be expected to pay to the Council a reasonable fee for the instruction."

Reviews.

THE HISTORY OF SMALLPOX IN AUSTRALIA, 1909-1923. Service Publication No. 29, Commonwealth of Australia Department of Health. By J. H. L. CUMPTON, M.D., D.P.H., Director-General of Health and Director of Quarantine, and F. MCCALLUM, M.B., B.S., D.P.H., Quarantine Officer. Melbourne: H. J. Green, Government Printer, 1925. pp. 243.

This report, in continuation of No. 3, on the same subject dealing with years 1788 to 1909, is full of epidemiological information of the utmost value and interest. Of its many excellent features, that which we like best is its straightforward practical detail, of a kind that is most useful to colleagues in other parts. New South Wales, Victoria, Queensland, South Australia, Western Australia and Tasmania all tell their various tales. Tasmania's is told in a single line; it had no smallpox in the period under review. Western Australia had 7 cases resulting from one imported case; South Australia had one imported case, and one case only resulting from it. Queensland had five cases, whose origin was unascertainable. Victoria had seven cases, two of which originated from a Lascar who was landed in the pre-eruptive state. New South Wales had about 2,400 mild cases spread over a period of five years, infection it was believed having been introduced from America.

There are given details of 82 vessels, in all, from which smallpox might have been introduced into Australia; but the disease succeeded in effecting an entrance on four occasions only; the infection, only in two instances, being severe in character.

Other chapters deal with the present risk to Australia from smallpox, and give information as to the quarantine system, the world course of smallpox in reference to Australia, vaccination in Australia, and other epidemiological details.

The inception of uniform measures of maritime quarantine in all parts of the Commonwealth dates from 1909. It is stated that "a very complete system has been evolved, carefully thought out in each technical detail, and amended from time to time in accordance with the practical experi-

ence gained by the quarantine staff in handling vessels in quarantine. It has been hoped that the analysis of records relating to the quarantine of vessels and to the outbreaks that have occurred during the period, may give an indication of the utility or the weaknesses of the present quarantine system and procedure, at the same time recording and reviewing the epidemiological record of the behaviour of smallpox in Australia. The aim of such an epidemiological survey is wholly towards the perfecting of preventive and control measures under Australian conditions, at the same time bearing in mind the transport and economical necessities of modern life."

That a whole continent like Australia has, generally speaking, been kept so remarkably free from smallpox is a strong testimony to the efficiency and skill of the responsible administrators. This is the more remarkable since it is stated that for practical purposes the Australian community is unprotected by vaccination.

PUBLIC HEALTH DEPARTMENT—Organisation and Administration. Pitman's Municipal Series. By W. A. Leonard, Chief Clerk, Public Health Department, Birmingham. London: Sir Isaac Pitman and Sons, Ltd., 1926. pp. 148. Price 6s. net.

The main bulk of this book consists of specimens of forms, leaflets, etc., suitable for use in the infinity of different activities in which a Public Health Department is concerned. Mr. Leonard appears to have omitted nothing, and his hope that those he has supplied will be of interest and use both "to those who are already engaged in Public Health Work and to those who wish to qualify themselves for such work" may be regarded as justified. Of his claim that sufficient detail is given to enable the reader "to gain an intelligent idea of what Public Health Administration is like," this cannot be said. The matter provided does no more than serve as an introduction and in explanation of the forms shown and to claim that it does more was quite unnecessary. Mr. Leonard has made his selection carefully and in arranging his material has had regard to the convenience of the many who will find the work useful for reference.

HEALTH COMPENDIUM AND HEALTH PUBLICITY.

By T. Crew, F.F.I., F.I.H., Clerk to the Leicestershire Insurance Committee. Leicester: The Reader Printing Co., Ltd., 1926. pp. 260. Price 7s. 6d.

With regard to this book, Mr. Crew, who compiled it, says in his preface that the motive underlying its preparation "has been the Cause and Maintenance of Health, and to place information appertaining thereto at the disposal of public bodies and persons interested in the Fight against Disease, in order that a healthier and happier race may be predominant in the future." The motive is a good one, and the compilation, which must have involved a vast amount of labour, has been excellently done. Practically not a body concerned in any way in health and health propaganda work in the country escapes reference, and from all over the world, it would seem, health leaflets and posters have come, and have been reproduced for the inspiration and guidance of persons to whom the duty of educating the public in such matters is entrusted. To these the Compendium will prove of the utmost value, and is most strongly recommended.

A PRACTICAL HANDBOOK ON RAT DESTRUCTION. By C. Leopold Claremont, B.Sc., F.I.C. London: John Hart, 1926. pp. 180. Price 3s. 6d.

In this little volume the author has contrived to deal in a comprehensive manner with the many aspects of the rat problem and the means available for the destruction and control of these pests. The information is up-to-date, and the various methods are clearly and fully discussed in all their bearings. The book is primarily addressed to Officers of Local Authorities who have to administer the Rats and Mice (Destruction) Act, 1919, and it admirably fulfils this intention, containing information difficult or impossible to find elsewhere. At the same time, the purely technical portions are treated in such a way that the book will furnish the general public with authoritative information on an important economic and hygienic problem which frequently affects their health and pocket. On the practical side, the use of rat poisons is dealt with in considerable detail as might be expected from the author's professional qualifications. On the more theoretical side,

the legislation on the subject is discussed and criticised and some speculations are indulged in on the future aspects of the rat problem. The habits and identification of rat species are also adequately dealt with. In a future edition it may be hoped that more space will be devoted to rat-proofing, for though its importance is recognised it is dismissed in a somewhat summary manner. The book is of a handy size for the pocket, is well indexed, and the printing and general get-up are good. Considerations of space and cost, it is presumed, account for the cramped appearance of the illustrations which mars the otherwise excellent photographs of rats. Altogether a very useful book.

Hospital Isolation of Measles.

THE Metropolitan Asylums Board have decided that, in view of the much higher mortality of measles and its far greater destructive effect on child life, the present practice of always admitting to their isolation hospitals cases of scarlet fever in preference to measles should be abandoned.

There will be in future a definite allocation of beds to the two diseases, and the allocation will be revised periodically in relation to the requirements of the moment. In times of measles prevalence the larger proportion of accommodation will be given to measles.

DR. IAN CAMPBELL MACKAY, an Assistant Medical Officer of Health for Durham County, and formerly of the Croydon Health Department, has been appointed Deputy Medical Officer of Health for Derbyshire.

UNDER the Presidency of Mr. Neville Chamberlain, Minister of Health, the National Milk Conference, which was postponed owing to the General Strike, will be held at King George's Hall, Caroline Street, Tottenham Court Road, London, on Tuesday, November 16th, 1926. Mr. Wilfred Buckley, C.B.E., will be Chairman of the Conference, and amongst others taking a prominent part are Prof. H. R. Kenwood, and Dr. T. Orr, Medical Officer of Health, Ealing, representative of the Society of Medical Officers of Health on the National Clean Milk Society, who is Chairman of the Conference Committee.

PUBLIC HEALTH

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Editorial.**School Closure.**

IN connection with the outbreaks of poliomyelitis that have occurred recently in certain public schools, apart from the alarm aroused by the mere appearance of the disease in institutions and circles believed to some extent to be entitled to immunity from such an infection, much discussion has taken place on the rights and wrongs of the action of one of the headmasters in closing the school immediately on the occurrence of two cases. As a result of this action some five hundred boys were returned to their parents for a period of several weeks round about the middle of term, in a large number of instances

just when they were not wanted, and, worse still, all of them under such a cloud as was calculated to produce feelings of dread and alarm in the minds of their parents and guardians. How keen the alarm, and how intense the dread very many Medical Officers of Health were very soon made aware, since the instruction given to each boy included one that his parents were at once to report his return and the reasons therefor to the local Health Officer. In few cases did it stop at reporting, and the Medical Officer was called upon to hear and sympathise with all the fears expressed, to offer such comfort as he could and to offer reasons in favour of or against the

adoption of various measures designed for the protection of sons and brothers. No doubt it was because so much alarm was aroused that certain distinguished physicians felt called upon to make public protest against the action adopted, and to say things derogatory of school closure as a weapon wherewith to fight threatened outbreaks in schools. That these writers were justified in giving the reasons they set down as detracting from the value of school closure is certain. What may be questioned is the justice of blaming the school authorities for adopting it. In connection with the combating of school epidemics there is probably no measure to which greater attention is given, or in respect of which fuller details are offered as to the method of procedure. Because of the amount of discussion devoted to it, to any individual who has not infectious disease prevention as part of his daily work it is made to appear the most important of all the steps that may be taken, and the one most likely to prove effective. To those who are continually engaged in Public Health work it is probable that there is no procedure that appeals less, that is adopted with less enthusiasm. Faced with the possible necessity of putting it into operation the advisability of doing so is invariably debated seriously and at the greatest length and in relation to all the circumstances and the disadvantages that may arise. Of all the disadvantages probably that referred to by the physicians mentioned, namely, that there is a scattering of possible foci of the disease, is one of the most important. The obvious thing to do in the case of an epidemic, in the view of the epidemiologist, is to localize it, to keep the disease where it occurred, to isolate the infected at once, and to insure that the contacts are under the investigator's eye. Like the detective enquiring into a murder the epidemiologist wants to find things as they were when the crime was committed. Most valuable evidence may be lost if there is scattering of the pupils of an infected school, and because of the difficulty of maintaining supervision one or more subsidiary epidemics may be set up by infection carriers or by individuals attacked later and overlooked for a time. Perfectly obvious to the student of epidemics and those who work at their prevention, these points would not necessarily occur to others. More particularly they might not occur to an educationalist and an individual who primarily is *in loco parentis* to

each pupil. His feeling, it may be taken, is for the individual child and the individual parents, and it is quite conceivable that he might argue that less anxiety and alarm would be aroused if the parents had their child under their own roof and eye. Very easily can fault be found with those who see in the breaking up of the school and the exclusion of all pupils a means of cutting short an epidemic in such an institution. The vast amount of talk that is made with regard to the procedure suggests that it is a course most highly thought of. Also it creates the impression that something big and definite is being done, and that there is somewhere about somebody with the touch of a Mussolini.

* * * * *

The Training of the Sanitary Inspector.

THE Royal Sanitary Institute and Sanitary Inspectors' Examination Joint Board was set up by the Ministry to hold Examinations and grant Certificates of Competency for the office of Sanitary Inspector, and to prescribe courses of training calculated to ensure the fitness of persons qualifying for that office. In connection with the course of training which has now been prescribed, certain practical work in a Public Health Department is necessary, to wit: Having undergone practical training in the work and duties of a Sanitary Inspector, which must be either (i) having held office of Surveyor, Assistant Surveyor, Sanitary Inspector, Assistant Sanitary Inspector, or Health Visitor to a Local Authority for at least one year; or (ii) having worked day by day in a Public Health Department for a period of at least one year, in evidence of which a certificate from a Medical Officer of Health must be submitted stating that the candidate has received practical instruction for not less than 300 working hours; or (iii) having attended in one or more Public Health Departments a course of instruction and training in the work and duties of a Sanitary Inspector approved by the Board; or (iv) having had practical experience for at least three years in one or other of the building crafts, for which a certificate from the employer must be submitted, and, in addition, having undergone training in a Public Health Department as set out in paragraph (ii) for a period of not less than six months during which the candidate must have received practical instruction for not less than 150 working hours. Provided that the Board

may, in any special case in which they consider it desirable so to do, accept other qualifications as equivalent to those named in this Regulation.

Circular 736 of the Ministry of Health is addressed to Local Sanitary Authorities asking them in one way or other to make provision for the practical training in Health Departments of student inspectors. It is suggested that the local authority might arrange to appoint an intending candidate as assistant to the Sanitary Inspector for the required period of a year at a small salary, or that a suitable course of training approved by the Board might be instituted in a Health Department, the candidate being required to pay a fee to the local authority for the instruction given. No doubt a sufficient number of authorities will adopt one or other of the courses mentioned so as to afford the number of candidates for the certificate suitable training grounds.

The Sanitary Inspectors' Joint Board are anxious that a Sanitary Inspector should be a man with sound general educational attainments, a knowledge of one of the building crafts and a thorough training in the duties of a Sanitary Inspector.

The present development of the training and examination for the office of Sanitary Inspector is the outcome of the work of Medical Officers of Health over a large number of years. There are few Medical Officers of Health in this country holding leading positions in their profession who have not appreciated the need for the teaching of assistants in Health Departments, and taken a large share in the teaching of assistants of every description. The work of a Health Department is highly technical, and it is very necessary that all the workers in it should be well trained.

The training to-day for a future Medical Officer of Health is long and varied, and superimposes on ordinary medical knowledge a knowledge of social conditions as they affect the health of the people and a knowledge of the application of the principles of prevention of disease. In this daily work of a Health Department the Medical Officer of Health is assisted by numerous workers including Sanitary Inspectors and Health Visitors and it has been the business of Medical Officers of Health to see that these essential workers in their departments have received adequate training for the efficient discharge of their duties.

The setting up of the Royal Sanitary Institute and Sanitary Inspectors Joint Board, and more recently the setting up of the Health Visitors Examination Committee of the Royal Sanitary Institute, are the results of the efforts of Medical Officers of Health to secure that the personnel of the Health Department is adequately and suitably trained.

The Public Health Service in particular and the public generally, owe a great debt of gratitude to those Medical Officers of Health who have led the way in England in this respect and it is hoped that due recognition will be given to their efforts. Especially it is hoped that Medical Officers of Health in the active practice of their profession will be taken into the counsels of the higher bodies which are now engaged in the discussion of the training courses to be prescribed for and given to future Medical Officers of Health so that these officers may be properly trained for the practice of their special branch of medicine. Public Health, in contradistinction to other medical specialisms, is not dependent for its success on the skill of the medical man alone, but on the accurate observations of the assistants, medical and non-medical, in the department, and the extent to which they work together as a team. It is the recognition of this fact, urged by Medical Officers of Health for years, which has been instrumental in the recent establishment of a Board for the uniform examination and training of Sanitary Inspectors and a similar Committee for Health Visitors.

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The National Milk Conference.

THE National Milk Conference, convened by the National Clean Milk Society on 16th November, 1926, at King George's Hall, Tottenham Court Road, London, had for discussion the general subject of "Milk in Relation to Public Health." At the outset the Chairman, Mr. Wilfred Buckley, an indefatigable worker in the cause of clean milk, whose enthusiasm is unabated no matter what difficulties are placed in his way by those agricultural associations who are opposed to progress, urged the increased consumption of milk with the claim of its high dietetic value. He had, however, to admit that the hygienic quality of the milk as ordinarily sold was not what it ought to be, and particularly insisted on the elimination of the danger of tuberculosis from infected milk. He stated that he would prefer that the public should consume raw milk that is above suspicion,

but that if it is not above suspicion it should be treated by pasteurisation as defined by the Milk (Special Designations) Order. In addition, he appealed for co-operation between the producers, distributors and Public Health authorities and suggested that more could be accomplished by education than coercion.

Dr. Harriette Chick, in an admirable paper, laid emphasis on the great value of milk as a food, particularly for young children, and dealt succinctly with its chemical composition and its accessory food factors in relation to nutrition. She had, nevertheless, to point out the risk of tuberculosis from the consumption of infected milk, but expressed the belief, based on recent research work on the subject which she quoted, that this risk could be eliminated by heating the milk to 145° F. for 30 minutes; in other words, by "positive holder" pasteurisation as opposed to the "flash" method which has given such unsatisfactory and irregular results.

Dr. Nathan Raw referred to the number of children affected with tuberculosis of bones and glands in consequence of being infected in early life by the drinking of tuberculous milk. He said he regarded the elimination of tuberculous cows from our herds as impracticable, but advocated the immunisation of all calves directly after birth and the pasteurisation of all milk by the approved method.

Dr. Savage amplified the remarks of Dr. Chick regarding the danger from milk containing the tubercle bacillus, and took occasion to enter his protest against those who claimed some value in the immunising properties of tubercle-infected milk. He derided such a form of immunisation and denounced it as not only unscientific but dangerous. This expression of opinion met with the general approval of the Conference.

The Minister of Health, Mr. Neville Chamberlain, M.P., at the opening of the afternoon session, in a speech which was charmingly delivered, seemed to traverse the ground covered by others at the morning session, but his summing up of the subject, besides adding weight to the pronouncements of previous speakers, made a good introduction to the discussion of the suggestions put forward by the various public bodies and individuals for the improvement of the milk supply. Professor Kenwood, who took part in this discussion in the afternoon, pointed out that much had been accomplished in the way of an improved milk supply in recent years, particularly in London and the large towns, and said that from this improvement he was encouraged to hope for much greater pro-

gress in the future if all interested would co-operate to the fullest extent.

The impression gained from the Conference was that there was no new proposal to put forward for the immediate remedy of the condition of our milk supply but that, as the whole problem was beset with many difficulties, we must go on educating all concerned, co-operating when possible and coercing with the legal powers at our disposal when other means fail. Above and beyond all, there was the general feeling that prevention must be the keynote of our action and that pasteurisation was only a confession of failure.

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Dental Caries in the Wilds.

SO much has been written on the subject of the causes of degeneration following upon the trend of civilisation that it behoves us to call a halt with a view to examining the credentials of the speakers and to weigh the evidence upon which their statements are based. One of the popular subjects for discourse is the teeth. We are assured that the chief, if not the only, cause of dental caries in the white races is ascribable to food and nutrition, and that the teeth of savages on the other hand compare very favourably with those of the white races.

It is refreshing therefore to obtain information at first hand and so to examine these statements; this information is now obtainable from a very painstaking and able article by Dr. C. Louis Leipoldt, printed in the September, 1926, number of the Medical Journal of South Africa. Dr. Leipoldt obtained his information at first hand by examining the teeth of Bantu children living in the Kraal native villages in the Transvaal.

In this article he summarises the result of the medical examination of 6,179 school children for dental defects. They are as follow:

All children with apparently sound teeth 14.9 per cent.

Boys with apparently sound teeth, 12.6 per cent.

Girls with apparently sound teeth, 20.3 per cent.

In other words, less than 20 per cent. of native children, living more or less in primitive surroundings, had perfect teeth. These examinations evidently were carried out in great detail; for "in every case," says Dr. Leipoldt, "an attempt was made to obtain particulars on two important points. The first was the child's nutrition, before and after birth, and whether

its cognates were largely omnivorous or primarily mealie eaters. The second point was the occurrence of zymotic and other diseases in the family or in the child." As a result of this survey it was found that fully 45 per cent of these aboriginal children can be taken to be mildly physically defective, largely due to the malnutrition that is so common among them owing to the introduction of mealie meal as a staple diet. Nearly all the children examined were said to have been breast fed; of these a certain percentage were malarious; there was no obvious rickets although septic adenoids, enlarged turbinates and septic tonsils were present.

The conclusions arrived at by Dr. Leipoldt, and they appear to be obvious, were that there was no great difference between the present day European child and the pure aboriginal child as regards incidence of caries in the primary teeth. There was, however, a slight difference as regards the permanent set, and this difference was in favour of the aboriginal.

Dr. Leipoldt sounds a warning note. He writes: "It is a common presupposition that aboriginal children are less prone to certain diseases, to which some imaginative members of the profession, and a large number of laymen, have attached the adjective 'civilised.' We are told on utterly insufficient data, that cancer, nasal polypi, haemorrhoids, constipation, caries of the teeth and even venereal disease, are less frequent among aborigines than among whites. The repetition of this assertion has won for it a prestige that far exceeds its probability."

Reviewing the question of oral hygiene, Dr. Leipoldt writes: "Equally much ought we to make the public realise that the indiscriminate use of the tooth brush is no deterrent against caries. In fact, my experience in school leads me to think that the use of tooth brushes is responsible for much oral sepsis. A tooth brush is exceedingly difficult to clean, it is almost impossible to sterilise. Tooth brush drill in certain schools, and the use of tooth brushes in institutions, have led to a spread of pyorrhoea, and much of the caries of teeth in urban areas is undoubtedly due to the use of infected and dirty tooth brushes. *That is their positive danger.*"

"I have long ago given up advising the use of the tooth brush; I invariably advise rinsing the teeth with the moistened finger, and using a cotton thread between the interstices. A slip of litmus paper is another useful thing with children; they can be taught to use it to find out the acidity in their mouths, and to clean their

teeth properly and patiently when the litmus registers a bright red."

Dr. Leipoldt points out that caries is essentially a deficiency disease and that the proper prophylaxis against it requires a system of ante-natal care. He also expresses a doubt of the usually accepted statement that bottle-fed babies have worse teeth than breast-fed babies. Because they may be found useful Dr. Leipoldt's conclusions on this and other points may be summarised:

1. There is no difference, so far as incidence of dental caries is concerned, between European and native children;

2. There is no difference in such incidences between groups that are bottle or breast-fed.

3. Whatever difference there is in such incidence in children living in hard-water districts is due to ante-natal conditions;

4. The incidence of caries is determined before the child is born, not afterwards; it is determined by the health and nutrition of the mother;

5. Differences in diet have no marked direct influence upon the teeth of native children, and probably equally little upon those of white children;

6. Calcium, in the shape of inorganic lime salts, has no influence whatever upon the incidence of caries;

7. Glandular insufficiency appears to bear some relation to early and severe caries; our knowledge is as yet totally incomplete as regards the manner in which this relationship is determined.

8. The use of the tooth brush never arrests caries, may promote the disease and is useless in the mass, however useful it may be in the case of selected children, who can afford to get a new one every month at least. The use of the silk thread is preferable, but simple rinsing of the mouth with an alkaline solution, especially before bed time, is the cheapest and most efficacious method of retarding caries.

9. The only economic way to deal with caries is to prevent it by ante-natal care, especially as regards sepsis in the mother. The establishment of a few ante-natal clinics will thus do far more good than the establishment of dental clinics.

* * * *

The Steam Waggon.

A STEAM waggon "belching forth fire and smoke with volcanic fury" in its attempt to draw a heavy load at rapid speed

through a busy thoroughfare is not a pretty sight to see. Yet it is a spectacle which is becoming increasingly common. The large quantity of smoke and grit emitted by these products of civilisation is a source of inconvenience to the crowd walking on the footpath or travelling on conveyances, and it serves still further to pollute the air which, in large cities at any rate, is already foul with fumes from petrol and oil. The reaction which occurs in the mind of the earnest sanitary officer on seeing this spectacle must necessarily be one of disgust and anger, and he will surely ask himself "What can I do to stop this kind of thing?" A little enquiry will convince him that at the moment his powers are limited, and are likely to remain so. He may read with pleasure Section 30 of the Highways and Locomotives (Amendment) Act, 1878, which insists that highway locomotives shall be constructed on the principle of consuming their own smoke, and he may think that this section will enable his Council to keep these vehicles off the streets until a principle has been discovered which will make possible the construction of really smokeless steam waggons. He will suffer depression on realising that this section applies only to the heavier road engines. The lighter steam waggons do not come within its scope, and the Public Health Act, 1875 would be difficult to apply. So far, no one seems to have discovered how to proceed with success in the matter.

In the meantime the number of these vehicles on the road is, we believe, increasing, presumably because they have proved successful from the point of view of the transport engineer. They appear to be powerful, speedy and economical, and to have proved themselves a necessary portion of transport organisation. But the smoke nuisance indicates that they have not yet attained their final and most efficient phase of development. It is sincerely to be hoped that designers will pay some attention to the possibility of avoiding the emission of smoke and grit. Already it is evident that some varieties produce less nuisance than others, and we are informed that those having boilers fired entirely by coke are the least offensive. The construction of a furnace which will achieve something approaching perfect combustion while keeping up a high steam pressure in the boiler may be thought no easy matter in view of the limited space available,

but we commend the problem to the study of the engineers who have these matters in hand. Until the engineering problem has been solved, so that it can truly be said that a steam waggon can be run without giving rise to nuisance, there is little hope of being able to do away with this class of smoke by legislative action.

At the moment of going to press we learn with very great regret of the death of Dr. J. D. McCrindle. Though he took no prominent part in the affairs of the Society, Dr. McCrindle had had considerable experience in the Public Health Service, having been for many years Medical Officer of Health of Northampton, and at one time on the hospital staff of the Birmingham City Public Health Department. He had been granted leave of absence on account of ill-health, but unfortunately succumbed on November 19th.

We deeply regret to announce the death of Dr. G. Petgrave Johnson, who, formerly in private practice and Medical Officer of the old town of Stoke, became Medical Officer of Health of the County Borough of Stoke-on-Trent when the six towns of the Potteries were federated. During his twenty-eight years' service Dr. Johnson showed a high sense of the responsibilities of his office and earned a reputation for administrative ability in the health services of the district.

DR. CECIL HERINGTON, Assistant Medical Officer of Health, Doncaster, has been appointed Medical Officer of Health and School Medical Officer, Ilkeston.

NEW ZEALAND is apparently rigidly adhering to its policy of confining its purchases for State requirements as much as possible to Britain. Manufacturers of disinfectants have recently been circularised asking them to tender for supplies of disinfectant required by the Government Departments, Schools, etc. in New Zealand, covering a period up to three years. Stipulations made are that the disinfectant must be of British manufacture and the name of the manufacturer must be stated. As there are a very large number of Government Departments in New Zealand, this order will be a very extensive one.

Man, the Biped.

Being the Presidential Address to the Southern Branch, Society of Medical Officers of Health, by A. D. EDWARDS, M.B. (Lond.), B.Sc., D.P.H.,
Medical Officer of Health, Bournemouth.

In his thoughtful and interesting Address, Dr. Edwards tries to find an answer to a number of "Whys" and covers a wide and fascinating field in his search. Members of the Southern Branch will be pleased to have their President's Address in a permanent form, and those who did not hear it will welcome the opportunity of reading it.

IT is usual in a Presidential Address to review the present and outline the future, but on this occasion, I will try to take another perspective of our work; to look back towards the origin of the race, and to consider in the light of human evolution our existence as doctors and Medical Officers.

When we consider the question—"What is Man?" our thoughts go back towards the origin of things a myriad years ago, and we think of the first ambitious amoeba whose descendants in the form of Man now walk the earth as very presumptuous, rather pathetic, and somewhat sorrowful lords of creation.

And when we consider the more personal problem—"What is a Medical Officer?"—our imagination penetrates to the dim past, when the medicine man, uttering his weird incantations, danced in his feathered head-dress before a wondering tribe.

That dance is shadowed in the twilight of the ages, but later we hear the voice of Homer singing of Aesculapius, a king of Thessaly who was deified by the ancient Greeks as the god of Medicine; and historically we read of Hippocrates describing the symptoms of Phthisis during the golden age of Greece, over two thousand years ago.

It is not my purpose, nor within my capability to span the time between Hippocrates and the most recently qualified medico. I want, rather, to consider our telology as a profession. Why are we here practising the various branches of our work?

Utopia.—In order that Man may think greatly and progress freely he must be able almost to forget his body; but he cannot do so when his body and mind are in discomfort or pain.

In the ideal state, Man would be free from the diseases that afflict him. His mechanism would function so easily and efficiently that he

would be subjectively unaware of it, and his mind would go direct to its work of free transcendent thought. But so far, Man has not achieved that state. The very genius of the race is influenced, perhaps determined, by physical frailties, as Carlyle was by chronic dyspepsia, Napoleon by epilepsy, Beethoven by oncoming deafness, and Keats by tuberculosis.

Man's Failure.—Man has not achieved that ideal state. I think the reason of his failure can be found in his evolution.

There was a time when the ancestors of Man came down from the trees, and after many generations they got on their hind legs and roamed the earth as bipeds. Now, when that happened, the forepaws were used less and less for progression. They were free to develop in other ways and gradually there was evolved that remarkable anthropoid dexterity whereby the thumb muscles could be opposed to the fingers. This dexterity enabled Man to fashion and wield weapons wherewith to fight the fierce beasts of the field. You will note that this evolutionary process was directed mainly to overcome his large-sized enemies.

Man the Biped.—Now, when the biped posture was assumed, the gradual change of the forepaws into hands had far-reaching results. Formerly, the anthropoid used his mouth for trying and testing things, as the modern infant does, reproducing the evolutionary history of the race. But as a biped, Man could use his free hands for investigation. Also his teeth and jaws were used less and less in fighting, for he had more ready and efficient weapons of offence that he could wield with his gradually evolving hands. The evolutionary result of this was a diminution in the size of the jaws and the muzzle part of the cranium, so that the brain had more room for expansion.

Probably the faculty of speech was developed coincidentally with the increasing dexterity of the hand. In the left hemisphere of the brain the area of grey matter controlling speech is very near to that controlling the right hand, so that hæmorrhage in this area usually results in loss of speech and of the right hand movements.

The power of speech and dexterity had an inestimable effect on man's evolution. They determined his intellectual overlordship of the animal world; they opened for him those paths of progress that enabled him to become aware of himself, to influence his environment, to dream dreams, and to develop a philosophy of life that is still in the making.

Speech and dexterity also fostered his tendency to become a herd animal, to live in groups and communities for mutual advantage.

The conception of Darwinism to-day rejects the dogma of Weissmann, and it is probable that the striving thought of Man through the ages, the desire to achieve certain definite things, must have influenced the germ plasm. And there were definite things that he tried to achieve through innumerable generations.

Dexterity, the faculty of speech, the puny power of thought: it is not strange that Primitive Man should play with these cosmic toys. They appealed tremendously to the fancy of primitive man; they interested his mind and exalted his ego so that he felt himself to be no end of a chap. He was the pride of evolution.

He wanted to become more dextrous so that he could use his flint-headed spear with better effect on the tiger; and to paint even a better bison than we have unearthed in the cave-dwellings of palæolithic Man, painted on the cave wall in three colours at least fifty thousand years ago.

He wanted to improve his speech so that he could discuss with his fellows the latest eclipse of the sun and why the great god that he had fashioned out of his developing brain had turned his illuminating face away from humanity.

He wanted to talk better so that he might tell the tribe how he had killed the great wolf as it sprang; and I suppose he exaggerated very little more than our amateur fisherman who catches a sprat off the pier and calls it a whale.

Perhaps he wanted to think better, so that he might answer the questions that still

perplex and baffle us to-day: The question of life, whence it comes; and the question to Man, *Quo Vadis*: whither goest thou?

Primitive Man wanted tremendously to enhance all those faculties: dexterity, speech, and thought. And the basic change which made their development possible, that is, the assumption of the biped posture, was probably the greatest event of our material world. Somewhere in the angle of 90 degrees between the relatively horizontal and the vertical lies the secret of what the theologians call the soul of Man, and what some of us regard as the unsolved problem of psychology.

Biped Disadvantages.—There is no doubt concerning the advantages of becoming a biped. But it had many disadvantages. The law of Gravity persisted, and when Man's ancestors slewed round through an angle of 90 degrees the law became insistent and demanded the wholesale alteration of pelvic and spinal supports, of peritoneal attachments, of arterial mechanism, of a hundred gimlet holes, of everything that had evolved and developed since that first ambitious amoeba set out on the path of evolution.

Three kinds of difficulty had to be overcome. Not only did the change from the relatively horizontal to the vertical entail innumerable anatomical adaptations, but the development of the herd instinct whereby he came to live in communities, while it protected Man from the large beasts of prey, rendered him liable to the infection of micro-organisms.

And thirdly, the cerebral growth that made him aware of himself demanded basic adjustments in his mental outlook.

But evolution was so intent upon the higher faculties that these necessary adjustments and adaptations lagged behind.

They still lag behind to-day. Man has not yet caught up with his evolution. His anatomy is riddled with mechanical mal-adjustments; his mental processes are crippled by fears and inadequate repressions; his communal life is still menaced by his lack of immunity to many microbes.

And that is one of the reasons why we are here as doctors and medical officers. Our practice lies very much in the angle of 90 degrees between the horizontal and the vertical.

Time will not allow nor my inadequate knowledge permit me to consider the problem in detail. But I will try to deal briefly with these three evolutionary deficiencies that

explain our existence as a profession; the anatomical, the infective, and the mental.

The Anatomical.—The mechanism of the hand was very well attended to, for it was one of the main objects, if not the primary cause of the change in posture. And so the human hand gives us as a profession very little work to do, although its intricacy is such that it enables a musician to produce his resounding chords and a surgeon to remove the Gasserian ganglion.

But in the abdomen, although evolution has produced to some extent the necessary peritoneal adjustments, they are still inadequate. Man's abdominal viscera are not yet slung properly for the biped position. Kinks and intussusceptions, floating kidney, hernia and general gastro-enteroptosis—they are all due to the fact that evolution has hurried Man towards the higher faculties, and has not caught up with her adjustments. She has thought too much of the brain and too little of the abdomen; and that accounts to some extent for the Panel.

In this connection I refrain from dealing with Intestinal Stasis and the preaching of a well-known surgeon; but I suspect that the success of many patent pills is based on the dilatory ways of evolution. It is said that the Aloe tree blossoms once in a hundred years, but its purgative drug has nevertheless overtaken nature.

The numerous gimlet holes of the human body were also affected. Mainly in the bones, they are supposed to serve the purpose of draining cavities. Take the case of the Antrum of Highmore, the largest of the nasal sinuses. The drainage hole is well above the base, nearer the roof than the floor of the cavity, an arrangement that would shock the feelings of any capable engineer.

Arterial distribution also became a big problem when evolution changed Man into a biped. Not only did the increasing brain require a much larger blood supply, but it was gradually placed at the vertex instead of on the horizontal plane. This required a considerable adjustment in arterial control, and the present deficiency in this respect requires further thought from the physicians. I believe they still advise a fainting patient to become a quadruped and hold his head down.

The change to the vertical requires also an adaptation in the valves of the venous system, which is not yet quite adequate for the lower limbs, so that it not infrequently requires the

services of surgeons in operations for varicose veins. The human arms were already well equipped with valves, and I have never heard of a varicose operation for the upper limbs. Indeed, we have to use a tourniquet when we require a blood specimen from them.

The Infective.—The second class of deficiencies that require our existence as a profession relates to the susceptibility of the human race to infectious disease. If man were a solitary animal living like the great cat tribe as Mr. and Mrs. Tiger and the cubs, there would be no epidemics. But Man became gregarious, and suffered thereby.

The herd life of man rendered him a prey to innumerable micro-organisms against which he had not evolved an immunity. We can only imagine the prehistoric ages when nascent civilisations and immature empires tottered and fell before the attack of overwhelming epidemics. But we know historically that Athens at the height of her power as a sea-empire, four hundred years B.C., was crippled by an outbreak of plague that might have baffled the skill of Hippocrates. It was the golden age of the world, when Athens was creating the germ of thought that still lives and influences us to-day and producing those works of art that hold us silent in the thought of Man's future. Into this golden age, into the little crystal of the world's thought that was Athens, came the devastating plague, destroying inestimable genius in many brains.

History suggests also that in the decline and fall both of Greece and of Rome, malaria played its part so that the power of the world passed from them.

We know also that during the 14th century the Black Death passed over Europe, and reaching England, killed off half of her population.

These are but a few instances of the subtle influence of the micro-organisms on human history and evolution.

An enormous amount of evolution-energy must have been expended by the human race on the increase of dexterity, thought and speech, and too little may have been left for the cultivation of immunity against infection. Apart from its cosmic import, that trinity of faculties gave Man power to overcome his most apparent enemies, the greater beasts of prey. But his evolution of unconscious immunity against the invisible army of germs was inadequate. He has overcome the lion and exterminated the mastodon, but he is

still a helpless prey to such things as the influenza germs that killed eight million human beings during the pandemic that followed the Great War.

To some diseases, of course, Man has evolved a high degree of immunity. Although the meningococcus has often been very widely spread among our population, relatively few persons develop cerebro-spinal meningitis. For every patient during the last outbreak there were probably a hundred healthy carriers of the meningococcus. The same statement may be made concerning the micro-organism of Encephalitis, a condition which we hardly classify as an infectious disease, so great is the racial immunity.

But evolution has not been so careful of the intestinal mucosa, so that we have very little immunity against the Typhoid bacillus and the Cholera Vibrio. Enteric fever is becoming a rare disease in the highest civilisations, not because the race has evolved an unconscious immunity against the bacillus, but because the race has evolved a thinking brain that ensures pure water supplies and clean oysters. The Typhoid bacillus is not a versatile enemy. It has only one show turn on the limited stage of a Peyer's Patch, but evolution has not granted us immunity, even though the lymphoid tissue of the patch makes a good fight of it. And so we have had to overcome the typhoid bacillus as we have overcome the great beasts of prey, by our thinking brain and our dexterity.

Perhaps after all Nature is economical in her methods. It is easier to defeat the typhoid bacillus by producing pure water supplies—such as we have produced in one generation in England—than to evolve slowly and painfully through thousands of generations an inherited immunity against the disease, during which time the bacillus, by attacking the indifferent intestine would be killing off some of the best brains of the race.

Nature's effort is primarily for cerebral rather than intestinal adequacy, especially as the intestine can now be protected from infection by the thinking power of the brain.

With regard to hostile micro-organisms there are two methods whereby the human race is carrying on the fight. First, the unconscious evolution of racial immunity, which is a slow process. Secondly, the conscious method of altering its environment, and also of artificial immunisation.

At present, artificial immunisation is in its

infancy—let us admit that it is in a cradle of egotistical ignorance, and let us deplore our fumbling and immature knowledge of the craft.

Even the most absolute immunisation against a disease, that of vaccination against variola, although efficient in its object, is crude in its application. So long as vaccination makes a baby squall for two nights, and re-vaccination makes an adolescent uncomfortable for an hour, it will be impossible to impose this absolute and kindly safeguard upon a free and enlightened democracy that demands the comfort of the day and ignores the threat of the morrow.

What we require is a means of general non-specific immunisation as simple and undisturbing as the baptismal process on a christened infant to-day.

The Mental.—The third class of deficiencies caused by the inequalities of Man's evolution relates to the brain and nervous system. This class accounts for a very high proportion of human unhappiness and disabilities to-day. The preponderating factor is not the gross insanities but the great group of fear complexes and anxiety neuroses that diminish happiness and handicap Man's progress towards clear and objective thinking.

It is probable that many of these troubles are due to Man's lack of adjustment to the new conditions of his life. His increasing power of thought eventually made Man aware of himself and endowed him with imagination, and thence he came to experience fear as a conscious emotion; but Man's power of thought is still inadequate to overcome his anxious fears.

Evolution also changed him into a herd animal, whose communal life demanded the stern repression of his primitive instincts; but he is still so badly adjusted to his life as a herd animal that he finds it difficult to repress his primitive instincts to the extent that civilisation demands.

Mentally, therefore, Man is still in the making, and suffers thereby. His growing pains are sometimes only a nuisance, but often they become a tragedy to the individual sufferer.

I wonder what evolution is going to make of that problem. Civilised people prevented from bashing the heads of their enemies, imagined or real, are inclined to indulge in vituperation and slander, but that is a somewhat unsatisfactory substitute, nor does it use

up the excess of anger endocrines. Intellectual interests and the joy of strenuous sports and games are more promising, but it seems as if evolution must either alter that primitive anger reflex or find some use for it that is beneficial to the race. At present it is a deplorable nuisance. Incidentally, and in common with a few other repressed and absolute reflexes, it gives rise to anxiety neuroses and ways of thinking that produce unhappiness.

For, as a race, Man has not yet learned to

think clearly and objectively. His opinion concerning any question is largely the resultant of his personal prejudices and his environment; of the power of suggestion, of his own requirements, and of his early upbringing. Swayed by these influences, and a mental determinism that abrogates free thinking, Man is a long way from the power of real thought and reason. We are all influenced unconsciously by innumerable prejudices, and the more we realise the fact, the further progress shall we make in the quest of ultimate truth.

Ut Ita Dicam.

(Being Comments, apropos and otherwise, on Sundry Matters.)

Health Week Essays.

During National Health Week each year instruction on a great variety of health matters is offered by lecturers, teachers, and writers of every description in this country, to a number of millions of people. In this number are included persons of all classes, males and females, grown-ups and children. So far as effect produced is concerned, it is probable that, with the exception of the children, especially those attending certain elementary schools, no one is inconvenienced at all. To the children mentioned inconvenience and trouble are caused because, for some reason that must be obscure to many, after being subjected to one or more lessons on the elements of hygiene they are called upon to prepare an essay on some branch of the subject discussed. To help them they have such facts as they have been given, and may recollect, and a title for the essay that may or may not be suggestive. The reward promised is that a number of the essays will be inflicted upon certain persons unconnected with the school whose privilege it will be to read them and decide which should receive a prize.

Those Who Read Them.

In general the persons to whom the essays are submitted are inoffensive and have done no more than the average amount of harm to their fellow creatures. Yet they must read the essays, and as a rule find them all extraordinarily alike, reproducing with more or less of accuracy the facts and views propounded by the teacher with or without the illustrations employed by him and drawn from

his own experience to elucidate the facts and views or to impress them upon the memory. Since this is the case, and since so much that is in the essay, especially when it comes to expression of opinion or description of sensation or relation of experience, could not possibly be from the mind of a child, there is a risk that the reader, unless he is careful and understanding, may form the opinion that the essayist is a prig, a parrot, or untruthful, or possibly all three. If he does so he is wrong; the child is none of these things; he has only done what he believes he has been taught he ought to do, repeat what he has been told.

Hygiene By Rote.

As a rule, he does it in the dullest possible way because the essay is supposed to be a dull thing, and informative rather than entertaining and bright. Of the success of the child essay writer in attaining dullness there is never any doubt. It is the exceptional child who escapes it, and when he escapes, it is almost always the result of an accident, or because he garbles what he has been told, having been told too much. "Often when I go out I see little boys playing in the gutter with mud and all the refuse nearby. Only one out of every ten ever wash their hands before meals, or wash their teeth. To wash their neck every night is the same as dying to them." This is the opening sentence of a Health Week Essay, entitled "How can I help my companions to be healthy?" and written by a child of about twelve. Reading it, one learns nothing of the writer, but much of the teacher

and his or her method. In the essay itself there is hardly a part of the field of hygiene and preventive medicine that is not visited, and from which no flower has been culled. "Many times have I told my friends that if they do not wash the pores on their skin they will be stopped up and their breathing will be bad, and the blood will become impure." This to impress the need and advantage of cleanliness which is further recommended to the little companions in these amongst other aphorisms: "Have a bath every week and dry yourself in a clean towel. You should have a special comb and a brush for yourself, and it is your duty to see that no one uses it. Wash the hair at least every fortnight, and give it a good brushing to get the scurf out."

The Guide, Philosopher and Friend.

On the questions of fresh air, clothing, the teeth, the avoidance of infection, and matters hygienic in general, the essayist is equally precise: "Get plenty of fresh air and sunshine. Never go to bed later than eleven o'clock, and be an early riser. Don't keep your room stuffy, but have the windows open day and night. To keep flowers in a room a night is not right because they take up all the oxygen." Quite sound, you see, as is this on dental hygiene: "If you have toothache don't wait and let it get better, but go directly and have it out"; and these on clothing: "Have clean bed clothes every week and a shirt every second day. It is dangerous to go out in the rain without a coat because you can catch a cold and die, you can also get rumatism. Never have any pins sticking in you, for it looks very bad to see a boy's trousers pinned together. You should have your neck free and not have your collar too tight." And on diet, what could more readily help a little companion to keep healthy than pieces of information such as these? "Drink plenty of milk and eat plenty of meat and vegetables if you want to be healthy. If you see any nuts or berries never eat them until you are sure that they are not poisonous, for many people who have been careless have eaten poisonous berries and died a few minutes after. Never eat much sugar for it gives you worms and other things in your stomach. You should take some medicine every week and go to the lavatory at least three times a day."

His Modesty.

In the avoidance of infection there can be no doubt that assistance will be obtained, since the advice given is to the effect that "You should stop people spitting and especially consumptives. Don't go into a room where sickness is for if you catch it without knowing you might give it to others. Never stand over a drain or a ditch for you might catch fever. It is not good to go fishing by the canal for you not only run the danger of falling in, but also of catching fever or a disease." In addition to conjuring the companion to avoid such things as these our young hygienist offers other counsel: "Blow your nose frequently for a dirty nose does not only stop breathing but it is uncomfortable. Some children start smoking at quite a small age and this stunts their growth and they grow up quite small. Don't try to get ill because sooner or later you will be found out." All, it will be seen, useful advice and justifying the modest claims made in the concluding sentence that "this is the best way that I can help my friends on in health, and I think that if you follow it, it will prove satisfactory."

Domesticities.

The Society Dinner was a tremendous success, and a number of reasons have been offered to account for the fact that it went with a swing, and that everybody enjoyed it. Of these reasons I set down two and leave each one to choose for himself. The first is the change of date. Until this year, as everybody knows, the dinner has always been held on the day of the Annual Meeting in October. Coming at the end of a tremendously full day everybody was more or less exhausted and not in the mood for such a function, and conceivably the President, who had a bigger rush than anyone, might not be at the top of his form. Further, being in the month of October, there was difficulty about guests, Parliamentary guests particularly, most members, especially if of Cabinet rank, being engaged in office or party work. By changing the date it was believed that both of these difficulties might be overcome, and what happened this year suggests that the belief was justified. Anyway, everybody was bright; important guests, including the Duchess of Atholl and Mr. Snowden, attended, and the President was in excellent form. Which brings me to the second reason, the presiding of the President and the speech

that he made in reply to the toast of "The Society." Both were excellent, the speech in particular. Only too often in the past this speech has been chosen as the occasion for publishing the woes of the service and appealing for a redress of the wrongs borne by the Medical Officer of Health. The taste of this procedure was always doubtful; its futility certain. This time no such line was followed. Dr. Snell dispensed with grumbling and grouching, and, instead, made a speech that was bright, cheerful and witty. As a result, all the speakers who followed felt it incumbent upon them to grade up to the same level. That this was so is suggested as another reason for the success of the evening, and if anyone cares to regard it as the more important of the two here set down he is at liberty to do so.

Chairs were very much in evidence at the last meeting of the Council. The room was nearly full of these articles, each more or less upholstered, and providing arms and a writing ledge, and each filled by a member of Council obviously appreciative of the change from the hard straightness of the type now rapidly being displaced as a result of the patriotism and generosity of the various Branches. As the Secretary announced promises of more chairs from other sources there were murmurs of approval. It was noticeable, however, that there was a complete absence of words of approval for the bright mind that offered the suggestion as to the chairs, and devised the method of getting them without interfering

with the funds of the Council. Clever I think it. I think also it would be a good idea to show on each chair the name of the Branch that made the donation.

Dr. Brackenbury, representing the British Medical Association, took his seat for the first time at the last meeting of the Council. The welcome which the President suggested should be accorded to him was warmly given. There is, as was pointed out, every reason for regarding the coming of Dr. Brackenbury as a matter for congratulation, and from the part he took in the various discussions at this meeting, it was at once made clear that our counsels are to be strengthened by the coming of one who in other places has proved himself a master of tactics and procedure, and a negotiator of ambassadorial rank.

Dr. Howarth, of the City of London, has been granted six months' leave of absence, and has gone abroad to recuperate. In the last issue it was written that he had returned to work and looked extremely well. It was suggested that he was practically himself again, and would soon be stronger than ever. Unfortunately, the prophecy was not fulfilled, but that does not hinder acceptance of the belief that he will greatly benefit by the more prolonged rest and change he is now taking, and at the end of it will return to take up his work with renewed vigour. The best wishes of the Society have gone with Dr. Howarth, and will be with him till his return and after. P.

Serum and Vaccine Prophylaxis and Therapy in Scarlet Fever and Diphtheria.

By T. N. V. POTTS, M.D., Deputy Medical Officer of Health, Newcastle-upon-Tyne, and IAN M. MACLACHLAN, M.B., Resident Medical Officer, City Hospital for Infectious Diseases, Newcastle-upon-Tyne.

In this pleasantly chatty paper the authors relate experiences in the Newcastle City Hospital, and add to the growing store of information on the use of vaccines and sera in the prevention and treatment of scarlet fever and diphtheria.

ONE of the greatest bugbears, both clinical and administrative, in an infectious disease hospital has been until recently the incidence of septic complications affecting the throats, noses and ears of scarlet fever patients.

At the City Hospital, Newcastle-upon-Tyne, we have been carrying out for a number of years a certain amount of experimental work concerning the prevention and treatment of these conditions, and it is to this work in conjunction with a necessarily

limited experience of the more recent advances connected with "Schick" and "Dick" testing and serum treatment that our observations are directed in this paper.

Taking first of all the administration of autogenous vaccines, these have been applied to 120 septic cases each having rhinorrhœa, otorrhœa, or enlarged glands, which had not been amenable to ordinary treatment.

The vaccines from the organisms present in the discharges were prepared in the usual way by culture and sub-culture on blood serum or agar, emulsification in saline, and sterilisation with carbolic. They were given in three doses of 6, 12 and 18 thousand millions, at intervals of 3 days.

The organisms found in the nasal and ear discharges of individual cases were invariably identical in morphological appearance. Those most commonly present in order of frequency were the diphtheroids, staphylococci streptococci, pneumococci and micrococci catarrhalis.

The diphtheroid bacilli on account of their predominance in the discharges were those used most frequently in the preparation of vaccines. Amongst the 120 cases treated these bacilli were present in pure culture in 32 per cent., and in combination with other organisms in 44 per cent., that is to say in a total of 76 per cent. of all.

Microscopically the morphology of the diphtheroids shewed the same variation which characterises the Klebs-Löffler Bacillus. Thus they appeared as the right-angular shaped rods with deep bipolar staining, or were of the short or long segmented variety, while others were evenly stained rods, thicker, but with the same angularity.

Virulence tests by animal inoculation were performed with 20 only of these bacilli, but in all except one, the result was returned negative. In the single case referred to the report was described as suspicious in that the animal had died 4 days later.

Apropos of these "diphtheria-like" bacilli it is worthy of note, that in a series of 228 "clean" cases of scarlet fever in which there was no nasal or ear complications the throat swabs revealed the presence of these bacilli in 20 (or 10 per cent.). Further, the Schick test was carried out upon 200 of these cases, the object being to determine if possible whether patients who were harbouring in their throats organisms morphologically resembling Klebs-Löffler Bacilli were

actually susceptible to diphtheria, and so provide an explanation for the occasional outbreaks of this disease in scarlet fever wards. Of the cases, 93 (or 46 per cent.) were Schick positive, and seven were included in the 10 per cent. who had shown "diphtheria-like" bacilli on throat swabbing.

The results obtained in the patients who received autogenous vaccines were by no means striking if looked at from the point of view of cure.

The following table shows the results in 39 cases treated with pure diphtheroid vaccines:

	Acute.	H'd.	Chronic.	H'd.
Rhinorrhœa	10	4	4	3
Otorrhœa	6	1	9	2
Rhinorrhœa and Otorrhœa	0	0	10	2
	16	5	23	7

The cessation of discharge took place within 10 days after the last inoculation.

Of 52 septic cases treated with mixed vaccines of diphtheroids, staphylococci, streptococci, pneumococci, and micrococci catarrhalis, the following results were obtained:—

Of the 33 acute cases:—

Rhinorrhœa	12	Healed	6
Otorrhœa	9	do.	2
Both Rhinorrhœa and Otorrhœa	12	do.	3

Of the 19 chronic cases:—

Rhinorrhœa	4	Much improved	3
Otorrhœa	9	Healed	2
Both Rhinorrhœa and Otorrhœa	6	Much improved but not healed	3

The remaining 29 of the total 120 septic cases were given mixed vaccines from which was eliminated the diphtheroidal group. Streptococci and staphylococci were the chief ingredients. While improvement occurred in several instances after the inoculation of vaccines prepared from these pyogenic organisms yet it was questionable whether this amelioration was due to a natural process or to the actual vaccination.

Certain it was, however, that a greater degree of improvement was noticeable after the administration of diphtheroidal vaccines (either alone or in combination) than after treatment with only the pus forming organisms.

An expression of opinion as to the value of autogenous vaccination in scarlatinal otorrhœa

and rhinorrhœa from the above results is difficult, for undoubtedly a large number of patients produce a natural cure for themselves often in a very short space of time.

In none of the cases can the attack be said to have been particularly mild, and therefore less liable to complications, since they were taken over a number of years during which the type of disease, and also the incidence, showed great variation.

In our opinion, the inoculation of the patient's own organisms can be of real service in certain chosen cases, particularly those in which the adenoid and tonsillar tissues are not excessive or considerably damaged as a result of previous disease.

The use of stock vaccines for prophylactic vaccination was commenced in December, 1922, by Dr. S. J. Clegg, now Medical Officer of Health of Durban, and is still being continued.

The vaccines, which are detoxicated, are made from cultures taken from throat, nose, or ear. The large majority have been prepared by Dr. David Thompson of the "Pickett Thompson" Research Laboratory, St. Paul's Hospital. To him, a great debt is owing for the care which he has taken and the trouble to which he has been put, in providing numerous vaccines, and advice as to their administration. Experiments have been made with vaccines prepared for varying strains of streptococci and staphylococci; these alone or in combination with the pneumococci, pneumobacillus and diphtheroids. The stock vaccine mixture most frequently used and upon which the results of this resumé are chiefly based has been composed of diphtheroids, streptococci, and staphylococci. Individual autogenous vaccines have been occasionally prepared by Dr. Thompson, but the few cases treated do not justify any statement as to improvement or cure.

The practice has been to inoculate every alternate clean case of scarlet fever with the stock vaccine immediately upon admission to hospital. Three injections are given upon the first, sixth, and tenth days after admission. The dosage has been somewhat variable, but in the average case an initial dose of 10,000 million organisms is injected, then twice and three times this amount upon the second and third occasions. Usually some slight local reaction takes place after the first injection, but this passes off in from one to two days.

From January to December, 1923, there were 440 patients admitted to the City Hospital with scarlet fever; of these 203 received prophylactic inoculations of the stock vaccine. The number of these who subsequently developed rhinorrhœa or otorrhœa, or both, was 11, while of the 237 remaining cases not inoculated 26 developed one or other of these complications. Thus the percentage of discharges among the previously inoculated was 5 per cent. and in the case of the uninoculated 11 per cent.

During 1924, the scarlet fever admissions numbered 724. Of these patients 295 were inoculated, and 21 (or 7 per cent.) developed rhinorrhœa or otorrhœa. Of the 429 uninoculated patients, 60 (or 14 per cent.) developed nose or ear discharges.

The type of disease during these two years showed considerable variation, for while the number of scarlet fever admissions to the City Hospital during 1923 was the lowest for several years, and the severity of attack was slight, in 1924 there was quite a rise in the epidemic wave, and although the majority of the cases occurring during the first 8 or 9 months were mild in type with few complications, the severity of those admitted during the last quarter was much more marked, and there was a much greater tendency to the development of rhinorrhœa and otorrhœa.

An analysis was made of the 32 cases who, although inoculated, still developed discharges, and it was found that 11 of these were not admitted to hospital until periods varying from the fifth to tenth day of disease. These patients would therefore be in the throes of scarlet fever for at least five days before receiving vaccine, and would have little chance to manufacture the necessary antibodies.

Yet it is seen that in both these years the percentage of cases which developed septic discharges among the inoculated was only half the percentage number among the uninoculated. The disparity between these two figures was thought to be of sufficient significance for us to continue the administration of prophylactic vaccines during the following year. We have not yet been able to get out the details for 1925, but a rough estimate taken from the register was enough to show that the results will correspond very closely with those of the previous two years.

With regard to diphtheria we have nothing of outstanding importance to record; we are

still struggling on with the carrier question, and we still dabble with the usual antiseptic lotions and vaccines, but with little success. Nature has been our best ally so far; frequently she steps in and presents the patient with a useful dose of tonsillitis, which has had the effect of ousting the diphtheria bacillus. On one occasion a resident who had become impatient of the intervention of nature in this way, had the temerity to paint the tonsils of a patient (who we understood was his friend) with a mixed culture of staphylococci and streptococci. Tonsillitis developed, and, strange to relate, not only did the patient survive, but in addition the desired effect was produced. Not infrequently we are compelled to obtain the services of a surgeon in recalcitrant cases, and our experience is that tonsillectomy is usually an effective measure.

The "Schick" test has been used in the City Hospital for the last 5 years, and the "Dick" test for a few months only. It is unnecessary to describe the technique of these operations, but the results of the "Schick" test and a few remarks about the recently introduced scarlatinal antitoxin may be of interest.

During the five years previous to 1921, that is to say, previous to commencing the "Schick" test, there were 13 cases of diphtheria among the nursing staff and 2 among the domestic staff. (Average number nursing and domestic staffs, 80 and 60 respectively.)

From 1921 to 1923 all staff before commencing duty in the diphtheria wards were required to be "Schick" tested, and positives were toxin-antitoxin immunised, or excluded if immunisation was refused. Only 6 cases of diphtheria—all among nurses—occurred during the 3 years. These nurses had not been "Schicked," they were on duty in the scarlet fever wards, and there had been no contact with diphtheria which we could discover.

In 1924 and 1925 every member of the nursing and domestic staff (with the exception of one or two "old timers") was required to be Schick-tested, and immunised if necessary. It is a significant fact that during these two years we have had no case of staff sickness due to diphtheria.

While still speaking of diphtheria, the diminished occurrence of cross infection with scarlet fever may be mentioned.

The method which has been adopted with apparent success for a number of years has consisted simply in the prophylactic inoculation of all contacts who have not previously

had scarlet fever with 5 to 10 ccs. of ordinary antistreptococcus serum. During the last 4 years cases notified as diphtheria which proved to be scarlet fever in the pre-eruptive period have been admitted inadvertently to diphtheria wards; other odd cases have been admitted incubating the disease. The all-round inoculation of contacts was in each case carried out and in no instance during the period mentioned has there been a single secondary cross-infection.

This polyvalent anti-streptococcal serum has also been used fairly extensively for septic complications in the scarlet fever wards, and has undoubtedly done good service in certain cases where the particular strain happened to coincide with that setting up sepsis in the patient. It appears highly probable, however, that since the new scarlatinal antiserum, which is prepared from the causal organisms, the hæmolytic streptococci, possesses antitoxic, as well as bacteriolytic properties, it will supplant the older antiserum, the action of which is described as being merely bacteriolytic. The price of the new serum is at present somewhat prohibitive (21s. for 10 c.c. phial), and for this reason we have restricted its use to severe cases of sepsis and toxæmia. The results, however, well justify the expense, and in time its administration in scarlet fever will become almost as universal as that of diphtheria antitoxin in the treatment of diphtheria.

THE increasing demand for cleaner milk has created a remarkable effect in the production of milk bottles, one firm alone, which started making bottles in 1923, now having an output equal to 14 millions a year. Every dairyman who supplies bottled milk finds it necessary as a practical measure to have four spare bottles for every one he delivers to a consumer, and one firm operating in South London has in circulation two and a quarter million bottles each month. The service entails the use of more than 500,000 bottles, and of this number replacements, for loss and damage, have to be made at the rate of 420,000 a year.

THE salary of Dr. James Wheatley, Medical Officer of Health, Shropshire, has been increased from £900 per annum to £1,000, rising by annual increments of £50 to £1,200.

The Society.

Reports, Proceedings and Announcements.

ANNUAL DINNER.

The Annual Dinner of the Society was held at the Piccadilly Hotel, London, on Thursday, November 18th, when the President (Dr. Robert E. H. Snell) and Mrs. Snell received the following members and guests:—

The Duchess of Atholl, D.B.E., M.P.; the Rt. Hon. Philip Snowden, P.C., M.P.; Sir Robert Bolam; Sir John Rose Bradford, P.R.C.P.; Dr. Alfred Cox; Dr. T. A. B. Soden; Dr. W. G. Savage; G. A. Powell, Esq.; The Mayor of Coventry (Alderman Fred. Lee, J.P.); Dr. W. G. Willoughby; Dr. T. Eustace Hill; Dr. J. Wheatley; Lt.-General Sir M. H. G. Fell, K.C.B., D.G., A.M.S.; Dr. T. W. Naylor Barlow; Sir Archibald Boyd-Carpenter, M.P.; Dr. H. B. Brackenbury; the Rev. Barnard J. Snell, M.A.; Dr. R. Veitch Clark; E. White Wallis, Esq.; Dr. J. Cates (Hon. Treasurer), Mrs. Cates; Dr. Charles Sanders, Mrs. Sanders; Prof. H. Kerr, Mrs. Kerr; F. Breese, Esq., L.D.S., Mrs. Breese; Dr. G. F. Buchan; Sir William R. Smith, Lady Smith; Dr. J. R. Kaye, Mrs. Kaye; Dr. S. C. Lawrence, Mrs. Lawrence, Dr. Kerr Simpson, Mrs. Kerr Simpson; Dr. T. Carnwath, D.S.O., Mrs. Carnwath; Dr. N. G. Horner; Dr. W. F. Corfield; Dr. H. M. Cameron Macaulay, Mrs. Cameron Macaulay; Dr. J. M. Clements; Alderman H. O. Williams, J.P.; Dr. C. G. Welch; J. Bramwell Graham, Esq.; Dr. A. A. Turner, M.C., Mrs. A. A. Turner; J. K. Bryce, Esq., L.D.S., Mrs. Bryce; W. G. Senior, Esq., L.D.S., Mrs. Senior; Dr. C. K. Atlee; Major A. H. Hayes; Dr. E. A. Freear Wilkes, Mrs. Freear Wilkes; Dr. T. Ruddock-West, Mrs. Ruddock-West; Miss Raine; Dr. W. H. Rayner; Dr. Alice Stalker; F. J. Hagen, Esq., L.D.S., Mrs. Hagen; Dr. T. W. Moran; Miss McCabe; Dr. J. C. Saunders, Mrs. Saunders; Dr. D. M. Livingstone, Mrs. Livingstone; Dr. J. Alex Fraser; Miss Dowling; Dr. W. G. Booth; Dr. Eric Donaldson; Dr. W. Herbert Butcher; Dr. H. Leslie Oldershaw; Dr. Arthur Massey; Dr. J. C. Pickup, Mrs. Pickup; Dr. A. Hamilton Wood, Mrs. Hamilton Wood; Dr. H. Gibbons Ward, Mrs. Gibbons Ward; Dr. A. Hawley, Mrs. Hawley; Dr. Agnes Calderwood; Dr. A. H. Newton; Dr. C. F. Pedley; Dr. R. H. H. Jolly, Mrs. Jolly; Dr. S. Fox Linton; Dr. G. H. Pearce, Mrs. Pearce; Dr. G. C. M. McGonigle; Dr. Leonard Crossley; Dr. C. E. Tangye; Dr. R. J. Maule Horne; Dr. H. D. Kelf; Dr. K. E. Tapper; Dr. Goldsmith; Dr. Stella Churchill, L.C.C.; Dr. Gray Hill; Dr. Munro; Dr. J. Graham Forbes; Dr. R. M. F. Picken; Dr. P. H. Stirk, Mrs. Stirk; Dr. M. D. Mackenzie; Dr. Roderick Macleod; Dr. F. Garland Collins, Mrs. Garland Collins; Major D. G. Cheyne; Major Stanley Elliott; Major G. S. Parkinson; J. H. Pilbeam, Esq.; S. Adams, Esq., L.D.S.; Dr. H. P. Orchard, Mrs. Orchard; R. C. Warner, Esq., Mrs. Warner; E. E. Turner, Esq., L.D.S., Mrs. Turner; G. Thomson, Esq., L.D.S.; Col. T. A. Hunter, C.B.E.; Arnold Thorne, Esq.; Mrs. W. R. Thorne, D.D.S.; Dr. Helena Hall; J. Eric Magraw, Esq., L.D.S., Mrs. Magraw; H. E. Bampton, Esq., L.D.S., Mrs. Bampton; Councillor Harvey; Dr. Howell Barnes; Dr. Ian Thomson; Mrs. Ian

Thomson; Dr. Louisa Adam; Dr. A. J. Shinnie; Dr. W. W. Jameson, Dr. J. T. C. Nash; W. M. Bolton, Esq.; Dr. G. W. R. Skene, J.P.; Dr. Egbert Morland; Dr. Cyril Banks; Dr. A. G. Troup, Mrs. Troup; Dr. W. A. Lethem; Miss Kathleen Worrall; Dr. D. Morley Matthieson, and Major-General H. P. W. Barrow, C.M.G., D.S.O., K.H.S.

Amongst those who were unavoidably absent were: The Minister of Health; Sir Arthur Robinson; Sir George Newman; Sir Arthur Newsholme; the Bishop of Coventry; Lt.-Col. F. E. Freemantle, M.P.; Dr. T. Ridley Bailey; Sir John Robertson; Dr. C. B. Dixon; Dr. Killick Millard; Dr. J. J. Jervis, and Prof. A. Bostock Hill.

THE PRESIDENT, having proposed the health of the King, the toast of "The Society" was given by Sir Robert Bolam, O.B.E., Chairman of Council, British Medical Association, who said that the Society, by virtue of the position he held, were kind enough to consider that he was on the fringe of the Society, and thereby admitted to their ranks. There had been times in the history of the profession when the nature of the work in the Public Health Service had tended to make its members occupy a position of isolation in their administrative duties, and of isolation from the profession of medicine as a whole, and those who had the interest of the community and the profession at heart had thought that an accentuation of that position was not to the good of the common health. If they were to march along together it was essential that there should be the most cordial co-operation and harmony between the members of the Public Health Service and their brothers in the field of general practice, of consultation and specialist work, and of work in the universities. It was a great thing to know that recent years had seen a cordiality in the relationship between the Society and the British Medical Association which augured well for their future. Throughout the country members of Branches of the Society were going to the Divisions of the Association and enlightening them as to the difficulties of the health service, and he trusted that in return they were giving some inkling of the troubles that beset the practitioner of medicine in the world outside. They were learning to know that between the upper millstone of legislation as interpreted by departments and local authorities as the masters of their services and

the nether millstone of the general profession and the general public—passive resisters they might say—the lot of the Medical Officer of Health was not entirely a happy one. Legislation, however ideal, was not always happily executive. He was extremely glad to see ladies present at the dinner with the members of the health service, because he believed that if they would play their part in promoting the social interchange between the profession at large and the Public Health Service, there would be a still better understanding. Referring to the President, Sir Robert said that there was no need to tell members of the health service that if there was a man who for long years in his chosen city had in an unassuming, self-effacing, but thoroughly efficient manner set high the welfare of his fellow citizens, Hugh Snell was that man. The British Medical Association had had his help for many years on its committees, and he had helped them to get that right perspective of the health service in the whole system of their profession which would enable them to work together and go forward to the common goal they had in view. In asking the company to drink to the health of the Society, and coupling with the toast the name of Dr. Hugh Snell, Sir Robert said he brought with him cordial messages of goodwill for the future prosperity of the Society.

THE PRESIDENT, who, on rising, was greeted enthusiastically, replied to the toast in an admirable and witty speech. He said that it was indeed a happy circumstance that they had with them that evening so active and prominent a member of the British Medical Association as Sir Robert Bolam. Apart from certain Government Departments like the Ministry of Health and the Board of Education, the Society was brought into contact with no other body so much as with the British Medical Association, and it had been during the holding of the Chairmanship of the Council of the Association by Sir Robert that a more intimate connection had been established between that Association and their Society. The Society, of course, was looked upon by the Association as a younger brother. The Association had existed 84 years, and its membership had now reached 32,000; the Society was established 70 years ago, and at present had 2,000 members. But it was quite possible that in the course of time the membership figures might be reversed!

It was impossible for them to arrive at the age of 70 years without considering for a moment some of the circumstances of their birth. They were born in 1856, and it was very difficult to visualise the conditions that existed then. The President recounted in an amusing manner the troubles of the pioneer Medical Officers of Health in the Metropolis, and referred also to the subject of the Vaccination Acts which came prominently to the fore in 1867, when there was a Bill proposing to transfer the powers under those Acts from the Guardians to the Local Authorities. There was no need for him to say that that Bill did not go through. As the matter was now *sub judice* and was receiving the anxious attention of His Majesty's Government it was unnecessary to say more! In conclusion, the President said they were all proud to belong to the Society, which numbered first amongst its objects the promotion of the Public Health, and it was no small thing to be able to put on record that during one generation the average span of life had been increased by a period of from ten to twelve years. While not claiming to have been wholly responsible for the increase, he felt that they had contributed substantially to it.

DR. CHARLES SANDERS, in proposing "The Guests," said the Society was entitled to congratulate itself on the presence of so many distinguished visitors. The President had earned their thanks for introducing to them representatives from the City of Three Spires, in the persons of the Mayor of Coventry, and Sir Archibald Boyd-Carpenter, M.P., whom they were proud to have with them. They were pleased to welcome Mr. Powell, the Clerk to the Metropolitan Asylums Board, who was in charge of a multitude of institutions. The value of his service was known to all, and he was a ready fountain of information to members of the Society on all matters of institutional administration. In his capacity as Vice-Chairman of the Food Council his services had benefited every householder in the land. Than Sir Matthew Fell, the Director-General of Army Medical Services—who better could represent the work of preventive medicine as carried out by the Royal Army Medical Corps? It was perfectly easy to see that if the Army desired to live it had to keep itself free from disease, and the Army Medical Service was fully prepared to wage war against it. Sir John Rose Bradford, President of the

Royal College of Physicians they also welcomed with heartiness. Only a month ago in his masterly oration to that College he had shown the debt of gratitude that the profession owed to the work of Harvey; he had also unintentionally shown the debt which the medical profession owed to himself. They were pleased to have him with them as continued proof, if proof were needed, of the inseparability of the curative and preventive sides of medicine. Mr. Philip Snowden they welcomed as a *quondam* official, for his length of service in the Civil Service had enabled him to apprehend their difficulties and also to appraise their successes. The whirligig of time brought many changes, and it might come that Mr. Snowden would have an opportunity of repeating or of enhancing his previous successes in Parliament, and they could be sure that should any economic cuts be found necessary in his budget the scalpel would not be applied to the frame of the Public Health Service. Dr. Sanders reserved a specially warm welcome for the Duchess of Atholl. The post of Parliamentary Secretary to the Board of Education, which she held, required exceptional ability, and every Public Health Official was well aware that when it was a case of schools, the most urgent attention was necessary. Of her many qualifications reference must be made to the work carried out both in this country and abroad in regard to nursing and the Red Cross, and also to the organisation of recuperative recreations for the troops—the last request made to her by the late Lord Kitchener. So long as the Society of Medical Officers of Health could retain the respect and friendship of such visitors as they had with them that evening so long would they be satisfied that the Society was performing a useful service and endeavouring to live up to its ideals. In giving the toast, Dr. Sanders coupled with it the name of the Duchess of Atholl, Mr. Philip Snowden and Sir John Rose Bradford.

THE DUCHESS OF ATHOLL expressed the honour she felt at being asked to be one of those to reply to the toast of "The Guests," and, on behalf of the women guests present, thanked the Society for its kind and generous hospitality. There were few thoughtful women, she felt, to whom the question of health did not appeal, and a word or two perhaps might be permitted on that branch of the work with which she was more

immediately concerned—the School Medical Service, perhaps the greatest step that had taken place in the great development of the educational service which had been brought about since 1902, and unquestionably one of the greatest events in the last twenty years, leading not only to complete medical inspection, but to considerable treatment of various ailments and to the establishment of open-air schools, special schools for various types of defective children, and nursery schools in the poorer areas, and in a report to be issued shortly it would be noted with pleasure that some advance was being made in the provision of more orthopaedic treatment for crippled children. They regarded the position as one in which, though the advances they hoped for might be delayed by financial stringency, they were moving on, and they were laying plans for the advance which they hoped would be much more general and rapid when the Chancellor of the Exchequer could meet the President of the Board of Education with more or less open hands. It was highly probable that the development of the School Medical Service owed a great deal to the inclusion in the Education Act of 1902 of a little clause with regard to the co-opting of women on Education Committees, and there was no doubt that assistance of no small value had been received from those members. Medical women also played a great part in the work, which seemed to call for many of the qualities which women ought to be able to bring to bear on their work—sympathy, conscientiousness and attention to detail. Speaking for the other women present, the Duchess said that they valued to the full the great work the Society as a whole was doing for the children of the country, and they wished it all possible success for the future.

THE RT. HON. PHILIP SNOWDEN said he desired to associate himself with the greatest heartiness in the expressions of appreciation made by the Duchess of Atholl in regard to the Society, with which it was his pleasure to be brought into intimate touch for the first time. He could hardly claim, like Sir Robert Bolam, to have been upon the fringe of the Society, though he had known the British Medical Association, and well remembered an occasion, when the National Insurance Bill was before the House of Commons, when a deputation of very irate doctors descended

upon him, and still retained a sense of the admiration he felt for their pugnacious ferocity and their compendious vocabulary! He was, however, greatly pleased to be amongst them that evening, and it was quite true that he had for a good many years been interested, as every politician ought to be, and every social reformer must be, in all problems of Public Health administration. Commencing public life as a member of a local municipal authority, he had quickly learned to appreciate the importance of the Public Health side of local Government, and indeed had sometimes wondered, like many other Members of Parliament, if he could not have rendered a greater service to the community by confining his public activities to the work of administration. There was this great difference between the House of Commons and municipal work, that upon a local Government body one saw things being done, while in the House of Commons weary months were spent, and there was very little indeed to see as the result of one's efforts and expenditure of time. There was an impression abroad in some quarters that the permanent officials of local Government authorities were of a reactionary character, or at any rate, of a conservative nature. His experience had been the very reverse of that, and he had always found that the permanent officials in all departments of municipal work had an excellent *esprit de corps*, were anxious to fulfil their duties in a most satisfactory manner, and brought to bear in the discharge of their duties great administrative skill, the highest technical knowledge, and an enthusiasm which commanded admiration. What had been said of the local Government service could with equal truth be said of the permanent Civil Service. No country in the world was better served, nor so well served, by the permanent officials than was this country, and there was one characteristic of our public service—State and Municipal—which pre-eminently distinguished it from that of many other countries, and that was its absolute incorruptibility. He looked forward to the public services providing an ever-increasing opening and opportunity for the products of the secondary schools and the universities. The great problem to-day was what to do with their boys, and especially what to do with their educated boys, and he felt that as the years went by the public services would make greater demands upon the educated youth of the nation. In regard to the question

of remuneration, Mr. Snowden said he had always been an advocate of adequate salaries for public officials. If the work was to be efficiently conducted it was sound economy to attract the best men by offering them adequate remuneration for their services. In the matter of financial difficulties they could not afford to retrench in expenditure upon the Public Health Service; indeed, that recovery of trade for which all were hoping depended in a very large measure on the maintenance and improvement of the health of the people. On reference to a report of Sir George Newman he had found that 70 million days in one year had been lost through sickness, and largely through preventable sickness. That loss was six times larger than the average loss through industrial disputes over the last twenty years. That was a field that the Public Health Service would have to set out to conquer, but the fight could not be carried on without sufficient financial assistance, and the State ought to bear a fairer share of the cost of many of the services which were not merely local, but national services.

SIR JOHN ROSE BRADFORD said that his presence at the gathering in the capacity of President of the Royal College of Physicians would show that there was no separation between one branch of medicine and another, and that the branch with which the Society was associated was one that every physician had at heart. The only thing that made him a little unhappy was that he could not help feeling that if the progress in Preventive Medicine, foreshadowed by the President, forged rapidly ahead he might be the last of the Presidents of the Royal College of Physicians to accept the hospitality of the Society at their Annual Dinner! Sir John, in conclusion, expressed his grateful thanks for being invited to be amongst them.

The fine rendering of a series of songs by Mr. Norman Williams contributed greatly to the success of the evening.

COUNCIL MEETING.

A meeting of the Council was held at the House of the Society, on Friday, November 19th, 1926. The President (Dr. E. H. Snell) was in the Chair, and there were also present: Profs. Kenwood and Kerr, Drs. Cates, Wilshaw, Naylor Barlow, Wheatley, Allan, Nash, Lyster, E. Ward, Paget Moffatt, Jameson, Porter, Veitch Clark, Brackenbury,

Banks, Eustace Hill, Pearce, Jolly, Gibbons Ward, Sanders, Clements, Stirk, and Kidner.

Apologies for absence were received from Drs. Stella Churchill, G. F. Buchan, Ridley Bailey, H. J. Milligan, E. G. Annis, Lt.-Col. F. E. Fremantle, M.P., and Lord Dawson. Dr. W. J. Howarth notified his absence for six months on sick leave, and intimated that possibly the Council might think it necessary to consider his seat vacated. It was agreed that a letter should be sent to Dr. Howarth assuring him that his place would be reserved for him, and that the Council would look forward to his return in renewed health after his winter in Algiers.

The President drew attention to the presence of Dr. H. B. Brackenbury on his election as a direct representative of the British Medical Association on the Council of the Society. Dr. Snell said that they would all welcome the assistance of one whose ripe judgment in all matters affecting medical practice was recognised by the whole profession. Dr. Brackenbury briefly acknowledged the kindly way he had been received.

Correspondence.—(1) From the Health Committee of Newport, Mon., in reference to Ministry of Health Circular, 736, suggesting that the Society should make recommendations for the guidance of Local Authorities in the matter of fees payable, and salaries receivable, by probationer sanitary inspectors during their period of training. It was agreed that there was not yet sufficient experience of the schemes of the new Examination Board on which to base a fixed scale, but that the charge of fifteen guineas payable by probationers for tuition under the Kensington Borough Council, and the grant of scholarships of £100 per annum for two years by the Willesden U.D.C., indicated the intention of Local Authorities to find some means of meeting the requirements of candidates. (2) From the Fishmongers' Company, inviting the Society to support the British Waterworks Association, the Salmon and Trout Association, and other bodies, in pressing upon the Government the urgent need for dealing with the progressive pollution of rivers in England and Wales. It was agreed that Prof. H. R. Kenwood be nominated to represent the Society in this movement. (3) From the National Association for the Prevention of Infant Mortality, regretting the inadvertent omission to consult the Society regarding the circulation of a recent questionnaire addressed to Public

Health departments in reference to maternity and child welfare work. It was agreed that the Association be asked to confer with the Officers of the Society on future occasions when it is desired to circulate such questionnaires in order to give the most useful form of enquiry, and to avoid the redundant and overlapping investigations which involve unnecessary clerical labour for Health Departments. (4) From the London School of Hygiene, acknowledging the appointment of Dr. G. F. Buchan as the representative of the Society on the Court of Governors of the School, and promising to bring the representations of the Society in this connection to the notice of the Board of Management of the School (see Proceedings of Council, *Public Health*, November, 1926, p. 56). (5) From the Australasian Medical Congress, welcoming the nomination of Dr. H. Cooper Pattin as the delegate of the Society, and promising Dr. Pattin a cordial reception on his arrival in New Zealand. (6) From a Medical Officer of Health forwarding a letter from the Home Office, stating that "With respect to No. 9 (b) of the Regulations made under Section 7 of the Cremation Act, 1902, the Secretary of State is advised that the expression 'Medical Officer of Health' for this purpose includes a Deputy." This statement had been questioned by another Medical Officer of Health, who declined to accept responsibility for an act of delegation which might involve him in criminal proceedings under the Cremation Act. After consideration of the correspondence the Council agreed that Medical Officers of Health might safely accept the Home Office as authoritative. (7) From the Association of County Medical Officers of Health, forwarding the following resolution, viz:—"That this Association is of opinion that it is the duty of the General Medical Council to bring to the notice of all Medical Practitioners those provisions of the Midwives and Maternity Homes Act, 1926, which directly concern them." It was agreed to forward a letter in support of this resolution to the G.M.C.

Factories Bill, 1926.—Dr. Cyril Banks (Chairman) on behalf of the special Committee appointed to consider this Bill, reported a recommendation that the Ministry of Health be asked to receive a deputation of the Society at an early date to draw attention to points in the Bill seriously affecting the responsibilities of local Sanitary Authorities. After some

discussion it was agreed that the matter should be referred to the British Medical Association, with a request for such prompt action as may be considered advisable.

B.M.A. Representation.—A letter was received from Dr. Cox, enquiring if the Society would favour an amendment of the B.M.A. Bye-Law 1 (3) to permit the election of retired Medical Officers as "Public Health Service Members" of the Council and Representative Body of the Association. Agreed that the Society does not ask for such amendment at present.

Poison and Pharmacy Acts.—Prof. H. R. Kenwood was appointed to give evidence on behalf of the Society before the Departmental Committee at present considering the desirability of modifying these Acts.

The Supervision of a Health Department.—Arising out of the matter reported at the October Meeting of Council under this heading (see *Public Health*, November, 1926, p. 56), a letter was read from the Town Clerk of the county borough concerned, as follows:

I have to state that the condition referred to is not an innovation, the Health Department, in common with the other public departments of the Borough, having for years past been under the supervision and direction of the Town Clerk. It should be observed that this arrangement is in accord with the expressed views of the Minister of Health, who, some time ago, informed my Council that in his opinion it was "desirable that there should be one official of the Council who should be responsible, under the Council, for the general oversight of the whole of the work which comes under the Council, while of course not interfering in details, particularly technical details in which he has no special competence." The Minister further suggested that the Council would be well advised to arrange that the Town Clerk should exercise general oversight over the various departments.

It will be understood that the Town Clerk does not intervene in regard to the discharge of any statutory duty devolving upon the Medical Officer, or in regard to technical matters. The arrangement is not intended to derogate in any way from the status or responsibility of the Medical Officer of Health as head of the Health Department, and his reports are submitted direct to the Council or its appropriate Committees. It has not been found in practice to give rise to difficulties, but rather to promote effective co-ordination of the work of the departments.

It having been reported that a similar explanation had been forwarded to the B.M.A., it was agreed to await further action by that body. It was further agreed that the B.M.A. should be asked to ascertain when, and in what circumstances, the Minister of Health expressed the opinion quoted in the letter of the Town Clerk.

The Salaries' Committee.—Dr. H. B. Brackenbury was unanimously elected an additional member of this Committee.

Chairs for Council Room.—The Executive Secretary reported that donations had been received from the Branches towards the cost of chairs for the Council room, as follows:—Eastern Branch £3, Southern Branch £3, Home Counties Branch £15, N.W. Branch £9, Northern Branch £3, Midland Branch £15, Metropolitan Branch £20. It was agreed that suitable letters of acknowledgment be forwarded to the Branches.

Irregular Appointments.—Statements were made in reference to action taken in co-operation with the British Medical Association in connection with irregular advertisements issued by the Yorks. (West Riding) C.C., the Lincs. (Lindsey) C.C., the Cheshire C.C., and Nottingham C.B.

The Council then adjourned.

ORDINARY MEETING.

An Ordinary Meeting was held at the House of the Society, on Friday, November 19th, 1926, the President (Dr. E. H. Snell) in the Chair. There was a large attendance. Apologies for absence were received from Dr. A. B. McMaster, Dr. T. Ridley Bailey, Dr. Howarth, Lt. Col. F. E. Fremantle, M.P., and others. The Minutes of the last Ordinary Meeting having been approved and signed, the following candidates were elected to the Society:—

As Fellows:—

Bates, Hubert Tunstall, O.B.E., B.A., M.B. Dubl., D.P.H.; Falk, Herman, Major, I.M.S. (ret.), M.B., Ch.B., Cantab., M.R.C.S., L.R.C.P., D.P.H., D.T.M.; Green, Irene Beatrice Metcalf, M.B., B.S., Durh.; Hewitt, Norman Sinclair, M.A., M.B., B.Ch., Cantab., M.R.C.S., L.R.C.P.; Jameson, George Dearden, Major, R.A.M.C., B.A., Cantab., M.R.C.S., L.R.C.P., D.P.H.; Lamont, Christina Stewart, M.B., Ch.B., Glasg., D.P.H.; Marsden, Herbert Ellis, M.B., Ch.B., Liv., D.P.H.; McSweeney, Christopher Joseph, M.B., B.Ch., N.U.I., D.P.H.; O'Farrell, Michael A., M.B., B.Ch., N.U.I., D.P.H.; Stone, Eleanor C. E., M.B., B.S., Lond., M.R.C.S., L.R.C.P., D.P.H.

As Associate:—

Bryce, J. K., L.D.S.

A number of nominations were received for the next election.

Then followed a discussion on "Research Work in Preventive Medicine," from the point of view of:—(a) The Medical Research Council: Sir Walter Morley Fletcher, K.B.E., M.D., F.R.S. (b) The Medical Officer of Health: W. G. Savage, M.D.,

B.Sc., D.P.H. (c) The Laboratory Director: Prof. W. W. C. Topley, M.A., M.D., F.R.C.P. (d) The Statistician: Prof. Major Greenwood, F.R.C.P., F.S.S.

After the above speeches a number of members took part in the discussion which will be fully reported in an early issue of *Public Health*.

THE HOME COUNTIES BRANCH.

President: Dr. Joseph Cates, County M.O.H., Surrey.
Hon. Secretary: Dr. H. J. Milligan, M.C., M.O.F., Reading.

The first meeting of the 1926-27 session of this Branch was held at the County Hall, Kingston-on-Thames, on October 1st, 1926, Dr. W. W. Jameson presiding.

As the first business of the meeting Dr. Jameson called upon the President-elect, Dr. Joseph Cates, to assume the Presidency for the session. Dr. Tapper proposed a vote of thanks to Dr. Jameson for his conduct of the office of President during the preceding session. This was seconded by Dr. A. E. Porter and carried unanimously.

The formal business of the meeting having terminated, the party proceeded by steam launch for a trip on the Thames. Tea was provided for the members of the party by Dr. and Mrs. Cates, and a most enjoyable afternoon was spent. On the motion of Dr. Buchan, seconded by Dr. Jameson, Dr. and Mrs. Cates were heartily thanked for their hospitality.

The second meeting of the 1926-27 session of this Branch was held at the house of the Society on November 5th, 1926.

The Minutes of the previous meeting were read and approved.

Apologies for absence were received from Drs. G. A. C. Gordon, J. Holroyd, Digby White, and K. E. Tapper.

Dr. A. E. Porter (Honorary Treasurer) then presented the financial statement and balance sheet. Drs. Jameson and Turner were appointed Auditors. The statement was approved and adopted, and on the motion of the President, Dr. Porter was heartily thanked.

The Secretary submitted a letter from the Executive Secretary inviting branches to present chairs for the furnishing of the Council Chamber. After discussion, it was resolved that the Branch should provide a

sum of £15 for the purpose of presenting 5 chairs.

It was also resolved that the Branch, in accordance with precedent, should present a portrait of the late President of the Society (Dr. George F. Buchan) to be hung with the portraits of previous Presidents in the Council Chamber.

The Secretary then invited members of the Branch to state their views in regard to the arrangement of the programme for the session. It was agreed that with a view to getting greater variety and encouraging the interest of the members, three of the meetings during this session should be devoted to visits to factories or other establishments of scientific interest. The Secretary was instructed to endeavour to arrange visits to the Burroughs Wellcome Laboratory (Biological Research Department); the factory of the Anglo-Swiss Milk Company at Chippenham; and one other establishment to be arranged by the President and Secretary.

Consideration was given to the Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations, 1926, the discussion, in which a large number of those present took part, being mainly concerned with the arrangements for the provision of Consultants and Bacteriologists required by the Regulations, as well as the hospital and nursing arrangements. At the conclusion, the Secretary was instructed to communicate with the Council of the Society with a view to their arranging with the British Medical Association a suitable scale of fees to be paid to Consultants and Pathologists. Many members criticised the suggestion of the Ministry of Health in regard to questions to be asked of medical practitioners who had notified cases of puerperal pyrexia and puerperal fever. Although the Branch decided to take no action, the feeling was expressed that if the Ministry thought such information necessary it should be laid down as a duty of Medical Officers of Health.

A short discussion of the Public Health (Ophthalmia Neonatorum) Regulations, 1926, followed, during which special attention was drawn to the Ministry of Health's suggestion that Local Authorities should not attempt to recover fees from patients where doctors have been called in for ophthalmia neonatorum, or discharge from the eyes.

The meeting then proceeded to consider the Midwives and Maternity Homes Act, 1926,

and many suggestions were made in regard to the action to be taken by Medical Officers of Health in recommending the registration of Homes. These suggestions had special reference to the suitability of the applicant with regard specially to nursing training, and of the equipment that might reasonably be demanded of such Homes.

THE YORKSHIRE BRANCH.

President: Dr. S. Fox Linton, M.O.H., Scarborough.
Hon. Secretary: Dr. G. H. Pearce, M.O.H., Batley.

A meeting of the Council of this Branch, was held on October 29th, 1926, at the Education Offices, Calverley Street, Leeds, twelve members being present. An apology for absence was received from Dr. S. G. Moore.

The Minutes of the last meeting were read, confirmed, and signed, and some correspondence considered.

Arrangements were discussed respecting future meetings, and it was decided that one of the Branch meetings in the Spring of 1927 be held in conjunction with the Royal Sanitary Institute, it being stated that a sessional meeting of the Institute had been fixed to take place in Leeds, probably in February or March. The arrangements were left in the hands of the incoming President (Dr. S. Fox Linton), together with Dr. J. J. Jervis and the Honorary Secretary.

An ordinary meeting of the Branch followed the Council meeting. Seventeen members attended together with Capt. Sandford, R.A.M.C. (visitor).

The Minutes of the last meeting were read, confirmed and signed. Apologies for absence were received from Drs. V. T. Thierens, M. M. Thierens, and McNaught.

The retiring President (Dr. R. L. Thornley) delivered his Presidential Address which dealt in a most interesting manner with the subject of tropical sanitation. Dr. Thornley having resided for a lengthy period in the tropics, is well qualified to speak on this subject, and his address was listened to by the members with great interest. The paper will appear in "Public Health" in due course.

A vote of thanks to Dr. Thornley for his address was moved by Dr. J. Johnstone Jervis, Leeds, seconded by Dr. J. Mair, Harrogate, and carried with acclamation.

Dr. Thornley then installed his successor for the Session 1926-27, Dr. S. Fox Linton, of

Scarborough, in the Presidential Chair, amidst hearty applause. Dr. Linton voiced his appreciation of the reception accorded him, remarking that he was sensible of the honour his colleagues of the Branch had conferred upon him, and expressing sincere hopes for prosperity to the Branch during the coming Session.

Dr. T. Gibson, Wakefield, proposed a hearty vote of thanks to Dr. R. L. Thornley for his services as Branch President during the session 1925-26, and to Dr. C. Banks, Halifax, for his services as Honorary Secretary and Treasurer to the Branch during the previous three years. The proposition was seconded by Dr. C. Leonard Williams, Todmorden, and unanimously carried. Both members suitably replied. Dr. Thornley's Presidential year has been a very successful one, as is shown by the annual report of the Honorary Secretary, Dr. Banks, to whom the Yorkshire Branch is under no small obligation for the very efficient manner in which he has, for three years, discharged the duties of Honorary Secretary and Treasurer, combined with his zealous regard for the interests of the Society as a whole.

Dr. Banks then read his report for the past Session, and presented his balance sheet, from which it appeared that the amount standing to the credit of the Branch at the end of the financial year was £7 9s. 11d.

Report—Session 1925-26.—During the Session there were six meetings of the Council, and seven meetings of the Branch. One meeting was held at the Hotel Metropole, Leeds; one at the General Infirmary, Leeds; one at Hull, in connection with the Royal Sanitary Institute; one at Wetherby following a tour to inspect Clean Milk farms; and the remainder at the Education Offices, Leeds. In addition there have been two Dinners held during the year, while the meeting at Wetherby partook of a social character, guests being entertained. A joint meeting with the Yorkshire Coroners' Society was arranged, but had to be abandoned owing to the general strike. It will thus be seen that the Branch has had a very active year, and the nature of the discussions and practical demonstrations has been varied and of unusual interest. The average attendance at the Central Council meetings was 10, and at the General meetings 16. At the first dinner 33 persons were at table, and at the second 39 (including lady guests). The Branch representatives on the Council were called to seven meetings, five in

London, one in Newcastle, and one in Glasgow. Dr. Pearce attended five, and the Secretary four (the November meeting could not be reached owing to fog). The membership of the Branch has remained about level, round about 150, but with the aid of the list of Yorkshire appointments compiled with much labour by Dr. Pick, we ought now to be able to attempt something in the way of a recruiting effort.

The Honorary Secretary was instructed to write to Dr. Charles Sanders, a past President and past Treasurer of the Society of Medical Officers of Health, conveying to him the sincere appreciation of the Yorkshire Branch for his kindness in attending the Annual Dinner of the Branch at Leeds, in September, as the representative of the President (Dr. G. F. Buchan) who was unable to be present.

On the proposition of Dr. Gibson (Wakefield), seconded by Dr. Scatterty (Keighley), Drs. Banks, Belam, Jervis, and Pearce were elected as representatives of the Yorkshire Branch of the Society of Medical Officers of Health upon the Yorkshire Branch Council of the British Medical Association.

A lengthy discussion ensued upon the administration of the Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations, 1926. At the close it was the unanimous opinion of those members present that patients notified as requiring hospital accommodation should, if possible, be sent to a general surgical hospital and not to the ordinary isolation hospital, the reason for this being that usually the condition was surgical. It was definitely stated, however, that this opinion did not apply to the great Cities and large County Boroughs where the services of consulting surgeons were immediately available owing to their residence in such towns, even if they were not retained as part-time members of the isolation hospital staff. With respect to rural or semi-rural areas it was emphasised that motor transport rendered easy the quick and safe removal of patients by ambulance to a surgical hospital. It was also unanimously the opinion of the members present that where the practitioner expressed to the Medical Officer of Health his desire to have a second opinion upon a case notified under the Regulations it was desirable, where possible, that the person called in consultation should be of recognised consultant rank.

THE METROPOLITAN BRANCH.

President: Dr. G. Quin Lennane, M.O.H., Battersea.
Hon. Secretary: Dr. James Fenton, M.O.H., Kensington.

A meeting of this Branch was held at the House of the Society on November 12th, 1926, the President occupying the Chair. Fourteen members were present.

In submitting the report of the meeting of the Council, held earlier in the afternoon, the Honorary Secretary stated that the Council had resolved to recommend, for an experimental period of twelve months, the holding of (a) monthly meetings of the Council on a fixed day in each month, and (b) quarterly meetings of the Branch. It was further stated that the Honorary Secretary had been directed to report to the next meeting of the Council which Fridays can be fixed for the meetings in 1927.

The report of the Sub-Committee appointed to consider which sections of the Public Health Act, 1925, it is desirable to have included in a London County Council (General Powers) Bill was submitted and adopted. It was resolved to forward a copy of the report to the Metropolitan Boroughs' Standing Joint Committee and to the London County Council with an intimation to the latter authority that six members of the Branch are prepared to give evidence in support of the recommendations contained therein. It was also decided to call the special attention of the Metropolitan Boroughs' Standing Joint Committee to those paragraphs of the report dealing with (a) Section 62 of the Public Health Act, 1925; (b) the combined drain versus sewer problem, and (c) the removal of infirm and diseased persons in certain cases.

Circular 736 of the Ministry of Health, dealing with the provision of facilities for the practical training of candidates for the sanitary inspectors' examination was submitted, but it was resolved that this matter should be left to each Medical Officer of Health to take such action with his Authority as he may think best.

Careful consideration was given to the matter of the registration of manufacturers and vendors of ice cream, and the premises where this commodity is made, stored or sold, and it was resolved that the Branch are in favour of registration being secured by legislation. Directions were given for this decision to be brought to the notice of the Metropolitan Boroughs' Standing Joint Committee and the London County Council with an intimation that Dr. Barnes,

Dr. Howell and Dr. C. S. Thomson are prepared to give evidence, if requested, showing the need of registration.

A letter was read to the Branch in which it was stated that the Nestlé and Anglo-Swiss Condensed Milk Company will be pleased to arrange for a visit to be paid by the Branch members to their Chippenham factory. It was decided to inform the Company that if they would be good enough to extend to the Branch an invitation to visit the factory some time in the summer of next year, it would receive careful consideration.

A valuable paper on Post Scarlatinal Meningitis was read to the Branch by Dr. J. Graham Forbes. Following a discussion, in which the President and several members participated, a hearty vote of thanks was proposed by Dr. J. D. Rolleston, seconded by Dr. Clark Trotter and carried. In accordance with a general expression of opinion, it was decided that the paper should be sent to the Editor of PUBLIC HEALTH for publication.

THE MIDLAND BRANCH.

President: Dr. G. B. Dixon, Chief T.O. and Medical Superintendent, Birmingham.

Hon. Secretary: Dr. R. H. H. Jolly, M.O.H., Wolverhampton.

The Second Meeting of the Session was held at the Medical Institute, Great Charles Street, Birmingham, on November 4th, 1926. The President and 15 members were present.

Apologies for absence were received from Drs. Miller, Blumer, Bertram Smith, Hamilton Wood, and Auden.

In the absence of the Treasurer (Dr. T. Ridley Bailey), Dr. Jolly presented the Annual Report and Balance Sheet for the year. This was received and adopted.

The President then called upon Dr. Killick Millard to open a discussion on the Humane Slaughtering of Animals for Food. After referring briefly to the position in Leicester, the speaker reviewed the arguments for and against the use of the humane killer in abattoirs. A vigorous debate ensued in which the majority of the members took part. There was substantial agreement on the need for the abolition of all private slaughterhouses in favour of well organised and equipped public abattoirs. The use of the humane killer for larger animals was generally approved, but there was some difference of opinion as to the advisability of employing it for pigs and sheep.

THE WEST OF ENGLAND BRANCH.

President: Dr. C. E. Tangye, County M.O.H., Wiltshire.
Hon. Secretary: Dr. P. H. Stirk, M.O.H., Exeter.

A meeting of this Branch was held at Trowbridge, on October 22nd, 1926, twelve members and two visitors being present.

Apologies for non-attendance were received from Dr. Nankivell, Dr. Noy Scott, and Dr. Swan.

In the absence of the President, Dr. Crossley was elected to the Chair.

Before the meeting, members were welcomed by the Chairman of the District Council, who regretted that time did not permit the members viewing some of the Public Health activities and works at Trowbridge, and expressed the hope that on another occasion the Branch would pay a further visit, to which the chairman in grateful terms replied, thanking the District Council for the use of the Board Room for the meeting.

The Minutes of the last meeting were read and confirmed.

Dr. C. E. Tangye, Medical Officer of Health, Wiltshire County Council, was then installed as President for the Session 1926-27, and delivered his Presidential Address on "Certain Aspects of the Milk Question, particularly the work under the Milk and Dairies (Consolidation) Act, 1915."

A discussion followed, and questions were asked, in which Dr. Agate, Dr. Blackett, Dr. Dunstan Brewer, Dr. Wilson, and others took part.

As members were invited to view Major Fuller's model dairy farm for the production of "Certified" milk, the discussion, which largely centred round the relative values of the bacteriological examination of milk, and the biological test, had to be curtailed.

Correspondence was read from the Executive Secretary asking if the Branch would present a chair or chairs for the re-furnishing of the Society's room, in which Council Meetings are held, and, after discussion, it was decided that one Chair should be presented for the one Representative of the Branch on the Council.

It was reported by the Hon. Secretary that Col. Herbert Jones was, at the recent meeting of the Society, unanimously elected an Honorary Fellow of the Society as a slight recognition of the valuable work he had done for the Society, and for Medical Officers of Health generally.

A congratulatory vote was passed, and the Secretary was instructed to convey this to Col. Herbert Jones, with an expression of the pleasure the Branch felt at this almost unique honour which had been conferred upon him.

The members then proceeded by char-a-banc to Major Fuller's model dairy farm, where the process of milking and handling milk was demonstrated, and afterwards Major and Mrs. Fuller kindly conducted the members over their beautiful old fifteenth century house.

The party then returned to the Town Hall, Trowbridge, for tea, which terminated a most useful and enjoyable meeting.

The date of a future meeting was left to the President and Hon. Secretary.

THE NORTH-WESTERN BRANCH.

President: Dr. C. W. Paget Moffatt, M.O.H., Bolton.
Hon. Secretary: Dr. G. W. N. Joseph, M.O.H., Warrington.

A meeting of this Branch was held at the Public Health Laboratory, Manchester, on November 12th, 1926, the President in the Chair. Twenty-one members were present.

The Minutes of the previous meeting were read and confirmed.

Dr. McClure opened a discussion on "Suggestions for the revision of the list of notifiable diseases." He first mentioned the list of diseases, and pointed out how the original schedule had been added to from time to time. The cost of notification to Local Authorities in England and Wales was now about £40,000 per annum, and in Manchester it averaged about £3,000 each year. The objects of notification were to find the source of disease to prevent its spread, to remove unfavourable conditions, to insure that facilities for treatment were adequate, and to accumulate knowledge as to its aetiology, etc. He thought that such vague terms as Enteric Fever, Continued and Relapsing Fever, might well be removed from the list; that there was no use in retaining Puerperal Fever now that Puerperal Pyrexia was notifiable and that Erysipelas did not warrant inclusion. On the other hand, Typhoid Fever, Paratyphoid, and Food Poisoning should be added. He also dealt with the question of the notification of Measles, Whooping Cough, Meningitis, Rheumatic Fever, Cancer, and Chicken-pox.

A useful discussion ensued, in which Drs. Paget Moffatt, Talent, Walker, Scholefield,

Whitehead, Wilkinson, Wood, Beggs, Gibson and Barlow took part. It seemed to be generally agreed that the notification of Measles was only useful when adequate facilities for treatment were in existence, and some thought that once such facilities had been provided the public would use them whether there was notification or not. Notification of Chicken-pox was of great service if an outbreak of Smallpox was in existence, but general notification of the disease was not necessary and, in fact, was liable to defeat the main object. The majority of members present were not in favour of notification of Venereal Diseases.

THE SOUTHERN BRANCH.

President: Dr. A. D. Edwards, M.O.H., Bournemouth.
Hon. Secretary: Dr. H. D. Kelf, Asst. M.O.H., Hants. County Council.

A meeting of this Branch was held at East Park Terrace, Southampton, on November 5th, 1926. There were present: The President, Drs. Neil Beattie, A Cockayne, A. Druitt, W. J. Hart, B. L. Lloyd, R. A. Lyster, P. Moxey, W. Simpson, T. S. Stirling, M. R. E. Hodgson, and the Hon. Secretary.

After the minutes had been read and confirmed, apologies for absence were announced from Dr. Lockhart Stephens, Dr. Livingstone, Surg.-Capt. Alderson, and Mr. A. Ward.

A letter of thanks, in reply to a congratulatory message sent at the previous meeting, was received from Surgeon Rear-Admiral R. J. Mackeown.

Interesting clinical cases were shown by Dr. Moxey and Dr. W. J. Hart, and a general discussion followed.

Dr. Neil R. Beattie read a paper on "Public Health Propaganda," dealing with all branches of Public Health activities, showing the present limitations, and advocating extensive propaganda in every section, particularly in Hygiene and Health subjects among Boy Scouts, the Church, and other organisations.

Dr. R. A. Lyster contributed very informative additions to the subject, especially with regard to Broadcasting, Tuberculosis Dispensary work, and popular lectures.

The President and Dr. Druitt also spoke, cordially thanking Dr. Beattie for his very thoughtful paper.

At the conclusion of the meeting Dr. R. E. Lauder entertained the members to tea.

THE MATERNITY AND CHILD WELFARE GROUP.

President: Dr. Mabel Brodie, Asst. Welfare M.O., Durham County.

Hon. Secretary: Dr. Margaret Emslie, 22, Wimpole Street, W.1.

A meeting of this Group was held at the House of the Society, on October 21st, 1926, when twenty-five members and visitors were present. The President was at home to members preceding the meeting, and very kindly entertained them to tea.

Dr. Stella Churchill, in the unavoidable absence of Dr. Nash, the retiring President, inducted Dr. Mabel Brodie as President of the Group for the Session 1926-27, and the President then took the Chair.

The minutes having been taken as read were signed by the Chairman.

Apologies for absence were announced on behalf of Dr. Nash and Dr. Scurfield.

The President then gave her Presidential Address on "The Teaching of Mothercraft," which will be published in an early number of "Public Health."

Discussion on the Address having been permitted, Dr. Gamgee, Dr. Nicoll, Dr. Shepherd, and one other speaker drew attention to various points of importance.

Dr. Margaret Alden, in proposing a vote of thanks to the President, endorsed what had been said with regard to the need for uniformity of teaching, and the vote having been seconded by Dr. Emslie was very heartily accorded.

A meeting of this Group was held at the House of the Society on November 19th, 1926, when 19 members and visitors were present, Dr. H. K. Waller, Vice-President, being in the Chair.

The minutes of last meeting were read, confirmed, and signed.

Apologies for absence were intimated from Dr. Brodie, Dr. Shepherd, Dr. Gamgee, and Dr. Nash.

The Chairman then called on Dr. Allan Hamilton, Royal College of St. Katherine, Poplar, who delivered a most interesting address on a year's work in "Light Treatment at an Infant Welfare Centre." The address will be published in the journal at an early date.

Questions were asked by Dr. Churchill, Dr. Gregory, Dr. Savage, Dr. M'Gonigle, Dr. Greig and Dr. Waller, to which Dr. Hamilton kindly replied, and the meeting closed with a very hearty vote of thanks to the speaker for his most lucid and helpful paper.

SCHOOL MEDICAL SERVICE GROUP.

President: Dr. H. Ratcliffe Kidner, Div. M.O. London County Council.

Hon. Secretary: Dr. W. J. M. Slowan, Asst. M.O., London County Council.

The thirty-first general meeting of this Group was held at the Society's House, on October 16th, 1926, the President in the chair. Eleven members and six visitors were present.

Dr. Garnet Leary, of Melbourne, Australia, read a paper on "Stammering as a Psycho-Neurosis, with Corrective Measures," and a discussion followed in which Drs. E. J. Boome and J. N. Dobbie, Assistant Medical Officers, London County Council, and Dr. T. P. Puddicombe, D.S.O., Assistant Medical Officer of Health, Essex County Council, took a prominent part.

The meeting closed with a hearty vote of thanks to Dr. Garnet Leary for his most interesting paper.

THE NAVAL, MILITARY AND ROYAL AIR FORCE HYGIENE GROUP.

President: Lieut.-Colonel J. Howard-Jones, T.D., R.A.M.C. (T.F.), M.O.H. Newport, Mon.

Hon. Secretary: Major G. S. Parkinson, D.S.O., R.A.M.C.

A well attended meeting of this Group was held on October 29th, 1926, at the House of the Society in London.

Letters of regret for absence were received from Dr. A. Balfour, Dr. A. B. McMaster, Colonel P. H. Henderson, and Dr. L. Meredith Davies.

The Minutes of the last meeting were read and confirmed.

Surgeon-Captain T. B. Shaw, before leaving the Chair, gave a short *résumé* of the work of the past Session. He then said how fortunate the Group were in obtaining the services of Lieut.-Colonel Howard-Jones as President for the coming Session, and felt sure his year in office would be a most happy one.

A vote of thanks to Surgeon-Captain T. B. Shaw for his work during the past Session

was proposed by Major-General H. P. W. Barrow, seconded by Major-General Sir Wilfred W. O. Beveridge, and carried with applause. Surgeon-Captain Shaw replied.

The new President, on taking the Chair, thanked those present for the welcome accorded him. He said he had been a member of the Society of Medical Officers of Health for thirty years, and during that time had served in various capacities. He regretted that in the past he had not been able to attend the Group meetings as much as he would have liked, but though the distance he had to come was great, he hoped to do so in future. The Mercantile Marine Services, he added, would be dealt with in his Presidential Address.

The President then called on Dr. G. Quin Lennane to open a discussion on the "Unification of the Civil and Military Health Services," and a short but most interesting paper then followed.

Among those who took part in the discussion were the President, Lieut.-General Sir Matthew H. G. Fell, Professor H. R. Kenwood, Major-General Sir William G. Macpherson, Major-General Sir Wilfred W. O. Beveridge, Major-General H. P. W. Barrow, Surgeon-Captain T. B. Shaw, and Dr. C. W. Hutt.

A vote of thanks to Dr. Lennane for coming to open the discussion was proposed by Major-General Sir William Macpherson, seconded by Squadron-Leader J. H. Wood, and carried unanimously.

Reviews.

THE WONDERS OF THE HUMAN BODY. A Health Reader for Schools. By MARGARET A. SHUTTLEWORTH. London: University of London Press, Ltd, 1926. pp. 195. Price 2s. 6d.

The author of this book is Biology Mistress in a County Secondary School, and was formerly lecturer in physiology and hygiene in a training college. These are her qualifications for writing the book, a step she was induced to take, she tells us, at the request of several teachers who have felt the need of a text-book on hygiene. In selecting the subject matter the aim has been to ensure that the book may be a one year's course in hygiene, and to set out the information in clear and simple language so that the children may find pleasure in the reading. In the

main, Miss Shuttleworth has been successful. The information given relates to such matters as must inevitably find a place in a book of this kind, and in general it appears to be accurate. As to the language, though perhaps not so simple as might have been expected it is probably as simple as it can be made. The book is very well got up, and will, it may be hoped, appeal to the children. The task of preparing a book of this kind, for which there is a very definite need and place, is no easy one, and Miss Shuttleworth may be congratulated on having undertaken it and carried it through to so satisfactory a completion.

ELEMENTS OF HYGIENE AND PUBLIC HEALTH.

By CHARLES PORTER, M.D., B.Sc., M.R.C.P., Ed., Medical Officer of Health, St. Marylebone. Humphrey Milford, Oxford University Press, 1926. Second Edition. pp. 425, 98 illustrations. Price 14s. net.

To all those who are concerned with the teaching of Public Health to medical students the appearance of the new and revised edition of this little book will be most welcome. Designed to meet the particular needs of general medical practitioners, the material is admirably arranged. So few writers on Public Health point the duty of the private doctor in connection with each matter dealt with, and this Dr. Porter does most clearly. The text is plain, written in most interesting style, and is well illustrated. No unnecessary details are set out, the purpose obviously being to give the reader a sound general idea of the causes of ill health, and how they are to be tackled, not only by the Medical Officer of Health, but by the family doctor.

A valuable appendix, which might with great advantage be extended in a future issue, contains one or two typical leaflets in use in progressive health departments. We should have liked to see included in the present edition, for instance, a "measles" leaflet, emphasising, *inter alia*, the importance of strict attention to mouth and throat cleansing. That on "advice to mothers" is particularly valuable.

Considering the wide extent and comprehensiveness of its material this book would have been a revelation to the teachers of the senior medical men of the present day in the attractiveness with which the entire subject matter is invested and set forth.

OUR BABY. By Mrs. J. Langton Hewer.
Bristol: John Wright and Sons, Ltd.
1926. pp. 191. Price 2s. 6d. net.

Since this book was first published in 1891, it has passed through no fewer than 18 editions. The total number of copies issued is 170,000. These figures suggest that this must be one of these "best sellers" that one hears so much about. In this edition the text has undergone considerable revision, certain of the chapters having been rewritten in order to bring the teaching up-to-date. Having passed through so many editions the book is evidently popular, and no doubt is largely used as a book of reference by mothers. In general, the instruction and advice offered appears to be sound, and is couched in sufficiently simple language.

HOUSE REPAIRS. By EDWARD W. HOBBS.
London: The Architectural Press, 1926.
pp. 80. Price 5s. net.

"The purpose of this book is to explain to the householder or amateur craftsman, briefly, and in a pictorial manner, how to carry out numerous minor repairs in and around the house." These are the words of the author. The explanations in the majority of cases are certainly brief, but being so may encourage some householders to attempt even the more difficult of the operations. The illustrations, of which there are over 150, are very diagrammatic, and have the effect of helping out the briefer of the hints offered.

Correspondence.

The Editor does not accept responsibility for the opinions of correspondents.

EDUCATION IN HEALTH.

To the Editor of *Public Health*.

Sir,—Even those who, like myself, enjoy the unconscious humour of "The Eminent Surgeon and Dietetic Expert" (and all human happiness should count) must agree that the Society of Medical Officers of Health is the most suitable organisation to undertake central health education and propaganda. But, as the last of the Individualists, will you allow me to point out that the most effective form of propaganda is of the prophetic type, for though you can stone a prophet you can never

stop his mouth dead or alive, even with the "jargon of officialese." This type of propaganda is a job for the individual, and a somewhat thankless one if what is desired is ribbons and honours and professional promotion, yet those who are acquainted with the work for consumptives in Cambridgeshire, mothers and children in Durham, dentistry in Staffordshire, cripples in Shropshire, adolescents in Westmoreland, know that these conspicuous and splendid successes were due to this form of propaganda which transferred the sincerity and integrity of one mind to thousands; for a Council is very much what the enthusiastic and persistent official chooses to make it, and every Committee requires and respects a lead.

The methods of the individualist are, of course, purely opportunist; he may ingratiate himself with the daughter of the broadcaster, or the manager of the picture palace, or the president of the Band of Hope! He may amuse himself with sprightly back chat at a travelling infant welfare exhibition or education week, or baby show in a colliery district. Personally I have found the Toc H. Society most useful in disseminating a knowledge of "Fathercraft," and in the distribution of leaflets, and to cut too long a story short, cannot altogether agree with your distinguished President that you can provide propaganda but not audiences.

I submit that the individualist will always obtain the local audience he deserves, if he dares to be himself, and that his activities are in no way incompatible with "the machine," or even with the harmless drolleries of the eminent surgeon.

I am, Sir, yours faithfully,

ARTHUR G. WILKINS, M.B., J.P.

Harold Court Sanatorium, Romford.

November 3rd, 1926.

SMALLPOX IN LONDON AND THE PROVINCES.

To the Editor of *Public Health*.

Sir,—The editorial "Smallpox in London," in the November issue, in addition to being painfully and entirely orthodox, seemed to challenge a reply from the heterodox.

Undoubtedly, smallpox causes greater perturbation in London than in the provinces, and the reason is not far to seek.

London has of recent years experienced limited outbreaks, with a relatively high case mortality, of classical smallpox, which I prefer to term variola major; London has had no experience of the mild smallpox, which I prefer to term variola minor, which is the only form of smallpox the provinces have experienced of late years.

The smallpox outbreaks at Poplar, Paddington, and twice at Willesden, were, all of them, in their most severe cases, characteristically classical. Of course, some of the cases were very mild, as happens in all diseases. The outbreaks of smallpox in the Provinces have been characterised by being always mild, and in never exhibiting certain severe forms of classical smallpox. Surely then an attempt should be made to divide the disease into major and minor forms clinically, for as yet we know too little of the virus to, by test tube, distinguish the differences.

However, the orthodox decline to consider the sub-division of smallpox, and at present for London this attitude does not matter as the lay Londoner, having learnt only of variola major, regards all smallpox as dangerous, and fears it accordingly. But as in the provinces there have been thousands of cases yearly of variola minor and no variola major, the disease is regarded as trivial by the laity of the provinces, and as they are told the disease is all one, many are coming to regard all smallpox as trivial, and that official advice concerning it may be safely disregarded; surely a dangerous state of things, and made worse by the fact that the protection conferred by variola minor is so evanescent against vaccinia that it may be expected to be of short duration against variola major; while if there is one thing the laity have been told it is that both vaccination and having had smallpox protect against smallpox.

I would submit a tentative sub-division of variola into major and minor varieties. My classification is based on the fact that certain severe manifestations are never seen in variola minor, while at least one of them will occur if an outbreak of variola major continues so long as to produce a third crop of cases.

While one typical severe case is enough to diagnose an epidemic of variola major, obviously an isolated mild case or cases may be either major or minor variola. In a short time the continued absence or the occurrence of a typical severe case will declare an outbreak

to be minor or major variola. The recent London outbreaks have all demonstrated their grave character in less than three weeks from their commencement; the provincial outbreaks have remained true to type for seven years.

I would define then:—

(a) Variola Minor as:

(1) A non-fatal form of smallpox, save either at the extremes of age or in the presence of a disease or injury so grave as to be in itself a common cause of death.

(2) A form in which certain forms of profound smallpox poisoning, characteristic of variola major, are never seen.

(3) A form in which a vaccinal barrier conferred by four marks in infancy is absolutely protective for twelve years, and for sixteen years will so protect that if the disease is contracted there will be no more than fifty spots.

(b) Variola Major as:—

(1) A form of smallpox characterised by being often fatal.

(2) Although many cases are very mild, characteristic cases exhibit profound toxæmia, a hæmorrhagic condition, etc.

(3) A vaccinal barrier efficient against variola minor may not be efficient against this form, e.g., a child vaccinated in infancy and under five may contract variola major.

(c) An epidemic if it be variola major will, if it persists, demonstrate its nature by a characteristic case within six weeks, while if an epidemic does not do so within that time it will remain mild, that is, will be not major but minor variola.

How do these definitions agree with the happenings at recent epidemics? At Gloucester, in 1923, there were some seven hundred cases of variola minor. Four persons with smallpox died, the Registrar-General considering, as he has always done, that all persons with smallpox who die, die of smallpox, called them four deaths from smallpox. Sir George Newman in his annual report hesitatingly concurred. In the reports for 1924 and 1925 Sir George accepts the certificates of the doctors in attendance on the patients and halves the Registrar-General's figures of smallpox deaths. The Registrar-General's method, while substantially correct for variola major, is not so for variola minor.

The four deaths at Gloucester in 1923 were: (a) an infant aged six weeks, (b) a baby with summer diarrhoea, (c) a child with malignant measles, and (d) an elderly adult with cerebral hæmorrhage and delirium tremens; all accord

with my definition as to deaths in variola minor. The clinical and vaccinal condition of the cases seen by me, some four hundred, were also in accord with my definitions.

Compare with this variola minor outbreak a London variola major outbreak, e.g., the first of the Willesden outbreaks, that of 1924. The first case was mild; it gave rise to three hæmorrhagic deaths, and to a case of smallpox with a fairly copious rash in a child of twelve who had been efficiently vaccinated in infancy. In any one of these four cases I would think it sufficient to diagnose the infection of the outbreak as that of variola major, although several of the cases were so mild as to be, if considered by themselves, indistinguishable from variola minor and, therefore, had they been isolated cases one could not have said to which variety of smallpox they belonged.

In three out of the four London outbreaks the source of infection was known to be from overseas and of severe character; in the provinces the infection can usually be traced to some other mild outbreak, and has in fact continued mild for seven years.

The following figures are interesting as showing:—(1) How lightly variola minor was regarded; (2) how low its infectivity was; (3) how efficacious was the protection of vaccination; and (4) how unprotected by vaccination was a section of the community.

In 1924 at Ashington, there were 168 persons living in 25 houses from each of which a case or cases of smallpox were removed to hospital; of these persons:—

40 per cent of the unvaccinated escaped the disease.

78 per cent of those vaccinated in infancy only and of over twenty years of age escaped the disease.

100 per cent of those vaccinated in infancy only and under twenty years of age escaped the disease.

100 per cent of adults vaccinated during the war years, i.e., within ten years, escaped the disease.

100 per cent of the recently vaccinated, i.e., when contacts, escaped the disease.

This population consisted of:—

51 per cent of the unvaccinated.

33.5 per cent of the vaccinated in infancy only, and over twenty years of age.

10 per cent of the vaccinated in infancy only, and under twenty years of age.

5.5 per cent of those vaccinated within ten years.

Of the unvaccinated, only 7 per cent accepted vaccination on becoming contacts, and no one accepted re-vaccination. The amount of vaccinal protection of persons in adjacent uninfected houses was found to be similar.

To contrast the histories of house contacts in major and minor variola outbreaks would be interesting.

One supposes that if done it would show that the major was more infectious than the minor form, and also that variola major breaks through a vaccinal screen which is efficient against variola minor.

My contention is that smallpox is divisible on the lines suggested, and that the disease should be re-investigated, because, on account of the laity having been told by those in authority that all smallpox is one and the same disease, all areas which have experienced mild smallpox (variola minor) are in a potentially dangerous state, for should the infection of classical smallpox (variola major) be introduced into such an area, only dire experience will lead it to follow official advice as closely as would then be necessary.

Imagine my view to become the orthodox one. On an outbreak occurring, the source of infection being unknown, the disease would be declared as smallpox, which might or might not be dangerous, and on that assumption advice appropriate to the possible danger would be given. Where the variety was determined it would be announced, and advice appropriate to variola major or variola minor would be tendered. The laity would understand such a procedure. What they do not believe is the cry of wolf when month follows month, and year succeeds year, and no wolf is forthcoming.

I am, Sir, Yours faithfully,
R. W. JAMESON.

West Wickham, Kent.
November 18th, 1926.

"LEGAL Conceptions of Public Health," forms the title of a Chadwick Lecture to be delivered by Mr. William A. Robson at the Royal Sanitary Institute, London, on December 13th, at 8 p.m.

CANTERBURY City Council have decided to appoint a whole-time Medical Officer of Health at a commencing salary of £800 per annum.

PUBLIC HEALTH

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Editorial.

The Society at Manchester.

THOSE who have urged that occasional meetings of the Society should be held at important provincial centres can no longer be denied, for their case has been proved on three occasions during the last eighteen months. Last session the meetings both at Newcastle-on-Tyne and at Glasgow were largely attended, and many members of long-standing were able, for the first time, to be present at a meeting of the Society. The programme for the present session includes two provincial meetings, and the first of these was held at Manchester, on December 10th. The attendance was so large that it was a case

of "standing room only" for many of the late arrivals. Undoubtedly the subject of the discussion, "Puerperal Fever and Puerperal Pyrexia," was one of immediate interest, and the selected speakers were men of reputation whom many would wish to hear. But in these days when all medical societies complain of bad attendances at their meetings, it seems evident that many were attracted to Manchester from all parts of Lancashire, and from the Northern, Yorkshire, and Midland Branches of the Society, by the opportunity of meeting colleagues from other areas. In fact, this meeting proved that while many distant members of the Society cannot spare time for

the long journey to London, they welcome the chance of meeting other Medical Officers from a radius of one hundred miles or so at a convenient provincial centre.

Unfortunately the Manchester meeting fell at a difficult time when several members of the Council were engaged as examiners, and it was the subject of general regret that not a single member attended from London. The apologies for absence gave an adequate explanation in almost every case, but considering that provincial members attend the London meetings with such regularity it may be hoped that the Metropolitan and Home Counties' Branches will be strongly represented at provincial meetings in future.

A full report of the Manchester meeting will appear in an early issue of this Journal and our readers will find much of interest in the papers of Prof. Donald, Dr. Goodfellow, Dr. J. Johnstone Jervis, Dr. D. Sage Sutherland, and Prof. Topley. Meanwhile we will only refer briefly to the hospitable reception accorded to the President and Council of the Society by the Health Committee of the Manchester City Council. The Chairman of the Committee, Alderman W. Jackson, who presided at the luncheon, referred in very kindly terms to the assistance the Society can give the Local Authorities in solving the problems of Public Health Administration. Our President, Dr. E. H. Snell, replied with his usual felicity, and congratulated Manchester on maintaining the reputation of a Health Department that had become famous under Dr. Niven. A very successful day ended with the Annual Dinner of the North-Western Branch when the Branch President (Dr. C. W. Paget Moffatt) welcomed many members from other areas.

The Health of the School Child.

THE Annual Report of the Chief Medical Officer of the Board of Education for the year 1925, successfully accomplishes the difficult task of maintaining the standard set by previous reports. It is a useful record of facts and figures, but the figures are made to live by the Chief Medical Officer's illuminating comments. Not the least valuable feature of these reports is that they afford Sir George Newman an opportunity of keeping before us the high ideals and the broad, comprehensive and philosophic conception of Preventive Medicine which are associated with his name.

Throughout the report the frequent references to children under school age and to Maternity and Child Welfare work emphasise the fact that the School Medical Service is not an insulated and independent unit, but a member of the body politic of the Public Health Organisation of the country. This is very clearly indicated in the opening pages of the report, where the Chief Medical Officer says:—"The crucial test of a sound School Medical Service is not the cure year by year of so many children suffering from ill-health or impairment of physique. . . The crucial test by which the Authority's work will be tried is whether its benefit *endures*, whether it produces a healthy generation of children, whether when these children become adolescents and adults they are better for its influence, whether it can in fact educate and equip every child in its charge in the primary adult need of health in body and in mind." The true aim of the School Medical Service, the prevention of disease and the promotion of health, could scarcely be better expressed. It is to be hoped that before long the essentially "Public Health" nature of School Medical work will be emphasised and impressed upon all by the integration of the School Medical Branch with the rest of the Public Health Service under one Authority both centrally and locally.

In the section of the report dealing with the findings of medical inspection it is shown that of the children examined at routine inspections, the following percentages were found to require treatment:—

England and Wales (excluding London).
Entrants 23.1, Intermediates 26.8, Leavers 24.5.

London.—Entrants 16.7, Intermediates 20.0, Leavers 20.3. The superiority of the London figures over those of the rest of the country is rather striking, and it is noteworthy that it is most marked in the case of entrants on whom the School Medical Service can have had no direct influence. It is exceedingly probable, however, that the educative effect on the parents of the work of the School Medical Service re-acts appreciably on the health of the children under school age.

Over the whole country the incidence of certain defects per thousand children examined at routine inspections was as follows:—Malnutrition 9.5; Defects of Vision, 54.7; Squint, 9.1; Defects of Hearing 5.4; Otitis Media, 6.3; Enlarged Tonsils and Adenoids

53.3; Organic Heart Disease, 2.2; Pulmonary Tuberculosis, Definite 0.5, Suspected 1.6; Non-Pulmonary Tuberculosis 1.1; Deformities, 7.1; Nervous Diseases, 1.8.

As regards treatment, it is stated that there is satisfactory evidence that at least 80 per cent of the children found suffering from defective vision have been subjected to proper treatment, that 45 per cent of the children found to require operative treatment for enlarged tonsils and adenoids received such treatment, that approximately two-fifths of the school population were submitted to dental inspection, that of the number so inspected slightly over two-thirds required treatment and that 55.5 per cent of these received treatment. Of the many interesting sections of the report, that on "The Health of the Young Child on Admission to School" may be mentioned as specially well worth study. Is there evidence of substantial improvement? The sum total of defects among children entering the Infant Departments is still enormous, but one thing is certain; there is marked diminution in the *grosser* forms of certain defects, e.g., vermin infestation, ringworm, foul ear discharge, tubercular glands, adenoids, rickets. Average heights and weights also indicate a general improvement in physique. Although there has been no great diminution in the total number of defects found, Sir George suggests that this may be due in part to a change in the standards adopted by medical inspectors. There is little doubt that, as the condition of successive batches of children improves, the examiner consciously or unconsciously tends to adopt higher standards and consequently the full improvement may not appear in the statistics. We believe that this has a considerable bearing on the question and that large numbers of children are at present being marked for treatment who, 15 years ago, would have been passed over as slight cases not requiring treatment. The prevention of disease among entrants rests mainly with the Maternity and Child Welfare Service, but very properly receives considerable attention in the report, and an appeal is made for research into the causes of defects in this age group.

The section on Treatment contains a valuable note (by Dr. Alfred Friel) on Zinc Ionisation in Chronic Otorrhoea and some interesting remarks on artificial light treatment. The Chief Medical Officer, in our opinion wisely, expresses himself somewhat

cautiously as to the utility of the latter in School Medical work.

The chapter on the School Building reveals that school hygiene throughout the country leaves a good deal to be desired, and that conditions exist in connection with a considerable number of schools which may actually help to produce some of the defects with which the school medical service is called upon to deal.

In the final chapter "Conclusions," the following question is fully and interestingly discussed:—"Why are there not more definite signs of improvement in the occurrence and mortality of disease," at and under school age? Part of the explanation undoubtedly is that "the success of the School Medical Services has brought into its hands a vast burden of ill-health which formerly was either unrecognised or suffered without aid." A less satisfactory reason is that "we are only in small degree checking the beginnings of disease. We treat disease but do not sufficiently *prevent* it." This state of affairs is to be explained partly by insufficient knowledge of means of prevention and of the contributory factors which combine to produce disease, but partly also by the incompleteness of our organisation, the failure to make the best use of what knowledge we possess. Here, again, the plea is raised for more thorough measures against disease occurring below school age.

Although the serious amount of disease existing is brought to light and dwelt upon, the tone of the report is far from pessimistic. In mentioning that the cost of School Medical activities is only about 2.25 per cent of the total cost of public elementary education the Chief Medical Officer says "I have no doubt whatever that *the nation is getting value for money*," and the report clearly shows that a very substantial result is being achieved, and that a steady improvement in the physical condition of the children is proceeding.

The Scale and Existing Salaries.

WHOEVER was responsible for the suggestion that the last meeting of the Northern Branch should be made the occasion of a discussion on the activities of the Society on behalf of its members, and of an *exposé* of the work done at Headquarters, is deserving of gratitude and congratulation. Also he may be congratulated that he chose Dr. Naylor Barlow and the Executive Secretary as the openers of the discussion. The meeting

is fully reported elsewhere, but it is not inappropriate to refer here to some of the statements made, and to anticipate that good will follow as a result of bringing to general notice the claims made as to the effect produced by the laying down of a salary scale, and the insistence upon its observance by local authorities. It is good, and it may surprise many to learn, that the proportion of advertisements for officers refused for salary reasons was so comparatively small—36, as against 170, over a period of fifteen months. That this is entirely the result of the work done at the Headquarters of the Society, and the British Medical Association, may definitely be claimed; as it may be claimed also as auguring well for the future, and the coming of a time when no local authority will dream of offering a salary under the scale for which the Society has worked so hard. On account of the results obtained, there is given to very many already in the Service room to hope that their claims for recognition also may soon be heard. To them it will appear a matter of real gratification that not only the openers of the discussion at Newcastle but several of the speakers who followed, including one so important as Sir Robert Bolam, made reference to the need for revision of salaries of existing officers. True, most of the statements were stronger on the side of the need than on that of promise. Even so, it is something, and something big too, that this, probably one of the most important pieces of work that the Society has to do for its members, has been brought out into the arena and made a subject for discussion in surroundings more public than it has previously enjoyed. In the words that he used Sir Robert Bolam showed that he might be depended upon to urge the claims for revision, and the hopes that he expressed that the British Medical Association, of which he is so able and distinguished a leader, would not lose sight of cases of hardship, will find an echo in the hearts of the junior officers, whom he instanced as the victims of hardship. Like him they will hope that the matter will be tackled as soon as the opportunity occurs. Probably, however, they will be forgiven if they suggest to Sir Robert that so far as opportunities are concerned it is often better to make them than to wait for them to occur, and that the fact that he has referred to the question tempts them to rely upon him as a maker of opportunities on their behalf. Those who

long for the coming of the opportunity, fortuitously or otherwise, need not be idle, however. They can help Sir Robert Bolam to make it, and he himself has told them how, viz., by attending the meetings of the Local Divisions of the British Medical Association, and taking a real interest in its affairs. This was a suggestion offered by other speakers on this occasion, and it is one well worthy of acceptance. In no part of the country is the co-operation between the Society and the Association more definite and friendly than in the area covered by the Northern Branch, and it is not without significance that it was at a meeting of this Branch, attended by prominent members of both bodies, that pronouncements on the subject of salary revision were made. It is an excellent piece of work that this Branch has done in bringing the matter thus before the Association. It must be kept before that body, and it is for other Branches to see that it is so kept. The problem of doing so has been greatly simplified by the Northern Branch, and the best way to show gratitude for what they have done is to see that their efforts are supported. In doing so, imitation being the sincerest form of flattery, the methods they recommend are those that should be followed.

Dermatitis in Bakers.

DERMATITIS among bakers (Bakers' Itch) has been a subject of much discussion in recent years. In August, 1925, it was reported that some master bakers were not taking on new employees without a note from the previous employer that he or she had not suffered from dermatitis. Since the War, the Bakers' Trades Unions have given considerable attention to the matter with the idea that the condition might be made notifiable, influenced probably by the fact that the sufferers were a drain upon the funds.

Dr. Parsons, reporting to the Ministry of Health in 1914, said that it was erroneous that the condition was increasingly prevalent; that many cases of bakers' eczema, or "itch," so-called, were wrongly diagnosed; that the trade materials were quite innocuous to individuals with normally healthy skins, that almost always the individuals who suffered from bakers' eczema were those who work in small bakeries where the mixing of the dough was done by hand, and in consequence the skin was liable to maceration from long contact with the wet paste. Conditions

such as these were well known to encourage the appearance of dermatitis. This coincided with the statement of Dr. Prosser White, who had come to the conclusion that the majority of cases were incidents rather than consequences of the work. It would thus appear that there has been an exaggeration in the number of cases, inasmuch as when counting the number of bakers who suffer, one must take into consideration the incidence of eczema in the ordinary population. From this it will be found that after all there is not such a great increase as regards bakers considering the other trades that are liable to skin affections.

Research on this matter has not been confined to the flours and the so-called "improvers" and bleaching agents, for the investigations have included the examination of jute bags, etc.

There is much to be said for the carrying out as far as possible of the mixing of flour and water by machinery, and a very great deal to be said for the improvement of toilet facilities. In November, 1925, Sir W. Joynson-Hicks, in answer to a Parliamentary question, stated that no legislation was contemplated, but that an Order requiring special precautions was under consideration, and Sir Kingsley Wood on March 23rd of this year, further reiterated that there were not sufficient reasons for making the disease notifiable; that evidence was not definite to show that it was due to the use of chemicals in the bleaching of flour. The idea that the disease was due to the chemical treatment of flour was urged by American writers using the argument that the disease was more prevalent in England, where such was the practice, than on the Continent and in America, where "improvers" were not used. In view of all this discussion, it is interesting that the Home Office have at the moment under consideration the issue of an Order under Section 7 (1) of the Police, Factories, etc. (Miscellaneous Provisions) Act, 1916, for securing the Welfare of Workers employed in Bakehouses. This is at present, it is understood, under discussion by the Home Office and the trade and workers. The object of the proposed Order would be the provision and maintenance of suitable washing facilities; a constant supply of warm water, and a sufficient supply of soap and clean towels. In many bakehouses at the present moment soap is not common, for the reason that if carelessly left about, like many other things, it is apt to get into the "batch."

It is interesting to recall investigations carried out in 1925 by Mr. N. Howard Mummery, M.R.C.S. The proposed Order would appear to be based largely on the practical experience of such Works Medical Officers. Large firms now pay great attention to manicure, and the treatment of minor skin lesions, such as cracks, abrasions and "hang nails"; the providing of a towel for each worker in contact with flour, dough, pastry and sugar, and facilities for rinsing the hands in a weak, harmless antiseptic. There is much to be said for medical supervision, and the exclusion as far as possible from the particular work, of persons with dry skins which render them liable to develop chaps and cracks in winter. Great success is attained when every skin eruption, however trivial, is reported immediately to the Medical Officer so as to ensure treatment forthwith. There is the indication in the draft Order referred to that when it is finally decided upon it will be followed by an official cautionary notice as to prevention and cure of dermatitis among workers handling flour and sugar, and the experience of the aforementioned investigator in this connection is interesting. His treatment was as follows: "All cracks are painted with nitrate of silver, 15 grs. to the oz. in spiritus ætheris nit., and afterwards the parts are anointed with a 33 per cent. calomel cream made with anhydrous lanolin. It was also recommended that the use of this cream should be continued occasionally at night when off duty, to prevent relapses.

The Industrial Health Education Society have recently been active at the request of employers or employees through their various organisations, in providing informative health talks with special reference to preventive measures in relation to sicknesses common to workers in particular employments. Recently these have been given in London to chemical and drug workers, and to bakers. It is understood that in this respect the Society is meeting a long felt want, for undoubtedly there is a considerable degree of ignorance among workers on this subject which, after all, as would appear from the draft of the proposed Home Office Order for the Welfare of Workers employed in bakeries, is largely a matter of persistent care and cleanliness on the part of the worker, and immediate attention to small and apparently insignificant abrasions of the epidermis which become the site of inoculation.

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The Prevention of Heart Disease.

MEDICAL Officers of Health who are accustomed to explain that the doctrine *post hoc ergo propter hoc* is not of universal application may yet feel inclined to apply it in connection with their meeting held at Glasgow in February, 1926. This meeting considered the subject of "The Prevention of Heart Disease" which was introduced by Dr. Chalmers, Dr. Allan and Dr. Roberts of that City. Many Medical Officers of Health from different parts of England and Wales also indicated that in their opinion the provision of beds for early cases of Rheumatic Fever and Rheumatic Heart Disease in children would be fraught with good results in the prevention of disability resulting from these conditions. It is now interesting to note that by the generosity of a lady a sum of £12,000 has been placed at the disposal of the Children's Home at Strathblane, in the West of Scotland, for the equipment and partial endowment of twelve extra beds for Rheumatism and Heart Disease. An appeal is made for a further £10,000 to complete the endowment of the beds. The Public Health Service will applaud this action of the generous donor.

Some 58,000 deaths occur annually from Rheumatism and Rheumatic Heart Disease in England and Wales, and this first step in Scotland towards action for the prolongation of life in connection with these conditions is one which we may hope will be followed by other persons and authorities in other parts of the kingdom.

* * * * *

Preservatives in Food.

THE Public Health (Preservatives, etc., in Food) Regulations, 1925, in the main come into operation on January 1st, 1927, the amending Regulations of December 10th, 1926, which make minor amendments, merely providing for the postponement of operation in the case of certain foods. So far as amendments are concerned, one affects the definition of "preservative" in order to allow of the inclusion of glycerine amongst the other substances to which the description "preservative" does not apply, while another relates to the question of labelling. This latter so provides that a retailer in the case of articles containing any preservative specified as permissible, when these are exposed for sale or

offered for sale, may make a general announcement by means of a notice, to the effect that the article contains preservative, as an alternative to labelling the article itself. The notice referred to must be exhibited in a conspicuous place so as to be easily readable by a customer. When the article is delivered to a purchaser, agent or broker, it must be labelled, except in the case of restaurants, etc., where the article is consumed on the premises, or if it is delivered to the customer at the vendor's premises or stall and the notice mentioned is properly exhibited. Further amendments provide for the exemption from the requirements of all articles intended for export or re-export or for use as ships stores, by omitting the reference to butter in Article 12 of the Regulations, and for some small additions in the shape of fruits and fruit pulps to the list of materials in which the use of preservatives is allowed. So far as the coming into operation of the principal Regulations is concerned, the chief alterations affect articles which are liable to contain preservatives, because these substances are present in materials used in connection with their preparation. The date of coming into operation fixed in the case of Bacon, Ham, Egg yolk and articles containing preservative necessarily introduced by the use of preserved margarine in their preparation is July 1st, 1927, while January 1st, 1928, is fixed in respect of Butter, Cream, and articles containing preservative necessarily introduced by the use of preserved bacon or ham and preserved egg yolk or cream, and July 1st, 1928, in the case of articles containing preservative necessarily introduced as a result of the use of preserved butter in their preparation. As regards all other foods, as already stated, the Regulations begin to operate on January 1st, 1927, though the Minister is of opinion that, having regard to the possibility of retailers still having considerable amounts of old stocks on hand, Local Authorities may consider it desirable to refrain from instituting legal proceedings "during the next few months where they are satisfied that reasonable efforts have been made to clear old stocks, and that further consignments will conform with the Regulations."

DR. ALWYN RAIMES has resigned his appointment as Medical Officer of Health of the Flaxton (Yorks.) Rural District, after 39 years' service.

Administrative Housing Problems.

By G. QUIN LENNANE, M.C., F.R.C.S., L.R.C.P., I., D.P.H., Medical Officer of Health, Metropolitan Borough of Battersea.

In choosing to address the members of the Metropolitan Branch on a subject so practical and definitely of moment as Housing, Dr. Lennane gave them very great pleasure. His experience in the working of certain parts of the Act being very extensive, it is certain that the information he gives will be found of value by others than those workers in the Metropolitan Area to whom it was first offered.

THE evolution of the housing problem in this country, as in other directions of sanitation, has been slow. In 1851, Parliament made its first attempt to deal with the horrible conditions under which the poorer classes of the population were living, and in that year the Labouring Classes Lodging House Act appeared. During the next thirty-five years sixteen amending Acts were passed, but notwithstanding this somewhat more rapid Parliamentary activity, the results were not so satisfactory as was anticipated. In 1890, the Housing of the Working Classes Act was passed, the intention of the Legislature being to amend and consolidate the existing statutes dealing with the provision of housing accommodation for the working classes. This Act was undoubtedly an advance, giving, as it did, powers to local authorities to provide new working class dwellings and also to deal effectively with insanitary areas and the closure and demolition of individual insanitary houses. Unfortunately, its effectiveness as an administrative measure for the purposes for which it was intended was marred by the fact that (1) it was an adoptive Act, and (2) that procedure under the Act was, as regards its main requirements, cumbersome, costly, officially and legally dilatory in execution and otherwise unsatisfactory. As an instrument, therefore, for securing better housing and social conditions, even in the case of those authorities, like my own, who adopted it, the results were on the whole meagre. The Act of 1890, in so far as its application to England and Wales was concerned, was amended in 1894, 1900, and 1903, but none of these Acts removed the initial weaknesses of the principal Act. In 1909, however, was passed the Housing, Town Planning, etc., Act, which marked a more distinct advance in the legislation dealing with housing, simplifying the procedure under the

principal Act and including powers to the central authority to make regulations, prescribing the procedure under which the sanitary inspection and the supervision of dwelling houses were to be carried out by the Sanitary Authority; the appointment of County Medical Officers of Health; and for the first time providing in regard to Town Planning, statutory powers and requirements.

In 1919, a still further advance was made in the improvement in the legislation dealing with housing by the passing into law of the Housing, Town Planning, etc., Act, 1919. This Act, in addition to incorporating the main provisions of the Acts of 1890 and 1909 and still further simplifying the procedure and financial arrangements, included powers (1) requiring local authorities to make a survey of the housing needs of the district and to prepare schemes; (2) to provide where necessary working class dwellings; and (3) to deal with insanitary areas and the repair of unfit houses. The procedure in carrying out these various important matters was greatly accelerated, especially in regard to improvement or reconstruction schemes. The provision of new houses by local authorities where needed, it will be noted, was made obligatory. More satisfactory still the Act contains provisions limiting the cost to local authorities of approved housing schemes. With the coming into force of the 1919 Act elaborate memoranda on housing schemes and how they could be carried out were sent to local authorities by the Government Department concerned, and they were at the same time urged to avail themselves of the ampler powers of the new Act and were reminded of the unique opportunity afforded for dealing with their housing requirements in a practical and comprehensive manner, especially in regard to Slum Clearance Schemes and at a comparatively small cost to the local rates.

Unfortunately, the promises which local authorities so enthusiastically acclaimed on the representations made to them as to their share of the financial burden of housing schemes were found to be somewhat nebulous, and it soon became evident that the post-war economic situation precluded anything materialising but the more modest schemes, and it was eventually announced that the economic situation resulting from the war rendered it necessary for the exercise of the most rigid control of expenditure.

It must be admitted, however, that the 1919 Housing Act has, notwithstanding the economic stringency, produced useful results. It has stimulated the production of houses not only by local authorities, but by private enterprise as well, assisted by the temporary subsidy which the Housing (Financial Provisions) Act, 1924, enabled the Government to grant. The Act has also proved very effective in the added powers which it gives to local authorities to secure the repair of unfit houses.

The 1923 Housing Act was passed to amend the 1919 Act so as to provide simpler procedure in regard to housing schemes of local authorities and to facilitate proceedings for the recovery of expenses incurred by local authorities in carrying out repairs to unfit dwelling houses in default of the owner.

Finally, the Housing Act, 1925, consolidating previous housing legislation, came into force in 1925.

This brief and somewhat fragmentary outline of the growth and development of housing legislation during the past seventy years shows the interest which Parliament has taken and continues to take in this important question.

Neither the title of this paper nor the time at my disposal, however, permit me to roam over the wide field of the housing question, but it is necessary to refer as briefly as possible to the factors which are responsible for the acuteness of the housing shortage, especially since the War ended, and their effect upon the output of housing legislation and the administrative and legal difficulties, financial and otherwise, of local authorities in utilising the new powers.

It is clear to every person engaged in housing and sanitation that for some years before the War there was a gradual decline in the output of new houses, and while the War was in progress building practically ceased. Moreover, the condition of existing houses had

steadily deteriorated for lack of proper attention and supervision. A twofold problem presented itself, therefore:—

(1) A serious housing insufficiency.

(2) An increased number of seriously defective and unfit houses.

The first part of the problem appeared to be easier of solution, the timely appearance of the 1919 Act rendering it practicable where land was available to proceed as urged by the central authority with building schemes. Great difficulties soon arose, however, not for lack of statutory powers but from the difficulty of securing land, sufficient skilled labour and building materials, and eventually financial stringency. The provision of new houses was, therefore, for some time after the War ended quite inadequate to meet the demand, leading to serious overcrowding and its attendant evils and to increased wear and tear upon existing houses. The latter from the first surveys made after the War were found to be, especially in the case of old dwellings, to a considerable extent overcrowded, unfit and more or less badly in need of structural repair. Here also the Act of 1919 came to the rescue of Sanitary Authorities so far as the provision of adequate powers was concerned, but similar difficulties in securing the enforcement of these new powers were met with, viz., the extensive nature of necessary repairs, lack of labour, high cost of labour and material, etc., all of which hampered administrative action of Sanitary Authorities and their officers. It was evident, of course, that in regard to the more seriously insanitary houses the powers of the Public Health Act were inadequate to secure the effective reconditioning of such dwellings.

The administrative procedure in connection with the sanitation of houses has been rendered somewhat complicated since the War by the mass of legislation dealing therewith. Prior to 1914, though it was becoming evident for some time previously, as already mentioned, that fewer houses were being built, the scarcity had not been felt, at least to any noticeable extent. In most large urban districts there was usually a percentage of empty houses. In London especially, the movement of population from the inner to the outer circles had been in progress for at least a decade prior to 1904, and between 1901 and 1911 the census disclosed the fact that in most of the inner Metropolitan boroughs the population had decreased. This migration outwards

was accelerated by the improved traffic facilities by rail, tram and bus. The steadily falling birth rate was also a factor in reducing the pressure on housing accommodation and in this connection the last census shows a marked decline in the size of families. The economic conditions resulting from the prolonged and certainly the most costly war in the world's history, altered the position completely. Added to the scarcity of houses the rise in the cost of living, rents and transport; has checked the movement of population in the inner circle, at least in a working class district like Battersea, giving rise to a condition of overcrowding or congestion previously unknown in my experience. In my own district, even if the economic situation had been less stringent the lack of available building sites rendered it impossible even with the increased legislative powers and simplified procedure contained in the 1919 Housing Act to provide new working-class dwellings except to a very limited extent. Nor were there, as in some more fortunately situated metropolitan boroughs like St. Pancras or Kensington, suitable houses for conversion into working-class tenements. The housing needs of districts like Battersea had, therefore, to be met by the provision of increased housing accommodation which the London County Council mainly have undertaken to build in various parts of London either within or without the County boundary. For reasons already stated—cost of transport and probably to some extent high rents and the natural desire of the workers to be near their employment—the congestion has not so far been materially relieved, at least so far as my own district is concerned.

The fact that it has not in the circumstances been expedient to utilise the existing statutory powers under the Public Health Act to abate nuisance from overcrowding, has been, I feel sure, to Medical Officers of Health of metropolitan working-class boroughs, a matter of grave concern, and constitutes one of the most pressing administrative difficulties of the moment. The progress which has been made by public and private enterprise in the building of houses has been slow, and although there are signs of increased activity within the past year or two, there is still, however, great leeway to be made up.

As has already been stated in this paper, the hopes entertained by local authorities immediately after the war, of the provision of

a great and steady output of working-class dwellings and of the gradual elimination of slum areas have not been fulfilled, mainly, no doubt, owing to the economic situation. There is, notwithstanding, one bright spot in the existing housing situation. Medical Officers of Health, after the first disappointment and disillusionment, and the collapse of the hopes raised by the ambitious programme of housing proposals outlined by the Government and suggested to local authorities immediately after the war, quickly realised that the improvement of existing houses became the main line of attack. In this field of activity the 1919 Housing Act and subsequent amending legislation, while it gave rise to many administrative difficulties and legal subtleties, has been in my opinion a powerful lever in securing greatly improved conditions in the sanitation of seriously defective and otherwise unfit houses. It is with this aspect, therefore, of the housing problem that this paper mainly deals, and I hope to show that, so far as my own experience is concerned, administrative action under Section 28—now embodied in Section 3 of the Act of 1925—has yielded valuable results.

This section is, no doubt, so familiar that it is unnecessary to reproduce its wording. It imposes an obligation on the owners of houses intended for the working-class not only to let houses in a fit state, but to maintain them in all respects reasonably fit for human habitation during the tenancy. Should the owner of a working-class dwelling fail to comply with this requirement the Sanitary Authority may serve notice requiring him within a period—not being less than 21 days—to execute such works as may be necessary to render the house in all respects reasonably fit for habitation. There is an important proviso, however, to the effect that if the premises require reconstruction to be carried out, the owner may give notice of his intention to close the premises and a Closing Order automatically follows. This proviso, by the way, has never been made use of by owners who have been served with a notice under Section 28 in Battersea, probably for reasons which are obvious to my colleagues. It is now permissible (by the amendment of Section 28) for the Sanitary Authority on the service of notice under Section 3 to notify the freeholder or superior landlord or others interested in the property. In the event of the owner failing to comply

with the notice within the time specified the Sanitary Authority may themselves enter on the premises and carry out the necessary works to render the premises fit for habitation. The cost incurred by them becomes a charge upon the property including the freehold, and may be recovered in a Court of Summary Jurisdiction, or alternatively an Order may be made for the sale of the property.

In the earlier days of the administration of the powers under this section difficulties arose as to the interpretation to be placed on them, and legal decisions were taken in the Puisne and High Courts. These decisions dealt with the question of right of appeal: (1) *Rex v. Minister of Health (ex parte Rush)*, in which it was held by the Court that the Notice served under this Section should be amended so as to notify the owner of his right of appeal, and (2) the time limit of the period was held to be insufficient to permit of the necessary work of repair being carried out.

The first mentioned case rendered it necessary for an amendment of the prescribed form of notice, but this cannot be regarded as an administrative oversight by local authorities.

The most important administrative difficulties were those arising in connection with the recovery of expenditure incurred by the local authority in carrying out repairs under Section 28—now Section 3 of the 1925 Act—in default of the owners. It was sometimes difficult to ascertain the name of the freeholder or superior landlord and, furthermore, the legal position of the local authority in regard to the procedure for the recovery of expenditure incurred in default of owner was somewhat obscure.

In order to meet these difficulties, certain amendments to simplify administration and legal procedure were brought by my Council to the notice of the Government Department and the Metropolitan Boroughs' Standing Joint Committee. These amendments were subsequently accepted by the Government and were embodied in the 1923 Housing Act.

The section as amended, and since embodied in Section 3 of the Consolidated Act of 1925, now provides that the Authority may serve a copy of the notice on the superior landlord (or other interested persons) from whom the owner holds the property, and if the owner or other interested person when requested by the local authority to give the name and address of the person from whom he holds,

refuses or wilfully omits to disclose or withholds the same or makes a misstatement he shall be liable to a penalty on summary conviction. The local authority for the recovery of their expenses are to have the same powers and remedies under the Conveyancing Acts, 1881 to 1911, and otherwise as if they were the mortgagees, etc.

The main effects of the first amendment were that (1) by notifying those holding superior interests in the property they are enabled to make use of their powers under Section 30 of the 1919 Act to protect their interest, and (2) the local authorities can usually secure by such action avoidance of delay in the execution of the necessary repairs.

The second amendment was designed to place the local authority in regard to the recovery of expenditure in a similar position to mortgagees under the Conveyancing Acts with powers of sale of lease—of accepting surrender of leases and of appointing a receiver for the recovery of expenses incurred by them including any expenditure under Section 3.

The recovery of expenditure under Section 28 was challenged very soon after the 1919 Housing Act was put into force in my own district, and a brief recapitulation of the facts in the case, *Battersea Borough Council v. Haines and Others*, may be of interest as an illustration of the administrative difficulties in the enforcement of the powers of the section. A notice had been served on the owner of a working class dwelling-house requiring him to execute necessary repairs to the premises and the notice not having been complied with the work was carried out by the Council at a cost of £200. A demand was made upon the owner for payment, and as it was not met proceedings were taken in a Court of Summary Jurisdiction, and an Order was made by the Magistrate for payment. The owner having failed to comply with this Order the Council applied to the County Court for a declaration that they were entitled under Section 28 to a charge upon the premises for the above-mentioned sum with interest thereon, and that the charge was entitled to priority over any mortgage or other encumbrance on the property. They also asked the Court for an Order for Sale and such other relief as might be necessary.

The defendants were those who had any interest in the property and included freeholders, leaseholders and mortgagees. Counsel for the freeholders contended that the Order

could not be made against them on the ground that no notice had been given them that the work had to be done, and that they had no opportunity of doing the work. For the mortgagees a similar argument was advanced.

The Court, however, did not uphold their contention, the judgment, *inter alia*, stating that Section 28 does not require any person having an interest in the premises other than the owner to be served with notice and that the charge must affect the interests of the freeholders, mortgagees and leaseholders as well as the person who is the owner within the meaning of the Act. An order was accordingly made that the Borough Council were entitled to the relief for which they asked, and that their charges, with interest accruing, were entitled to priority.

This early legal decision was very important and as it was not appealed against, cleared the air to some extent and settled doubts as to the recovery of expenditure in carrying out necessary works of repair in default of the owner.

Another important legal decision in which the authority concerned was not so fortunate was decided in the High Court before three judges. The action was an appeal against the decision of the Court of Summary Jurisdiction who had dismissed 23 summonses by the local authority against the respondents. These summonses had been issued to recover expenses incurred by the authority in carrying out the requirements of the 23 notices under Section 28 in default of the owner. The decision of the magistrate was that the time allowed in the notices—21 days—for the completion of the work was not a reasonable time, and that the notices were consequently invalid and he accordingly dismissed the summonses. The Divisional Court upheld the decision of the magistrate and the appeal was dismissed.

It will be recognised, therefore, that the administration of this section of the 1919 Act gave rise to difficulty and anxiety as to the recovery of expenditure incurred in enforcing the powers of the section in default of the owner, and authorities and their officers could not be blamed in the early days if they were chary of administering a section of an Act of Parliament that bristled with difficulties and legal subtleties. There should be no such reluctance on their part now, and the amendments as embodied in Section 3 of the 1925 Act are undoubtedly helpful. It is with a certain type of owner only that as a general

rule difficulty is to be met with and he is usually a man of straw, without any substantial interest in the property, being simply the owner within the meaning of the Public Health Act. The giving of notice to all owners concerned, when known, which has been from the beginning a routine practice in Battersea following the procedure which in pre-war days was obligatory under Part II of the Housing of the Working Classes Act, 1890, dealing with the closure of individual houses, is useful as it enables the superior landlord to exercise his powers under the Housing Act to secure control of his property, and he is, as a rule, ready to carry out the reasonable requirements of the Sanitary Authority, when he is legally in a position to do so. The only drawback in practice to this procedure is due to the law's delay, and in my own experience several months have elapsed after the service of notice under Section 28 before the superior landlord was in a position to comply with the notice, during which period the unfortunate tenant had to put up with the inconvenience, hardship and risk of injury to health arising from the seriously defective state of his dwelling. The amendment of the section which now requires the recalcitrant owner on request by the Sanitary Authority to give the name and address of the superior landlord or landlords under penalty has been useful in hastening the action for securing compliance with the notice.

Generally speaking, so far as my own experience goes, Section 28 (now Section 3 of the 1925 Act) has been found most useful in dealing with seriously defective and insanitary houses, it being understood, of course, that in ordinary circumstances the Public Health Act is quite sufficient to deal with nuisances in housing property. The effect of the application of the powers under the Housing Act in respect of unfit houses upon owners of property has been very satisfactory. The procedure adopted by my authority in the first instance in such cases as it is deemed desirable to use the powers under the Housing Act, is to draw the attention of the owner to the state of his property and afford him an opportunity by informal negotiation to submit his proposals, as to the necessary works of repair he is prepared to carry out, in writing, in the form of a detailed specification. If on examination the specification is found reasonably to meet the requirements it is formally submitted for the consideration and approval of the Housing

Committee and the owner proceeds to carry out the works of repair in accordance with the approved specification. As a precautionary measure in case of failure by the owner in complying with the specification voluntarily submitted by him a notice under Section 3 is ordered by the Housing Committee to be served in default.

Occasionally but infrequently either the work is not started or is not completed. The service of the notice is in such instances usually sufficient to bring such recalcitrant owners to heel. It is now comparatively rare to find it necessary for the Council themselves to carry out the repairs in default of the owner, although in the early days such action was found necessary in many cases involving the expenditure of thousands of pounds by my Council, and considerable loss was incurred in some cases in recovering the whole of the cost of the work carried out to the premises.

The general effect, however, of the use of the powers of the section has been salutary, and it is rare for the Council in recent years to have to incur expenditure under this head, in 98 per cent of cases the owner carrying out voluntarily, or by notice, the necessary work of repair.

In a few cases appeals have been made to the Minister of Health against the notice served under Section 3. The grounds of appeal were usually illegality of the service of notice, unreasonableness of the requirements of the notice, e.g., structural requirements such as, for example, the provision of extra light and ventilation, etc. The Council have been invariably successful in the appeals, and in only one case was a decision on a minor point given against them, viz., that in which one of the grounds of appeal was against a clause in the schedule of repairs served with the notice that "all works shall be carried out under the supervision and to the satisfaction of the Council's Officers."

In the administration of Section 3 of the 1925 Housing Act it will be of interest to mention certain difficulties which may arise in carrying out the provisions of the section. First, as to the class of house it may, I think, be held that in a working class district no special difficulty should occur, and the words "any house suitable for occupation by the working classes" constitutes a pretty wide definition especially as there is no definition in the Act of the expression "working-class."

The question as to whether the house is unoccupied is not, in my own experience, material. With regard to the nature and extent of the works that may be enforced by notice under the section, there is again a wide discretion and such works would include, in my opinion, structural defects and all work reasonably necessary to render the house fit for habitation. It has been stated, however, on legal authority which is probably correct, that it does not include power to require the execution of works merely to enable different parts of the house to be occupied as separate tenements such as the provision of an additional water supply or separate sanitary accommodation on each floor, or for each separate tenement. This is, however, not important as there are powers contained in other statutes and regulations capable of dealing with such matters. It is important to note that "house" in Section 3 does not include part of a house as in Section 15 of the 1909 Act. Apart from these reservations—as my own experience shows—it is practicable to secure a very wide range of works of repair under the notices. It all depends, therefore, on what may be deemed necessary in order that the premises are rendered "reasonably fit for human habitation." As there is an appeal to the Minister of Health by the owner, of which avail has been taken on a few occasions in my own district, it is obvious that the opinion as to what may be considered necessary requirements by experienced officers of local authorities are not likely to be lightly set aside on appeal, and that is exactly what has happened in appeals by owners in Battersea. A note of warning in this connection may, however, be sounded. In cases where works of repair have been executed by the local authority in default of the owner, in an action for the recovery of the cost, it is very important to be able to satisfy the Court that the requirements of the notice are reasonable and necessary.

It is important to note also that Section 28, as amended by Section 10 of the 1923 Act and incorporated in the 1925 Act, requires that a notice served by the local authority shall specify "what works are to be executed as being necessary to make the house in all respects reasonably fit for human habitation."

I may state that in my own district, the powers of the Act relating to unfit houses on the whole, have yielded useful results, and since 1920, some 4,200 houses have been dealt

with under Section 28—now Section 3. Many of these houses were so seriously defective as to be incapable of being made permanently fit. In such instances, the practice has been to require less extensive work of repair—just sufficient to render them temporarily fit until the housing shortage has become less acute. I recognise, of course, that other local authorities and their officers have experienced similar difficulties in cases where it has been found expedient to make use of the powers provided under the section. It is of interest as showing the extent to which the use of these powers has been made, that in the Annual Report of the Ministry of Health it is stated that notices under Section 28 of the 1919 Act were served

in respect of nearly 29,000 houses, and of these 22,966 were rendered fit by their owners. In 934 only, of the total number of houses dealt with was it necessary for the authorities to act in default, and in 553 cases the owners gave notice of their intention to close the houses. The section has proved that very effective results can be obtained in such suitable class of houses as its powers are employed, and that the work is in the main carried out by the owners concerned. Moreover, it has simplified administrative procedure, as unlike the Public Health Act, the necessity for application to a Court of Summary Jurisdiction for an order is avoided, and much delay is saved in the execution of the work by the local authority.

Ut Ita Dicam.

(Being Comments, apropos and otherwise, on Sundry Matters.)

The Milk Problem.

In connection with the National Milk Conference held recently, one thing that struck me very much was the really quite small stir it made. No one practically was the least worked up about or by it, and the Press obtained was, if not bad, certainly not good. I wonder why. Is it because people are tired of hearing of the milk problem or do they think the problem has been solved? And if they think so, what has led them to that conclusion? That there have been improvements in certain aspects of the problem in certain quarters there can be no doubt. In general the quality of the milk as it reaches the consumer has improved. In London, for example, it is stated that the average of all samples examined shows a butter-fat content in the neighbourhood of 3·7, while the solids-not-fat average well above the 8·5 per cent demanded. And the number of prosecutions has declined and is declining. If the public regard quality as judged by chemical analysis as the main constituent of the milk problem they may have some reason for regarding it as so far on the way to solution that they, personally, need not worry about it or pay much heed to what happens at milk conferences.

What the Public Want and Why.

That there are other aspects than this, however, the public, it cannot be doubted, do recognise. They are not satisfied merely to

know that the chances in favour of obtaining an unwatered milk are much greater now than formerly. They want something more: they have been taught to want something more from the producer and the vendor. Because they have heard so much of the relation between milk and tuberculosis; are convinced that tuberculous milk is responsible for the bulk of surgical tuberculosis cases in this country, those who have not been frightened off it altogether have insisted that something should be done to ensure safety. Very largely, no doubt, the great improvements that have taken place in relation to milk production and marketing, including grading, have been brought about as a result of a demand for a milk as safe as possible from the point of view of tuberculosis. The talk that is made at welfare centres in regard to feeding of infants has also probably been responsible for the demand for "clean milk," a demand that has been met, though not to the extent that the comparative simplicity of clean milk production really warrants. In some degree also, probably, the increased sophistication of the people, as a result of education at centres and elsewhere, has been responsible for the introduction and spread of the practice of retailing milk in bottles.

Dangers in the Home.

That there have been these improvements and alterations in the methods of producing and dealing with milk is no doubt a source of

gratification to the people. Possibly it should be also to members of the Health Service, who have done, or have been responsible for the teaching. Neither party, however, must be allowed to regard the situation as completely covered. Much has been done, it is true, but the much is comparatively a small portion only of what there is to be done if all that is actually involved in what is usually known as the "milk problem" is to be dealt with. If a solution is to be found, something more than a mere setting in order of the house of the milk industry will be required; the house of the consumer calls for attention too. Well informed with regard to the shortcomings of milk producers and distributors, and full of information as to the ritual of clean milk production and what is likely to happen to him if he does not get this mysterious substance known as "clean milk," the consumer appears to be less well up in the methods of treating milk after he has received it, even in bottles, and to know nothing of the possibilities of contamination in his own home. The general indications are, indeed, that he is totally unaware of the existence of any necessity for the giving of any care or attention whatever to the article after it passes into his own hands. The belief that there is no risk of contamination in the home is ingrained: the Englishman's home is his castle and all the attacking forces are outside. To ask acceptance of the view that the infection of diarrhoea, for example, might be added after delivery and because the milk was improperly stored and inadequately protected is hopeless—Newman, Newsholme, Robertson and Hutchison notwithstanding. This view, must, however, be pressed, and it must be shown that though there may be cases in which all responsibility can be transferred to others, this is one in which the individual must make up his mind to bear a part.

And Pasteurization.

Another matter upon which it is essential that the milk consumer must come to a decision is in respect of pasteurization. Here, of course, part of the trouble is that those responsible for the teaching have no definite mind in the matter, and cannot give dogmatic instruction and adequate guidance. Because it is important on other than teaching grounds that minds should be made up it is unfortunate that there is so much delay in arriving at a conclusion with regard to pasteurization. At the moment the chief concern of a large

number of Health Officers appears to be to discover how best to avoid offering an opinion upon it. Presumably this is because they are engaged in examining the evidence for and against; the statements of observers in various parts of the United States who find that where the process is in operation there is a definite and marked reduction in the amount of surgical tuberculosis and in the number of epidemics traceable to milk; the views of others as to what will happen to the babies (many of them now fed on dried milks) if they are deprived of vitamins as a result of pasteurization of this staple food, and as to the dreadful tricks that the trade may get up to if the process is universally recognised. How long it is likely to be before the examination is completed it seems impossible to determine. Sometimes it appears as if Health Officers had decided not to lead public opinion in this matter at all, but were in a position of preferring to wait till they were told what the people want or what they are going to get from the trader. That the dealer knows what he wants to give them there can be no question. In London and elsewhere pasteurizing plants for dealing with milk in bulk, several of them claiming to be the largest and finest in the world, are in existence or in course of construction; bottling and bottle-washing machinery has been, and is being set up and bottles are being turned out by the million. These things make the sign that even a runner may read; that pasteurization is rapidly becoming established in this country, and that the Health Officer will very soon have to decide to like it and to find reasons for recommending it, for soon it will be useless trying to stop it.

Unsolicited Testimonials.

To me: "In general, in his opinion, the proposed improvement in *Public Health* had not materialised."

"From many quarters I have heard the expression 'I am beginning to look forward to *Public Health* now; it has become much more interesting since recent changes'."

To you: All good wishes for the New Year.
P.

DR. HUGH PAUL, deputy Medical Officer of Health and Assistant Tuberculosis Officer for Oldham, has been appointed Medical Officer of Health for the county borough of Smethwick.

Tropical Hygiene: A Retrospect and a Contrast.

By ROBERT LEWIS THORNLEY, M.D., Lond., M.R.C.S., L.R.C.P., D.P.H.,
County Medical Officer of Health, East Riding (Yorks.).

In his Presidential Address, Dr. Thornley chose to tell the Yorkshire Branch of health problems in the Tropics, of difficulties encountered and defects noted. The paper will be enjoyed by everybody, and contains many lessons of which the most important is that there are no bounds to hygiene and no borders to disease.

THE subject I have chosen for my address is Tropical Hygiene—a retrospect and a contrast. The reasons for my choice are briefly these:—That I have lived abroad and have also had my full share of travelling in other countries. I should, however, point out that I am speaking retrospectively of two decades past, and that my chief remarks naturally refer to what was my place of residence, namely, the Malay States.

The hygiene of the Tropics is, of course, the same in principle as the hygiene of colder climates, but the differences due to climate, mode of life, environment, and so-called civilisation found in tropical countries modify to a considerable extent the conditions under which those principles have to be applied.

In a paper of this kind, and in the time at my disposal it is impossible to cover all the ground I might wish to, so naturally I have only referred to those subjects which would appear to be of most interest to the branch on account of their greater importance.

As you may well imagine, the population which goes to make up a country which has been developed and administered by Europeans is diverse and composed not only of the native population, but also of neighbouring races which are attracted by the natural development of the country to do the work to which they are most suited. These races introduce their own particular modes of living and their customs, some of which, as judged by our own standards, are very primitive and insanitary.

Vital Statistics can of necessity only be looked on as approximately correct. The taking of a census, the base on which all vital statistics are built, is fraught with difficulties, for it stands to reason that a proper organisation for the taking of a census, although modelled perhaps on our own system, cannot be made to apply to countries which not so

many years ago could boast of only a very small white population. Similarly, proper corrections for deaths are not made by a system of transfer, so that districts which contain hospitals and other institutions are credited with all the deaths of the persons dying in their district, without reference to the fact that their permanent place of residence, if they have one at all, is not that in which they die.

Death rates are roughly from two to three times as large as those to which we are accustomed at home. The infantile mortality rate is very high. In fact, a rate of anything from 200 to 300 per 1,000 registered births is quite common. The principal cause of death of infants is usually given as convulsions, but probably not a few of these deaths are really due to malaria. The big wastage of infant life must, of course, be almost entirely ascribed to ignorance in the matter of infant welfare, and it is some satisfaction to learn that headway is now being made by those responsible for Public Health administration to rectify this defect by the establishment of clinics.

A noticeable feature of the mortality returns is the early age at which so many of the adult male population die. Most of the deaths occur between the ages of 25 and 50, and it is unusual to see many deaths recorded of persons of 50 and upwards, in marked contrast with some of the ages in the obituary notices in our leading daily papers.

Quite a large proportion of the deaths take place without any medical attention and are therefore uncertified, but these deaths have to be registered at the local police station, and the bodies examined by the Inspector of Deaths prior to burial. This procedure helps very materially to prevent concealed crime, and also on occasion to detect deaths due to

dangerous infectious diseases such as plague, smallpox, etc. The Inspector of Deaths is also, however, supposed so far as it is in his power to ascribe the death to some definite cause, a somewhat impossible task, for besides viewing the corpse he has only the statements of the friends of the deceased to guide him. For this reason it is small wonder that many deaths are ascribed to malaria, simply because the patient was said to have had fever, or that the death is returned as due to dysentery because one symptom of the last illness was diarrhoea.

I have seen the returns of death from a Chinese Hospital which included such causes as "weak in his knee" (that, of course, would probably be a case of beri-beri) also stomach-ache, headache, etc., symptoms in fact of almost any illness which caused the death, but actually returned as the primary cause. However, with the statistics as compiled we have to deal, and a perusal of them shows that the principal causes of death are dysentery, malaria, beri-beri, and phthisis, about which a few remarks may be interesting and instructive.

The heavy mortality from dysentery, which always shows the greater incidence in the native races, is, of course, due to the ingestion of polluted water supplies and foodstuffs obtained mainly from the mining camps or from native villages which as yet have not received the attention of the Sanitary Boards. The toll of human life from dysentery is a notable feature in the native hospitals, to which places they make their way when no longer able to work and barely able to walk as they become so weakened and emaciated. The post-mortem rooms of these institutions present a sorry picture of wasted bodies with intestinal lesions due to dysentery so marked that the wonder is that the sufferers have lived so long, more especially as many of them are at the same time subjects of malaria or other diseases.

A Chinese market gardener is a forceful ally of intestinal disease from his habit of watering his crops with stale, fermenting, diluted human excreta. In consequence it is a golden rule to refrain from eating salads and raw vegetables when the producer is a Chinaman. As an expert in manurial values he is justly famed, for he can certainly raise vegetables where others fail, and from the poorest patches of land imaginable, by the careful use of human manure.

Malaria takes a prominent place in the

mortality tables, which fact may cause surprise in the light of knowledge gained from the mosquito host, for one would suppose that if all swamp ground was drained, and the breeding places of the mosquitoes so removed, the disease would very soon be of rare occurrence, but in practice the results are not so striking. For one reason it has been proved that certain malaria carrying mosquitoes breed at the edge of running streams and do not always favour stagnant water.

Then again there is a lack of co-operation between the inhabitants themselves as regards their dwellings to prevent all possible breeding grounds in and around their houses or huts. The dumping of empty tins, discarded cooking utensils, etc., which become filled with rain water, form excellent breeding grounds. So also does the stagnant water in the drains around the houses and stables. In fact, the breeding grounds of the mosquito are everywhere, but it is usually the swampy ground which is blamed, and consequently attended to, but that is only a part of the necessary work. Other overlooked breeding grounds are rot holes in trees, and the steps cut in the trunks of coconut palms. I call to mind at the bungalow of two bachelors a pretty border of a small garden which was fashioned from the upturned ends of beer bottles. In the hollow ends of a number of these could be seen the mosquito larvæ gaily disporting themselves.

Enthusiasts will naturally point to the Panama Canal Zone and the work carried out there in the complete conquest of malaria in a country where previously the disease held masterful sway. But where the expenditure of money on efficient drainage is quite a secondary consideration and the workpeople employed are largely imported, educated and drilled in preventive methods, and housed in mosquito-proof houses, it would be strange if good results were not forthcoming. But this is a very different picture from the difficulties to be overcome when dealing with uneducated natives in a swampy country with dense vegetation and with an abundant rainfall.

References to the Tropical East would be very meagre if no remarks were made about beri-beri. This disease was at one time a veritable plague, but is now, thanks to recent knowledge, where that knowledge is put to practical use, of considerably less incidence. For years it had been noticed that the disease

was prevalent in those countries in which rice was one of the principal articles of diet, but it was not until a few years ago that the causal connection was finally proved. Observers had frequently commented on the fact that the native races which used the unpolished, unhusked rice were remarkably free from the disease, while those races which consumed the white polished rice were very subject to beri-beri. Feeding experiments were carried out on gangs of coolies with their own consent, which went to prove that beri-beri was a deficiency disease which very largely could be prevented by the prohibition of over-polished rice. Hospitals, gaols, lunatic asylums, and other Government institutions have now almost entirely eliminated the disease from the inmates by this simple method.

Phthisis is unfortunately responsible for a heavy mortality, and the prevention of the spread of this disease is a far greater difficulty than might appear at first sight, for although overcrowding is the chief factor in its spread one has also to remember that the habits of the immigrant coolies (amongst whom apparently the heaviest incidence falls) tend to foster it. Many of them also are debilitated by other illnesses such as dysentery, ankylostomiasis, or malaria, nor do they ever seek admission to hospital in the early stages of the disease.

Those who put their faith in the effect of sunlight as a prophylactic against tuberculosis would have their faith rudely shattered in the tropics, for many of the workers who spend the whole day in the sun become victims of the disease. The infection is nearly always due to the human type of the bacillus, not to the bovine, for there is an almost entire absence of the disease in domesticated animals as revealed in the slaughter houses.

Water supplies and drainage in tropical countries constitute a big problem, and works in this direction are mainly limited by financial considerations. With an abundant rainfall up to 100 inches a year, one would think that it would be an easy matter to impound any quantity of water, but nature is not always considerate to the engineer and it can be only by the expenditure of large sums of money that schemes sufficiently extensive to give all water required can be undertaken. In consequence, far too many surface wells exist in the midst of inhabited dwellings. The analyses of the water from these wells show them to be grossly polluted as might be expected.

It is, however, the disposal of the human excreta from the towns which constitutes the greatest nuisance, for the buckets have to be collected daily in the early morning, and taken by bullock cart (or now perhaps by motor transport in the larger towns) and trenched on waste ground outside the town limits. The disgusting nature of the whole business must be seen to be appreciated, for it must be remembered that the contents of the buckets do not even receive an admixture of earth or house refuse, and form a veritable paradise for flies and other winged insects.

All surface water, which includes waste water from the houses, is drained through open drains. The provision of water carriage for the removal of sewage might at first sight appear to be undoubtedly the best method judged by our experience at home. There are, however, difficulties to overcome, for in the tropics with, at times, torrential falls of rain a very complicated system of sewer pipes would be necessary to cope with the sudden access of such a volume of storm water, otherwise the whole system would very soon be blocked and the streets flooded with decomposing sewage. Also, to a considerable proportion of the town dwellers the provision of water closets would be such an innovation that in all probability they would be used in a typically native way, and soon be put out of action owing to the accumulation in the waste pipes of such material as bits of wood and clothing. Again, whereas the water sealed traps properly ventilated are excellent, and successful appliances in our towns to keep gas from the sewers gaining access to the dwelling-houses, they would become unsealed by evaporation and useless in the tropics.

A question which naturally arises when speaking of the mortality in the tropics is: If so much of the disease can be prevented why is an improvement not more rapidly effected? I think I showed when speaking of dysentery that one of the great causes of the mortality was the fact that the early cases did not come for treatment. Admission to hospital is sought as a last resort, when the sufferers are unable to earn a living and when, weakened by starvation, their recuperative powers are so low as to discount their chances of recovery. The native, like our own working man, has no time to be an early case of disease. It often happens that although some of these cases are cured of the disease they nevertheless succumb

eventually from starvation, not from lack of food, but from lack of power to assimilate it. A contrast to this picture is afforded by the fact that dysentery in temperate Europeans and well-nourished natives is relatively a mild complaint attended by a very low mortality. These remarks on dysentery apply in the main to the other principal diseases, malaria and phthisis, but one realises that the prevention of malaria and phthisis is a task which of necessity must take years to influence. It is a task which from the nature of things cannot be completed until the natives change their habits and the country is opened up and inhabited by a settled population living in their own homes in place of a very large proportion of immigrants whose object is to earn sufficient money to enable them to return to their native lands as soon as possible. These aims make for a low standard of living which favours the ravages of disease.

Those who live in glass houses cannot throw stones, and, though I have spoken of defects and difficulties elsewhere, we in England are not free from defects in sanitary administration or free from difficulties so far as health problems are concerned. We, at any rate, know they are there, discuss them at our meetings and conferences, and yet only make slow progress in improving matters. Take phthisis as an instance, and note, having so much in our favour, how little we have attained in the shape of actual prevention. How much harder must it be in a tropical country where the enervating climate, the uneducated natives with their habits and prejudices, the crude water supplies in undeveloped country, all conspire to defeat the aims of the sanitarian. In spite of all these drawbacks steady improvement has been made and will continue to be made, but the task is a heavy one.

Infantile Paralysis in Broadstairs.

By A. M. WATTS, M.D., B.S., Durh., M.R.C.S., L.R.C.P., D.P.H.,
Medical Officer of Health, East Kent (No. 1) United District.

Though the alarm aroused by the outbreak of poliomyelitis at Broadstairs has subsided, the following note by Dr. Watts is of interest as containing information that may prove helpful.

THE Urban District of Broadstairs, which at the census of 1921 had a population of 15,471, has recently obtained an unenviable notoriety owing to an outbreak of this disease which occurred in the month of October, 1926. The first notifications were received by the Medical Officer of Health on October 14th, and between that date and October 29th, 62 cases were notified, one notification being subsequently withdrawn, leaving a total of 61. During the month of November one further case occurred. In addition to these cases, two boys who attended the private school first affected were removed to their homes and afterwards developed the complaint. Then, there was the case of a waiter who was employed in a hotel in Broadstairs during the season, who left the town on October 6th, and developed the disease on the 16th. He died in a London hospital on October 21st. Also that of a young woman who stayed in Broadstairs from October 2nd to 9th, and was taken ill on the 18th, and died on the 22nd. The brother-in-law of the headmaster of one of the private schools where cases occurred, who had

been staying in Broadstairs for three weeks, visited the school on October 10th, and had lunch there. He left the town the following day, and was taken ill with the complaint on the 16th. It will thus be seen that the total number of cases in connection with the outbreak was probably not less than 67.

Owing to its reputation as a healthy seaside resort there are many private boarding schools and day schools in the district, the population in these schools being about 1,150 children. Some 850 children attend the elementary schools, 150 a secondary school, and there are convalescent homes with accommodation for 900 persons, mainly children. The total number of private schools is about 26, and in 13 of these cases of infantile paralysis occurred, 35 children, one mistress and two members of the domestic staffs being affected. In one convalescent home 5 cases occurred, two children and three members of the staff, and in another convalescent home there was one case. Only three children attending the elementary schools were notified, but three children living in Broadstairs and attending

the County Council Secondary School at Ramsgate contracted the complaint. In addition to the above 50 cases there were 12 others only indirectly connected with schools or institutions.

As regards the private boarding schools where no day scholars attended there were five affected, 20 children having the complaint out of 249 in attendance.

It is an interesting fact that during the five years ended 1925, only two cases of the disease were notified in the Urban District, and they occurred last year (1925), that no cases were notified this year (1926) prior to October 14th, that no cases were notified during the first ten months of the year in the Borough of Margate, in the adjacent rural district of the Isle of Thanet, and only two in the Borough of Ramsgate, and also that the outbreak did not spread to the surrounding districts.

Four deaths took place. (1) A boy of 10 years, who was taken ill on October 10th, and died 48 hours later. (2) A young woman of 28 who was taken ill on the evening of the 12th, and died at midnight on the 14th. (3) A boy of 8 who was taken ill on the 10th, with vomiting. His symptoms subsided, but on the 15th his temperature rose to 102. He developed paralysis of the lower limbs, then of most of the muscles of the upper limbs, finally of the diaphragm, and death eventually took place on October 23rd. (4) A boy of 5 who was taken ill on the 25th and died the next day showed paralysis of the palate as an initial symptom.

One of the two boys removed from a boarding school who developed the disease after reaching home eventually died.

As to the way the infection was introduced into the schools: it is a well-known fact that many people spent their summer holidays on the Continent this year, and there were outbreaks of infantile paralysis on the coast of Brittany. The fatal case in the school at Broadstairs which was apparently the first affected spent his holiday in Brittany, and it is possible that he introduced the disease into the school; at another school the first case, an abortive one, spent his holiday in Brittany; in another school a boy who died spent his holiday in Norway. As is well known, the disease may be conveyed from person to person by healthy carriers, and the investigations which were made in connection with this outbreak tend to show more than ever the importance of this factor. Then again,

climatic conditions must not be overlooked, and it is perhaps worthy of note that the weather in September was exceptionally fine and warm.

Enquiries were made in 54 of the cases with regard to vaccination, and it was found that in none of them had vaccination been recently carried out.

The age of the oldest person notified was 30 years, and that of the youngest one year. The number of males was 38 and of females 24. It is usually found that more males are affected than females, but in the case of the boarding schools attacked three were for boys, and two for girls.

As regards treatment, only a small proportion of the patients, viz., 9, were removed to the Joint Isolation Hospital. Of these, 5 belonged to a convalescent home and two are members of the staffs of two private boarding schools. The other cases were isolated in their own homes or in the schools which they attended.

The cases which were notified varied in the intensity of their symptoms. Some were very mild, others very serious. Two boys who attended the same school and sat next to each other presented evidence of the meningeal type of the disease, and both recovered. In several cases the first symptoms subsided for a few days, and then recurred with increased severity. Most of the schools affected were situated in the northern portion of the district and near the sea. The school with the largest number of cases was the one situated nearest to the sea. One important point in connection with the outbreak should be mentioned, and that is that each boarding school has its own medical attendant who advises the principal on health matters as well as treating the children and staff. The doctors attending the schools, in conjunction with certain London physicians whom they called in in consultation, decided to isolate the schools as far as possible, and advised parents to allow their children to remain. A certain number of parents of children in affected and non-affected schools removed their boys and girls, and one affected school eventually closed completely at the middle of November, and re-opened in another seaside resort for the remainder of the term.

The interesting features of the outbreak were the facts that the disease was limited mainly to children attending private schools in the district, that the poorer members of the

community almost entirely escaped, and that the outbreak started suddenly and subsided suddenly. On October 14th, and the five following days 31 cases were notified in twelve private schools. The private schools affected had very little communication, if any, with each other. The boys of the school in which cases were first notified did not attend church, although some of the pupils from other schools

did, and among other preventive measures adopted was the disinfection of the church, and the exclusion from services of all children from private schools.

As to the effect of the complaint on the patients attacked, it has been found from enquiries made in connection with 56 cases, that there was evidence of paralysis in 29.

Humane Slaughtering of Animals for Food.

By C. KILICK MILLARD, M.D., D.Sc., Medical Officer of Health, Leicester.

The slaughtering of food animals is a matter in which the Medical Officer of Health is, for a variety of reasons, compelled to take an interest, and in this paper Dr. Killick Millard, who has devoted much attention to the study of humane methods, raises points that are worthy of consideration.

THE subject of humane slaughtering of animals is a highly controversial one, and the questions at issue are not quite so easily settled as some appear to think.

The chief points of controversy are: (1) the stunning of animals as a preliminary to cutting the throat, and (2) the use of a "mechanically operated instrument" suitable and sufficient for the purpose of stunning, i.e., the instrument popularly known as the "humane killer." The first is provided for in Model Bye-law 9 (a), and the second in Model Bye-law 9 (b).

The battle was fought out in Leicester two years ago, the various stages in the contest being as follows:—

(1) Representations made to the Health Committee by an influential deputation from the local branch of the R.S.P.C.A. advocating the making the use of "humane killers" compulsory.

(2) Deputation from the Leicester Butchers' Association protesting against such a measure.

(3) The appointment of a special sub-committee by the Health Committee to study the question in all its bearings and report.

(4) The Sub-Committee go into the matter very thoroughly. They visit slaughterhouses in Leicester and elsewhere, including places where the use of humane killers has been compulsory for some time. They receive a report from the Medical Officer of Health upon a special demonstration of slaughtering by various methods organised by the Butchers in Birmingham under the auspices of the Birmingham Corporation. They also have an interview with Sir George Newman at the

Ministry of Health.

(5) The Sub-Committee present their report which recommends:—

(a) That new bye-laws in regard to slaughterhouses and slaughtering be prepared.

(b) That the use of the humane killer be made compulsory, but that in the case of pigs its operation be postponed for 12 months.

(c) That new public abattoirs be provided.

(d) That private slaughterhouses be abolished.

(6) The report is accepted by the full Health Committee.

(7) The question comes before the City Council and the report of the Health Committee is carried, after a full-dress debate, by a very small majority.

(8) New bye-laws are prepared, embodying Model bye-law 9 (b) with the proviso that as regards pigs the use of humane killers be postponed for 12 months.

(9) Another full-dress debate takes place in the City Council with the result that an amendment that the bye-law relating to the use of "humane killers" be omitted, is carried by a small majority.

This result was, of course, a victory for the butchers, and a serious disappointment to the R.S.P.C.A.

Up to the present the question has not again been brought forward.

Arguments against the use of "Humane Killers."

The arguments against the use of humane killers are pretty well-known. The chief are:

(1) Danger to the men working in the slaughterhouses, where a free bullet instrument is employed.

A list of "accidents" which have actually occurred is published by the Meat Traders' Federation. During the eight years, March, 1913 to April, 1921, fifteen cases are recorded, but of these five were due to suicide and, therefore, were not really accidental, and one other was alleged felonious shooting, and though the accused was acquitted there is at least a doubt if it was accidental. In any case, now that the captive bolt instrument has been perfected and made sufficiently powerful for large animals (beasts) as I believe is the case, the argument as to danger can be said to have been met.

(2) Damage to the flesh of the animal especially where a free bullet is used. It is alleged that "splashing" (extravasation of blood from small blood vessels) is more likely to occur when animals are shot.

(3) Loss of time, owing to shooting entailing a separate operation; this especially applies in the case of pigs.

(4) Incomplete Bleeding. This objection also specially applies in the case of pigs. It is contended, no doubt with justice, that it is most essential, where pigs are killed for bacon curing, that the carcasses should be effectively drained of blood.

(5) There is also the objection, though the butchers do not emphasise this, that the use of "humane killers" involves a certain but not very serious additional expense for first cost of implements, for ammunition, and for maintenance repairs.

It is further submitted by the butchers that, so far as beasts are concerned, the poleaxe is an efficient and satisfactory implement, and whilst merciful to the beast, it is safe and handy, and not liable to get out of order.

Answer to Objections.

(1) *Danger.* With reasonable care the risk of danger is not very serious. Several of the accidents that have occurred have been through using a free bullet instrument on a small animal, the bullet coming out through the neck into the open again. The use of a captive bolt pistol for smaller animals would entirely obviate this danger.

Further, in considering the question of danger it must be remembered that there is a possibility of accident with whatever instrument is used.

The Greener "Safeti" Cattle Killer has been specially devised to eliminate danger, even with a free bullet. In this instrument the nozzle of the Killer must be actually pressed firmly against the object before it is possible to fire it.

(2) *Damage to the Carcase.*—This is not very likely to occur if the implement used is suitable to the animal. If a killer or cartridge intended for cattle is used on sheep or pigs some damage may occur. With the captive bolt pistol only the brain is damaged, and then not to a very serious extent.

As regards the phenomenon known as "splashing," the evidence of this is somewhat conflicting, but in so far as it is due to incomplete bleeding it is dealt with below.

(3) *Loss of Time.*—In the case of pigs it is possible that some slight loss of time is entailed. It is reasonable to contend, however, that when the new method has become familiar, and other procedure adapted as may be found necessary, the loss of time will not be very serious.

(4) *Incomplete Bleeding.*—This, in my opinion, is by far the most important objection of all. It was established in the case of the pigs slaughtered by the "humane killer" at the Birmingham Demonstration that bleeding was certainly not so complete as in the case of pigs slaughtered in the ordinary way. At Birmingham, however, the pigs were shot with the "killer" in the pen, before being shackled. Considerable delay ensued before they could be shackled, hoisted and stuck. Virtually, the animals were dead before they were stuck.

In order to secure satisfactory bleeding, it appears to be necessary to stick the pig immediately after it has been shot. It should be possible to do this in the short interval which usually occurs after shooting before reflex kicking sets in. As a matter of fact, this is the method I saw adopted at Southampton, Brighton and Nottingham. At all these places, however, it must be admitted that I only saw small or moderately-sized pigs killed; nor were pigs being slaughtered on a very large scale.

At the Farmers' Co-operative Bacon Curers' Factory at Eastleigh, Hants., also visited by the deputation, operations were carried on on a large scale, but the pigs were shackled and hoisted before being shot. The hoisting, however, is an objectionable business, and if it be considered necessary to hoist pigs in order to

As Associates :-

George, Violet Helena, L.D.S., R.C.S. Eng.; Gollidge, Stanley Vyvyan, M.R.C.V.S.; Parlanc (Mrs.), Ethel Margaret Yates, L.D.S., R.F.P.S. Glasg.; Pew, H. E., L.D.S.; Russell, Eveline Mary, L.D.S., R.C.S. Eng.; Winn, Thos. Leith, L.D.S., R.C.S. Eng.

A number of nominations were received for the next election.

There followed a discussion on : "Puerperal Fever and Puerperal Pyrexia," from the point of view of : (a) The Consultant : Archibald Donald, M.A., M.D., F.R.C.P., Consulting Honorary Surgeon, St. Mary's Hospital, Manchester. (b) The General Practitioner : Thomas A. Goodfellow, C.B.E., M.D. (c) The Medical Officer of Health : J. Johnstone Jervis, M.D., D.P.H., Medical Officer of Health, Leeds. (d) Hospital Treatment : D. Sage Sutherland, M.D., Ch.B., Medical Superintendent, Manchester City Fever Hospital. (e) The Bacteriologist : Professor W. W. C. Topley, M.D., F.R.C.P., Professor in Bacteriology, Victoria University, Manchester.

A vote of thanks to the openers was moved by Dr. James Wheatley, seconded by Dr. R. Veitch Clark, and carried unanimously. A full report of the discussion will appear in an early issue of "Public Health."

THE NORTHERN BRANCH.

President : Dr. Roderick Macleod, M.O.H., Hetton, Durham.

Hon. Secretary : Prof. Harold Kerr, O.B.E., M.O.H. Newcastle-upon-Tyne.

A meeting of this Branch was held in the Medical Institute, 7, Windsor Terrace, Newcastle-upon-Tyne, on December 3rd, 1926.

Present : The President; Vice-President (Dr. James Bannerman); Dr. T. W. N. Barlow (Ex-President of the Society); Captain G. S. Elliston (Executive Secretary); Sir Robert A. Bolam, LL.D., M.D.; Drs. Mabel Brodie, G. A. Dawson, W. H. Dickinson, P. A. Dormer, Kate Gray, Margaret Herbst, T. E. Hill, J. A. Hislop, Mary E. Howie, James Hudson, G. Hurrell, G. Lilico, G. C. M. M'Gonigle, J. M. MacLachlan, Doris H. Motyer, T. N. V. Potts, Margaret A. Reid, Jas. W. Smith, A. Smith, A. F. G. Spinks, Alice M. Stenhouse, Christine J. Thomson, D. W. Tough, Edith S. Williamson and S. K. Young, Mr. E. W. Manners, and the Hon. Secretary.

As the Minutes of the previous meeting (October 8th, 1926) had been printed in *Public Health*, they were taken as read, and signed by the Chairman.

Apologies for absence were received from the following : The President of the Society (Dr. E. H. Snell), and Drs. S. V. Tinsley, C. Franks, J. A. Charles, A. T. Paterson, H. G. Donald, J. A. Stirling, Mabel Campbell, and Mr. C. E. Sutcliffe.

It was reported that Dr. James Hudson had been re-elected by the North of England Branch Council of the B.M.A. as its representative on the Council of the Northern Branch of the Society of Medical Officers of Health.

It was agreed that a communication from the Hon. Secretary, Yorkshire Branch, containing an invitation to Scarborough, be considered at the next meeting of the Branch.

The following were elected as members of the Branch : Dr. Madge Hopper, M.O., M. & C.W., Whickham U.D.C.; Dr. Eleanor C. E. Stone, Asst. M.O.H. Durham C.C.; Dr. K. Falconar, M.O.H. Durham R.D.C. (transfer from N.W. Branch).

The Honorary Secretary reported that he had sent letters on the subject of attendance of School Medical Officers at Branch Meetings, to six principal School Medical Officers within the Branch area, and that only two replies, both of which were favourable, had been received, viz., from Drs. T. Eustace Hill and James A. Hislop.

Dr. A. F. G. Spinks (Honorary Secretary, Maternity and Child Welfare Group, Northern Branch), reported that it was intended to hold a meeting of the Maternity and Child Welfare Group of the Society in Newcastle-upon-Tyne during February, 1927.

The President gave Dr. T. W. N. Barlow and Captain G. S. Elliston a hearty welcome to the meeting.

Dr Barlow in giving his Address, "What the Society does for its Members," said he was very glad to be with the Members of the Northern Branch that day. He said that his service on the Council of the Society extended over a period of 21 years, and, of course, the work of that body was now much wider. He pointed out that the need for Child Welfare Work, School Medical Inspection, Tuberculosis, and Venereal Disease Clinics had been largely due to the efforts of some of the older men amongst the present Medical Officers of Health.

Dr. Barlow stated that the Ministry of Health never acts in advance of public opinion, and public opinion in health matters has practically always been aroused in the first place by Medical Officers of Health. One of the chief functions of the Council was to help to bring about necessary reforms and developments.

He then referred to the fact that as most of the meetings of the Council were held in London, which after all was perhaps the most central place, it meant that members from a distance cannot always attend, with the result that the real management of that body is apt to rest with the members who live in or near London.

The speaker then referred to the various Societies on which the Council had representatives, and also to the large amount of work that is done every year by submitting observations on Ministry of Health draft Regulations, Orders and Bills.

He then spoke on the questions of (1) Superannuation, and (2) the Scale of Salaries. For the former, he said Dr. Herbert Jones of Hereford, had done most of the spade work, while Dr. George Buchan had been mainly responsible for the preparation of the latter. This scale had taken a long time to materialise, and was only agreed to by the Ministry of Health and the Municipal Corporations' Association after many joint conferences.

During the past 15 months the following appointments at scale rates have been advertised in the Medical Journals :—

Medical Officers of Health	...	...	30
Assistant Medical Officers of Health	...	...	112
Sanatorium Superintendents	...	...	25
Bacteriologists	...	...	3
			170

The following advertisements were not accepted, not being at scale rates :—

Medical Officers of Health	...	...	5
Assistant Medical Officers of Health	...	...	28
Sanatorium Superintendents	...	...	3
			36

Dr. Barlow stated that hundreds of Public Health Officers now receiving £600 to £800 per annum would only have been getting £350 to £650 had it not been for the scale.

With regard to the future of the Society, Dr. Barlow expressed the opinion that :—

(1) The Society of Medical Officers of Health should be the body to run Congresses.

(2) The Society of Medical Officers of Health should be the Central Bureau for all information relative to Public Health.

(3) The Society of Medical Officers of Health should run a weekly journal.

Dr. Barlow then referred to the finances of the Society, and emphasised the fact that for many years the Society's expenditure had exceeded its income, and consequently the members' annual subscription had to be increased.

The general attitude of the General Practitioners towards the Public Health Service has changed markedly in recent years, and very cordial relations exist to-day between the B.M.A. and the Society.

Captain G. S. Elliston, in his address upon "Present Activities at Headquarters," referred to the difficulty of the Council's business being left in the hands of the London members through inability of provincial members to attend, and pointed out that the increased subscription was partly due to a desire to have more money available for paying railway fares of the Provincial Representatives when attending Council Meetings in London.

After all, the annual subscription was only a very small proportion of a Public Health Officer's salary as compared with the compulsory deductions to which a working man had to submit.

With regard to the scale, it was rather curious that although the County Councils' Association had not agreed to it, there had not been a single failure to comply with it in County Council advertisements. (London County Council, Notts., Leicester, Worcester and Northampton.)

He agreed that at the present time some of the experienced Assistant Medical Officers of Health were underpaid, but he pointed out that there was a provision in the scale of salaries that there was to be no general demand for the adjustment of salaries that were in force previous to the adoption of the Scale. However, he felt that in the near future these salaries would get some kind of revision. Nowadays it was necessary for men in the Public Health Service to be highly qualified, and the speaker emphasised the importance of Junior Officers in the service obtaining the M.R.C.P. By doing this they would gain greater prestige.

Captain Elliston endorsed Dr. Barlow's remarks regarding the Society and the running of Congresses, and said that the Public Health Section of the B.M.A. Annual Meeting was not yet as well organised or attended by the service as it ought to be.

The President complimented both Dr. Barlow and Capt. Elliston, and said that the Addresses had been most instructive, and there was no doubt that the members were getting an excellent return for their subscriptions.

Dr. Young said he was very glad to know that there was a likelihood of something being done respecting the remuneration of the clinical members of the service. There came a time when one had to choose between an administrative post and a clinical one. He instanced several cases where clinical men of 15 years' experience and over were only receiving £50 more than the commencing salary fixed for an Assistant M.O.H.

Dr. Mabel Brodie stated that the salaries of some of the Assistant Medical Officers of Health in Birmingham had recently been reduced to £600. The existence of Voluntary Societies was, in her opinion, perhaps due to the fact that the medical profession still thought that their interests were subjects only of minor account and not worthy of serious attention.

Dr. H. Kerr said that he had listened to Dr. Barlow's Address with great interest, and remarked that the Society owed him (Dr. Barlow) a great deal. Dr. Barlow was one of the most tactful Presidents the Society had ever had. He then referred to the reorganisation and subsequent great development of the Society during and following the Great War. With reference to the question of higher qualifications, he stated that the D.P.H. had become most difficult to get, and as a result, he anticipated a dearth of properly qualified Public Health men.

With regard to the relationship of the B.M.A. with the Society of Medical Officers of Health the speaker said that the Northern Branch had always canvassed members for both, in order to increase the co-operation between those two bodies. He recommended all Public Health members to take an active part in their respective B.M.A. Divisions.

Dr. T. Eustace Hill pointed out that it was very difficult to convince an Urban District Council that they should pay £700—£800 for a Medical Officer of Health, where previously a part-timer had only received £200. There was no doubt that Public Health Officers had

not played their part in the B.M.A. in the past. The Society of Medical Officers of Health with the co-operation of the B.M.A. had done a great deal of very effective work since the war, and his own experience was that the general practitioner was really sympathetic and always ready to co-operate. His advice to Public Health Officers was to work *with* the general practitioner, and let him know that the service wanted to work with and help him.

Sir Robert Bolam said it must be remembered that Local Authorities throughout the country as a rule thought that because they paid the piper they should be able to call the tune. Then again, the Ministry of Health could not really compel districts to make appointments according to the scale. He said that he was very hopeful that the B.M.A. would not lose sight of cases of hardship, viz., Junior Officers, and that the matter would be tackled as soon as the opportunity occurred, because there was only a small percentage of members that could hope for a post as M.O.H., even if they desired administrative work. It would be of extreme value to the B.M.A. if Public Health Officers would attend the meetings of the Local Divisions and take a real interest in the affairs of the Association, and he paid great tribute to the Public Health Officers in the North of England for the way in which they co-operated with the B.M.A.

Dr. T. Eustace Hill in moving a hearty vote of thanks to Dr. Barlow and Captain Elliston for their most interesting addresses, said the Branch was greatly indebted to them. He referred to the great value of the only weekly Public Health journal—"The Medical Officer"—to the service, and said that Captain Elliston, its Editor, was doing exceedingly good work for them.

Dr. James A. Hislop seconded the motion, which was carried with acclamation.

At the close of the meeting those present adjourned to the dining room for the Annual Dinner of the Branch.

Dr. Macleod, President of the Branch, presided. The party numbered 40, and included Dr. T. W. N. Barlow, Captain G. S. Elliston, and several guests representative of other medical activities in the north.

After the Loyal Toast, proposed by the President, had been honoured, there were the following:—

"The Public Health Service," proposed by Colonel David F. Todd (Ex-President, North

of England Branch, B.M.A.), to which Dr. T. W. N. Barlow replied.

"The British Medical Association," proposed by Dr. R. MacLeod, and responded to by Sir Robert A. Bolam and Dr. James Hudson. "Our Guests," proposed by Dr. G. C. M. M'Gonigle, to which Dr. S. Worthington (Honorary Secretary, Newcastle-upon-Tyne Panel Committee) and Captain G. S. Elliston replied. With "The Guests" was coupled the name of the veteran of the Branch, Dr. James W. Smith, who made a characteristically kindly and graceful response.

"The Ladies," proposed by Dr. W. P. T. Watts, was acknowledged by Dr. Mary E. Howie; and "The President of the Branch" was proposed by Dr. James Bannerman, to which Dr. MacLeod responded.

THE HOME COUNTIES BRANCH.

President: Dr. Joseph Cates, County M.O.H., Surrey.

Hon. Secretary: Dr. H. J. Milligan, M.C. M.O.H., Reading.

The third meeting of the 1926-27 session of this Branch was held at the House of the Society, on December 3rd, 1926.

Apologies for absence were received from Dr. W. A. Muir, Gillingham; Dr. F. T. C. Linton, Tunbridge Wells; and Dr. A. Greenwood, Maidstone.

The Secretary reported that arrangements had been made for the Branch to visit the Wellcome Physiological Research Laboratories at Beckenham, on Friday, February 4th, and that Dr. O'Brien, the Director had intimated his desire to arrange a programme that would be of interest to the members of the Branch.

It was also reported that arrangements had been made for a visit to the Chippenham Condensary of the Nestlé and Anglo-Swiss Condensed Milk Company, the visit to take place on Friday, April 1st.

The President then sought the opinion of members as to the advisability of recommencing the annual dinners of the Branch which had been in abeyance for some years. After discussion the Secretary was instructed to circularise members in regard to this matter.

The President and Dr. Jameson reported the proceedings of the last meeting of the Council of the Society, which are recorded in the December issue of *Public Health*.

Dr. A. E. Porter, Medical Officer of Health,

Reigate, read a paper on "Milk-Borne Scarlet Fever," which suggested many features of interest and difficulty in locating the source of the infection of outbreaks in certain of these cases. At Reigate, although every avenue was explored, and although all of the investigators were unanimous that the outbreak was due to milk infection, the manner in which the milk became infective was not clearly elucidated. It appeared to be of human origin, and the possibility of some unrecognised "carrier" of the infection was considered as a probable source. Many of the members took part in what proved to be a most interesting discussion, and Dr. Porter was heartily thanked for bringing the matter before the Branch.

The Secretary then asked the Branch to consider the conditions of admission of candidates for the examination for Sanitary Inspectors held under the auspices of the Royal Sanitary Institute and Sanitary Inspectors' Examination Joint Board. In order to give members an opportunity to familiarise themselves with this question it was agreed to put down the matter on the agenda for the next meeting of the Branch.

THE YORKSHIRE BRANCH.

President: Dr. S. Fox Linton, M.O.H., Scarborough.

Hon. Secretary: Dr. G. H. Pearce, M.O.H., Batley.

A meeting of the Council of the Branch was held at the Education Offices, Calverley Street, Leeds, on November 24th, 1926.

Present: The President (in the Chair), Drs. Banks, Belam, Buck, Gibson, B. Hill, Jervis, Mair, Pick, Pickup, Scattered, Thornley, C. L. Williams, and the Hon. Secretary.

Apologies for absence were received from Drs. Buchan, Daley and Francis.

The minutes of the last meeting were read, confirmed and signed.

The Hon. Secretary reported that, acting under the instructions of the President, he had written to Dr. L. Pick, Medical Officer of Health, Spenborough, conveying the sympathy of the Branch with him on the occasion of the death of his wife, and read a letter from Dr. Pick in acknowledgment.

A letter was received from Dr. Chas. Sanders expressing thanks for the good wishes extended to him by the Branch on the occasion of his visit to the Annual Dinner.

Other correspondence was considered, and

arrangements made respecting future meetings.

An Ordinary Meeting of the Branch followed the Council meeting.

In addition to the members of the Council above mentioned, there were present Drs. Bates, Frazer, Hebblethwaite, M. M. Thierens, V. T. Thierens and A. Wear, C.M.G.

The minutes of the last meeting were read, confirmed and signed.

It was unanimously resolved, on the proposition of Dr. C. Leonard Williams, seconded by Dr. J. Mair, that the Council of the Society be informed that the Branch was willing to provide two chairs for the use of their Representatives on the Council at a cost of £6 6s.

It was proposed by Dr. W. Bertram Hill, seconded by Dr. Belam, and unanimously resolved that the Yorkshire Branch Council of the British Medical Association be invited to nominate two members as Representatives of that Branch on the Council of the Yorkshire Branch of the Society of Medical Officers of Health.

Dr. Cyril Banks reported upon the proceedings of the Council meeting of the Society in London on November 19th. Various questions were asked by members which were replied to by the Branch Representatives.

Dr. J. Johnstone Jarvis reported that he had seen Sir Berkeley Moynihan and Professor R. D. Passey, and both had agreed to address the Sessional meeting of the Royal Sanitary Institute on Friday, March 25th, 1927, in the Town Hall, Leeds, and it was decided that the Branch should hold a joint meeting on that date with the Royal Sanitary Institute. Dr. Jarvis stated that Sir Berkeley Moynihan had, on more than one occasion, mentioned that he would like to meet the Medical Officers of Health in Yorkshire, and talk to them on the subject of Cancer. The hope was expressed that on the occasion of Sir Berkeley Moynihan's address, there would be a good muster of Yorkshire Medical Officers of Health, and it is specially desired that, in this instance such arrangements may be made as will permit, where such is possible, the attendance at this meeting of their junior colleagues.

A paper on "The Milk and Dairies Order, 1926," was read by Dr. F. A. Belam. Drs. Linton, Banks, Bates, Hill, Jarvis, Mair, Pearce, Thornley and Williams took part in the discussion which had not concluded when

the meeting broke up. It was resolved that the discussion be continued at the next meeting.

THE MIDLAND BRANCH.

President: Dr. G. B. Dixon, Chief T.O. and Medical Superintendent, Birmingham.

Hon. Secretary: Dr. R. H. H. Jolly, M.O.H., Wolverhampton.

The third meeting of the Session of this Branch was held at the City Bacteriological Laboratory, Lodge Road, Birmingham, on December 2nd, 1926, the President and 11 members being present. Apologies for absence were read from Drs. Goldie, Dent, Meredith Davies, Gibbons Ward, Peebles, Blaker, and Bowes.

The minutes of the previous meeting were read, confirmed, and signed.

The Hon. Secretary called the attention of members to a recruiting circular prepared at Headquarters, and stated that he would be pleased to obtain copies for anyone requiring them.

The President with great regret announced that Dr. T. Ridley Bailey (Hon. Treasurer) was lying dangerously ill in a nursing home. The Hon. Secretary was instructed to write a letter of sympathy to Dr. Ridley Bailey expressing the grief with which the individual members had learnt of his ill-health.

The President referred to the recent deaths of two of the senior members of the Branch, Dr. G. Petgrave Johnson of Stoke-on-Trent, and Dr. J. D. McCrindle of Northampton. Members present expressed their sympathy by rising and standing in silence. It was reported that Dr. Adam White represented the Midland Branch at the funeral of Dr. Petgrave Johnson, and Dr. Snell and Dr. Meredith Davies attended the funeral of Dr. McCrindle, and that a wreath and a letter of sympathy had been sent in each case.

The Hon. Secretary was empowered to distribute certain gratuities to his staff for clerical assistance rendered during the year. His action in arranging for a bouquet to be presented, on behalf of the Midland Branch, to Mrs. Snell, at the Annual Dinner was approved.

The President then thanked Dr. Henry for his kindness in providing the members with tea before the meeting, and called upon him for his laboratory demonstration. This included:—

(1) Wasserman tests for syphilis and gonorrhoea.

(2) Dark-ground illumination.

(3) Spirochaetes in stained films and in sections of tissues.

(4) Isolation of *Bacillus typhosus* from carrier stools.

(5) Electrical sterilisation of milk.

(6) Electrical production of disinfectant.

(7) Schick guinea pigs.

(8) Anaerobic culture apparatus.

(9) Determination of reaction by colour indicators.

(10) Determination of human blood groups.

The entire demonstration was most interesting to anyone engaged in Public Health work, and the members attending the meeting felt that they had acquired some interesting information and fresh ideas. It was regretted on all sides that junior members of the Branch had not taken advantage of the later hour of meeting to attend this demonstration which was largely arranged for their benefit, and at a time to suit their convenience.

THE SOUTHERN BRANCH.

President: Dr. A. D. Edwards, M.O.H., Bournemouth.

Hon. Secretary: Dr. H. D. Kelf, Asst. M.O.H., Hants County Council.

A meeting of this Branch was held at Winchester, on December 3rd, 1926. There were present:—The President, Drs. Druitt, W. J. Hart, B. L. Lloyd, Lockhart Livingston, J. G. MacNaught, A. B. Shed, W. Simpson, W. Bruce Young; Messrs. R. E. Hodgson and A. W. Ward (Dental Officers), and the Hon. Secretary.

After the minutes of the previous meeting had been read and confirmed, apologies for absence from Dr. Lockhart Stephens and Dr. Bartlett were announced by Dr. Livingston.

Dr. Bruce Young showed an interesting clinical case of a child aged 2½ years, who was never hungry, declined all food, but always had to be coaxed to eat and drink. He described the case as one of "Infantile Anorexia."

Dr. Young also showed the Tustmum Sediment Tester for Milk, with a considerable number of specimens illustrating the amount of dirt and debris obtained from samples of milk taken in the cowshed, retail shop and delivery van.

Dr. Young then read a most interesting paper on "Dentists and the Prevention of Disease."

After preliminary remarks on Preventive Medicine, he showed the relation of the dentist to the principles of prevention of disease and their practical application. He suggested (1) Education of the people in the value of good teeth, and in the disadvantages of diseased teeth; (2) The provision of an adequate and suitable diet for proper tooth formation and growth; (3) Instruction in oral hygiene; (4) Proper arrangements for periodical dental inspection, conservative treatment, extraction, restoration and regulation.

He considered the dentist as much a specialist as the oculist, laryngologist, gynaecologist, etc., and he should receive the common training and minimal qualification as the medical man.

Greater attention to the science of proper nutrition and the study of dietetics was needed to deal with the enormous amount of dental disease by preventive rather than by curative methods.

Discussion followed, and Dr. Young was thanked for his valuable paper.

THE WELSH BRANCH.

President: Dr. T. Roberts, County M.O.H., Denbighshire.

Hon. Secretary: Dr. Thomas Evans, M.O.H., Swansea.

The first meeting of the Session was held at the City Hall, Cardiff, on December 9th, 1926. Eighteen members were present, and Mr. Howell E. James, Secretary of the Welsh Board of Health, was a welcome visitor.

After the minutes of the last meeting and correspondence had been read and received, the retiring President, Dr. Colston Williams, inducted the new President—Dr. T. Roberts.

Dr. Roberts thanked the members for the honour conferred on him by his election to the Chair and, though pleading indulgence for not having prepared a written address, proceeded to deliver a most interesting discourse on "Health Propaganda."

In the course of his remarks the President said that a large proportion of the time of Medical Officers of Health was taken up in the administration of legislative enactments, and that a potent cause of the difficulties and failures of Public Health administration was the scanty knowledge of the elements of personal and communal hygiene possessed by the public. The energies of the School Medical and Child Welfare Services should

be directed to a greater extent toward educational ends; their preventive functions were neglected, and relatively too much time was devoted to clinical and curative duties. The teaching of hygiene to young mothers at Infant Consultations and to children at school during these impressionable age periods was too much neglected, and it was questionable whether midwives, nurses and school teachers possessed that interest in and understanding of preventive hygiene—personal and communal—which they should possess.

The "health education" of local authorities also should be more energetically pursued. If public bodies had been better informed recent legislation such as that which introduced the grading of milk would have been unnecessary, as previous legislation dealing with the milk supply would have been more effectively enforced. The prevention and treatment of crippling would be an easier task if the local authorities were better acquainted with causative factors, with the extent and severity of crippling, and with the means of recovery and amelioration. One rigid economist amongst the members of the speaker's committee was immediately converted into an enthusiastic supporter by a visit to the Orthopaedic Hospital at Gobowen. Health education must be continuous and not spasmodic. The formation of a small voluntary organisation to discuss health topics in each village or parish would create an atmosphere amongst the electors that would secure their representation on local authorities by persons interested in health problems. The use of the press by the Medical Officer of Health as a vehicle of propaganda was not contrary to the ethical principles of the profession, and the periodical publication of health bulletins by local authorities was to be commended. The educational work of the Welsh National Tuberculosis Association could be more effectively done by the staffs of the Public Authorities.

The Welsh people were largely influenced by sentiment, and if the same keen interest could be aroused in Health as in Education amongst the people of Wales a great step forward and a rapid advancement of Public Health in the Principality would be possible.

A vote of thanks to the President for his address was proposed by Dr. Llewellyn Williams, seconded by Prof. Collis, and carried with applause.

THE MATERNITY AND CHILD WELFARE GROUP.

President: Dr. Mabel Brodie, Asst. Welfare M.O., Durham County.

Hon. Secretary: Dr. Margaret Emslie, 22, Wimpole Street, W.1.

A meeting of this Group was held at the Florence Restaurant, Rupert Street, London, W.1, on December 9th, 1926, at 8 p.m., when twenty-five members and visitors were present. An enjoyable dinner was followed by an informal round-table discussion on "The Real Value or Otherwise of Infant Welfare Clinics," in which Dr. Nash, who was in the Chair, assigned first importance to the value of the intimate relationship of the Infant Welfare doctor to the family as a whole. Dr. Cates of Surrey, and Dr. Kirkhope of Tottenham, who very kindly attended to represent the point of view of the Public Health administrator, gave enthusiastic testimony to the achievements, and the future opportunities of the Infant Welfare movement, and members of the Group, including Drs. Cockerell, Flora Shepherd, Calman, Alden and Allan Hamilton, drew attention to various details of comparative success or failure. Regret was expressed at an early stage in the meeting that no unbiassed outsider had come forward to give the Group the benefit of frank external criticism so that the discussion had soon to resolve itself into a happy, if unprovocative consideration of acknowledged avenues for improvement in the work. Special attention was drawn to the questions of the prevention of dental caries, and the necessity for better co-operation between Hospitals and Infant Centres, both already arranged as subjects for discussion at later meetings of the Group during this session.

Reviews.

SANITARY SCIENCE. By HENRY ADAMS, M.Inst.C.E., F.S.I., F.R.San.I., F.R.I.B.A. London: Chapman and Hall, Ltd., 1926. pp. 188. Price 8s. 6d. net.

As teacher and examiner for very many years, Prof. Henry Adams has passed through his hands a vast number of students and candidates for certificates of various kinds. It is not surprising, therefore, that the book he has prepared on Sanitary Science, applied to buildings and public works, should primarily be intended for students. His suggestion that

possibly it may be useful to others, sanitary engineers, builders, plumbers, etc., is probably correct, since he touches on a great many matters that concern persons engaged in these various occupations. In arranging the material for the book Prof. Adams has followed the syllabus of the Sanitary Science Examination of the Royal Sanitary Institute and this has proved a fairly satisfactory method. The book is not a large one, but so far as can be seen little appears to have been omitted. The examination questions that follow each chapter should be found very helpful, and the final chapter on examinations in which are quoted a number of the more astonishing of the answers of candidates to questions asked in the examination room is not out of place, as affording amusement for those who are little likely ever again to be on the examinees side of the table, and offering hints and warnings to those who have still to face the examiner.

WHAT'S BEST TO EAT? By S. HENNING BELFRAGE, M.D., M.R.C.S., L.R.C.P., with a Practical Supplement by LUCY H. YATES, M.C.A. London: Wm. Heinemann (Medical Books), Ltd., 1926. pp. 199. Price 7s. 6d. net.

The subject of food and dietary rouses only a languid interest in the mind of the ordinary reader, who generally prefers in his practice the prompting of appetite to the teaching of physiology. However good instinct may be as a guide for man in his natural state, the conditions of modern civilisation require often some rational knowledge of the principles of feeding if ill-health is to be avoided. There are few subjects upon which the public generally are worse informed than this, and every genuine effort to dispel the prevailing ignorance of the people on the matter will receive the good wishes of all concerned in Public Health. Popular books on feeding and dietary are much written but little read. Perhaps it is well that this is so, as in many cases the books are unreliable and unsound, but the present volume does not suffer in this respect, as Dr. Belfrage has proceeded with some care to give an accurate and authentic record of our present knowledge of the difficult subject. His effort, however, is not likely to prove popular. He has attempted in small compass the nearly impossible task of giving a *résumé* of highly technical facts to the medical profession and a simple teaching

to the lay public, and his book is fated to appeal to neither.

Perhaps the best that can be said of the book is that it is better than its ill-chosen and inappropriate title; the book is not devoid of interest and value. In the nine chapters for which Dr. Belfrage is responsible, the physiology of feeding and nutrition is carefully reviewed, and the lessons to be drawn therefrom are indicated to the conscientious reader. But the subject is considered with such an abundant inclusion of technical terms and references, that the more casual reader will quickly find the symptoms of a mental indigestion commencing, and lay the book aside without completing it. The writer gives an altogether unmerited prominence to certain writers on the subject of dietetics and dietetic diseases, and much of this could be very well cut out if simple precept for public education were merely aimed at. From medical readers, the portions of the book which will receive least approval are those on intestinal stasis and food and disease, where much that is said will not be regarded as yet properly authenticated. There is, however, no doubt that though subsequent investigation may prove many of the statements to be quite erroneous, there is much truth set out here which will stand investigation, and the whole is suggestive and enlightening.

A practical supplement to the volume is written by Miss Yates, who, in doing so, makes her difficult subject as attractive as possible. On the whole, this supplement is well done, but its association with the first part of the book will impair its general utility.

A simple book for the education of the people on food and dietary has been long required, but such a book has still to be written.

ADVICE TO THE EXPECTANT MOTHER ON THE CARE OF HER HEALTH. By F. J. BROWNE, M.D., D.Sc., F.R.C.S.E., Professor of Obstetric Medicine, University of London. Edinburgh: E. and S. Livingstone, 1926. pp. 40. Price 6d. net.

This small paper-covered book contains within its pages comprehensive information to the expectant mother on the signs and symptoms of pregnancy, its hygiene, the treatment of some of its common disorders, suitable preparations for confinement, and a final chapter on breast feeding. It has been written for the modern mother, who demands

reasoned explanations instead of mere instructions as to what is expected of her, and pains have been taken to keep the style simple if it does at times become a little dull. A chapter on the "Benefits of ante-natal care" is usefully placed in a prominent position as the first in the book. The matter contained is orthodox, and nothing very startling will be found either by Medical Officers or by expectant mothers already in touch with Infant Centres, but important facts are worth repeating, and the information is more fully given than is usual in books of the sort, and will usefully supplement personal advice.

We feel inclined to suggest one or two minor alterations, for example, that in the description of home testing for albumen the possibility of other deposits in the urine before or after heating should have been explained in order to make fully significant to a mother ignorant of chemistry the exact method of adding the acetic acid (if the mother is to do these tests in emergency for herself why not vinegar instead of acetic acid?). We feel also that in suggesting that Puerperal Fever is the same thing as is "commonly called Milk Fever" the writer is not perhaps impressing the mother so fully as he intends with his proposals for safeguarding her against a serious infection.

On page 11, under the heading of "Vegetables" in the diet of the mother, we learn that 'cabbage, cauliflowers, cucumbers, parsnips, radishes and Brussels sprouts should be partaken of with great care, if at all, during pregnancy, as they are liable to upset digestion,' but in the chapter on the nursing mother we find that "there is as much need, as during pregnancy for plenty of fresh fruits and green vegetables." We hope that the latter represents a later conviction on a very important matter, but if there was any mis-giving about the "digestion," a word in season about suitable cooking would surely have been all that was necessary.

A FIRST COURSE IN HYGIENE. By ROBERT A. LYSTER, M.D., Ch.B., B.Sc., Lond., D.P.H. Seventh edition. London: University Tutorial Press, Ltd., 1926. pp. 335, illustrated. Price 4s.

Dr. Lyster's book is so well known to a very wide circle that it is practically only necessary to record the fact of the publication of a new edition. The edition, the appearance of which is here noted, is the seventh. It is

a larger edition than its predecessors, and for the enlargement and for the complete revision, Col. Blackham is responsible, and is prepared to accept all responsibility. In carrying out the alterations and additions Col. Blackham has not interfered with the general arrangement of the book, and everybody who knows Lyster's "First Course in Hygiene" will be able to recognise and welcome it as an old friend, changed as to guise only in the direction of becoming a little stouter.

Members and subscribers who desire to bind their copies of *Public Health* are reminded that an index for each volume is obtainable from the Executive Secretary at 1, Upper Montague Street, Russell Square, W.C.1.

The Index to Volume XXXIX. has already been posted to all who have made application for a copy.

"THE Risk of Diphtheria Banished," a one-reel cinema film on the Schick test and active immunisation of diphtheria, presented by the Mutual Property Insurance Co., Ltd., and intended for public exhibition, was shown privately to London Medical Officers of Health and others on December 15th, 1926, at the Bedford Music Hall, Camden Town, London. Dr. J. A. H. Brincker, Principal Asst. M.O., London County Council, who, with other Medical Officers in the Metropolis, has collaborated in the revision of the captions, said that the object of the film was to bring home to the general public a sense of their responsibility in the protection of young children against the dire results of diphtheria. Dr. C. W. Hutt, M.O.H., Holborn, and Dr. A. J. Shinnie, M.O.H., Westminster, joined in an expression of thanks to the Mutual Property Insurance Company for arranging for the exhibition of the film, which may be hired, free of charge, on application to the Welfare Department of the Company at 159-165, Great Portland Street, London, W.1.

THE Metropolitan Asylums Board, in the interests of D.P.H. students, have arranged a three months' course of lectures and demonstrations on clinical practice and hospital administration to be given by Dr. F. H. Thomson, at the North-Eastern Fever Hospital, Tottenham, London, N.15, commencing January 3rd, 1927. Full particulars may be obtained from the Clerk to the Board, Victoria Embankment, E.C.4.

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Editorial.

Annual Reports.

THE Survey Reports on a few areas have not yet been completed, and I am to take this opportunity of urging upon the Council of any such area that the completion of this Report should be regarded as an important duty of the Medical Officer of Health to be performed by him without further delay." This is the only paragraph in the whole of the Circular as to the contents and arrangement of the annual reports of Medical Officers of Health for 1926, that it is impossible to read without astonishment, having regard to the fact that the Circular is dated December 20th, 1926. Astonishment,

however, is not the only sensation that may be experienced. By anyone really patriotic, so far as the Service is concerned, there is a feeling of disappointment associated, with, in addition, a fear that this neglect on the part of some to comply within a period of so long as twelve months, with a perfectly reasonable and sound requirement that a report on health conditions should be submitted, may militate against the Service as a whole. Full of a desire to improve the position and terms of service of all Health Officers, the Society has fought hard on behalf of its members and, in some directions at any rate, not without success. In putting forward the claims, the

Society did not consider it necessary to make any special reference to the willingness of the members of the Service to carry out duties, and to comply with obvious requirements imposed. This willingness was taken for granted by all parties. That there is a failure to comply with so important and simple a requirement as the making of a report, to an extent sufficient to warrant particular reference in an official circular, is both disappointing and disquieting. In some cases there may be excuse for failure, sickness for example, but even where this is the case there is no complete absence of possibility of making some arrangement. In the matter of annual reports the Ministry is not too exacting, and though the date of completion mentioned is not later than the middle of May, a certain elasticity is allowed. To expect the elasticity to permit of a stretching from mid-May to December's end is obviously to ask too much. The reference in the Circular to the failure on the part of those officers who had not yet reported at the date of issue of the document was extremely moderate, and definitely justified. If the Service is to receive the recognition that it seeks, and feels it deserves, everyone in it must play the game. It is not playing the game to provide reason for public reproof in an official circular.

* * * * *

The Dean and Diphtheria.

THE selection made by those responsible for drawing up the list of speakers at the symposium on the Education of the Public in regard to Modern Methods of Disease Prevention (Premunisation, Immunisation, etc.) when the Society met on January 21st, 1927, was the happiest possible. Mainly because of this the meeting was the largest seen for a very long time, and extremely successful. In certain instances the choice made was an obvious one; it was inevitable, for example, that Lord Riddell should represent the Press. Of his ability to fulfil the rôle and to speak on the subject effectively and with knowledge, the selectors must have been aware. In effect, in his case, there was no choosing at all. It was Lord Riddell or no one, and that he was willing to assist, and did so in a manner showing an interest and a real desire to be of service, is a matter not only for gratitude, but congratulation also. So far as other aspects of the problem discussed are concerned the choice was wider, but of the wisdom that

directed where it should fall in each case there can be no question. Indeed, in some instances something higher than wisdom must have operated, and whoever it was who thought of inviting and succeeded in inducing Dean Inge to appear as the representative of the Public is one to be regarded with the highest respect as a thinker and a diplomat. It is hoped to publish the contributions of the various participants in the symposium in an early number of *Public Health*, but it is not at all out of place, because of his representation of the public point of view, to refer to the part taken by Dean Inge. This is not the first occasion on which the Dean has appeared at gatherings of the Society, and the first point of which note may be made is that on none of these has he behaved in the least gloomily. Certainly, this time, there was no trace of that gloom which is alleged to be, and so commonly is accepted as his chief characteristic. In all that he said there was no hint of pessimism. On the contrary, he was the most optimistic person in the room, and gave the impression that he had as an aim the desire to show that there was a willingness on the part of the people to learn what there was to be taught as to the value of the various procedures of which the readers of papers on the technical side of the subject had spoken, and that there was no lack of opportunity or of methods of providing for that teaching. His own belief in the value of vaccines and vaccination he made very evident. Indeed, the impression he gave was of one definitely within the circle of believers, and no one present could fail to be struck by the manner in which he put himself in line with the Health Service in this matter. Whether or not he had particularly studied the subject of diphtheria and scarlet fever immunisation did not appear. Clearly, however, he was prepared to accept it, basing his belief upon his knowledge of the effect produced by vaccination in the case of smallpox and inoculation against the typhoid fevers, which he did not hesitate to describe as largely responsible for the winning of the war. In addressing himself to the propaganda side of the question, not unnaturally, Dean Inge paid most attention to the part that might be played by and in the Church. That the Church might and could assist he showed, and showed too that if the Health Officer felt that it would help matters forward if he himself came before the people in the churches, no obstacle

would be put in his way. Any pulpit would be placed at his disposal, even that of St. Paul's. Made as he made it, this offer of Dean Inge is full of significance. It means that in this work, as in all the works of preventive medicine, the Church, as a force, is behind us. To receive help we have but to ask for it, is the message delivered by Dean Inge. Of the value of such help there can be no doubt, and if at any time there has been any hesitation on the part of a Health Officer to seek it, this pronouncement should go far to remove it. Because he made it, is not the least of the reasons for thanking the Dean of St. Paul's for coming before the Society in the rôle of the representative of the public in a discussion on this important question of immunisation against disease.

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The Milk and Dairies Order, 1926.

BY a considerable number of authorities and Officers throughout the country, a certain amount of difficulty has been experienced in arriving at a true understanding of the Milk and Dairies Order, 1926. Numbers of questions have, it appears, been addressed to the Ministry of Health, and with a view to making such explanations as have been offered available generally, a Circular (757) has been issued to County Councils and Sanitary Authorities in England and Wales. The bulk of the circular has concern with the question of registration under the Order, and more particularly in relation to farmers who sell only a small quantity of milk, mainly to their employees and their neighbours. From the statements in the circular it does not seem that the Minister is anxious to see too much exemption, though it is noted that, whether registered or not, any place at which milk is produced for sale, no matter the quantity, is subject to the general requirements of the Order. Under the heading "Administration," one of the chief points touched on is in connection with the provision in Article 1 of the Order that eighteen months' notice must be given of any alteration required for the purposes of Articles 12 (1), 13 (1) and 25. Certain authorities appear to have required that such alterations should be carried out forthwith, and are here advised that no such requirement can be imposed. Clean milk courses for sanitary inspectors are touched upon, and it is indicated that these will be found of value. Sanitary Authorities are

advised that, in the opinion of the Minister, they may legally incur the reasonable expenditure involved by the attendance of an inspector at such a course. Under the heading "Registration Procedure," some hints are offered with regard to registers and the matters to be recorded therein, and on the subject of Inspection of Cattle there are certain remarks which easily, it is believed, might have been more explicit and helpful.

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Influenza.

NEITHER the incidence of, nor the mortality from, influenza in this country is at present such as to cause serious anxiety." This, and probably it is correct, is the view of the Ministry of Health. Nevertheless, it has been considered advisable to re-issue, after amendment, the Memorandum on Influenza that originally appeared in 1919, and to suggest that Local Authorities should give consideration to the facilities which they can provide for assisting persons suffering from the condition. Preparation should also be made for the publication, if necessary, of full information respecting the facilities provided — including nursing assistance, domiciliary medical attendance, "home help," hospitals, etc.—and of leaflets and posters, setting out the precautions to be adopted to minimise the risk of infection and complications. Largely the Memorandum repeats the information given in 1919, as to precautions to be taken, the chief being to avoid places of public resort or social gatherings as much as possible, with a view to avoiding infection and to retire into isolation at the earliest possible moment after attack, in order to avoid risk of complications and the spreading of infection to others. In 1919 the majority of local authorities obtained a supply of influenza posters and leaflets, and these need not be regarded as out of date or calling for very much in the way of modification.

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Elephants and Anthrax.

BOTH "Indiarani" and "Sundermalah" are dead, and those by whom they will be missed are many. By such as had the proud distinction of viewing the Zoo from the mountainous height of one or the other, and looked forward to the day when that joy might be repeated, the loss no doubt will be keenly felt. No less deep will be the mourning of

those more humble ones whose traffic had been limited to the passing of an occasional bun and a rarer orange. To the authorities of the Zoological Gardens the double blow was a most serious one, an elephant being a costly animal, and one fitted for use as a public vehicle something of a treasure. The happenings were rendered all the more tragic because, though in the first instance the cause of death was extraordinarily obscure, when discovery came it was found to be a condition with which serious danger might be associated, certainly to those who had been concerned with the animals during life and with their obsequies, and possibly to visitors to whom the elephants proved a never-failing delight. Anthrax, for this it has now been announced was the cause of death, is, it appears, an infection to which the elephant, in Burma particularly, is very liable. That it is a condition with which man is apt to be infected from animals as a result of inoculation of blood which may teem with the organisms is a fact very well known. Certainly it was well known to all who were concerned, on the scientific side, with the animals, and constituted an urge to omit no precaution for the protection of all who had been, or might be, exposed to infection with the blood. That the amount of blood was considerable may readily be imagined having regard to the size of the animals—each weighed approximately three tons—and to the necessity for dissection, not only for examination, but for purposes of disposal. How successful those concerned were may be gathered from the fact that out of the considerable number of individuals who were contacts, as assistants at the examinations and dismemberment, and otherwise, only four were infected. In all of these the infection was detected almost immediately on the appearance of the pustule and all were at once put under serum treatment and rapidly improved without surgical interference. So far as the origin of the infection in the elephants is concerned, nothing definite has been discovered, though investigation is to be continued. One most interesting point that emerged is that the incubation period of malignant pustule is exactly six days, the sixth from exposure to infection being the day of appearance of signs in all of the cases. As there have been no cases for a number of weeks it may be taken that all risks are at an end, and those responsible may be congratulated on the success of the measures adopted.

Diphtheria Immunisation in Edinburgh.

IN a paper submitted recently to the Fever Hospital Medical Service Group of the Society, Dr. Joe, late Assistant Medical Officer of Health of the City of Edinburgh, gave some interesting details of the experiment begun there in 1924 by Drs. Robertson and Benson which had for its object the mass immunisation of the population against diphtheria. Up till September, 1926, nearly 10,000 persons have been Schick tested, both Schick tested and immunised, or immunised alone. Over 5,000 persons have received injections of toxin anti-toxin mixture without more than transient reactions due to protein sensitiveness, and probably 70 or 80 per cent of these received a total dosage of 3 c.cm. or over of the prophylactic mixture. In material alone, that is, Schick toxin, toxin anti-toxin mixture, syringes, needles, cotton wool, ether, etc., the Local Authority have spent over £900.

Public Health workers generally will be familiar with the methods described by Robertson and Benson, and Dr. Joe, who carried on the work after Dr. Benson's appointment to the City Fever Hospital, made no alteration in the existing organisation except to reduce the number of medical men in the unit to one, namely, himself, with a junior clerk from the central office staff to carry on the clerical work, which, owing to the elaborate system of recording results, and the issue of protection certificates, assumed large proportions. This obviously is a matter of some importance to smaller authorities who are deterred from carrying out diphtheria prevention on account of the necessary provision of expensive personnel. The direction of the attack was also slightly altered so as to include as many children as possible of pre-school age. The day schools continued to be used as centres for carrying on the work, and in a short campaign in the first six months of 1926, Dr. Joe was able to report that, in spite of measles and chicken pox epidemics, and the incidence of the general strike in the summer term, he had dealt with 1,819 children, of whom 425 were under school age. Of the 1,394 school children dealt with, 84.2 per cent were found to be susceptible, and of these susceptibles 93.5 per cent finished the course of 3 injections of T.A.T. mixture. Pre-school children received no preliminary Schick test, and 90.8 per cent of these completed the course. The method of acquainting the

parents of the services that could be obtained in the way of preventive inoculations against diphtheria were the distribution of leaflets to the school children of the infant divisions of the school, and to all in other departments who had younger brothers or sisters at home of the pre-school age.

Dr. Joe made an attempt to assess the value of the above methods in terms of actual protection so far as the limited figures yet available will permit. In 1921 the incidence of and mortality from diphtheria in the City of Edinburgh per 1,000 children of 15 years and under was 6.9 and 0.64 respectively; in 1922, 5.3 and 0.48; in 1923, 5.4 and 0.64; in 1924, 5.3 and 0.64; and in 1925, 6.2 and 0.74. In an immunised population of similar age and sex distribution consisting of 4,844 individuals who had received the "full" protective course of 3 c.cm. of toxin anti-toxin, the incidence of diphtheria was 1.8 per 1,000 (9 cases), the mortality being nil. Immunity, as indicated by the Schick test, is not immediately developed and, as a rule, takes several months to appear, and in fairness to the procedure it should be mentioned that of the 9 cases, 7 occurred within 6 months or less, and only one of the 9 was a severe case.

An attempt was also made to estimate the efficiency of the Schick test and the active immunisation procedure by a statistical analysis of all the cases, numbering 46, that have been notified to the Public Health Department as cases of diphtheria, and concerning whom there are records. On 28 of these only the Schick test had been performed, 13 having been read as Schick positive, and 15 as Schick negative. Of the 13 positive 12 were diagnosed as cases of diphtheria, and of the 15 negatives in 10 the disease was diagnosed as definitely "not diphtheria." The important group of 5 so-called Schick negatives who developed diphtheria when analysed showed that three were very mild cases of sore throat with more or less clinical signs of exudate yielding on culture microscopic diphtheria bacilli; in the fourth case there was doubt as to the experience and reliability of the assistant who performed the test, and in the fifth doubt as regards the identification of the child. Of 18 cases that had been Schick tested and immunised, or immunised without a preliminary Schick test, 10 were finally regarded as diphtheria. In these 10 cases the intervals of time since the last protective injection were 3 weeks, 5 weeks

(2 cases), 7 weeks, 3 months, 6 months (3 cases), 17 months and 23 months. In the case occurring after 17 months, which was mild, the development of the immunity had been regarded as completed since a negative Schick test had been obtained. None of the cases were severe, except one of those noted as occurring at 5 weeks.

Biological reactions do not work out with the absolute precision and certainty of mathematical formulæ but on the above evidence there are good grounds for believing that the Schick test in the hands of careful and experienced workers indicates a satisfactory level of immunity against diphtheria for practical purposes, and that the present methods of active immunisation, though capable of improvement and simplification, are safe and effective. Other conclusions that may be drawn from the work of Dr. Joe are that the general public are willing to take advantage of diphtheria preventive measures in fair numbers if systematic propaganda is pursued amongst them, and that the actual procedures can be carried out in large numbers with a relatively simple organisation. From the point of view of the administrator these are of almost equal importance with the more scientific conclusions which may be based upon the exceedingly careful work of Dr. Joe.

Post-Encephalitis Lethargica.

A REPORT on the first year's working of the post-encephalitis lethargica unit at the Northern Hospital, Winchmore Hill, London, N.21, has just been issued by the Metropolitan Asylums Board. This unit, which was opened in November, 1925, is reserved for the accommodation and residential treatment of 100 children, between 3 and 15 years of age, residing in the Metropolitan area, who are suffering from certain of the distressing sequelæ of this disease. Cases are admitted on the application of the London County Council or Boards of Guardians. In addition to special medical treatment of the cases, which includes sun and light baths, massage, electrical treatment, etc., there is provision for educational training of the patients, consisting of the usual type of lessons, with physical drill, handwork, etc., and also for various outdoor games. During the first twelve months 133 cases were admitted and 40 discharged, viz., 12 as much improved, 6 as unlikely to improve with

further treatment, 4 as unsuitable, and 18 at the request of the parents.

Dr. G. A. Borthwick, the Medical Superintendent, in his conclusions, states that the experimental unit has not been productive of any very positive curative results so far, and that its future value may well be that of a clearing-house where patients, suffering from any of the residua of encephalitis lethargica may be observed and classified. The matter of disposal, however, is complicated by the heterogeneity of the sequelæ and the fact that many patients suffer from more than one manifestation of the post-encephalitic condition.

Commenting upon this question of disposal it may be mentioned that the prospective amendment of the Mental Deficiency Act, 1913, will provide for a certain number of mental cases which cannot be dealt with under existing legislation, but this will not include the Parkinsonian cases nor patients suffering from many of the disabling physical or nervous conditions which unfit them for normal family and social life. It may also be pointed out that there is urgent need for the institutional treatment of adult sufferers similar to that already provided for children.

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Glasgow Scheme for Maternity and Child Welfare.

TO signalise the attainments of a period of nearly twenty years of effort on behalf of children, and to mark an important extension of its undertakings during 1926 in the building of no less than four new specially designed centres, the Health Committee of the Corporation of Glasgow has issued for the benefit of the sundry interested, an attractive brochure profusely illustrated with photographs and charts describing its Infant Welfare Scheme as a whole, and the organisation and co-ordination of its many parts. We congratulate the Health Committee most heartily on its enterprise, great and small, and feel sure that the booklet will serve an excellent purpose, which might be copied in other large areas similar to Glasgow, of supplying to the interested public information on the working of a scheme of which few can ordinarily know more than some superficial and detached details. Glasgow is well known as a rich and beneficent corporation, and we are proud to read in this tale of a small but important

corner of its activities, an acknowledgment of what was due, at home and further afield, to the pioneer work and foresight of Dr. A. K. Chalmers, till recently its Medical Officer of Health.

The details of the Glasgow scheme include a series of 14 clinics working to a capacity of 66 sessions weekly, including ultra-violet light and venereal disease treatment sessions, as well as the usual infant and ante-natal consultations. The venereal disease work is conducted in the ordinary centre premises with increased convenience both to patients and staff. A special feature seems to be made of treatment as treatment, throughout the whole scheme, and special rooms for this purpose are provided in certain of the premises; indeed, this point of view, differing rather from the usual conception of the scope of infant welfare work, is stressed in the plans for further development of the scheme. Numerous day nurseries or crèches work in co-operation with the department, and a recent experiment is in the nature of Junior Unemployment Classes for the training of young girls in mothercraft at these crèches. The arrangements for convalescent treatment of mothers and infants appear to be very complete, and again the corporation has shown its practical approval by sanctioning the building of two large new pavilions at one of the homes, where no less than 100 cases will in future be accommodated. A peculiarity of great interest is the extent to which home visiting is delegated to the Infant Health Visitors' Association, in this case a voluntary body of 300 members, while the use for this purpose of the 39 paid Health Visitors equipped with general or fever training and midwifery certificate is confined, as a rule, to one routine domiciliary visit, special visits in connection with ophthalmia neonatorum and the infectious fevers, and visits on request. Hospital treatment is admirably provided for by co-operation with the Royal Maternity Hospital, where 25 ante-natal beds and a special daily ante-natal clinic are available, and with other institutions whereby in-patient accommodation is provided for cases of pneumonia, measles and whooping cough. No less than 60 per cent of the total notified cases of pneumonia were treated in hospital last year, and of these, 51 per cent were cases of broncho-pneumonia in children under five. This provision, we should say, antedates in Glasgow the advent of the second great descending sweep in the curve of infantile

mortality felt by many everywhere to be overdue, and depending undoubtedly on the means taken to cope with the ravages of respiratory disease, so devastating to infant life in this country, and still so untouched by the work that has been done. Nothing so encouraging is contained in the whole of the little book as the statement that the effort to initiate hospital treatment for these cases on an extended scale has been made, and is apparently being well received.

The story is not without its notable omissions, though these may perchance be a matter of discretion, in view of plans already hatched or hatching. We hear nothing for instance of any scheme for the investigation of crippling in children under 5, or for the orthopaedic treatment which is so important a part of its prevention and cure. Nor is anything said of the mortality among illegitimate as compared with legitimate children, and the steps taken to provide for them and their mothers, both of them matters of practical moment in the maternity and child welfare schemes of most large towns. These, however, are but small facets to add further perfection to a construction already of great elaboration and efficiency, in which the City and all Public Health workers may well take satisfaction and pride.

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The Acute Exanthemata.

AT a recent meeting of the Medical Society of London, an interesting survey was carried out into the advances made in modern times in the aetiology, diagnosis, prophylaxis and treatment of the acute exanthemata. Dr. J. D. Rolleston opened the discussion by pointing out that in no field of medicine had the collaboration of clinicians and laboratory workers been more fruitful than in the study of acute exanthemata. After a brief account of the work of the Italian and American Schools, and the views of Szontagh and Fanconi on the aetiology of scarlet fever, Dr. Rolleston said that at the present time the great majority of cases of scarlet fever in London corresponded with Sydenham's description of it as being hardly worthy the name of a disease. The question of prophylaxis therefore was not so urgent as in other countries where the mortality was much higher. In Roumania, for example, the mortality from scarlet fever was higher than that from diphtheria in this country. If, how-

ever, scarlet fever assumed the malignancy that it had in several notable epidemics the general application of prophylaxis would deserve consideration. Dr. Rolleston deprecated the routine use of scarlet fever antitoxin in every case of scarlet fever as recommended by some enthusiastic advocates of the new remedy. Unless a specially concentrated serum, the cost of which was considerable, was employed there was always a risk of the serum disease being more serious than the attack of scarlet fever, as he had observed on several occasions at the Western Hospital, where he had introduced the treatment last March on his appointment as medical superintendent. His practice was to employ the serum only in those cases of scarlet fever whose severity was indicated by the patient's temperature being 101° or above on the morning following admission. The mildness of the disease prevalent in London was shown by the fact that there had been little more than 30 such cases among over 650 cases of scarlet fever admitted to the hospital in the course of nine months. There was often, but by no means always, a rapid fall of temperature accompanied by fading of the rash and improvement of the general condition after injection of the serum, but the results were never so striking as those following the use of antitoxin in diphtheria. Some improvement in the treatment of scarlatinal otitis had recently been effected by the training of medical officers in fever hospitals in examination of the ears, and the performance of early paracentesis, and in later cases by removal of adenoids and enlargement of the perforation in the tympanic membrane if it was inadequate. An X-ray apparatus had recently been installed at one of the hospitals of the Metropolitan Asylums Board for determining the amount of bone disease in cases of otitis, and thereby serving as a guide to operation. After a short description of the investigation of Caronia and Sindoni, Tunnicliff, and Ferry and Fisher in the bacteriology of measles, the prophylaxis of the disease by convalescent serum, the animal serum recommended by Degkwitz, and the active immunisation employed by Debré and his pupils with the blood of measles patients in the eruptive stage diluted with saline, Dr. Rolleston said that immunisation against measles was specially indicated in cases where the disease was particularly dangerous, such as ill-nourished children of under 5 years of age

living in unhygienic surroundings, but he did not think it necessary to urge its application in well-to-do families nor in the case of children exposed to measles in a hospital where the hygienic surroundings were favourable, as in both instances measles usually ran a mild course.

After alluding to the supposed ætiological relationship between herpes zoster and varicella, Dr. Rolleston referred to the attempted prophylaxis of varicella by injection of convalescent serum or inoculation of the contents of the vesicles, neither of which methods had been so successful as serum prophylaxis in the case of measles.

In dealing with smallpox, Dr. Rolleston alluded to the mild character of the disease prevalent in the provinces, but maintained that this was no justification for regarding it as a distinct disease to which such terms as parasmallpox or alastrim should be applied. He then said a few words on the exanthemata likely to be mistaken for scarlet fever and measles, viz., erythema infectiosum and exanthema subitum, neither of which had received much attention in England. In conclusion, he alluded to the recent work on the ætiology of herpes febrilis and herpes zoster, and pointed out that the researches of Levaditi and others tended to show that the viruses of these two exanthemata were sufficiently distinct from one another to justify an ætiological differentiation, inasmuch as the attempts to transmit herpes zoster had failed, whereas herpes febrilis was both auto- and hetero-inoculable.

Sir George Newman and a Yale Lectureship.

SIR GEORGE NEWMAN, K.C.B., has accepted the invitation of the President and Fellows of Yale University to act as Yale Lecturer for 1927 on the Responsibilities of Citizenship. This lectureship was founded a quarter of a century ago by Dr. William E. Dodge, of New York, and has been held by Mr. Secretary Root, President Taft, Mr. Hughes and Lord Bryce. The purpose of the lectures is declared by the founder to be the promotion, among educated men of the United States, of an understanding of the duties of citizenship and a sense of personal responsibility for the performance of those duties. Sir George Newman, who has recently been elected an honorary Fellow of the

Academy of Medicine of New York, expects to deliver the lectures and fulfil other public engagements in America in May next.

Smallpox in Durham.

ON account of the continued prevalence of smallpox in the county, and with a view to discussing any further steps that might be taken, a Conference of Medical Officers of Health and of Medical Officers of Isolation Hospital Authorities in the County of Durham, was held at the Shire Hall, Durham, on December 21st, 1926. The fact chiefly stressed was that neglect of vaccination was mainly responsible for the existing position, and that owing to this neglect an enormous expense was being incurred in connection with the treatment and isolation of smallpox cases to an extent considerably exceeding £1,000 per week to the local authorities alone; that much suffering and distress were also occasioned; and that the prevalence of smallpox in the district must inevitably interfere with commerce. A number of resolutions were passed, of which not the least important was one to the effect that "The Conference urges upon the Ministry of Health the importance of amending the Vaccination Acts with the object of making vaccination more general and efficient, as vaccination affords the quickest, most scientific and most economic means of preventing and arresting outbreaks of smallpox." With this there is little doubt that members of the Society in general will agree. They will agree also with the hope expressed that the resolution will receive support not only from the societies to which it has been sent, but in quarters higher and more influential.

Bulletin of Hygiene.

AN up-to-date knowledge of contemporary advances in hygiene is one of the many things in the world whose desirability of attainment is more than matched by the difficulties. So many branches of science are germane to the subject, so many are the languages and journals in which original work is reported, and so much chaff is intermingled with the good grain, that it is impossible for the busy Health Officer to read, or even to skim, the voluminous literature.

In the publication of the *Bulletin of Hygiene* a very real need has been met. First published in 1926, and now commencing its second volume, the *Bulletin* consists of abstracts and reviews of original papers and covers the literature of the English, French, and German speaking countries, with notice of any specially important papers in other languages. The list of periodicals surveyed indicates that nothing of consequence will be overlooked. Every department of hygiene is dealt with, the summaries are of convenient length, but with sufficient detail to be of real value, and the abstractors—who sign their work—are specially qualified to handle their respective subjects.

We commend the *Bulletin* to our readers as affording a ready and reliable means of keeping abreast of recent work in all branches of hygiene throughout the world. It is published monthly by the Bureau of Hygiene and Tropical Diseases, 23, Endsleigh Gardens, London, W.C.1, from which, or from any bookseller it may be obtained at the reasonable cost of 21s. a year.

Provisional Statistical Return for 1926.

THE following statement showing the provisional birth and death rates in England and Wales, and in certain parts of the country during the year 1926 has been issued by the Registrar-General, and the information is certain to be found useful by all Health Officers:—

ENGLAND AND WALES.
Birth-rate, Death-rate and Infantile Mortality during the year 1926. (Provisional figures.)

	Rate per 1,000 Population.	Deaths under 1 yr. per 1,000 Births.	Deaths per 1,000 Births.
	Births.	(Crude Rate)	Births.
England and Wales	17.8	11.6	70
105 County Boroughs and great Towns including London	18.2	11.6	73
158 smaller Towns (populations from 20,000 to 50,000 in 1921)	17.6	10.6	67
London	17.1	11.6	64

The death-rate for England and Wales relates to the whole population, but that for London and the two groups of towns to the civil population only.

The birth-rate is 0.5 per 1,000 below that of

1925, and, with the exception of the rate in 1918, the last year of the war, is the lowest recorded.

The death-rate is 0.6 per 1,000 below that recorded in the previous year and is equal to that of 1923, the lowest recorded rate. The infantile mortality rate is 5 per 1,000 births below that of 1925, but 1 per 1,000 above that of 1923, the lowest on record.

Death of Mr. C. E. Wallis.

WITH great regret we record the death on January 4th, of Mr. Charles Edward Wallis, M.R.C.S. Eng., L.R.C.P. Lond., L.D.S., a past-President of the Dental Officers' Group of the Society, and, at the time of his death, representative of the Group on the Council of the Society. Well known for his insistence on the importance of dental hygiene as a branch of Public Health work, Mr. Wallis took an active part in the work of the Society and, in addition, was prominent in the Royal Society of Medicine, the British Medical Association, the British Dental Association, the Medical Officers of Schools Association, and other bodies. As Principal Assistant Medical Officer (for Dental Services) to the London County Council, he was responsible for the organisation of the great scheme for the dental inspection and treatment of school children in the Metropolis, and the success achieved since its inception in 1911 is due in incalculable measure to his initiative and supervision and to his unsparing efforts to bring the service to the highest state of efficiency. Apart from official duties and a large private practice, Mr. Wallis devoted much time to King's College Hospital, where he was Senior Dental Surgeon and Lecturer on dental surgery. For some years past his health had given cause for anxiety, and his passing will be mourned by a wide circle of friends, not only in the metropolis, but in the Public Health Service as a whole.

The funeral took place at Norwood Cemetery on January 6th. The Society of Medical Officers of Health was represented by Mr. F. Breese, President of the Dental Officers' Group, and the Executive Secretary, and amongst others present were Dr. C. J. Thomas, Dr. A. Middleton Hewat and Dr. J. Graham Forbes, of the Public Health Department, London County Council.

Procedure Under the Sale of Food and Drugs Acts.

MEMO. 36/Foods and the Circular (752) which accompanies it are documents that call for special attention and study by public analysts and all officers of Health Departments concerned in carrying out the provisions of the various Acts and regulations constituting the group of laws designed to secure the purity of food. For the public analyst it is important to note that in reporting on a sample of milk found to be deficient both in milk-fat and in other milk solids, the certificates should show how much, if any, of the deficiency of the former is presumed to be due to abstraction, allowance being made for the effect of the added water leading to the reduction of the latter. Also the analyst will note that alterations have been made in the form for use in making quarterly returns. Doubtless local authorities will see that the public analyst is supplied with copies of the memorandum and circular, but if not the information given is so important that the officer himself will consider it desirable to

secure them. So far as other officers are concerned the documents in the main represent a consolidation of recommendations and instructions that have been issued from time to time in other forms. As such they are exceedingly useful, and are likely to be appreciated. This applies more especially perhaps to the particulars that are given with regard to the collection and disposal of samples. To these the attention of the officers concerned in sampling will need to be drawn, and they will note for guidance what is said as to the precautions to be adopted in sampling milk in bottles and in taking samples of prescribed medicines. That the Ministry should be desirous of obtaining information with regard to prosecutions of an exceptional character is not surprising, and the fact that special reports on such cases are asked for will be noted by Medical Officers of Health. As these Officers and all members of the staff concerned are themselves generally sufficiently interested in cases presenting peculiar features to make special notes with regard to them, this requirement is not one likely to give rise to very much difficulty or trouble.

This Advertising Fever.

By CYRIL BANKS, M.B., B.S., Lond., D.P.H., Medical Officer of Health, County Borough of Halifax.

Much has been, and doubtless more will be, written on the subject of health propaganda, since there are many anxious for guidance. Amongst the views put forward those of Dr. Banks, a little unorthodox in parts, are deserving of attention.

IT is characteristic of the reformer in any walk of life to press his views upon others. The Medical Officer of Health in the nature of his calling is a professional reformer. Although he may pretend to be doing his work to make a living he is usually doing it because he is at heart somewhat of an enthusiast, believing that in the Public Health Service he finds the greatest scope for the useful application of his knowledge. If it were not so he would be in a more lucrative branch of his profession. Being then a reformer it is in his blood to teach. He wishes to tell the masses how to attain a higher standard of general health and therefore of happiness. If hygiene were an exact science this would be easy, but, as it is, there is always a risk of error by following fads. The Medical

Officer of Health may think that by experience and training he is the person best qualified to give reliable information.

It is this desire to teach that has placed the Medical Officer of Health in his present very awkward predicament. I feel sure that most Medical Officers of Health do feel it to be an awkward predicament. They wish to teach, but they abhor the methods which have so generally found favour in recent times. We are living in an age of bombastic advertisement; of mottoes and slogans. Vast sums of money are spent on commercial advertising. We are told "It pays to advertise." Individual firms have found that to be true. Advertising, however, only pays if it is done wisely. The methods must suit the commodity. It may pay to advertise toffee widely

to the public at large, because *all* are potential purchasers. It would be useless to advertise, shall we say, surgical instruments in this wholesale fashion. They should be advertised only to those who are likely to be able to use them. By the Health Week, the exhibition and the poster, indiscriminately displayed, the methods of the toffee advertiser are being followed, and there are some of us who believe that we should do a greater amount of good by more discriminate choosing of our public. The methods of spreading health advice might more properly be to give specific information to people who want it, at the time they want it, and when they are likely to make use of it. I will return to this later.

In the meantime there has been a tendency in Public Health circles to copy the methods of the commercial advertiser. Posters, slogans, mottoes have been devised, and exhibitions organised. The lantern lecture and the cinema have been thrown open to all and sundry in the hope that among the crowds some will benefit, whatever may be the condition of mind of the majority as regards receptivity. We are going into competition with the commercial advertiser to get the attention of the public. If we believe that we shall do real good in this way it will be our duty to go on with it. But it is as well to face the position and to realise that it is getting more difficult and more expensive every day to make a noise that the public will hear. It is no light task to try to beat the commercial advertiser at his own game, and to get our slogans into the public mind in competition with his, or even to get our exhibitions to make an impression in competition with the local charity bazaar. It can be done, but some of us think it can only be done well at a cost which is out of proportion to the results which may be expected to appear in our vital statistics.

Hence the predicament of which I spoke. We have the spectacle of one Medical Officer trying to outdo another at showman's work. And the Medical Officer who does not follow the methods of his colleague in the next town by making a big noise is likely to be looked upon by his council as a fellow of no account, being neither "famous" nor "well-known" nor even "the great expert on Public Health propaganda."

Unfortunately, he may have no choice in the matter, being compelled by the pressure of his council to undertake a publicity

campaign for which he has no aptitude. The National Health Week Committee of the Royal Sanitary Institute is responsible for this. This body, perhaps fearing that the Medical Officer may not be enthusiastic about Health Week, sends its annual circular direct to the Health Committee through the Town Clerk, sending an "information" copy to the Medical Officer at the same time. The members of the Health Committee being moved to action by the stirring words of the circular, are easily persuaded to have a Health Week, whatever their own Medical Officer may say. It is possible that their decision may be influenced by the fact that Health Week is in October, which is conveniently near November 1st, that great day in the municipal year. The Medical Officer will have the bulk of the arrangements to make personally. He may, of course, have willing help from that very influential Committee (including co-opted members) which will be formed. For instance, the Committee will undertake the editorial duties in connection with the Health Week Handbook. This book when finished will represent a tremendous amount of work, and will be the last word in Public Health publicity, and will fill the Medical Officer of Health with pride until he realises that after all it is very similar to the usual chapel bazaar handbook, and will attract no greater attention, being printed by the same printer, with the same ornamental blocks, and the same quotations from Shakespeare at the head of the page. And unless he has had the wisdom to take a big share in its production he will be surprised and pained to find a full-page advertisement of the local herbalist (with photograph). I know that this occurred on one occasion; just as on another, a handbook contained a displayed advertisement of somebody's beer, probably as a set-off against a rather rabid teetotal stall in the exhibition. These things, small in themselves, are apt to mar the success of the glorious publicity campaign.

The exhibitions usually organised during Health Weeks are poor things as a rule, and are looked upon as dull by the majority of people who drift into them. It is in such things as this that we are in competition with the commercial advertiser, who has great financial backing. The dullness of these exhibitions is no discredit to the people who have put so much work into them, and who, indeed, find much to interest them in the

exhibits which the general public find dull. The fact is that Health matters do not lend themselves to exhibition purposes. This was evident in the Ministry of Health section at Wembley, which had been got up with great care, but which was considered very dull by the public, excepting perhaps the rather dreadful pictures in the tropical section. As regards the exploiting of the exhibitions by commercial firms, little need be added to what has already appeared in the journals.

The fact remains that if you wish to make a great commotion by a Health Week it is necessary to spend very much more than the average Corporation will be likely to provide or, indeed, than it will be worth, considering that it is all over in one short week, to be speedily forgotten, like the thrillers at the cinema.

This sort of propaganda effort appeals to some small body of Medical Officers who must be for ever in the public eye, and who can and will talk and write about anything, whether they have deep knowledge or not. Every Medical Officer receives a great deal of press notice, whether he wants it or not. Even the "Daily Mail" occasionally gets hold of some fragment from an annual report through the usual press sources, without the knowledge of the writer, but some of the paragraphs in the big London dailies, circulating widely, have had a suspicious look. For a small provincial Medical Officer of Health to be described as the well-known authority on dietetics or what-not gives rise to suspicions as to the origin of the paragraph. There are various ways of seeking preferment.

Every Medical Officer has to do a certain amount of lecturing. I do not mean that he will need to accept all the invitations sent by the secretaries of little societies anxious to fill up the winter programme. But there are invitations which ought not to be refused, coming from societies genuinely interested in what he has to say, and so long as he sticks to his own proper subject and does not go out to express his opinion on subjects which have nothing to do with Public Health, no one can find fault with him. It may be legitimate even to advertise the work of the Public Health Service in this way, in order to secure that measure of public sympathy which alone will enable him to obtain from his Council the necessary financial appropriations for his schemes. So long as he advertises the work and not himself, this is legitimate. He will

need to secure interest in such matters as smoke abatement, clean milk, etc., but to my mind, after a very considerable experience of this sort of thing, it is not the interest of the public at large he should seek, but the interest of the people most intimately concerned. Thus, I have found in the clean milk campaign it is easy to get the general public into a state of indignation about dirty milk, but it does little good. If the milkmen turn up at such a lecture, given to the general public, they get very irritated, and are put into the wrong frame of mind. Get up a lecture for milkmen only, do not let the public hear about it, let the milkmen see that you can sympathise with their difficulties, and then talk to them, or better still, get the veterinary inspector to talk to them, about the practical side of things. I say "get the veterinary inspector," because he will be likely to say fewer silly things to them than you will. As a Medical Officer of Health you will be able to interest them in the scientific and medical side of the matter, and tell them why you want clean milk. It is better to leave the practical side to the practical man on your staff. The average Medical Officer may have learned a good deal about the milk business, but he is not an expert in farming and dairywork. So also in the question of smoke abatement. It is not much good getting the general public into a state of excitement about factory smoke. Get among the stokers and engineers, tell them why you want to get rid of factory smoke, and then get your smoke inspector, or some other expert, to give them practical tips. You will be well advised not to attempt the practical side of this by yourself, or you will soon be tripped up. There have been Medical Officers who have gone so far as to say that a factory chimney need never show smoke. An engineer hearing this will at once lose confidence, because he knows that such words are foolish. Then again, get into touch with the factory owners, and give them some figures and facts which will prove to them that a little study of boiler-house practice will repay them. It is wonderful how most of them will respond if handled skilfully.

The point I wish to make, and it is my chief point, is that teaching will be productive of good results only when it consists of giving information to people who want it, when they want it. It is true to say that knowledge only comes as an answer to a question. The mind must be in a receptive state. In the ante-natal

clinic we have young women eager to know how best they can pass successfully through their months of waiting—we teach them at a time when their minds are receptive, and they learn. In the infant welfare centre we have young mothers who are asking themselves what they can do to nurture baby so that health will be retained. We give the information and it becomes knowledge because it has answered a question. In the school clinic we tell each mother what to do for her boy, thus giving her the information that her mind is asking for, when she requires it. This is true Public Health education and will produce results. We are doing this now. This aspect of the case is overlooked by those who by Health Weeks, exhibitions and mass meetings attempt to drive a miscellaneous assortment of facts and fancies into the unreceptive minds of an equally miscellaneous collection of people, many of whom, to quote a perhaps too-facetious friend of mine, "have only come in for a warm."

The boisterous showman method may suit a few superficially-minded Medical Officers, because it is all so superficial in its conception. The qualities which make a good showman, useful as they may be in their proper sphere, are not desirable in a Medical Officer of Health. He should be a sound administrator; that is his place in life. Our leader, Sir George Newman, himself a great advocate of the education of the public in matters of health, advises local authorities to beware of stunts. If I have read his meaning correctly he wishes Medical Officers of Health to be ever watchful of the great administrative machine which is in their charge, to be for ever oiling the bearings and tightening the nuts, so that the machine will perform its functions. Constant supervision of the routine work of the staff must be maintained; there must be no living in a fool's paradise, imagining that all is well because it once was well. Matters of detail must be constantly under the eye of the chief. In these strenuous days this work, faithfully performed, together with preliminary work on new schemes, will be found sufficient not only to fill the usual working day, but also to spread over many hours that might genuinely be claimed for leisure hours.

Children are being taught in the schools a certain amount of elementary physiology together with simple rules of health; health education is being carried on in the infant and

maternity centres, in the school clinics and at routine school medical examinations when parents are present; our sanatoria and tuberculosis centres are, or ought to be, places from which information of a specialised kind is distributed; our food inspectors are gradually instructing the food traders in the course of the day's routine work, and the farmers and dairymen are steadily acquiring knowledge and inspiration from our special inspectors; the sanitary inspectors if they do their work well are training the public in the value of a sanitary environment. I suggest that every branch of a Public Health department, if properly conducted, is educational in the highest sense in that it gives information to a selected public at the time when such information is wanted, when the mind is therefore receptive; it is only under such conditions that information given becomes knowledge. The work of the Medical Officer of Health is to administer and to supervise his departments so that they function to the highest degree of efficiency. If he does this his educational work will be accomplished. As one who has tried various kinds of Public Health teaching, including to some extent the "showman business," I respectfully submit these views, in the hope that others may be induced to sit down quietly to consider the principles which underlie the teaching of valuable health lessons to the public, and also in the hope that others may be deterred from feverishly and blindly striving to outdo their fellows in this modern advertising competition, which has been entered upon without proper consideration of the psychology of the public.

THE Astor Silver Challenge Shield, which is awarded annually by the National Baby Week Council for the most effective local Baby Week Campaign, has been won for the second year in succession by Northampton.

A SPECIAL COURSE in Meat and Food Inspection for Army Officers and Professional Men has been arranged by the Royal Sanitary Institute, to be given in London, during the period February to April, 1927. A fee of £10 10s. is payable for the Course, full details of which may be obtained from the offices of the Institute, 90, Buckingham Palace Road, S.W.1.

Ut Ita Dicam.

(Being Comments, apropos and otherwise, on Sundry Matters.)

Diet and Cancer.

"All As. are meat-eaters; no Bs. (it is said) are meat-eaters; some As. die of cancer; none of the dead Bs. I have known have died of cancer. Therefore meat-eating is a cause of cancer." In syllogistic form (of a sort) this was the problem set for Dr. Monckton Copeman and Dr. Major Greenwood. Not being allowed to sit down and write, as they might, and could, having both the logical mind, that on the face of it this was absurd, they set about investigating. Being scientists, they made a thorough research, arriving after much labour at the conclusion they had foreseen, that it was in fact absurd, that the Bs. do not escape cancer, their analysis proving conclusively "that fatal cancer occurs in populations abstaining from flesh food, and lends no real support to the contention, that among such populations the relative incidence of cancer is low."

Not Worth-While Investigations.

As a rider to their report (Diet and Cancer, with special reference to the Incidence of Cancer upon Members of certain Religious Orders) they add this: "We think a perusal of our report will convince most impartial persons that no scientific value whatever attaches to assertions, supported merely by the vague pseudo-statistical evidence which is customarily cited, respecting the rôles of certain articles of common consumption in the genesis of cancer. There is a too general impression that it is the duty of scientific men, particularly those in the public service, to try out any and every suggestion of this kind. As the present report abundantly proves, the trying out of any such suggestion is a most laborious business, not merely for the investigator, but for the persons called upon to supply information. Such a task ought not to be imposed without strong reason." In writing this strong, and certainly not unreasonable protest, the authors of the report no doubt hoped that they might induce the holders of theories based upon logic of the type illustrated to test their conclusions a little for themselves in accordance with the rules of logic before enunciating them and insisting upon the taking of action along lines

suggested by their conclusions. If they really entertained such a hope, it is one little likely to be realised. Logic of this type is peculiarly medical, and is found particularly in use in connection with discussions as to disease causation. In the field of dietetics there are still many questions for solution; there are still many individuals declaiming "I hold so and so with regard to such and such an article of diet; it is up to you to prove I am right." One of these in regard to which the demand is most insistent may be set out thus: "A eats wholemeal bread; B loathes wholemeal bread, and would as soon think of consuming dog biscuits. A has several motions per day; B occasionally misses a morning evacuation. Therefore white bread is the cause of kinks, constipation, and C₃ism."

Community Researches.

The investigation in this case, it will be noted, was made in relation to certain enclosed communities and it is a fact of some interest and importance that amongst researchers the present tendency is to cease to rely upon experiments with animals and to extend enquiries in order to take in the human subject as well. The possibility of doing so in institutions in which individuals similar in the majority of respects, and living for a lengthened period under the same conditions, seems only recently to have been realised to any extent. As showing the advantage to be derived from research in this form, that of Dr. Corry Mann, that demonstrated so clearly the beneficial effect of an additional milk ration in the diet of boys, may be mentioned. Amongst others who are adding to our knowledge by study of disease and its behaviour in relation to the human subject is Surgeon-Commander Dudley, R.N., who recognising the suitability of the Royal Naval School at Greenwich as a community for observation, has undertaken investigations upon its members. The first research carried out, some three years ago, had reference to Diphtheria and Scarlet Fever, and his report on the subject published by the Medical Research Council is well known, and has attracted much attention. Following on this, Dudley extended his observations to other diseases spread, like diphtheria, by

droplet infection, and to some other communities more or less comparable with the school at Greenwich. The results of his observations and the conclusions he arrived at are contained in his report to the Medical Research Council (Special Report Series, No. 111. The Spread of Droplet Infection in Semi-isolated Communities).

Droplet Infection.

By his work Dudley has confirmed many of the observations of Topley and Greenwood, and more particularly that of Glover as to the effect of adequate spacing of beds in sleeping quarters. Incidentally also, of course, this work confirms views commonly held by health officers with regard to overcrowding, and justifies the various legal requirements as to the amount of cubic space to be provided per head in certain places. So far as the actual amount of space to be allowed between beds in order to ensure against spread of infection is concerned, it is gathered that on account of differences between the organisms of specific diseases and variations in individuals, it is difficult to suggest a minimum. In the case of scarlet fever, for example, nine feet seems to be adequate, while with chicken-pox something over twelve feet may be necessary. The report shows that much study and thought have been given to this aspect of the subject, and Dudley's views and explanations on the question of the various "velocities" calling for study in relation to the problem of infection are full of interest and suggestion. To what he has to say in this connection the term "herd-infection" may not unreasonably be applied, since in fact, the problem discussed has reference to the spread of infection as a result of herding together of numbers of human beings all more or less susceptible to infection.

Herd Immunity.

The term is all the more appropriate, since not the least important part of the report is that dealing with "herd-immunity." An ugly expression, this is one likely to become very definitely part of the vocabulary of epidemiology, denoting, as it does, the resistance of a population as a whole, to the spread of disease outbreaks. In a herd, so far as immunity is concerned, there are those who may be classed as immunes, and others who

are grouped as susceptibles, the ratio of the former to the latter being the "herd immunity index." The immunes, who acquire their immunity as a result of stimulation of their defensive apparatus by repeated sub-infective doses of the virus, may be a danger to the susceptibles by passing into the carrier state, which Dudley suggests should be regarded as the mildest form of a clinical disease entity, a "disease without symptoms." The susceptibles, on the other hand, may be a serious danger to the immunes, to the whole herd-immunity indeed, since it will be they who will first succumb to the infection, should it at any time increase in activity, who would indeed help in increasing its activity and virulence. In any population, diseases diminish in amount, appear sporadically, or show variations as regards severity, either because of enfeeblement of the infection or because of a rise in the herd-immunity index. One of the factors determining the occurrence of epidemics is disturbance of the herd-immunity index, as a result of an increase in the number of susceptibles, particularly following the introduction of a number of individuals fresh to the herd. For these the dose of the infective agent necessary to produce disease is less presumably than that required by the ordinary members of the population and they more readily succumb. From them the infection, its strength increased, tends to pass to the susceptibles in the population, and thence to involve immunes whose resistance is overwhelmed by the virus whose strength has been thus augmented.

Dudley's and Other Researches.

This report of Surgeon-Commander Dudley is one of the most fascinating of the contributions of recent years to the literature of epidemiology. It is so suggestive and stimulating. For his paper Dudley claims that the chief practical lesson it teaches is that the individuals of a community should be isolated from each other to the greatest extent possible in their sleeping quarters, more especially if the communities are of the type to which many susceptibles are frequently added. Surgeon-Commander Dudley is too modest. His work and his report do much more than that. They add tremendously to the general knowledge with regard to infectious disease; open up and suggest new lines that may lead to the solution of many problems relating to

infection. In this, the research differs enormously from that, excellent as it undoubtedly was, of Drs. Copeman and Greenwood already referred to. Even though this did prove something, it was negative proof, and was from the practical point of view, valueless. Even if it had been positive, and had shown that individuals indulging in a diet containing meat were prone to cancer, it would

still have been valueless, since nothing could have been done about it, without a complete change in the habits of the nations, most of whom are meat-eaters. There are other reasons, but equally this is sufficient to lead on to conclude that even if it were possible, it would not be worth while carrying out an investigation into the wholemeal bread question.
P.

Light Treatment at an Infant Welfare Centre.

By ALLAN G. HAMILTON, M.D., M.B., Ch.B., F.R.C.S. Edin., Medical Officer, Royal College of St. Katharine, Poplar.

This is a subject upon which many members of the Service are anxious for information, and in the following notes on his experiences, Dr. Hamilton has much to tell that should prove exceedingly useful.

JUDGING by the output of literature on the subject in the lay press and in scientific publications, light treatment has made a wide appeal. It cannot be without interest to Infant Welfare workers, particularly since it is a type of treatment closely allied to one of nature's remedies, and fits well into the schemes of preventive medicine. The sun cure for certain diseases is now an established scientific fact, and it is well to remember that in light clinics we are using the energy derived from the sun, which has been stored as coal beneath the surface of the earth, and transformed back, by modern scientific methods, into the very form of energy in which it originally reached the earth.

The discoveries that led up to the present use of ultra-violet rays are worth recalling.

In 1666 Newton demonstrated the spectrum of visible light; in 1800 Herschel discovered the infra-red region, and a year later Ritter extended the then known spectrum into the ultra-violet zone. Although the discovery was made over 120 years ago, the use of ultra-violet radiation for therapeutic purposes is comparatively modern. Finsen's work on the application of sunlight was published in 1893, and ten years later Rollier opened his first clinic for the treatment of tuberculosis by heliotherapy. It should not be forgotten that so long ago as 1890 Palm had come to the conclusion that sunlight was the determining factor in the ætiology of rickets, but it was in 1919 that Huldschinsky described the effect of ultra-violet rays on the bone lesions of rickets. This discovery and the subsequent work of many others, notably that of Dr. Chick and

her colleagues, drew attention to the possibilities of light treatment in our Infant Welfare Centres.

The Light Clinic at the Royal College of Saint Katharine, Poplar, was opened in April, 1925. This paper is based on the first year's work—a period of 43 working weeks—and I may say at once that the results, though encouraging in some respects, are disappointing in others. Any new form of treatment has its enthusiasts, and they have not been wanting here. So far I have not been able to achieve all that has been claimed for this new method, and I have asked myself whether this is due to lack of skill and experience on my part, or whether some of the pioneers may not have painted their pictures with ultra-violet hues. Perhaps there are others in the same position as myself. Nevertheless, it is with some diffidence that I attempt this summary of our first year's work. When treating rickets it is possible to follow the progress of the case, to some extent, by a series of X-ray photographs, and the value of the ultra-violet radiation in the treatment of this disease has been proved beyond dispute. With this single exception it is difficult to assess the value of light treatment.

At an Infant Welfare Centre the issue is confused in many ways. The natural tendency to recovery in early life must not be forgotten. The enthusiasm engendered by a new and appealing form of treatment sometimes encourages the mother to take an unwonted care of her offspring. Other measures adopted at the centre may be responsible for improvement in the child's

condition, while intercurrent illnesses may interfere in the opposite direction. For these reasons it is not claimed that the results in this series are an accurate representation of the value of light treatment at an Infant Welfare Centre.

The ages of the children varied from 3 months to 5 years. They were referred to the Light Room by the Medical Officers of the Welfare Clinics, and, at the end of a course of treatment, were referred back for a report on the result. The Medical Officers were also asked to obtain the mothers' views without putting leading questions. In this way it was hoped to obtain unbiassed statements. The results which I shall detail are based on these reports.

Apparatus.

The various kinds of lamp used in this work are so well known and advertised, that I need not trouble you with details. At an Infant Welfare Centre it is an advantage to have two types—carbon arc and a mercury vapour lamp. Arnold's Alpine Sun Lamp with four pairs of carbons in series and a K.B.B. hooded, atmospheric quartz-mercury lamp, mounted on a floor stand, are used at the Poplar Clinic. In combination with the quartz lamp two 100 c.p. carbon filament lamps with red glass screens are used. The red light produced by these radiant heat lamps is a pleasing contrast to the ugly green light of the mercury vapour lamp. This combination is a convenient one for treating infants on a couch, where they are kept comfortably warm by the radiant heat. These patients are invariably treated singly. The hooded K.B.B. lamp is also useful for treating the local skin lesions met with at a Welfare Centre.

For toddlers requiring general light baths the carbon arc is more convenient. They are treated in groups of five or six, seated in a semi-circle in front of the lamp.

During the year 209 cases were dealt with, and 3,935 treatments given—an average of 19 per patient.

Under A. are shown the numbers used for purposes of this report, and under B. cases which are unsuitable owing to insufficient attendance or failure to report for final examination.

The division into groups is an arbitrary one, and purely a matter of convenience for recording. As will be seen later the groups overlap to a considerable extent.

About 50 per cent of the cases referred come

Grouping of cases and numbers in each group.

	A.	B.	Total
1. Pre-rachitic and Bottle-fed (prophylaxis) ...	17	4	21
2. Rachitic ...	54	21	75
3. Catarrhal ...	11	—	11
4. Under-developed; Mal-nutrition; Debility ...	20	10	30
5. Marasmus ...	4	—	4
6. Skin Diseases ...	8	4	12
7. Miscellaneous ...	2	—	2
8. Adults (mothers) ...	4	—	4
9. Nurses ...	12	1	13
10. Current cases ...	—	37	37
	132	77	209

under the rachitic and pre-rachitic groups. There is no dividing line between the two—for the onset of rickets is insidious.

Group 1 consists of 17 cases, most of them being pale infants, showing a want of muscle tone and, a few, head sweating. The majority were bottle-fed, and no doubt some of them were very early cases of rickets—a stage of the disease most amenable to light treatment. In the old text books we find very full and accurate descriptions of severe, acute rickets, which is comparatively uncommon in London to-day. Perhaps these pictures, painted on our memories from student days, have diverted our attention too much from the earlier and more important signs of the disease—pallor, muscular weakness, head-sweating and enlargement of the abdomen. Blood examinations would no doubt show changes in the calcium and phosphorus metabolism at an even earlier stage, and perhaps it would be wise to consider all bottle-fed children as potential cases of rickets, and to treat them accordingly.

In the Medical Research Council report on Rickets in Vienna (1919-1922) it is stated that the first six months of life proved to be a period of special susceptibility to the disease. The clinical diagnosis was based on the bone stigmata, and the most important early signs were cranio-tabes and enlargement of the costochondral junctions. In a group of 13 children radiographically diagnosed as rickets, 12 had a well marked rosary, and 10 had cranio-tabes. In another group of 24 infants, under twelve months of age, with radiographic evidence of rickets, 21 had cranio-tabes. Hess and Unger consider cranio-tabes an unreliable

sign. They place most reliance on beading of the ribs. Of 149 infants who developed rickets in Hospital and were radiographically diagnosed, 104 developed beading before X-ray diagnosis was positive, 31 developed beading and X-ray signs simultaneously, and 14 were radiographically diagnosed before beading. I have made a careful search for cranio-tabes in rickety children attending the light clinic at Poplar during the last eighteen months without finding a single case. On the other hand, beading of the ribs is usually present, but it is difficult to get a group of observers to agree on this sign in doubtful cases.

It is evident that there is not only a divergence of opinion on the early signs of rickets, but also an extraordinary difference in the early signs in different countries. The high incidence of cranio-tabes in the Vienna cases suggests that the disease is more severe than in this country. Sweating of the head, which is so common here, was not commonly seen in Vienna even in severe cases. If it is agreed that clinical diagnosis is possible before the bone lesions can be shown on an X-ray plate—and there appears to be some unanimity on this point—on what signs can we depend? In this country cranio-tabes is rare, while head bossing and beading of the ribs are not reliable signs. The bone stigmata do not help much. The syndrome—pallor, head-sweating, muscular weakness and enlargement of the abdomen—is a useful and practical one, and if accompanied by one of the other stigmata, is, to my mind, conclusive evidence of rickets.

The result of Light treatment in 17 cases of the pre-rachitic group were: 5 much improved, 11 improved, 1 no change.

The case in which no change is reported developed measles while under treatment.

The observations of the mothers are not without interest: 11 said their children were "more lively"; 5 "better tempered"; 5 "sleeps better"; 4 "eats better".

Group II. Rickets. 54 cases. Results: 17 much improved, 32 improved, 5 no change.

This group consists of cases showing definite signs of the disease, but the majority were in the early stages and did not show gross bony changes. Only one showed the classical signs of acute severe rickets. A few cases of healing rickets with gross bony deformities are included—cases which do not respond well to treatment.

It is difficult to record with any degree of accuracy the improvement in the rachitic child from any special form of treatment. A series of X-ray photographs is perhaps the best method in suitable cases, but does not help in the earliest stages of the disease. Those who have had the opportunity of watching these children under treatment can have no doubt about the efficacy of the ultra-violet rays. The first and most striking change is an increase of muscular strength and activity. No less than 43 (79 per cent) of the mothers volunteered the statement that their children were "more lively" or used words to that effect. Other statements were:—23 "better appetite," 11 "better tempered," 9 "brighter," 6 "fewer colds," 3 "rapid growth."

Head sweating is the one clinical sign which can be recorded easily. At the beginning of treatment it was present in 36 of the 54 cases. At the end of treatment it had ceased in 27, lessened in 6, and still continued in 3. In early rickets head sweating ceases after a few treatments (6 to 12). In the acute case of rickets referred it did not cease until 40 treatments had been given and recurred at intervals for some time afterwards.

A study of these 54 rachitic children led to one other striking result. The close association between rickets and catarrhal infections has long been recognised. The possibility that the catarrhs are primary and the rickets secondary has even been suggested. The question I wish to draw attention to is the nature of these infections. Are they simple catarrhs or chronic infections of the lymphatic tissues in the throat?

An examination of the notes on these 54 cases showed that:—

Tonsils and adenoids already removed ...	11
On operation list ...	17
Unhealthy tonsils and adenoids ...	24
No remark on condition of throat ...	2

These figures were compiled in April, 1926, and a recent revision of the list shows that 38 have had tonsils enucleated and adenoids removed; one case has had adenoids only removed, at a local hospital, and two are still on the waiting list. I feel it might be necessary to point out that these figures are not the result of a personal idiosyncrasy. The notes were made and the advice with regard to operation given by four independent observers. I shall also anticipate one question. On what grounds are the tonsils

and adenoids deemed unhealthy? The appearances of the throat are perhaps the least important indication. A history of repeated catarrhs with a marked irregularity or flattening on the weight chart and a failure to thrive are strongly suggestive and, if there are also local indications, operation is usually advised. The frequency of this complication in rickety children has an important bearing on treatment. The catarrhs interfere with the attendance, and, in few cases, treatment has ceased because the mother has convinced herself that the exposure of the naked body is responsible for the "colds." Our experience is that children suffering from rickets, complicated by unhealthy tonsils and adenoids, do not benefit by light treatment or, at best, progress is slow. We have had more encouraging results when light treatment has been given after operation, but how much of the improvement is due to the phototherapy it is impossible to say.

Case 51. W.F. Aged three years. Male. Showed all the classical signs of severe acute rickets, with the exception of cranio-tabes. The deformity of the lower limbs was marked, but more striking was the extreme hypotonia. He would lie for hours on his back without making any attempt to assume the sitting posture. In addition, he was a mouth-breather, snored loudly and constantly when asleep, the tonsils were hypertrophied, the crypts infected and the glands in the neck enlarged.

His tonsils were enucleated and the adenoids removed. There was intentionally no special dieting, no cod liver oil was given, and he was kept indoors. He was treated 36 times under the mercury vapour lamp, and 21 times in front of the carbon arc. The X-ray photographs demonstrate the rapid deposition of the calcium in his bones. The change in the child is more striking. From being quite inert, he has become a happy, active child, and walks alone. The soft, watery, anæmic tissues have disappeared, and he has developed firm muscles. The bony deformities, epiphyseal enlargements and curvatures are now comparatively slight. Although the X-ray plates show that the bone lesions have healed, he still bears many of the stigmata of rickets.

Group III. Catarrhal. In this group the recurrent respiratory catarrhs were the pre-dominating feature.

Results: 3 much improved, 7 improved, 1

no change. Four of these had operations on their tonsils and adenoids. Three were awaiting operation. Three had "unhealthy tonsils and adenoids" noted on their case sheets. One was labelled "intractable catarrhs" without any note on the throat.

We have no figures to prove that the catarrhs were lessened by light treatment. The improvement, when noted, was in the child's general condition. The mothers' observations as to results were:—7 "more active," 6 "fewer colds," 4 "better appetite," 3 "sleeps better," 2 "better tempered."

Group IV. Twenty cases. A comprehensive group made up of children referred for debility, poor nutrition, poor development, slow growth or tonelessness.

Results: 5 much improved, 7 improved, 8 no change.

The mothers' statements were: 13 "more active," 8 "eats better," 5 "sleeps better," 5 "better tempered," 4 "fewer colds," 3 "brighter."

Group V. Marasmus. 4 cases. The object of light treatment for this group was to prevent the development of rickets during the period of rapid growth which so often follows the marasmic stage. It is still too soon to judge the results, but so far they are distinctly encouraging. In two typical cases, the marasmic stage was prolonged in both, and both were intolerant of fats, so that the administration of cod liver oil was contra-indicated. The period of rapid growth set in when they were put on mixtures containing unusual amounts of carbohydrates—conditions which are highly favourable to the development of rickets. Both have remained well and active.

Group VI. Skin diseases. 8 cases.

Case 1. M.E., aged 18 weeks. Eczema, face and scalp. 15 local exposures to M.V. lamp. Result: Great improvement in spite of concurrent and rapid gain in weight.

Case 2. E.C., aged 1½ years. Severe general eczema in infancy. Residual eczema in flexures of elbow and knees. Pre-rachitic. General baths given, 60 exposures in 29 weeks. (53 M.V. and 7 C.A.) Result: General condition much improved. No change in eczema.

Case 3. F.R., aged 7 months. Intertrigo. ?eczema. 13 local exposures to M.V. lamp. Result: Intertrigo cleared up. No eczema developed.

Case 4. A.R., aged 16 weeks. Pustular eruption on scalp. 2 local exposures to M.V. lamp. Result: Rapid and complete healing.

Case 5. S.R., aged 1 year 11 months. Recurrent eczema on face. 5 general baths (3 M.V. and 2 C.A.). The mother states "helped the skin to heal," and M.O. adds "agreed."

Case 6. E.C., aged 4 years. Papular urticaria. 27 exposures to C.A. (general baths). The urticaria soon disappeared, but owing to a dietetic error it reappeared for a short period while still under treatment.

Case 7. M.T., aged 1½ years. Recurrent infected urticaria. 55 exposures to M.V. lamp and 8 to C.A. The infected lesions healed rapidly but the underlying urticaria was not influenced. The child's general condition improved.

Case 8. L.G., aged 2½ years. Urticaria. 23 treatments. (11 M.V. and 12 C.A.) The urticaria ceased, but this was concurrent with dietetic changes.

Our results in the treatment of infantile eczema are encouraging. Ultra-violet light appears to have some soothing effect on the irritated urticarial skin, and it has a beneficial effect on the infected lesions, as it does on other pustular eruptions. It has little or no effect on the prevention of urticaria.

Group VII. 2 cases of long-standing poli-encephalitis.

Case 1. E.R., aged 5 years. Poli-encephalitis in infancy. Weakness and spasticity right arm and leg.

Treatment: Infected tonsils and adenoids removed; massage and remedial exercises; 8 exposures to M.V. and 13 to C.A. lamps.

Result: Improved. The movements of the right arm and hand are much better and he stumbles less.

Case 2. E.A., aged 4 years. Poli-encephalitis in infancy, spastic paralysis right arm and leg, mouth breather, adenoid facies, backward in speech and mentality, a fat toneless child, makes no attempt to stand.

Treatment: Tonsils and adenoids removed; massage and remedial exercises; 17 exposures to M.V. and 35 to C.A. lamps.

Result: The improvement here is very great, especially in speech and mentality. He can walk with difficulty, and makes some use of his spastic right arm and hand.

In both these cases the phototherapy was the least important part of the treatment.

Group VIII. Adults (mothers). 4 cases.

Case 1. Aged 31. Cheiropompholyx. A moderately severe case. 20 exposures to mercury vapour lamp. The irritation was increased after each treatment, but the eruption steadily improved and eventually healed. There has been no recurrence a year after treatment.

Case 2. Aged 36. Anæmia in a woman pregnant with twins. 9 general baths under M.V. lamp. No improvement resulted. Twins weighing 3½ and 4 lbs. were born 17 days after treatment ceased, and died 3 days later.

Case 3. Aged 31. Varicose ulcer of 15 years standing. It had never healed completely during this period. The ulcer measured 2-in. by ¾-in., and was situated above the left internal malleolus, and there was much surrounding induration and pigmentation. 19 local exposures to M.V. lamp (Minimum 10 minutes at 2 feet, maximum 10 minutes at 10 inches.)

The ulcer healed and has remained healed 10 months. The surrounding induration has completely disappeared.

Case 4. Aged 25. Acne rosacea. Moderate severity. 11 exposures to M.V. lamp. The improvement was slight and temporary.

Group IX. 12 nurses offered themselves for experimental purposes. The main object was to test skin reactions and dosage. Six were blondes and six brunettes. The skin reactions were definitely greater than in the children to the same dose at the same distance. I have seen the contrary stated on several occasions. When the adult skin is exposed to an erythematous dose of ultra-violet rays it has a curious odour resembling that of burnt feathers. This has been noticed on several occasions by the nurses. The odour is increased when the skin is moistened with water, and also seems to be in proportion to the degree of erythema. Dried milk has a somewhat similar odour after exposure to the mercury vapour lamp. We have never been able to detect this odour on the skins of children after treatment.

Observations on Weight.

With a few exceptions, there has been no striking increase in the rate of gain in weight resulting from light treatment. The charts showing the weight before, during, and after treatment are always available at a Welfare Centre, so that the opportunity for studying this point has been exceptional. Many of the children referred to the light clinic were suffering from want of muscle tone and the

most constant result of this treatment is an increase of muscle power and activity. It is not altogether surprising that this is accompanied by a diminished rate of gain or even a fall in weight for the soft watery tissues appear to be replaced by firm muscles. In some cases weight has increased after treatment has ceased. An increase in physical energy is not infrequently accompanied by a corresponding change in mental vigour.

(We are taking measurements to try to ascertain the effect of ultra-violet radiation on growth. So far the figures available are too few to be of value.)

Dosage, etc.

At a Welfare Clinic the majority of our patients require general light baths, or the exposure of a comparatively large area of skin, and I intend to discuss the question of dosage with this in view. The output of ultra-violet light from any two lamps is never quite the same, and so there is little value in expressing dosage in terms of length of exposure and distance from the source of light, unless you are familiar with the lamp in question. The important point is to determine the minimal erythema dose at a convenient distance from the lamp. This is easily done by experimenting on yourself and your friends, and in this way you soon get a rough idea of its energy. As the skins of individuals vary in their sensitivity to the ultra-violet light, the well-known "spot test" is of great value as a routine measure before treatment is begun under the mercury vapour lamp. The dose given will depend on the object in view. The majority of cases in this series received minimal erythema doses or less. There were no complaints about excessive skin reactions.

Huldschinsky has proved that it is possible to cure rickets with a carbon arc consuming only six amperes, and without producing any skin reaction whatever. His experiments were controlled by X-ray photographs and estimations of the phosphorus content of the blood. On the other hand, the work of Eidenow goes to show that the hæmo-bactericidal power is greatest after exposure of a limited area of skin to an erythematous dose. It would appear from these experiments that phosphorus and calcium metabolism are favourably influenced by exposure to a weak source of long wave ultra-violet radiation, and if we wish to increase the bactericidal power of the blood, more intense exposures over a limited area are indicated.

The tendency of the manufacturers is to produce instruments with even greater energy in the ultra-violet region. I question whether this is desirable. For the treatment of local conditions lamps which produce the necessary degree of erythema in a limited time are convenient, but when we are giving general baths a weaker source would appear sufficient.

I am frequently asked which is the better lamp for Infant Welfare work—the carbon arc or quartz lamp? For general baths I favour the carbon arc because its radiation more closely resembles natural sunlight. We do not yet know the full importance of the visible and infra-red rays.

During the good weather of July and August the Light Room at Poplar was closed, and all cases were treated in the garden. The results were infinitely better than those obtained with similar groups of children treated under the lamps. In the Vienna studies a similar experience is noted:—

"With cases treated indoors by mercury vapour radiations or by cod liver oil, resultant improvement in general health was undoubtedly less marked than with outdoor treatment."

This may be due to influences other than light, but I am inclined to take the hint that we should imitate nature as closely as possible in the Light Room. Perhaps the future will show that our present methods are fallacious. I picture the Light Room of the future—a large well-ventilated, well-warmed room flooded with light from multiple sources, where the children can play in safety, with nothing but their eyes shielded from the rays. The present method of short exposures, with children sitting or lying inert, has its obvious disadvantages.

DR. C. T. MAITLAND, Assistant Medical Officer of Health, Willesden, has been appointed Medical Officer of Health (part-time) for the Metropolitan Borough of Stoke Newington.

DR. W. D. CHAMPNEYS, Assistant Medical Officer of Health, Willesden, has been appointed to the Medical Staff of the Ministry of Health.

DR. J. C. BRIDGE has been appointed senior medical inspector of factories in succession to Sir Thomas Legge, resigned.

Random Excursions into the Realm of Public Health.

By A. M. N. PRINGLE, M.B., C.M., D.P.H., Medical Officer of Health, Ipswich.

In the wanderings described in his Address, the President of the Eastern Branch uses Vital Statistics not only as a staff, but as a weapon to deal shrewd blows withal.

IT is the universal plaint of the indolent that they loathe vital statistics, and it is the equally universal assertion of the ignorant that statistics can be made to prove anything. The first stand self-condemned, the second can appeal only to the ill-informed who are incapable of sifting the truth from the plausible false. To well-informed and logical people statistics can, and do, convey the truth.

A complaint against vital statistics is that the units of which they are composed, in so far as they relate to death, are in themselves either actually false, or only partially true to such an extent as to render it impossible to arrive at true results. To this I answer that any series of statistics with relation to any particular disease or group of diseases departing from a coherent line of incidence, or exhibiting violent and inexplicable fluctuations, must be regarded as the subject of grave suspicion. Where, however, the historic descent is coherent and correspondent, then the series is worthy of close attention, and a degree of credibility justifying, at least, modified acceptance. It can never be absolute, but it can be, and is sufficient for intelligent use.

Here I wander for a moment from statistics to men. There are many types of medical men, but from the statistical point of view there are three great divisions:—

1.—The medical man who gets his qualification to practise, who practises for, say, 50 years, and remains throughout the whole period exactly where he was when first qualified.

2.—The man who qualifies, promptly forgets (more or less) what he has learned, and lives on Epsom Salts, Salicylate of Soda, and bluff.

3.—The man who qualifies and continues to be a student, and learns all his life.

Every one knows examples of these three types.

It is among the first two groups we find the medical men who vitiate vital statistics.

When all is said and done, I claim that with proper care and examination we can get reasonably reliable and coherent average figures for any locality.

Between 1841 and 1872, there were five major epidemics of smallpox in Ipswich; the largest was the last. The interesting point about these epidemics was that the earlier ones (1848-9 and 1854-5), slew young children under 5, and the last (1872) exhibited its highest mortality in adults. This is an admirable example of the fact that in unvaccinated communities it is the children who suffer and die, whilst in more or less vaccinated communities the young tend to escape, but the older succumb, whether vaccinated or not, the infant vaccination protection having more or less disappeared, although the mortality is by far the highest amongst the unvaccinated. Since 1872, Ipswich has been practically free from smallpox. The pandemic of smallpox in 1871-2 was definitely related to the Franco-Prussian War; that of 1854-5 to the Crimean War.

Scarlet fever is at the present time a very mild disease; so it was at the end of the eighteenth century and at the beginning of the nineteenth century. It then assumed a very severe form. Thus in 1863 it killed 200 persons in Ipswich alone. This teaches a lesson to the wise man, who will never assume that the type of any disease prevalent at any time is necessarily permanent. This is singularly apposite at the moment, when certain medical men have stated publicly that the mild type of smallpox at present in existence is not a serious menace. Do these medical men know that this type is permanent?

Again, let us glance, apropos of this question of type variation, at the influenza epidemic of 1918. You will recollect that this terrific epidemic occurred in three great waves (a) a summer epidemic, characterised by extraordinary prevalence and extremely low

mortality; (b) the terrific November epidemic with its specific pneumonia; and (c) the February epidemic with its high mortality from pneumonia of the ordinary type.

The behaviour of influenza has been very peculiar. It was very prevalent at the beginning of the nineteenth century, and there was a considerable epidemic in 1838.

Subsequently it disappeared for nearly 50 years, and then burst upon the world in 1890. The epidemics of 1891 and 1892 were extremely severe. It has never been absent since, and it has been one of the great agents in retarding the fall in the death rate, especially at the higher ages. I do not think people realise the extent of the ravages of influenza, and even if they did it is difficult to see what practical steps could be taken; the mode of dissemination of infection, the multiple opportunities of spread of infection, the speed of transport, all conspire to render the control of the disease a practical impossibility. Neither is there any hope of an influenza-immune community, since attack itself confers only a very transient immunity. Nevertheless, the disease has disappeared within modern experience, and it may be anticipated quite reasonably that it may do so again.

This question of immune communities at once directs attention to tuberculosis. Statistically it can be shown that the death-rate from tuberculosis is less than one-third of what it was 60 or 70 years ago. The series shows a coherent consistent fall, evident for both sexes, but more marked for females, and particularly young females from 15-35 years of age. The query is invited: "If tuberculosis is closely associated with home conditions, why is the mortality experience of those most exposed to home conditions better than the mortality experience of those least exposed to them?" As far as the Ipswich figures go the female mortality from tuberculosis exceeded the male at all ages from 1841-60. Since the sixties the male mortality has consistently exceeded the female, both falling steadily. I have come to the quite definite conclusion that the reasons for the fall in the tuberculosis death-rate include first and chiefly the fact that a race is being evolved which is possessed of an already considerable and steadily progressive degree of hereditary immunity, and that the time is not far distant when tuberculosis will become a relatively infrequent cause of death, owing to the

establishment of racial immunity. You note that the fall in the tuberculosis death-rate began long before any direct attack was made upon the disease, long before the tubercle bacillus was discovered, long before the Insurance Act, long before sanatoria became common, long before the laws of health received the attention and practice which are so much in evidence to-day. All these have contributed a little, but the main cause is independent of them. I confess to very little belief in the real influence of the segregation of advanced cases of tuberculosis in infirmaries and hospitals as having had an appreciable influence. One has only to consider the universality of the distribution of infection, and the multitudes of unrecognised cases of the disease, to appreciate that some other agency than the segregation of a small number of advanced cases is at work. Is there not universal acknowledgment of the limitation of accommodation for advanced cases?

Whilst on this subject of immunity, I am reminded of the question as to why diphtheria, for instance, attacks children in preference to adults. I believe the real reason is not increase in resisting power with advance in years, but the establishment of immunity by repeated unsuccessful attacks by the bacillus. In this relation nurses in fever hospitals who develop diphtheria do so as a rule either immediately after they join the staff, or have returned from a long holiday. It is interesting that the Schick reaction shows progressive diminution of susceptibility as age advances, I think for the reason stated. Compare this type of immunity with that of measles. In this disease adult immunity is almost certainly due to attacks of the disease in childhood. The epidemics of measles in Fiji and in the Faroe Islands afford very strong, if not conclusive, evidence on this point. In any case, measles as we know it to-day, shows ample evidence of the existence of hereditary immunity, and in my opinion, we are witnessing exactly the same play of forces in the case of tuberculosis.

Let us look for a moment at cancer. Statistically, the case for cancer increase is proved. If, however, we carry our investigations back sufficiently far we can establish an unbelievable position from the statistical point of view. Coherence disappears from any intelligent examination of the figures. We are therefore reduced to asking the question: "How far are cancer statistics real?" I have

no doubt in my own mind that the answer is, as the historic evidence proves, that they are grossly misleading. I have no hesitation from the results of my own investigation in stating the opinion that the cancer statistics grossly understate the case. There is ample evidence of this fact for those who like to look for it.

The great increase in cancer at the present day is in cancer of the alimentary system. I do not agree that this is due to tomatoes, neither do I agree that the cause is to be found in the meal-chest. I do not believe in the irritation theory, for the reason that there are a thousand sites of irritation for every one that shows a cancer. I do not believe that there is sufficient evidence to arraign civilisation as the cause, since it occurs among uncivilised races, in horses, cattle, sheep, fish, birds, etc. I do not believe that healthy foodstuffs are responsible, because of the many different animals consuming different foods which suffer from the disease. I am satisfied that a very strong case has been made out for the investigation of the causal relationship to disease generally of diseased foodstuffs, especially cereals. In this relation the accessory factor of Gye and Barnard is of importance. That factor must come from somewhere, and the association of cancer with the digestive system must have some meaning. There may be substances in diseased food which produce the factor in the human being. I believe the subject well worthy of close investigation. One further question with reference to cancer. Why has the male death-rate increased so much more rapidly than the female? At least my local figures show this. Lastly, why does cancer select the uterus and the female breast? These questions have answers.

On the East Coast, at least, the chief causes of deaths at all ages are diseases of the respiratory system. Pneumonia is the most fatal to the young, bronchitis to the old. At all ages the male death-rate consistently exceeds the female—Why?

My own figures show that the male respiratory death-rate for Ipswich remained stationary between 1841 and 1900, whereas the female death-rate declined between 1880 and 1900. Since 1900 the male death-rate has declined considerably, and that in the female has continued its fall. There is a parallelism of sorts between the behaviour of pulmonary tuberculosis and

that of respiratory diseases. In both the female rate is lower than the male, and the recorded decline is greater for females than for males. My figures show that but for the introduction of influenza in 1890, the respiratory death-rate would have been considerably lower than it is.

Let us look now at one or two abdominal conditions. The present position of zymotic diarrhoea is, so far as I know, and so far as local statistics since 1841 are concerned, without parallel. So far as Ipswich is concerned, zymotic diarrhoea was a veritable plague during the whole of the recorded period, culminating in a very serious state of affairs in the last ten years of the nineteenth century. Since the beginning of the present century it has declined until within recent years it has practically disappeared. I think there are several reasons, viz. (1) the disappearance of the privy middens; (2) the disappearance of the horse; (3) the use of dried milk; (4) the work of Infant Welfare Centres.

One would have thought apropos of undiagnosed cancer of the intestine, etc., that cases of intestinal obstruction would have shown evidence of transfer to cancer. It is strange, but true, that my figures show practically no transition since 1841. This is all the more remarkable from the point of view of the surgeon.

Appendicitis dates practically from the nineties of the last century, its prevalence commencing fairly closely with influenza. Certainly it was not really recognised except very occasionally in the eighties, or during the whole of the time influenza was absent. Neither of these facts, in my opinion, identify influenza with appendicitis.

DR. JOHN REID GRAHAM, Assistant Medical Superintendent of the Florence Nightingale Hospital, Burv, Lancs., has been appointed Assistant Medical Officer of Health and Assistant Tuberculosis Officer at Oldham.

THE address of the Board of Control (Lunacy and Mental Deficiency—England and Wales) is now Caxton House West, Tothill Street, Westminster, S.W.1. Telephone number, Victoria 8540. Telegraphic address, Avicenna, Sowest, London.

The Society.

Reports, Proceedings and Announcements.

COUNCIL MEETING.

A meeting of the Council was held at the House of the Society on Friday, January 21st, 1927. The President (Dr. E. H. Snell), was in the Chair, and there were present: Drs. Sanders, Gibbons Ward, Nash, Naylor Barlow, Cates, Veitch Clark, Wheatley, Allan, Porter, Buchan, Brackenbury, Jameson, McIntosh, Kidner, Frederic Thomson, Ward, Prof. H. Kerr, Lt.-Col. F. E. Fremantle, M.P., and Dr. Stella Churchill.

The minutes of the last meeting having been approved and signed, apologies for absence were received from Prof. H. R. Kenwood, Drs. Stirk, Annis, Jolly, Eustace Hill, Pearce, Lyster, Paget Moffatt, Evans, and Lord Dawson.

Correspondence.—(1) From the British Medical Association, notifying resolutions passed by their Council on December 15th, 1926, in reference to enforcement of Scale of Salaries. Referred to Salaries Committee. (2) From a Medical Officer of Health asking if a M.O.H. could reasonably be expected to answer the lengthy questionnaire issued by the Ministry of Health in reference to data from gas poisoning. It was agreed that the M.O.H. was the best source for reliable information on such matters accessible to the Ministry. (3) From Mrs. T. Ridley Bailey, expressing the thanks of her husband for the message of sympathy sent to him by his colleagues on the Council. (4) From the Yorkshire Branch suggesting that Dr. Sydney Thomas Steele, Medical Officer of Health for the Borough of Mosley, who assisted in the formation of the Yorkshire Association of Medical Officers of Health (now the Yorkshire Branch of the Society) in 1875, should be enrolled as a fully-paid Fellow of the Society in recognition of his long Public Health services. This proposal was approved unanimously. (5) From the National Baby Week Council, asking for permission to exhibit the prize entries for the Astor Competition, 1926, in a room at the House of the Society, for the convenience of Medical Officers of Health attending some early meeting of the Society. It was agreed that the entries would be accepted for display on February 18th. (6) From the College of Nursing asking the Society to nominate

representatives to confer with representatives of the College in reference to the regulations of the Ministry of Health regarding the training of candidates for the Public Health Service. It was agreed that the College be asked to indicate the points to be discussed at the conference in order that the Council could decide what opinions should be expressed by the Society's representatives.

Representation of the Society.—On the nomination of the Metropolitan Branch, Dr. G. Quin Lennane, Dr. A. Middleton Hewat, Dr. C. W. Hutt, and Dr. Charles Porter were appointed to represent the Society on the Central Council for District Nursing. Dr. H. J. Milligan was re-elected as the Society's representative on the National Milk Publicity Council. Drs. Sanders and Fenton were nominated to attend the Conference convened for January 28th, to discuss the Report of the Labour Party on Nursing Services. After statements by Dr. Veitch Clark and Dr. Charles Porter in reference to the activities of the Industrial Health Education Society, it was decided to consider further nominations to the Area Councils of that body when the Committee on Health Education Work by Local Authorities had submitted its recommendations in reference to co-operation with propaganda organisations.

The Milk and Dairies Order, 1926.—It was agreed to defer consideration of representations from the Yorkshire Branch and the Loughston Urban District Council in reference to the Milk and Dairies Order, 1926, pending discussion of the Circular in this connection about to be issued by the Ministry of Health.

M.H. Form, 37/T.—On behalf of the Tuberculosis Group, Dr. Ward asked if members of Council would suggest any amendments in this Form which Medical Officers of Health considered advisable. It was agreed that it would be more convenient if the Tuberculosis Group would first submit their criticisms of the Form for discussion by the Council.

The Scale of Salaries.—Dr. G. F. Buchan reported that the Salaries Committee would shortly submit certain recommendations in regard to future developments of the Salaries Campaign. Meanwhile, the Committee asked the Council to approve a circular letter to Medical Officers of Health drawing attention to

some cases in which there had been failure to give whole-hearted support to the policy of the Society and the B.M.A. in reference to the Scale.

Health Legislation.—Col. Fremantle drew attention to the failure of the Society and the British Medical Association to keep in touch with medical Members of Parliament. He suggested that the medical Members should be kept informed of health matters calling for legislation, in order that opportunities for promoting Bills might not be lost. After some discussion it was agreed that the Society's representative on the Medico-Political Committee of the British Medical Association should advocate more active co-operation with medical men in Parliament. It was also agreed that the Association be urged to ask for an early reception of the deputation to the Ministry of Health in reference to the Factories Bill. Failing a satisfactory outcome of this deputation it was agreed that the Committee appointed on October 15th, 1926, should submit recommendations for further action by the Society.

Council Meetings.—On the proposal of the President, the Executive Secretary was authorised to fix the hour of Council Meetings at 2.30 p.m. if the amount of business made it unnecessary to start as early as 2 p.m.

The Council then adjourned.

ORDINARY MEETING.

An Ordinary Meeting was held at the House of the Society on Friday, January 21st. The President (Dr. E. H. Snell), was in the Chair, and there was a very large attendance. The minutes of the last meeting having been approved and signed, the following candidates were elected to the Society:—

As Fellows:—

Bennett, James, M.R.C.S., L.R.C.P., D.P.H.; Butler, Thos. Harrison, M.A., M.D. Oxon., M.R.C.S., L.R.C.P.; Clark, Mabel Campbell, M.R.C.S., L.R.C.P., Lond., D.P.H.; Colville, Edward Thomas, M.B., B.S., B.Hy. Durh., D.P.H.; Harvey, Charles Alexander, M.B., Ch.B. Aberd., D.P.H.; Stanton, Ambrose Thomas, M.D. (Tor.), F.R.C.P., M.R.C.S., D.P.H., D.T.M. and H.; Sydenham, Frederick William, M.D., C.M. Ed., F.R.C.S. Ed., D.P.H.; Tough, David Weston, M.B., Ch.B. Ed., D.P.H.; Yule, John, M.B. Ch.B. Glas., D.P.H.

As Associate:—

Harwood, Edwin W., L.D.S.

A number of nominations were received for the next election.

There followed a discussion on "The Education of the Public in regard to Modern

Methods of Disease Prevention (Premunisation, Immunisation, etc.)," from the point of view of: (a) The Government Department: S. Monckton Copeman, M.D., F.R.C.P., F.R.S. (b) The Medical Officer of Health: C. W. Hutt, M.A., M.D., D.P.H. (c) The Press: The Lord Riddell. (d) The Public: Very Rev. Dean Inge, C.V.O., D.D. (e) The Laboratory Director: Prof. J. C. G. Ledingham, C.M.G., F.R.C.P., F.R.S.

A vote of thanks to the openers was moved by the President, and supported by Drs. C. S. Thomson, Charles Porter, W. W. Jameson, W. A. Lethem and others. A full report of the discussion will appear in an early issue of "Public Health."

THE METROPOLITAN BRANCH.

President: Dr. G. Quin Lennane, M.O.H., Battersea.

Hon. Secretary: Dr. James Fenton, M.O.H., Kensington.

A meeting of the Council of this Branch was held at the House of the Society on December 10th, 1926, the President occupying the Chair. Ten other members were present.

The minutes of the last meeting having been read and confirmed, the Hon. Secretary presented a report in regard to the fixing of a programme of meetings of the Council and the Branch. After discussion it was decided: (a) That meetings of the Council of the Branch should be held on the second Friday in every month (August and September excepted), the President having power to alter the day in the event of a general holiday or a conference such as that of the Royal Sanitary Institute clashing with the fixed date of a meeting, (b) that the hour of the Council meetings should be 3.30 p.m., and (c) that Branch meetings should follow the Council meetings in the months of January, April, June and November.

Consideration was given to the allocation of notifications of persons suffering from puerperal pyrexia who have removed from one borough to a hospital in another borough for the purpose of confinement, and it was resolved that, as Section 55 of the Public Health (London) Act, 1891, does not apply to Part 3 of the Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations, 1926, the Ministry of Health should be asked to define the practice which should be adopted in London in this matter.

The President, Dr. Hewat, Dr. Hutt, and Dr. Charles Porter were nominated to repre-

sent the Society of Medical Officers of Health on the Central Council for District Nursing.

Further consideration was given to the need for legislation to control the fixing of gas stoves, etc., and it was decided to ask the President to prepare a précis of evidence on the danger arising from the fixation and user of gas stoves, etc., in old buildings, for consideration at the next meeting of the Council.

A letter from the Hon. Secretary of the Home Counties Branch was read in which it was suggested that the proposed visit of the members of the Metropolitan Branch to the Nestlé and Anglo-Swiss Condensed Milk Company's factory at Chippenham should be fixed for April 1st, the date on which the Home Counties Branch is paying a visit to the same factory. This suggestion received general approval, and the Hon. Secretary was instructed to arrange with Dr. Milligan and the Company for a joint visit by the two Branches on the date mentioned.

THE NORTH-WESTERN BRANCH.

President: Dr. C. W. Paget Moffatt, M.O.H., Bolton.

Hon. Secretary: Dr. G. W. N. Joseph, M.O.H., Warrington.

The Annual Dinner of this Branch was held at the Queen's Hotel, Manchester, on December 10th, 1926.

The President was in the Chair, and amongst the guests were:—The Lord Mayor of Manchester (Alderman Swales, J.P.), Mr. Cecil Hilton, M.P.; Lieut.-Colonel J. W. Brittlebank, C.M.G., President, Royal College of Veterinary Surgeons; Professor Archibald Donald, and Councillor C. W. Godbert, Deputy Chairman, Public Health Committee, Manchester.

After the Loyal Toast had been honoured, there were the following:—

"The City and Corporation of Manchester," proposed by the President, to which the Lord Mayor responded.

"The Society of Medical Officers of Health and the North-Western Branch," proposed by Mr. Cecil Hilton, M.P., and replied to by Dr. E. H. Snell (President of the Society), and Dr. T. W. Naylor Barlow, O.B.E.

"The Guests," proposed by Dr. R. Veitch Clark, and acknowledged by Councillor Godbert, Colonel Brittlebank, and Professor Donald.

The rendering of a number of musical items contributed greatly to the success of the evening.

THE YORKSHIRE BRANCH.

President: Dr. S. Fox Linton, M.O.H., Scarborough.

Hon. Secretary: Dr. G. H. Pearce, M.O.H., Batley.

A meeting of the Council of this Branch was held on December 31st, 1926, at the Education Offices, Calverley Street, Leeds.

In the absence of the President the Chair was taken by Dr. J. Mair, Harrogate, and there were also present Drs. Banks, Belam, Buchan, W. B. Hill, J. Johnstone Jervis, Pick, Pickup, Thornley, and the Hon. Secretary. Apologies for absence were received from Drs. Francis, Moore, Scatterty, and C. Leonard Williams.

The minutes of the last meeting were read, confirmed and signed. Various correspondence was considered, and arrangements made respecting future meetings.

An ordinary meeting of the Branch followed the Council meeting, and in addition to the members above mentioned there were present Drs. H. T. Bates, A. Stewart Hebblethwaite, V. Ryan, M. Thierens and V. T. Thierens. Apologies for absence were received from Drs. Daley and Ross.

The minutes of the last meeting were read, confirmed and signed.

It was unanimously resolved that Dr. John J. Buchan, Medical Officer of Health, Bradford, be nominated by the Yorkshire Branch as a candidate for the Presidency of the Society of Medical Officers of Health during the session 1927-8.

A letter was considered from the British Empire Cancer Campaign, Yorkshire Council, in which it was stated that it is proposed to hold a Cancer Exhibition Week in various districts organised by the Medical Propaganda Sub-Committee of the Yorkshire Cancer Campaign Council, of which Dr. G. B. Hillman Wakefield is Chairman. The plan of campaign is to secure a shop or room in a busy thoroughfare (preferably with separate doors for entrance and exit) and have a free exhibition of Cancer Propaganda, with a competent demonstrator in charge. The meeting decided, after discussion, that it appeared to be a matter for each individual Medical Officer of Health to take whatever course might appear to him to be most desirable.

The discussion of Dr. F. A. Belam's paper regarding "The Milk and Dairies Order, 1926," which had been adjourned from the last meeting, was then resumed. After interchange of views, it was ultimately decided that the following resolutions be forwarded to the Executive Secretary of the Society for the consideration of the Council, when, if approved, the resolutions be brought to the notice of the Minister of Health.

1. That the Council of the Society be asked to report to the Minister that the terms of Sections 12 (1), 13 (1) and 25 are unsatisfactory in so far as minor improvements immediately necessary are delayed for a minimum period of 18 months.

2. That the definition of those who must register should include all farmers producing milk for sale to the public, whether as milk or any milk product, e.g., butter, cream or ice cream.

3. That Local Authorities should have the same power of refusal of registration and removal from register in the case of producers of milk as they already possess in the case of retailers.

4. That standards of lighting, ventilation, cubic space, etc., should be laid down, and be uniformly applicable throughout all districts.

5. That all notices respecting structural improvements and alterations be served upon the owner as well as the tenant.

An interesting paper was read by Dr. Cyril Banks, Medical Officer of Health, Halifax, entitled "This Advertising Fever." The paper appears elsewhere in this issue.

THE HOME COUNTIES BRANCH.

President: Dr. Joseph Cates, County M.O.H., Surrey.

Hon. Secretary: Dr. H. J. Milligan, M.C. M.O.H., Reading.

The fourth meeting of the 1926-7 session of this Branch was held at the House of the Society, on January 7th, 1927.

The minutes of the previous meeting were read and approved. Apologies for absence were received from Drs. Jameson, Gordon, Collins, and Holroyd.

The Secretary reported the death of Dr. H. A. Hall, and was requested to convey the sympathy of the Branch to Dr. Hall's sister.

The Secretary read a letter from the Secretary of the Yorkshire Branch requesting

the support of the Home Counties Branch for the nomination of Dr. J. J. Buchan, Medical Officer of Health, Bradford, for the Presidency of the Society for the session 1927-8. It was agreed to defer consideration of this matter until the March meeting of the Branch when any other nominations might also come under consideration.

With regard to the proposal to revive the Branch dinner, it was reported that 109 replies had been received, of which 55 were in favour of holding the Branch dinner and 54 against. After discussion it was agreed that the dinner should be held, and that morning dress should be recommended to those attending. A sub-committee consisting of the President, Drs. McIntosh and Nash was constituted to make the arrangements.

The Secretary submitted Circular 736 issued by the Ministry of Health, in reference to the conditions of examination for those intending to qualify as Sanitary Inspectors. He contended that the conditions were at present unduly onerous, and that insufficient notice had been given of the changed conditions. After discussion the Branch decided to take no action.

Dr. E. Donaldson, Assistant Medical Officer of Health, Surrey County Council, read a paper on "Immunisation against Diphtheria." He gave a detailed account of the Schick testing carried out in the schools in various parts of Surrey, and the immunisation of Schick positive reactors. He emphasised the fact that it was practicable to gain the sympathy and co-operation of a very large percentage of the parents. An interesting discussion followed, in which the President, Drs. Nash, Porter, and others took part. At the conclusion Dr. Donaldson was heartily thanked for his paper.

Dr. R. A. Dunn, Medical Officer of Health, Hertford, brought up a questionnaire of replies to be made to the Ministry of Health and the Board of Trade in reference to deaths from gas poisoning. He submitted forms of report which had been sent to him for completion which involved a very considerable inquiry and a good deal of work. Dr. Dunn suggested that such inquiries were not within the scope of the duties of Medical Officers of Health. It was resolved to submit the papers to the Council of the Society for their consideration and recommendation.

Dr. Nash raised the question of the definition of "ophthalmia neonatorum" and

sought opinions on means of gaining efficient notification of the condition as required by the Regulations. He also invited the views of members on nuisances arising from pig keeping where rural areas became incorporated in extending urban areas whereby piggeries formerly conforming to by-laws were now found to transgress them.

A short discussion on the subject of epidemic jaundice also took place, and thereafter the meeting terminated.

THE TUBERCULOSIS GROUP.

President: Dr. H. Gordon-Smith, T.O., Worcestershire.

Hon. Secretary: Dr. Ernest Ward, T.O., South Devon.

A meeting of the Tuberculosis Group Committee was held at the House of the Society on January 14th, 1927.

Dr. Crossley occupied the Chair, and there were also present Drs. Lorraine, Charlotte Brown, Elliott, Brand, and the Hon. Secretary.

1. The minutes of the last meeting were read and approved.

2. Arising therefrom it was reported that:

(a) The Memo. regarding the Factories Bill had been referred to a Committee, and the whole question to the B.M.A. A deputation to the Home Office had been arranged, but had not yet taken place.

(b) The work of the Propaganda Committee had been described.

(c) Dr. Marcus Paterson and Dr. Lorraine had joined this Committee.

(d) The Memo. Committee of the Joint Tuberculosis Council had asked for the opinions of Medical Officers of Health on Memo. 37/T.

3. The Council Representative gave his report:—

(a) A Memo. concerning salaries for presentation to the B.M.A. had been prepared, but had not yet been considered by the Salaries Committee.

Dr. Crossley announced that the salary of the Medical Superintendent of Winsley Sanatorium had been raised to the scale: £750 a year and house.

(b) Action taken in Surrey was detailed. The result had not yet become known.

(c) The position in Cheshire was described.

4. Consideration of the subject of the prevention of tuberculosis was postponed owing to Dr. Blackmore's absence.

5. Reported that the Midland Sub-Group had not yet considered the question of membership of the Group Committee.

6. Friday, May 20th, at 10.15 a.m., were the date and time fixed for the next Committee Meeting.

Reviews.

TEXT-BOOK OF PUBLIC HEALTH. By E. W. HOPE, O.B.E., M.D., D.Sc., Professor of Public Health, University of Liverpool, and C. O. STALLYBRASS, M.D., D.P.H., Assistant Medical Officer of Health, City of Liverpool. Ninth Edition. Edinburgh: E. and S. Livingstone, 1926. pp. 340. 15s. net.

There are few text-books on Public Health that can be recommended for use by medical students, most being too large for the purpose. This one, however, contrives to include within small compass the essential points upon most aspects of the subject that require to be understood, and are put before the reader in an interesting and intelligible form. All of the useless and boring material with which the older members of the service were condemned to burden their memories is left out, to the great advantage of the junior candidate for examinations. But the volume can scarcely be regarded as adequate for preparation for the D.P.H., since many sections are insufficiently explanatory; that on tuberculosis, for example, only occupies five pages; smoke prevention goes into a single page, and there appears to be no mention of the recommendations of the recent Committee on smoke and noxious vapours; there is no reference either to the recent meat regulations, or to last year's regulations as to use of preservatives in food. The summary of public health law is sufficient to convey only a very general idea of the nature of legislation, enough perhaps for the aspirant to the M.B., or the general reader, but is useless for any purposes of precision.

The book, in our opinion, is a very readable introduction to the study of preventive medicine, and should prove useful to the medical student. Since it is now in its ninth edition, it evidently enjoys considerable popularity.

THE CARRIER PROBLEM. By K. C. PAUL, M.B.B.S. Oxford University Press, 1926. pp. 102. Price 5s. net.

The author of this little volume in presenting it to the student of medicine, especially of preventive medicine, claims for it no more than that it is an attempt to present the more important facts concerning "carriers" in a concise and collected form. From a study of the book it is clear that his claim is justified and that he has succeeded in bringing together most of the known facts on this subject in a remarkably small compass. His researches have been wide and he has put the results together in a most readable and interesting form. The book is certain to be useful and may be recommended.

ELEMENTS OF MATHEMATICS. By D. CARADOC JONES, M.A. and G. W. DANIELS, M.A., M.Com. London: Hodder and Stoughton, Ltd., 1926. pp. 240. Price 8s. 6d. net.

This book, according to the authors' preface, is designed for students who have had only a slender training in mathematics, and who, in consequence, are afraid of symbols and statistics. There could be no more praiseworthy aim than to try to meet the needs of such people and to so arm them that their dread shall disappear in face of even the most abstruse paper on a statistical subject. From observation there are, amongst students for public health qualifications at any rate, many who appear to have, if not fear, at least little joy in mathematics, and this book, though it is perhaps intended more for the assistance of those devoting themselves to studies in economics, may be found useful in helping them to understand some of the processes employed in working out that class of statistics of which they are expected to have some knowledge.

MEDICAL ELECTRICITY FOR STUDENTS. By A. R. I. BROWNE, Member of the Society of Radiographers. Second Edition. Oxford University Press, 1926. pp. 245. Price 12s. 6d. net.

In this the second edition of this book, which is perhaps less well known to those studying for medical degrees than to those others preparing for the examination in Medical Electricity of the Chartered Society

of Massage, an attempt has been made to introduce some reference sufficient to cover the advances made in the use of ultra-violet radiation. In the section dealing with this subject the ground has been well covered and information likely to prove useful is given in a manner at once readable and accurate. In the other parts of the book dealing with medical electricity the author writes as one who knows and has had experience. It is doubtless because those for whom the book was originally intended appreciate these things that a second edition is required within five years, a comparatively short space of time where a book on a specialist subject such as this is concerned.

HINTS TO PROBATIONER NURSES IN MENTAL HOSPITALS. By RICHARD EAGER, O.B.E., M.D. (Aberd.). Second Edition. London: H. K. Lewis and Co., Ltd., 1926. pp. 88. Price 1s. 6d. net.

This is an exceedingly helpful little book, and is certain to be welcomed not only by those who already know it in its first edition, but by those who, just commencing work as probationers in Mental Hospitals, feel the need of some guide to their duties and of a philosopher and friend to whom they can turn. Primarily intended for workers in this branch of the nursing service, the book is so full of valuable general information with regard to nursing that it would be a waste of no nurse's time to read it. Indeed, nurses generally may be strongly advised to use it. It is pleasantly and simply written, and very practical. The section on psychology which is described as an introduction to the study of that subject, but is most interesting and informative, is excellently done.

AN INTRODUCTION TO SURFACE CHEMISTRY. By E. K. RIDEAL. Cambridge University Press, 1926. pp. 336. Price 18s. net.

Colloid Chemistry is of far-reaching importance in biological and physiological science, and the study of the properties of surfaces is essential for the proper understanding of colloidal phenomena. We therefore welcome Dr. Rideal's book as one calculated to advance this important branch of physio-chemical science.

Dr. Rideal has combined the thermodynamic treatment of the subject with visualisation of

the molecular structure of surfaces; the latter treatment adds considerably to the interest of the subject and materially assists in the understanding of observed phenomena.

The following outline will give an idea of the scope of the book. Commencing with the surface tension of pure liquids and methods for its determination; calculation of total surface energy and its relationship to latent heat of vapourisation, and temperature (Eötvös Law), he passes on to the surface tension of solutions and the excess or deficiency of solute at surfaces; its calculation from the Gibbs' equation, and experimental verification. In Chapter III. he proceeds to the consideration of surface films of insoluble materials; their unimolecular character; calculation of the size of molecules and deduction of their orientation from Langmuir's experiments. Consideration of liquid-liquid interfaces follows. To this category belong the emulsions, and the conception of molecular orientation of the molecules of emulsifying agents explaining their function, and phase inversion, makes this chapter of special interest. Gas solid interfaces and liquid solid interfaces are dealt with in Chapters V. and VI., differences of potential at interfaces in Chapter VII. Conditions of stability in suspensions and emulsions are considered in Chapter VIII., and Gels and Hydrated Colloids in Chapter IX.

The subjects treated are difficult both to understand and to express clearly, and Dr. Rideal is to be congratulated upon his systematic and comprehensive presentation. The book should prove of great value to students of physical chemistry. To Medical Officers of Health most of it will be a sealed book unless they belong to that very select band which keep themselves abreast of physics, physical chemistry and the higher mathematics.

THE QUARTZ MERCURY VAPOUR LAMP. Its Possibilities and Uses in Public Health and General Practice. By J. BELL FERGUSON, M.D., D.P.H. London: H. K. Lewis and Co., Ltd., 1926. pp. 106, illustrated. Price 6s. net.

This book is written primarily for the assistance of the busy medical practitioner who desires to obtain a working knowledge of Ultra Violet Light Therapy. It is a practical book on the subject, is lucid and concise, and gives all the essential help and information

which is required by the novice, and has the advantage that it is not overburdened with details. The physical, chemical and physiological properties are described in an apt manner. The various types of Quartz Mercury Vapour Lamps on the market are shown, and information is given with regard to the choice and the cost of the upkeep of the various types of lamp. A considerable portion of the book is devoted to the treatment of disease by the Quartz lamp, particulars being given of numerous cases which have been treated under the supervision of the author.

LIGHT TREATMENT IN SURGERY. By Dr. O. BERNHARD (St. Moritz). Translated by R. KING BROWN, B.A., M.D., D.P.H. London: Edward Arnold and Co., 1926. pp. 317, illustrated. Price 21s. net.

Coming at a time when Sunlight Therapy is interesting both the medical and the lay press, this translation by Dr. King Brown will amply satisfy those who desire a scientific and authoritative statement on the Physiology and Therapeutics of Heliotherapy and Artificial Light Therapy.

The book is a comprehensive one dealing with the history of Actino-therapy and Heliotherapy; light and its biology from the point of view of its effect upon plants, bacteria, animals and men; and the pathology of sunlight.

Special chapters are devoted to the physiological effect of light upon the eye, written by Professor E. Wollfin of Bale, and to Climatology, in regard to the latter of which the author rightly insists that "we cannot speak of the sun treatment without at the same time considering Climatology; both factors are more or less closely bound up with one another." For this reason, the author, a pioneer in light therapy, does not place the whole credit of his excellent results to the sunlight alone, but includes its Alpine concomitants—the pure, cool, bracing air and suitable diet.

The indications for and results of treatment are considered in various forms of wounds and disease, and special attention has been given to "the great domain of surgical tuberculosis."

The illustrations are good, and the book is well printed with a full bibliography and index.

All those who are occupied in Actino-therapy will find it a storehouse of information

which is produced in an interesting and masterly manner.

It should be read by all those who are responsible for the treatment of surgical tuberculosis.

Correspondence.

The Editor does not accept responsibility for the opinions of correspondents.

THE PREVENTION OF GOITRE.

To the Editor of *Public Health*.

Sir,—The conclusive and successful experimental work of Colonel R. McCarrison on goitre prevention ("An Experiment in Goitre Prevention" *British Medical Journal*, Jan. 15th, 1927, page 94), at the Lawrence Royal Military School, Sanawar, India, confirms his earlier evidence in 1913 and 1914, that endemic goitre is due to bacteriological impurities in the water supply, and that it can be eradicated by the provision of a pure potable water.

Surely this far-reaching conclusion is so important that it merits the collaboration of the Medical Research Council and the Swiss Committee for the investigation of goitre?

As Pathologist to the Royal Sussex County Hospital, and later as a School Medical Officer to the West Sussex County Council, I collected data and reported them on the close association that was obvious in 1911 and 1912 between my analyses of the shallow well waters of the West Sussex villages, which were usually impure by bacteriological and chemical standards, and my school records of the prevalence of enlargement of the thyroid, amounting in many cases to true goitre, in the children and young people in these rural districts.

Since then I have observed further evidence of such relationship between impure water supplies and goitrous enlargement of the thyroid in Plymouth and districts adjacent.

It appears that on such evidence goitre could be eliminated from the United Kingdom by the provision of pure water supplies, where not already eradicated, and that Medical Officers of Health and School Medical Officers can determine this important hygienic question in their areas. I was surprised to learn in Switzerland last summer, that the goitre research workers there had not confirmed and taken action similar to Mc-

Carrison, as drinking water supplies (at any rate, in Swiss rural districts where goitre is endemic) are obviously open to gross pollution, though clear, cold and sparkling.

I am, Sir, Yours faithfully,
F. G. BUSHNELL.

Plymouth.

January 20th, 1927.

RHEUMATIC HEART DISEASE IN CHILDREN.

To the Editor of *Public Health*.

Sir,—With reference to the editorial note which appeared in the January number of *Public Health*, on "The Prevention of Heart Disease," I should be most grateful if you would allow me to draw the attention of readers of the journal to the action that has been taken by the Invalid Children's Aid Association during the past six years in connection with Rheumatic Heart Disease, which, in essentials, is identical with the step that is now being taken in Scotland as described in your note.

We have already in existence two Heart Homes where the results are so promising and encouraging that, in view of the fact that there are to-day in London some 10,000 children suffering from Rheumatic Heart Disease, it is deemed necessary to extend this accommodation.

A property has been acquired at West Wickham, Kent, where the numbers which can be dealt with will be limited only by the funds at our disposal for the endowment of beds, erection of open-air shelters, equipment and re-conditioning of the main building.

A sum of £1,000 has already been promised for the endowment of a bed if three additional donations are forthcoming. We appeal for £20,000 to complete this Hospital and School of Recovery for Children suffering from Rheumatic Heart Disease, and we aim at the prevention as well as the cure of this devastating disease, thus enabling the children to become self-supporting citizens instead of a burden to the State.

I am, Sir, Yours faithfully,
M. MUNRO,
Secretary,

Invalid Children's Aid Association.
Carnegie House,
117, Piccadilly, London, W.1.
January 11th, 1927.

PUBLIC HEALTH

THE JOURNAL OF
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Editorial.

Public Health (Smoke Abatement) Act, 1926.

DIFFICULT as it sometimes is to foresee the ultimate value of a new Act of Parliament, the title of optimist may be claimed by anyone who believes that the smoke nuisance will be swept away by the application of the Public Health (Smoke Abatement) Act, 1926, which will become operative on July 1st, 1927. At the same time, it cannot be denied that some of the provisions may afford help to the authorities.

It will no longer be necessary, when proceeding under the nuisance sections of the Public Health Act, 1875, to show that the

smoke was black smoke. The expression "smoke" for the purposes of sections 91, 92 and 102 of the 1875 Act in future will include soot, ash, grit and gritty particles; the difficulty anticipated here is in providing proof of the origin of these substances from any particular chimney among a group of chimneys.

Those who rely on the effect of prosecutions will be pleased to see a substantial increase in the maximum penalties which may be inflicted, that under section 96 being increased from five pounds to fifty pounds.

The law relating to London is amended along similar lines.

Sub-section 3 of Section 1 may be quoted in full :—

"In any proceedings for sending forth smoke, other than black smoke, from a chimney in such quantity as to be a nuisance, it shall be a defence for the person charged to show that he has used the best practicable means for preventing the nuisance, having regard to the cost and to local conditions and circumstances, and for the purposes of this sub-section, the expression 'best practicable means' has reference not only to the provision and efficient maintenance of adequate and proper plant for preventing the creation and emission of smoke, but also to the manner in which such plant is used."

It will be the duty of the authorised officer on becoming aware of a smoke nuisance, to notify the occupier of the premises, and if the notification be a verbal one, it must be confirmed in writing within 24 hours after he has become aware of it.

Section 2 (1) gives power to local authorities to make bye-laws regulating the emission of smoke of such colour, density, or content as may be prescribed by the bye-laws, and the Minister of Health may require an authority to make such bye-laws. A breach of such bye-laws will constitute a nuisance.

Power is also given to make bye-laws requiring the provision of such arrangements for heating or cooking as are calculated to prevent or reduce the emission of smoke, but such bye-laws can only be made in regard to premises other than private dwelling houses; apparently the time was not deemed to be ripe for including the latter.

A chimney is defined so as to include structures and openings of any kind capable of emitting smoke.

The appointment of skilled and well-paid smoke inspectors to undertake duties within the areas of small authorities will be facilitated by the powers contained in section 6, by which two or more local authorities may combine to carry out their duties.

This will be useful in the West Riding of Yorkshire, and in Lancashire, where so much atmospheric pollution occurs from mills in districts which individually are too small to support a special smoke inspector.

Local authorities in county areas failing to carry out their duties in respect of smoke nuisances, will be liable to have their powers taken over and applied by the county council

for a period, subject to certain procedures. The cost of carrying out the duties will, however, be borne by the local authority.

Unfortunately, as many think, sea-going ships do not come within the scope of the Act, and the Act does not bring about any change in the law regarding such ships.

Research, still so necessary in dealing with the many problems of atmospheric pollution, will be facilitated by the powers which enable authorities, singly or combined, to spend money upon scientific investigations relating to the subject.

It will be seen from this brief summary that the Act cannot be regarded as a sensational and revolutionary piece of legislation. Consisting rather of a series of amendments to the existing law on the subject, it probably, however, has value, and may do good.

* * * * *

Cancer.

THE intense and ever increasing interest taken by the medical profession and the public in cancer, was again demonstrated at the first Hastings Popular Lecture delivered by Sir Berkeley Moynihan, in the Great Hall of the British Medical Association, London, on January 24th, 1927, with the Minister of Health in the Chair.

The lecture was characterised by the beautiful English, dramatic phraseology and lucid eloquence which we have learnt to expect from the President of the Royal College of Surgeons.

The audience, which was chiefly lay, listened with wrapt attention to a masterly exposition of this most difficult subject, in which, after laying bare the alarming extension of the ravages of this "Captain of the men of death," the lecturer went on to speak of the curability of cancer in the following words :— "It surprises many to hear that cancer can be cured; that the patient can be relieved for ever from his disease. But it is true." Though in his following sentences Sir Berkeley slightly qualified this statement by speaking of the increased success of surgical treatment in the last twenty years, the large proportion of cases of malignant disease which are, on account of the situation of the growth or the absence of early symptoms, at present quite incurable was hardly referred to, and that much later in the lecture. We feel, therefore, that this statement that "cancer can be

cured" was not justified at the present time, and that however desirable it may be—as in our opinion it is—to combat the growing pessimism of the public, such overstatements of our reasoned hope can only lead to much bitter disappointment, and bring the new movement for sane cancer propaganda into disrepute. We shall all, however, heartily endorse the lecturer's plea for earlier diagnosis and treatment and his scathing condemnation of cancer quacks, once described by Sir Charles Bell as "a set of the most unfeeling wretches that ever disgraced a country." We agree with him that the way to secure earlier treatment is by education of the public, and that we need not be deterred by the fear of increasing their fear, which is often "so great . . . that it is impossible to add to it." As an example of what can be done in the way of propaganda, Sir Berkeley described the activities in this direction of the Yorkshire Council of the British Empire Cancer Campaign, and especially the "exhibitions" opened in vacant shops in all the principal towns and villages in the county where qualified women doctors give information to visitors, and answer any questions that may be put to them. After emphasising the important fact that cancer is invariably a local disease at first, the lecturer stated that "cancer chooses to attack a diseased rather than a healthy organ," and that "this involves the necessity for us all, patients and doctors alike, to pay attention to health, and to do all we can to keep fit." There can be no doubt about the excellence of this precept, and this statement is certainly more cautious than that of another recent lecturer who said that "if people looked after their general health and ate and drank what they liked, kept their body clean inside and out, and paid attention to the details given they might expect to keep clear of cancer." But Sir Berkeley's statement, we think, ran the risk of being construed by his lay audience in the same sense, and consequently of encouraging the view, for which he would no doubt be the first to admit that there is no evidence, that there exists a real connection between general bodily health and cancer. A clear and most useful statement of the factors by which, in spite of popular belief to the contrary, cancer is uninfluenced was followed by a firm denial of the infectious or contagious nature of the disease. A short but admirably lucid account of the modern control and treatment of cancer, in which the Leeds

figures of the operative results in cancer of the breast were quoted, concluded the lecture, but judging by the comments next day in a portion of the lay press some of the audience did not pay the attention to this concluding statement that it deserved. The great effect which had undoubtedly been produced upon the audience by this brilliant and inspiring address was unfortunately somewhat marred by what we cannot help regarding as a most unwise extension of the proceedings in the form of a general discussion, during which many extravagant and even childish views were expounded, but no facts of the least importance were placed before the audience. How much better and more effective it would have been if they had left with the concluding sentences of the lecturer ringing in their ears: "Victory will not come through the gate of dreams. It will be won from a stubborn and relentless enemy by an army of ardent spirits who think no toil too heavy if spent in the service of humanity."

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Encephalitis Lethargica in Sheffield, 1924.

OUR limited knowledge of encephalitis lethargica, a subject which has been causing grave concern for some years past to the medical profession and the lay public, has been enhanced by the publication of a report by the Medical Research Council,* written in three sections, viz. (1) *Epidemiological*, by Prof. F. E. Wynne; (2) *Pathological*, by Prof. J. S. C. Douglas; and (3) *Clinical*, by Prof. A. J. Hall, followed by a short appendix by Dr. J. B. Perdrau on the *ætiology* of the disease.

This excellent brochure is the outcome of painstaking enquiries, combined with the co-ordinated observations of skilled investigators into the 301 cases of the disease which occurred in Sheffield during 1924.

The mortality rate amounted to 14·9 per cent and was slightly higher among females than males although, as it is pointed out, the figures are too small to form the basis of any general conclusions, and, furthermore, the calculation of a mortality rate on the basis of

* "The Sheffield Outbreak of Epidemic Encephalitis in 1924." Medical Research Council Special Reports Series, No. 108. His Majesty's Stationery Office, 1926. pp. 73. Price 1s. 9d. net.

notified cases is misleading in view of the large number of cases which pass unrecognised in the primary stage of illness; also it is stated that the incidence of the disease was highest among adolescents and young adults, thus corresponding with the general experience elsewhere. The report throws no further light on the mode of infection, except from the negative viewpoint by postulating that there is no reliable evidence that the disease is spread by direct contact. No evidence was adduced to indicate the relationship between the disease and social conditions such as overcrowding, etc.

On the pathological side, as the result of post-mortem examinations in 13 cases, it was concluded that the epidemic was associated with the same pathological characters as others which have occurred in this and other countries.

The clinical features of the outbreak are discussed in considerable detail both as regards the primary and later stages of the disease. Whilst stress is laid upon the protean character of the early symptoms, and the prevalence of mild cases, which do not manifest the classic syndrome associated with the disease and consequently pass unrecognised, the majority of notified cases exhibited the usual characteristics. With regard to sequelæ and prognosis there is much that will enlighten even the most skilled observers; for example, it is shown that one of the most serious of the later symptoms, viz., Parkinsonism, frequently follows a mild and unrecognised attack.

All the available evidence tends to indicate that the infective agent of encephalitis persists long after the acute symptoms have disappeared. It is therefore misleading to refer to the sequelæ of the disease as *post-encephalitic* manifestations. It would be more accurate to term the disease one of *chronic epidemic encephalitis*. Treatment should therefore not stop with the patient's recovery from the acute attack and observation should be sustained for a matter of 2, 3 or more years. The intermission of symptoms often provides the best opportunity of treating the disease and discovering ways and means of eliminating the infective agent and thus preventing the disease from undergoing its slow progressive and malignant forms. Moreover, the period of intermission during which the patient appears more or less well often allays the fears of the sufferer and decoys him into

neglecting himself, only to arouse an attitude of hopelessness when chronic and progressive symptoms develop and when the maximum of damage has already been done.

The report once again brings home to Public Health workers the need which exists for energetically tackling the grave problem of making suitable provision for these unfortunate sufferers from the after-effects of encephalitis lethargica, and for this purpose it is essential that patients should be kept under observation for a number of years in view of the fact that relapses are common, and that severe symptoms often appear after a mild onset or after a prolonged period of apparent good health.

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The League of Nations Study Course, 1927.

ON the afternoon of Sunday, February 20th, at the House of the Society, Dr. George Buchan, on behalf of the President and Fellows, extended a welcome to a number of health officers from various countries, on their arrival to take part in a study tour, or Health Officers' Interchange, arranged by the Health Organisation of the League of Nations. For the reason that the details of the tour were arranged by the Society it was appropriate that the first visit to be paid should be to headquarters, and that the first to greet the visitors should be representatives of the Society. The words chosen by Dr. Buchan to express welcome were, as might be supposed, such as every Medical Officer of Health in the country would desire to have uttered. These visits are greatly appreciated by everyone in the Service here. Out of those that have already taken place much good has come. The visitors have, in the main, been pleased with what we have had to show, and not least by the friendliness of the spirit displayed. Many friendships have sprung from these interchanges, and these are not the least valuable of the results to be expected from them. In the group now with us many, if not all, will make friends and be made friends here, and no less sincere than the welcome given to them will be the regret felt at their departure. The course arranged extends from February 21st to April 8th. Of this period, the first week, as usual, was given to a London programme, and included visits to the Ministry of Health, to institutions of

the Metropolitan Asylums Board, and to other bodies. At the conclusion of this part of the programme, the members of the party divided into smaller groups and left for various provincial centres—Birmingham, Glasgow, Liverpool, etc.—to study the Public Health organisation in these centres.

The members of the group are:—

Dr. Aimé Goessens, Medical Inspector of Labour, Uccle-Bruxelles, Belgium; Dr. T. C. Chin, Director, First Section, National Health Department, Peking, China; Dr. Jiri Riha, Medical Officer of Health, Ministry of Health, Prague, Czecho-Slovakia; Dr. Otokar Slezak, Medical Officer of Health, Velka Sevljus, Sub-Carpathian Ruthenia, Czecho-Slovakia; Dr. Hauduroy, Medical Officer of Health, Colombes (Seine), France; Dr. Obermedizinalrat Schlaeger, Landesarzt in Oldenburg, Germany; Dr. Catsoyannis, Director, Section of Infectious Diseases, Ministry of Health, Athens, Greece; Dr. Emanuele Miceli, Medical Officer of Health, Province of Istria, Pola, Italy; Dr. Jonas Sliupas, University of Lithuania, Kaunas, and Dr. A. Bacevicius, Palanga, Lithuania; Dr. Zygmunt Domanski, Medical Inspector of Health, Nowogrodek, Poland; Dr. Victor Groza, Director, Laboratory of Targu-Mures, and Dr. T. Bogdanovici, Deputy Director of Health, Bucarest, Roumania; Dr. Zivko Prebeg, Medical Officer of Health, Zagreb, Kingdom of the Serbs, Croats and Slovenes; Dr. Rolf Hallgren, Medical Officer of Health, Haellavikstrand, Sweden; and Dr. Hiroshi Kusama, Member of the Health Section of the Secretariat of the League of Nations.

With the party, also representing the League, was Dr. Pantaleoni. Since he is himself a Fellow of the Society, it is perhaps inappropriate to refer to him as a visitor, though it is permissible to say that his visits are extremely welcome, and when chance brings him in charge of an Interchange very many of his fellow members of the Society are extremely pleased to see him.

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Apathy.

MEAGRE attendance at the ordinary meetings of the Society has on several occasions been the subject of comment in the Journal, but nothing has transcended the meeting held in London on February 18th, for the paucity of members present. Conceivably the question of smoke abatement, which was

under discussion, might have attracted a larger audience had it been dealt with at a meeting held in the Midlands or the North of England, where the problem is more acute, but even after offering this possibility in extenuation, it is a matter of great surprise and regret that out of the large proportion of members in the metropolitan and surrounding areas, the number attending was not sufficient to fill one-quarter of the very limited seating accommodation provided in the Society's meeting room. In some instances it may be difficult for the younger members of the Society to arrange to be present at the meetings, but this can only obtain in a minority of cases. That they should attend and take advantage of the opportunity of participating in the various discussions arranged, there is no room for question. On this occasion two of the speakers—not members of the Society—had been induced to undertake long journeys to give the Society the benefit of their experience in particular aspects of the smoke problem, and no one of the few members present envied the Chairman his task of endeavouring to convey to these visitors an adequate and convincing apology for the bad attendance.

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Death of Dr. T. Ridley Bailey.

WITH very great regret we record the death, on January 25th, of Dr. Thomas Ridley Bailey, for over forty years Medical Officer of Health and School Medical Officer to the Bilston Urban District Council, Staffordshire. Dr. Bailey had undergone an operation at the Victoria Nursing Institution, Wolverhampton, some two months earlier, and it was generally known that there was little hope of his recovery.

For a period of many years he had served on the Council of the Society, first as a representative of the Midland Branch, and later as the representative of the British Medical Association. In the latter capacity the help he gave by acting as more or less of a liaison officer between the two bodies was incalculable. Dr. Bailey also held office as President of the Midland Branch during the sessions 1897-98 and 1916-17. He was a member of the Council of the British Medical Association, Chairman of the Public Health Committee, and a member of other committees of the Association. Dr. Bailey was also Medical Officer of the Bilston Isolation Hospital, and held the office of Certifying Factory Surgeon, in addition to

many other appointments. In all these connections he was highly esteemed, and maintained relations of warm friendship with his professional colleagues. Dr. Ridley Bailey was probably the best known of the part-time Medical Officers of Health, and his loss will be keenly felt by a multitude of friends in the Public Health Service.

A memorial service was held at St. Leonard's Church, Bilston, and the extent to which Dr. Bailey's work was appreciated was indicated by the large congregation, including councillors, officials, and representatives of societies, which attended to pay a last token of respect to one who had so faithfully served his generation.

We are indebted to the President (Dr. E. H. Snell), who was unable to attend the funeral owing to illness, for the following personal note:—

My friendship with Thomas Ridley Bailey was one of the oldest and most intimate that I have formed during my connection with Public Health. I well remember how some 30 years ago, on joining the Midland Branch, the beginnings of that friendship arose; and subsequently the very numerous occasions on which we have had to travel together, in connection with meetings of our Society and the B.M.A., to London and elsewhere, have more and more cemented that friendship. Further, we have spent holidays together, and there is nothing more calculated to determine the realities of friendship than joint holidays. The sunny memories of a perfect little holiday with Ridley Bailey, my wife and a niece, at Padstow, in 1923, will never be effaced. Sooner or later the best part of one's life consists of memories.

The more intimate one became with Ridley Bailey, the more one appreciated his fine personal qualities. Always able to regard a question from the point of view of others, and slow perhaps in forming a definite conclusion, when he appreciated the right course to pursue, this course Ridley Bailey followed, whether it was the most popular or not.

It was always a source of wonder to his friends how he found himself able to give so much time to medico-political work in spite of his interests in private practice. It may be feared that his generosity in concerning himself with the communal endeavours of his profession frequently clashed with his personal interests. One of his last letters to me written by himself told of the warning indications of

his fatal illness, but characteristically enough, most of the letter dealt with his inability to attend certain meetings, and more especially his distress in having to be absent from the Annual Dinner of our Society, a function that he had not missed for many years.

In this respect Ridley Bailey gave a fine example of professional loyalty and disinterestedness to all his colleagues. His loss is one which the profession can ill afford, and is a lasting grief to his many friends.

MR. EDWIN W. HARWOOD, L.D.S., an Associate of the Society, lectured on "Teeth and Health," at Oxford House (Bethnal Green University Settlement), on February 17th, at the invitation of the Head (Sir Wyndham Deedes). The lecture, which was illustrated by lantern slides, was listened to with great interest.

A FELLOW of the Society is anxious to find employment for a retired Regular soldier who recently returned from India. The man is a trained laboratory worker, and has been for some years head laboratory assistant in an Army laboratory responsible for the sampling and analyses of food supplies. Enquiries may be addressed to the Executive Secretary, 1, Upper Montague Street, Russell Square, W.C.1.

THE Model Abattoir Society, of which Sir James Crichton-Browne is President, and Professor Henry Kenwood, Chairman, is prepared to lend its model of an abattoir for health exhibitions, and to provide a lecturer at any public meeting promoted to advocate the erection of a public abattoir. Full information may be obtained from the Hon. Secretary, The Rev. George Martin, 90, Buckingham Palace Road, London, S.W.1.

At the forthcoming meeting of the British Medical Association in Edinburgh, Professor Lelean, who occupies the Chair of Public Health in the University, will be President of the Preventive Medicine Section. Dr. William Robertson, Medical Officer of Health of the City of Edinburgh, on account of his Public Health duties, has found it impossible to accept the invitation to act as one of the Vice-Presidents of the Section.

Research Work in Preventive Medicine.

By W. G. SAVAGE, M.D., B.Sc., D.P.H., Medical Officer of Health, Somersetshire County Council; PROFESSOR W. W. C. TOPLEY, M.D., F.R.C.P., Professor in Bacteriology, Victoria University, Manchester; and PROFESSOR MAJOR GREENWOOD, F.R.C.P., F.S.S., Medical Officer (Medical Statistics), Ministry of Health.

These three papers, which formed the bulk of the contribution to the discussion on this subject at the November meeting of the Society in London, will be greatly appreciated, not only because they contain a suggestion that there has been done little in the way of actual research by Medical Officers of Health, but because they represent the views of workers of great distinction in this field.

DR. W. G. SAVAGE.

The Point of View of the Medical Officer of Health.

Research work in relation to Preventive Medicine is the foundation of its being, a touchstone to test its validity and its only hope for the future. It is therefore of paramount interest to the Medical Officer of Health, who stands as the official exponent of the application of Preventive Medicine. I will discuss it in relation to him from four points of view, the field, the man, the opportunity, and the reward.

The Field.—No doubts can arise either as to the extent of the field or as to the value to be reaped from research in the sphere of Preventive Medicine. Every senior Medical Officer of Health is aware of the limitations of our knowledge and, in particular, of the slender and unstable foundation of established facts upon which many of our administrative procedures—procedures involving huge annual expenditure—are reared. There would be far fewer false starts made, and wrong turnings taken, if we established our facts by research on a firm basis before we adopted administrative measures as a general procedure for the whole country. To do so leads inevitably to a useful fluid hypothesis being crystallised into a solid mould very difficult to re-shape, even when the original hypothesis has been shown to be unsound or inadequate.

Here, however, we meet with a difficulty which often arises in connection with the problems of Preventive Medicine. This difficulty is the fact that frequently the validity of an attractive hypothesis can only be adequately tested by basing administrative action upon it and studying the results. Experience from its working furnishes the proof, or otherwise, of the primary hypothesis.

This is true, but my point is that this can best be met by adopting the necessary administrative action to test out the hypothesis in sections only of the country and *treating it as a research problem*, governed by the laws of research. I shall, no doubt, be told that this is done when local powers are obtained, but I cannot acquiesce. Such cases are rarely treated as research problems, but as something to be boomed as an administrative acquisition.

I will illustrate both my views, and the extent of the research field by a few examples.

The widespread installation of Isolation Hospitals as the main weapon for dealing with notifiable infectious diseases took us along a turning which involved great expense and, in proportion to the results achieved, unremunerative expense, upon isolation hospital buildings and their maintenance, to the neglect of other methods of control. Yet upon what a slender basis of ascertained fact is this huge expenditure founded; essentially upon an ill-substantiated hypothesis that the chief cause of the spread of infection is from the recognised notified case. Research, if it had been undertaken, would soon have demonstrated the unsoundness of the original hypothesis and we should have arrived earlier at a juster idea of the paths of infection. Instead it was accepted without any real research and it has taken several decades of work, mostly on other lines of inquiry, to demonstrate the futility of isolation hospitals (for most diseases) from the particular point of view for which they were established, whatever their value as treatment centres.

The drain and diphtheria theory is more difficult to criticise, since at the time it was promulgated it would have been difficult to devise any research capable of providing convincing proof of its inadequacy. More

careful studies and tabulations of the relationships of the two conditions, not only when they occurred but when they failed to coincide, should have led earlier to a correct conception and prevented deviation of effort along a channel which mainly enriched the plumber and made the positions of the Sanitary Inspector and Medical Officer of Health nearly identical. Of course, with these examples I am laying myself open to the charge of employing the knowledge of the present to throw scorn on the views of the past, at a time when the sum of knowledge made those views inevitable. That may be true, but my whole point is that if the research attitude to Public Health problems had been active and in continuous application we should much earlier have reached a wider and truer conception of the position. Research work induces the research mind, the latter the cautious attitude which demands proof; this implies the seeking of those proofs and by the search a foundation of knowledge which refutes or confirms.

The Public Health problems of to-day require the same research attitude. Take the problem of simple goitre. It is prevalent; the medical world is full of theories. We must not adopt the noisiest, but utilise our wide field of work to seek the truth. I am testing sodium iodide as a preventive, but as an experiment with suitable controls, etc., not as an accepted administrative measure. I do not know the cause or the cure of simple hypertrophy of the thyroid gland.

Another problem much under discussion to-day is the causation and prevention of acute rheumatism in children. It has been suggested as one factor that it is associated with damp houses. An excellent hypothesis (though to me it seems unlikely) if we regard it purely as a hypothesis and as such, a basis for critical research.

I have from design chosen my examples from the sphere of epidemiological and field study, rather than from laboratory investigations, as the impression seems to prevail that research work in Public Health means laboratory work. There is an immense sphere for laboratory research, but the increasing complexity of this work makes it difficult for investigations to be carried out other than by those who devote themselves solely to this branch of practice. I believe, however, that laboratory research is one of the best introductions possible to Public Health and its training in accuracy invaluable to the future administrator and field research worker.

Before leaving the field of research I would like to refer to one further aspect of it. One of the most striking features in connection with Public Health work is the enormous wastage of research material. To mention but one example, consider the piles of data elicited in connection with school medical work, the results of which are flung in an ill-digested heap into an Annual Report; flung with a sigh of relief that *that* job is done for a year. A little more attention to research requirements, such as adequate controls, special inquiries in particular cases and uniformity of method, and from this otherwise not very valuable mass of material good ore would be minted. But there is no time on the part of chief or assistants for the little bit more to gain the how much more. Rapid routine work and research deductions from the same material are almost incompatible. Many of the deductions made from mass statistics are of very debatable value because the figures are derived from hasty routine work done without adequate controls. I would press this point upon statisticians and beg them to realise the imperfections of the figures we present from summaries of ordinary routine work. Personally, I draw a sharp distinction between data from ordinary routine work and those obtained from work which may be routine but which has in addition the necessary measure of supervision and attention which is implied when they are carried out with a research outlook. Our eminent statisticians are inclined to pay too high a compliment to the value of our ordinary routine figures. They work on them with amazing assiduity. Their mathematical genius sees the need for allowances for this possible error and for factors for that; incidentally they use up all the letters of our alphabet and usually have to borrow from the Greek as well, and then arrive at conclusions which occasionally we know cannot be true. I fear it is our unreliable uncontrolled routine records which are at fault.

The Man.—It is often assumed that anyone can do research work. My personal opinion, from a long experience, is that only about ten per cent of any average group of qualified medical men are capable of efficient research work. Many of the ten per cent drift to the laboratories, some to the Public Health services. While I think, therefore, that the proportion of potential research workers in Public Health appointments is higher than this figure it is still a definite minority. Nor

do I think that efficient research investigators can be made by training, although existing capabilities can be developed.

I state my opinion because if it is true, it is important to recognise the fact and its implications. I do not urge or acquiesce in the view that every officer in the Public Health service should undertake research work. I found in several universities in U.S.A. that it was a practice to demand research work of all those who took up post-graduate work in Public Health, a Ph.D. being awarded. The educational exercise is no doubt beneficial and not objectionable, if only the results of the research in some of the cases could be suppressed from publication.

I suggest that while we should elevate research as an essential and prominent feature of Preventive Medicine with a definite place of its own, we must recognise that it is not the job for every man in the Public Health Service. We must rather try and select the suitable individuals, and both enlarge their facilities and second their efforts. To find and then to utilise research workers in the Preventive Medicine field is one of the paramount needs of Public Health.

The Opportunity.—The field is there; labourers capable of reaping in it are available in sufficient numbers. Why is the harvest so scanty as regards the research productions of the Medical Officer of Health? Of the several factors which operate, the main one is the lack of time which can be devoted to research. The Local Authorities who appoint and control Medical Officers of Health and other officers in the Public Health service have but the dimmest idea of the importance of research. They pay lip service to it but, with rare exceptions, contribute nothing but severe discouragement to its prosecution, if it involves any money contribution of its equivalent of additional personnel. You can count on the fingers of one hand the local authorities who designedly have allowed an officer to prosecute research investigations, and at the same time have provided the additional staff to allow that officer the necessary time to undertake them. To utilise fully the great stores of untapped research material which is available in connection with administrative Public Health work requires an effort of education of Local Authorities as to the value of research which is as difficult to achieve as it would be fruitful if attained. Nor do I think that our Central

Health and Educational Authorities give much assistance in the direction of the stimulation of our Local Authorities to be appreciative of the value of research and the necessity of providing the requisite facilities.

I fear also that blame cannot be shifted altogether from our own shoulders, especially from those of the younger men who are less harassed by the overwhelming burdens of central office administration. The requirements of routine work prevent much research being done within the limits of ordinary official time, but there is a lack of willingness to devote leisure time to research problems. It demands sacrifice and zeal, but much could be done that is not done. Great credit is due to those workers who, in the face of much passive discouragement, persist and produce research data of real value.

I have been told that many would-be workers in this field are willing and keen, but lack the knowledge of what to investigate. I cannot feel this is a very important factor since the field is so large that it should not be difficult to obtain competent advice.

The Reward.—From a material point of view rewards to the Medical Officer of Health for research work are of the scantiest. An entrant to the Public Health Service pondering the lines along which he can advance himself most rapidly to a position and of remunerative importance in the service cannot be advised that research work is likely to help him in any degree commensurate with the efforts and sacrifices demanded, compared with other lines of progress. You will not find many of the higher posts filled by men with any considerable amount of detailed research work to their credit. Other factors play a much more influential part.

On the other hand, rewards there are which are none the less valuable. The satisfaction of a definite investigation carried out (usually under difficulties) and giving results which entitle the worker to hold definite first-hand opinions on the subject is real and sustaining. Virtue is said to be its own reward—often *its* only reward—and scientific research is closely allied to virtue.

PROF. W. W. C. TOPLEY.

The Point of View of the Laboratory Director.

I would first express my thanks to your Society for the invitation to contribute to this discussion. I doubt whether the average Medical Officer of Health realises what a

fortunate person he is, *qua* opportunities for medical research, as compared with the medical man engaged in private practice. Historically the greatest triumphs of bacteriology and immunity have been in the field of preventive, rather than in that of curative medicine, and history, here as elsewhere, is likely to repeat itself. The only sound basis for the study of infective disease is to treat it as a biological problem in the wide sense, and the Medical Officer of Health is in a quite exceptionally favourable position for taking this wider view.

I have of recent years been so closely connected with the work of Medical Officers of Health, a connection which I greatly hope will continue, that I feel myself to be one of the family. You will, therefore, I hope, pardon me if I indulge in a little of that candour, occasionally bordering upon rudeness, which is an inevitable constituent of family life, if only because we cannot refrain from criticism in things which touch us nearly.

It is clear that, if research is to play its proper part in the Public Health Service, it must be given reasonable help and encouragement. So far as bacteriology is concerned, I would say, quite frankly, that within the Service as at present organised, such encouragement is conspicuous by its absence. As will appear, I believe that this unfortunate neglect is mainly the result of the system generally adopted at the present time.

There is a tremendous amount of rubbish, some of it very harmful rubbish, talked about research. It is, I think, essential that a broad distinction should be drawn between routine examinations, and investigations leading to an advance in knowledge. It is, of course, perfectly true that, in the early days after a new diagnostic method has been introduced, the careful examination of samples, and a careful correlation of laboratory results with clinical and epidemiological findings, forms an essential step in the advancement of knowledge; but once this step has been taken, once the examination in question has become part of that general body of applied bacteriological technique which is admirably described by the word "routine," it is no more research than is any other form of repeated and semi-mechanical exercise which demands some degree of expert knowledge. It is essential work, and work which must be well and honestly done, but, once it has been mastered, it will not attract men with active

and enquiring minds. If such men are to be drawn into the laboratory side of Public Health work, they must not be condemned to too much of this particular form of activity.

It is, I think, fairly clear that a healthy state of affairs can be brought about only by making the bacteriological laboratory an integral part of the Public Health Service. The young post-graduate, when deciding to enter that Service, should feel that a laboratory post is one of the alternatives which it offers him in later years. The advantages of this plan have been amply illustrated in the case of the Royal Army Medical Corps, to take only one example, and I need only recall the name of its late Director-General, Sir William Leishman, as an instance of the benefits which accrue to a Service from the presence within its ranks of an able and original laboratory investigator.

The essential point is that the man who has developed a love for the scientific side of medicine during his undergraduate career, and who is willing to devote a year or two of post-graduate study to acquiring a sound knowledge of laboratory methods provided that he sees some chance of congenial work along these lines in after-life, should come to look upon the Public Health Service as one of the avenues open to him. If you can bring this about, you will not lack the men who will take advantage of the unequalled opportunity for research which the field of preventive medicine offers.

Another, and even greater advantage, would inevitably result from such a re-organisation. It is almost certain that there would be a considerable drift to and from the laboratory to the administrative side, and back again. Under such a scheme, the liaison between the laboratory, the clinic, and the office, would become far closer than it is at present, to the great good of the service as a whole.

To take only the wide field of epidemiology. Surely it is clear that a man who has spent several years in a laboratory, who has learned what it can and what it cannot do, is at a very great advantage when he comes to investigate infective disease in the field. Yet the present system makes this transference of activity almost impossible. I should myself go so far as to say that, for the Medical Officer of Health of the future, a few years of laboratory experience will be essential, if he is to carry out his administrative work efficiently and

intelligently; but here, perhaps, I can hardly hope to carry you with me and, indeed, I am obviously prejudiced.

I am, however, quite sure that the present state of affairs, in which the greater part of the laboratory work in connection with Public Health Administration is carried on in University Departments, in other endowed Institutions, or in commercial laboratories, is not the right solution in the long run, however useful it may be as a temporary expedient. It seems to me to be unhealthy both for the Institutions which do the work, and for the Authorities which make use of the facilities which they provide. The advantages must be frankly acknowledged. The work is, on the whole, very well done; much better than it could be done by any small Authority acting for itself, and more economically than it could be done by any but a very large Authority. The Institution which undertakes it gains financially, mainly by the sharing of the heavy overhead charges associated with any large bacteriological laboratory, and there is no doubt that a training in routine diagnostic work is of the greatest value to a budding bacteriologist. But the arguments on the other side seem to me to be decisive. Those which concern the Public Health Service I have set out already. From the point of view of the University Department, or of the Research Institute, the crucial point is this. So long as such work is carried on it must be a first charge on the energies of the laboratory concerned. Week-days and Sundays, in term time and vacation, the routine work must be done, and done well. It is my firm conviction that the primary duty of Universities and of Research Institutes, in addition to the training of students, is the advancement of knowledge, without regard to its immediate application; and the root difficulty of the indefinite prolongation of the present position seems to me to be the old and insuperable one of a man serving two masters.

It might be suggested that to remove Public Health bacteriology from University Departments and Research Institutes is hardly the best way to promote research in that particular aspect of bacteriological work. This objection is, I think, based on an entire misunderstanding of the actual position. The research undertaken in such Departments does not in any way arise out of the routine examinations which they may carry out. I do not say that material of interest is not sometimes provided

from this source, but this does not often happen. Moreover, and this is the essential point, the research work of such a Department must be developed along its own lines, and cannot be governed by the relative urgency of particular problems in applied bacteriology. There will, of course, be plenty of room for co-operation between Municipal or State Laboratories and University Departments, and the closer the liaison is the better it will be for both. But it seems to me absurd that the Public Health Service should not have ample facilities for solving its own special laboratory problems. There is, of course, no reason at all why a Municipal or State Laboratory, developed along proper lines, should not attain to the first rank as a Research Institute. Actual examples will occur to anyone who is familiar with the existing organisations of other countries. If the laboratories were properly planned and adequately equipped, and the staff were given reasonable salaries and congenial conditions, there is little doubt that the desired result could speedily be obtained.

But it must be remembered that it is an easy step from the frying pan to the fire, and so far as the welfare of Public Hygiene is concerned it is quite probable that the step will be taken. If the present position is far from ideal, the position which may well develop if Local Authorities take over their own bacteriological work would be far worse. It is because I think I can see the dangers in a transition, which I believe to be inevitable and altogether right, that I would ask you to consider the following suggestions. I am, I know, treading on holy ground, for one cannot avoid the consideration of purely administrative questions; but I can claim some experience of laboratory work in connection with Public Health administration, and I would ask you to believe that my remarks are prompted by a very real regard for a Service that has led the world, and may well lead it again.

Assuming, as I believe we should do, that the right solution is for the Public Health Service to take over its own Laboratory work, the essential point will be to see to it that each institute combines original research with routine investigation just as a University Department combines research with teaching.

First and foremost it is certain that each individual laboratory must be large. A small laboratory, with a small staff, cannot possibly

combine routine work and research, indeed it cannot carry out routine examinations satisfactorily except over a limited range. Fortunately, the somewhat clamant call for national economy points in exactly the same direction; for the small laboratory is very expensive, as well as relatively inefficient. The overhead charges of such an institution form a high proportion of the total cost; and the larger the number of examinations over which they can be spread, the less will each examination cost. This is particularly true of such diagnostic tests as the Wassermann Reaction, which may be taken as typical of one side of laboratory work of this kind. The cost per test is approximately in inverse proportion to the number carried out over a wide range, so that the actual cost per test may be five times greater in a small laboratory than in a large one. In the class of work with which we are concerned, the daily performance of a large number of examinations, all of the same kind, has an additional advantage. It is in itself a most valuable safeguard against any error, due to faulty reagents or to some similar cause. It is almost impossible, under these circumstances, for such errors to escape immediate detection. The provision of adequate space and equipment for the preparation of media, and for sterilisation, the installation of large and powerful centrifuges and similar apparatus, and, in particular, the proper housing and care of a sufficient supply of experimental animals, all involve large initial outlay and high upkeep charges. To set up such a laboratory to deal with small numbers of specimens must of necessity be a grossly uneconomical proceeding.

But the effect upon the staff is, to my mind, far more important. If its members are to be relieved of routine work, to the extent of allowing them a reasonable proportion of their time for research, there must be considerable elasticity in the allocation of work, and this postulates a relatively large staff. It will, moreover, be a very great advantage if different laboratories can be so linked together that interchange of staff is facilitated. It may be added that such linking will tend to economy of working, since certain Institutes can take over certain special work, or the preparation and distribution of certain special reagents.

One more point may be touched on here, since I believe it to be essential to the successful working of any such scheme. I am

convinced that the work of such laboratories should be confined, by rigid schedule, to those examinations which are concerned with the ordinary routine of Public Health work, as distinguished from the kind of work which is usually included under the head of Clinical Pathology. It is easy to suggest that no hard and fast distinction is possible; but, as a matter of fact, little difficulty would be encountered by any experienced person in drawing an arbitrary but perfectly satisfactory line. There is a considerable bulk of work, such as the examination of water supplies, of milk, or of foods, which obviously falls to the Public Health Laboratory. With regard to the examination of specimens taken from patients, I think the distinction should be made, first, on the grounds that the result of the test is of concern to the public health, as well as to the patient himself, and secondly, on the grounds that the test is of such a nature that an answer by post conveys all the information that is needed. I am quite sure that such laboratories as we are thinking of are not fitted to deal with those pathological and bacteriological problems, frequently arising in the course of diagnosis and treatment of the individual patient, which require for their solution the closest co-operation between the laboratory worker and the clinician, and an amount of clinical knowledge on the part of the former which the Public Health bacteriologist is very unlikely to have at his disposal. This part of the problem, therefore, I am not attempting to touch. My personal belief is that, so far as an extended provision of facilities is necessary, it should be sought in co-operation with local hospitals.

The main lines of the solution of the immediate problem are, then, sufficiently clear. As I see them, at least, they lie in the setting up of a closely interrelated system of laboratories, large in size, and with large and well paid staffs, as an integral part of our Public Health Service. I may add that, if these fundamental conditions were carried out, I have no doubt at all that an increase in the general efficiency of the work, and a very effective stimulus to research in preventive medicine, could be combined with a considerable saving to the national exchequer and to the budgets of local authorities. But it will be clear that the areas to be served by such laboratories cannot be determined by the boundaries at present delimited for administrative purposes. If the present local

authorities attempt to set up, each its own little laboratory, or an ill-related complex of large and small laboratories, determined solely by the needs of the areas which they are at present intended to serve, then the position will become much worse than it is to-day; a less efficient service will be secured at a higher cost; and the chance of promoting research in the bacteriological problems of preventive medicine will be lost for a generation at least. It is because I believe that this danger is real and imminent, and that the policy pursued during the next decade will make a lasting mark on the character of the Public Health Service of this country, that I would ask your Society to put forward a considered policy with regard to this question, paying due regard to the claims of the search for knowledge, without which any organised medical work loses its main source of inspiration.

PROF. MAJOR GREENWOOD.

The Point of View of the Statistician.

It will be most convenient for me to devote my quarter of an hour wholly to the use of the statistical method by a Medical Officer of Health, not by a whole-time specialist; the amateur is numerically more important than the professional, and the British amateur has been intrinsically more important. Even in statistics we should not forget that Francis Galton was a typical amateur, and that some ten years of Karl Pearson's most productive statistical period were passed while his professional duty, a duty most strenuously performed, was teaching statics, dynamics and mathematical astronomy. I mean by research the discovery of relations between phenomena (*facts*) which may either have been long known as phenomena, or first revealed by the discoverer of the relations between them. When the relations disclosed have led to the promulgation of rules of practice which have saved lives and diminished human pain and sorrow, the research has been *valuable* research.

Most purely statistical research has been directed to the discovery of relations between facts long known as facts, for the medical statistician has seldom been able to experiment. Polluted water supplies and outbreaks of disease of the enteric type were old facts in the days of our grandfathers. Two generations ago such men as Budd, Simon and Farr, by statistical investigation linked together these

empirical facts and promulgated a rule of practice which saved thousands of lives and incalculable suffering. Probably in the immense catalogue of recorded facts there are others waiting to be linked together, but they are no longer so easy to find. A young Medical Officer of Health turning over the pages of the annual report of the Registrar-General is not very likely to discover an important relation between causes of mortality and demographical or sanitary indices which has escaped the notice of Farr, Ogle, Tatham and Stevenson. That between 1840 and 1880 Farr was able, every year or two, to point out some statistical relation of importance and to give hints which Simon and other great health officers turned to practical use was not wholly due to the fact that Farr was a genius; it was partly because he was early in the field. The physiologists of our day are probably as gifted as, and certainly more technically efficient than, the physiologists of fifty or sixty years ago, but they cannot hope to make two important discoveries a week like the Claude Bernards, du Bois Reymonds and Müllers of the past. But there is a certain compensation. When Farr and Simon made their discoveries our own sanitary statistics were virtually the only sanitary statistics there were. Now some other great countries have excellent sanitary statistics and the number of great cities with statistics as good as those of towns in England and Scotland is large. Mathew Arnold advised anybody who wished really to understand English Literature to master some other literature, one if possible unlike our own. The health statistician who would squeeze practical sense out of the arithmetical relation between, say, infant mortality and the very numerous associated variables, occupation, degree of urbanisation, etc., etc., must not forget that children die in other countries which, like ourselves, provide reliable statistics but, socially, economically, and climatically are very different from England and Wales. Foreign medical statistics are improving every year; the Health Officer who studies them; does not merely quote what Jones says Smith says Robinson says about them; but *studies* them, will be able to assess the importance, or perhaps the unimportance, of relations observed in home-produced statistics. I am not very likely to under-rate the importance of statistical technique, so perhaps I can say with effect that if the Medical Officer of Health has

to ration the time to be devoted to (a) learning statistical methods (b) familiarising himself with the contents, the methods of compilation and the material imperfections of foreign data, the second task should have more of the available time.

If I were an autocrat, I should not make algebra, not even the binomial theorem, a compulsory subject for the D.P.H., but I should make ability to read German and French *easily* an essential requirement.

I am afraid all young Medical Officers of Health do not read the Annual Reports of the Registrar-General of England and Wales. I am sure hardly any of them read the Annual Reports of any other Registrar-General. I am equally sure that without doing so none of them can do the *kind* of research that Farr and his contemporaries did sixty years ago.

These are the hints I would give to those seeking to discover new and important relations between the facts recorded by others. But it is perhaps more important and certainly more interesting to gather facts for oneself, to read Nature's book rather than the books written by men.

Of research reports published by the Medical Research Council and of immediate professional interest to Medical Officers of Health, Commander Dudley's study of Diphtheria in a boarding-school and Dr. Corry Mann's comparison of the average growths of sets of boys receiving particular diets, at once stand out. Dr. Mann's work, which involved modification of the school routine and large special expenditure, is not, of course, within the compass of a private investigator. But both researches have this in common, that their success depended on the continuous observation of a small community, the individual changes in which were exactly known. The value of a boarding-school as a theatre of epidemiological observation is great. The population is precisely known, the changes in its constitution, everything about it can be recorded. Yet nobody has ever studied, or at least ever published an account of, the natural history of illness in such a community as observed over a long period of time, and statistically documented. We have plenty of reports, sometimes rather hastily written, of *special* outbreaks of illness, scarlet fever, measles, mumps, etc., but not continuous records.

Professor Topley and I have been studying for years the natural history of epidemic

disease in closed communities of mice; we believe that in this way we shall at least reach an understanding of some fundamental principles and we have the advantage that we can at will modify the conditions. But we have the disadvantage that much which passes in a world of mice must escape the notice of their human masters. All our cases of disease are fatal cases. The sanitary history of a school might be a much more detailed study. I suppose the boarding-schools of the "Gentlemen of England" cannot be made foci of knowledge, I mean epidemiological knowledge of course, but a historiographer of the Poor Law Schools of the Union of Slocum and Puddlington might teach us a great deal about the genesis of, say, minor respiratory epidemic illnesses which is still obscure, and what happened *before* scarlet fever or measles came along. This is a particular case of the study of morbidity as a condition precedent to mortality, which Sir George Newman has pressed upon our attention. Next I would refer to the need of research which, if it does not strictly come within my definition, by disclosing *new* relations between old facts, adds to knowledge by measuring the intensity of the relation. The aim is to measure the actual and potential benefit to the community of therapeutic measures which we know in principle to be sound. Much of the work of the Departmental Committee on Cancer is of this kind. We have been seeking answers to such questions as these:—How long do patients suffering from such or such a form of cancer live? How long would they have lived if they had been treated in such or such a way? What proportion of patients are so treated? Why is this proportion so small? It is obvious that these questions cannot be answered at all without the co-operation of Medical Officers of Health, and you know that they are, in fact, co-operating strenuously. But to answer these questions fully, it is not enough that a few civil servants and Medical Officers of Health of great cities should occupy themselves with the problem. Many sanitarians must think it over and seek data in their own district. At present we can be quite certain that a great many lives are sacrificed which might have been saved. We do *not* know what part of the responsibility should be borne by the patient, by the doctor and by the Public Health Service (as the representative of the community or its adviser). These are *practical* questions, difficult to answer, but

energy spent in trying to answer them would be much better spent than in statistical efforts to incriminate (or acquit) common salt, chronic constipation, butchers' meat, cockroaches, houses, heredity, modern strain of life, or any other of the "causes" of cancer.

I have almost reached my limit of time, and it may seem odd that I place last in time, and therefore first in order of psychological importance, for the last words of a speaker are always those remembered longest, what must seem a very humble piece of statistical research to those of you who are learned in the theory of multiple regression and solve integral equations on the backs of envelopes. My reason is that I wish to encourage my younger colleagues to do statistical work which will be likely to yield a positive return. Most of my own work has been purely critical, and this is not entirely because I am a poor statistician, because if one turns to the work of the greatest living master of statistical theory and practice, to the work of Karl Pearson, one will hardly find a single case, except that of vaccination, in which any activity of the Public Health Service when submitted to the scrutiny of the modern statistical microscope has passed the test and received the microscopist's blessing. Much of this was inevitable; destruction must often go before construction. Still, we should not confuse the two verdicts "not guilty" and "not proven." Still less should we think that a medical statistician is a superior person who condemns the work of other men in a jargon only the swear words of which are intelligible. Hence I emphasise the positive rather than the negative value of statistical research.

DISCUSSION.

THE PRESIDENT, on behalf of the members, accorded the several speakers a very hearty vote of thanks for their contributions on the subject, which was then declared open for discussion.

DR. J. T. C. NASH (County Medical Officer of Health, Norfolk), said he could thoroughly endorse the remarks made by Dr. Savage, and would like to refer to the question of hospitals which he had raised. Some considerable time ago Dr. Millard had read before the Society a most interesting paper on the lack of control of scarlet fever by isolation. Of course, the hospital as a means of treatment of disease was quite another matter. In Norfolk there were very few isolation hospitals, and probably not

more than 10 per cent of the cases were isolated in hospital. The county was sparsely populated, and, generally speaking, the homes of the people were sufficiently isolated to permit of control of disease from that point of view. In the Norfolk schools there was in operation a system of notification by teachers of all cases of infectious disease, and consequently a vast amount of information was obtained in that way. No deaths from scarlet fever had occurred in the county during last year, and the notifications of that disease from medical practitioners numbered 550, though a great many more came to light through the school notifications. In an adjoining county he believed there were eight joint hospitals which isolated from 80 to 90 per cent of the cases. A comparison of the death rates and incidence rates showed that the figures were entirely in favour of Norfolk, whether the disease concerned was scarlet fever, diphtheria, or enteric fever. Isolation hospitals were only of use if they were large and well staffed. The small isolation hospital was a rather expensive building, and frequently without a properly experienced administrator and nursing and other staff. To Prof. Major Greenwood's suggested qualifications for the research worker, viz., a knowledge of French and German, he would like to add another—a good knowledge of logic.

DR. ANDREW BALFOUR (Director, London School of Hygiene and Tropical Medicine), remarked that it had been put to him that in no single case had the organism of a communicable disease ever been discovered by a Medical Officer of Health in this country. It might equally well have been said that in no single case had the discovery ever been made by *anyone* in this country. Dr. Savage, Prof. Topley, and Prof. Major Greenwood had shown in some measure, at any rate, that the Medical Officers of Health of this country, who undoubtedly had great facilities for getting into contact with the communicable diseases, had contributed to the knowledge in the matter of research. It had not been the fault of the Medical Officer of Health that he had not done more, and it was necessary to ascertain how matters could be improved in the future. At the new School of Hygiene they could not be expected to create research workers, who were born, not made, but what could be done was to find out amongst those studying for the D.P.H., the men who were potential research workers, and endeavour to get them into the

research branch. Then again, when the men had passed out into the Public Health Service, and also in the case of those already in it, it might be possible to help and to suggest fruitful lines of research. Information and assistance could be furnished in other ways. In the first place, local authorities must be educated as far as possible; they must be told that it would pay them if they would give the Medical Officer of Health some time off, and afford him facilities for seeing what was being done. There appeared to be no reason why members of local authorities should not be invited to the school to see the great graphic museum, and have demonstrations given to them to show how disease had been combated. Eventually it would be realised that it paid to give their hard-worked Medical Officer of Health an opportunity of going to a centre to keep in touch with matters relating to research. In addition to the refresher courses that had been proposed for Medical Officers of Health, he had for a long time felt that there should be some place in London where a research worker could have a chance of being trained to read scientific French and German, and, if necessary, other languages. No such place existed in London, and he failed to see why a place could not be found in the School of Hygiene for that purpose.

DR. J. WHEATLEY (Medical Officer of Health, Shropshire) expressed the hope that Prof. Topley would give some indication of what he considered a suitable unit in size for the laboratory to which he had referred, and added that it would be advantageous to have a laboratory to correspond with the administrative area, although it was probable that many administrative areas were too small. With regard to Dr. Balfour's remarks, he desired to point out that Medical Officers of Health had done research into infectious diseases, but this had not gone along the lines of laboratory research. A great deal had been carried out before anything was known of the organisms of disease, and the work of Niven, in this connection, on the spread of tuberculosis, was most illuminating. He desired to mention that point because it was apt to be imagined that research into infectious disease was altogether concerned with the organism causing it.

DR. ERNEST WARD (Tuberculosis Officer, South Devon Area, Devon County Council) said the difficulty appeared to be to find people

who could carry out research, and America experienced the same trouble. It was often thought that enthusiasm was a sufficient qualification, but other qualities required were common-sense, a business-like ability, perseverance, and patience unlimited, and a natural aptitude which could not be more accurately defined. Dr. Ward concluded with a warning that it was necessary to beware especially of research by questionnaire.

DR. R. J. MAULE HORNE (Medical Officer of Health, Poole) said that it would have been interesting if, in addition to the heads under which the subject had been considered, there had been another—"From the Point of View of Public Opinion." His own experience so far as lay members of local authorities were concerned was not encouraging, and efforts in the direction of educating public opinion in the need for research work, though desirable, gave little promise of immediate success.

THE PRESIDENT said he could not agree with the openers, who seemed to think that research workers were born and not made. There was a difference between organised and unorganised research workers, and it was possible for the ordinary medical worker to make some discovery that he was not looking for. A vast responsibility rested upon the Medical Research Council to direct work into channels likely to prove most fruitful, and so far as Medical Officers of Health were concerned, they were in a way, doing unorganised research work. A fair proportion of the work of the Medical Officer of Health was statistical, and anyone who cared to take the trouble could get a lot of useful information out of the statistics. He was reminded that some years ago there had been a woman assistant Medical Officer who had held that there was a distinct connection between verminous heads and carious teeth. She had noticed that the children with the most verminous heads had the best teeth. The reason, he would submit, was that the children with the dirty heads were the most neglected children, who, instead of being pampered in their feeding, were given crusts to gnaw. There was probably something in that.

The President then called upon the openers to reply.

DR. SAVAGE referred to the questionnaire as illustrating the kind of objectionable pseudo-research work that was going on. The results,

in his opinion, were entirely and absolutely worthless. He had been interested in the suggestion of Dr. Balfour in regard to the education of lay authorities to enable them to appreciate the value and importance of medical research, but felt that the task would be a formidable one. The President had stated that he could not agree that research workers were born and not made, but Dr. Savage said he was still of that opinion very strongly, and did not feel that the President's humorous example would shake him in that view. He was greatly interested in the question of laboratories, and the areas they should serve, and would like to endorse the opinion that small laboratories were wasteful. He desired also to emphasise the importance of French and German in connection with research work in order to be able to appreciate and benefit by the results of other countries.

Ut Ita Dicam.

(Being Comments, apropos and otherwise, on Sundry Matters.)

The Practice of Immunization.

That was an excellent paper read by Dr. Robertson, of Edinburgh, as an opening to the discussion at a recent sessional meeting of the Royal Sanitary Institute in London on "Immunization Against Diphtheria." Brief and in every way appropriate as an introduction to a discussion, coming from one with practical experience, it was full of most practical hints. Of all the practical points that it brought out, however, there was none more apt than this: that if the right effect was to be produced when a scheme of free and wide diphtheria immunization was carried out, and if satisfactory results were to be obtained, the work must be done by skilled people. That this was accepted was evidenced not only by the applause that greeted the statement, but by the fact that it was reiterated by all the subsequent speakers who had experience of Schick testing and diphtheria immunization.

Skilled Practitioners.

And the fact that it is true is exactly the difficulty. How many people are there at the moment in this country who have had practical experience of the method, and what steps are being taken to provide and maintain a supply of skilled practitioners in the future? What, in fact, are the medical schools doing about it?

PROF. TOPLEY, answering the question with regard to the size of laboratories, expressed the view that the smallest would be one costing from £10,000 to £20,000 to equip, and from £5,000 to £8,000 a year to run, and which should serve a population of from 400,000 to 500,000. The failure to discover organisms, added Prof. Topley, was not their fault. It had just happened that others, Koch for example, had had the opportunity and got in first.

PROF. MAJOR GREENWOOD made an earnest plea for the training of the Assistant Medical Officer of Health in research work. While not suggesting for a moment that statistical research was the most important, it did happen to be the only kind of research that in the ordinary way the Assistant Medical Officer of Health had a chance of doing, and if he could be encouraged to take up that type of work it would be very helpful.

Is any teaching being done at all with the object of ensuring that the medical practitioner of the future shall be able to assist in the work of immunization against disease? Apart from instruction in the method of carrying out vaccination against smallpox it would appear that nothing is being done. And vaccination in this case is only taught now because vaccination at one time was compulsory, and the process was regarded as so tremendously important that every medical practitioner should know something about it and how to carry it out. So it was put into the medical curriculum and there it remains to this day, a course that everybody must take and pay for and get "signed up" for, and that everybody finds an absolute bore. Not one single step in advance, with the exception possibly of the introduction of calf instead of human lymph, has been made as a result of the setting up and the continuance of this course of instruction. Technique even has practically remained unchanged.

The Medical Curriculum and Immunization.

The worst of it all is that while this department for the teaching of immunization has followed its humdrum unchanging course, the

system of immunization has gone on developing; new immunizing substances and new immunizing methods have appeared. Some of these, no doubt, have been discovered or at any rate worked up in the medical schools, and as soon as they have been found capable of standing by themselves, instead of being passed into the teaching departments they have gone right away from the school. One department, at any rate, into which they have not gone certainly is the immunity department; that in which the only definite and recognized teaching of immunization was done, the vaccination department to wit, Gilbertian. Talk of the failure of the legislature and health legislation to keep pace with scientific progress and public opinion; they are not in it with the medical curriculum.

The Medical Schools and Practical Preventive Medicine.

Senates of Universities, Councils of Medical Education and Boards of Medical Studies shake their heads—have been shaking their heads for years—over the teaching of Preventive Medicine. They have no idea how it should be taught they say; and yet, all the time, there has been at least one department in which practical Preventive Medicine has been taught, all the teaching being limited to one disease and to one method. With this as a result, that the bulk of the students and of the medical profession and through them the people have arrived at the conclusion that smallpox is the only disease in respect of which immunization is possible and the method practised in this particular form of vaccination the only one available.

A Practical Immunity Course.

There is great room for reform and development here, and it is so very obvious that it is hardly worth while indicating what must be done. The first step clearly is to cease to talk about a course of practical instruction in vaccination and to substitute for it a course in practical immunity and immunization. The individual who at present does the teaching must be called upon to do something more than merely talk about vaccination and show how to clean a small area of skin surface, how to expel the lymph from the tube, and so on. He must discuss immunization in general and he must have a clinic in which all the known kinds of immunizations are done and all the various methods are followed and can be demonstrated and practised. Until some such

step as that is taken there will be a dearth of persons capable of carrying out the process of immunization in diphtheria, the scheme will lag in its development and the only section of the general population that will have the advantage of the protection against diphtheria that the process offers will be that that attends elementary schools and possibly also infant welfare centres.

Public Vaccinators as Public Immunizers.

All that does not finish what I have to say on this subject or bring me to the end of the opening made for me by Dr. Robertson and his demand for persons of skill. What I have to say next I am almost afraid to say, referring as it does to a colleague, and one moreover who is so continually being attacked by people outside the Public Health Service that he might, not unreasonably, expect to be left alone by such as are within it. Having regard, however, to what I have said as to teaching of vaccination, reference must be made to the Public Vaccinator. Invariably and appropriately, at the moment, the teacher of vaccination is the Public Vaccinator, and if and when the teaching is reorganized on the lines indicated, he would continue to act in this capacity, since he, too, would have ceased to be concerned with vaccination against smallpox merely, and would be empowered, if not required to administer any of the vaccines, sera or what not that have been and that still may be found to confer immunity against disease. In a word, he would be the immunologist of his area; the Public Immunizer. As I envisage it, there is no reason for anyone to become alarmed at the situation that would be created. Since I am not suggesting that anything in the nature of compulsory immunization against any disease should be introduced, the anti-vaccinator need not worry; unless, of course, the mere reference to a belief in the existence of immunizing agents should upset him. What I want to see is a scheme under which any member of the community can have the opportunity of having any of the immunizing processes applied, primarily for his own protection, and ultimately for the protection of the community. In the case of our colleagues, the Public Vaccinators, there is no need for alarm either. In the first place, these are only my own views, and sound as to my mind the idea is, there is little immediate prospect that it will be acceptable to or accepted by the bodies who

matter—the government and the medical schools. In any event, before it is, the Public Vaccinator will no doubt be consulted. But if the views are adopted, and the duties of the Public Vaccinator are enlarged as indicated, he is likely to become a very busy and important man. One individual certainly ready to pile work on him would be the medical officer of health, who, seeing in him the person of skill advised by Dr. Robertson, would invoke his aid in relation to diphtheria immunization at any rate.

A Modern Lullaby.

After all that, something less ponderous would seem to be indicated. Follows, therefore, another of those rhymes, of which by now there are a goodly number, built up on the advice and instruction so commonly given in respect of infant hygiene. It is called "A Modern Lullaby," and appeared originally, of course, in an American journal:—

Rock-a-bye baby, upon the bough,
You get your milk from a certified cow!
Before your eugenic young parents were wed
They had decided how you should be fed.
Hush-a-bye baby, on the tree-top,
If grandmother trots you, you tell her to stop.
Shun the trot-horse that your grandmother
rides—
It will work harm to your little insides.
Mama's scientific—she knows all the laws—
She kisses her darling through carbolyzed
gauze.
Rock-a-bye baby; don't wriggle and squirm;
Nothing is near you that looks like a germ.
P.

THE salary of Dr. J. V. A. Simpson as Assistant Medical Officer of Health for Torquay has been increased by £50 per annum.

THE Incorporated Association of Hospital Officers are organising a Hospitals and Institutions Exhibition in connection with their Annual Conference to be held at the Royal Horticultural Hall, Westminster, on May 26th, 27th, and 28th, 1927.

THE 38th Congress and Health Exhibition of the Royal Sanitary Institute will be held at Hastings, from July 11th to 16th, 1927, The Right Hon. Sir William Joynson-Hicks, Bart., P.C., M.P., Home Secretary, has consented to act as President of the Congress.

JOINT TUBERCULOSIS COUNCIL.

A meeting of the Joint Tuberculosis Council was held at 1, Upper Montague Street, Russell Square, London, W.C.1, on January 15th.

Present: Sir Henry Gauvain (in the Chair), Drs. Lissant Cox, E. Ward, D. R. Sutherland, H. Vallow, J. Jessel, L. S. T. Burrell, A. Lyndon, S. Vere Pearson, Jane Walker, Esther Carling, Peter Edwards, Roodhouse Gloyne, A. Sandison, H. A. Ellis, A. S. MacNalty, L. Crossley, D. A. Powell, James Watt, and W. Brand.

1. Sir Henry Gauvain was elected Chairman for 1927; Dr. Lissant Cox, Vice-chairman; Dr. E. Ward, Secretary; and Dr. James Watt, Treasurer.

2. Dr. Varrier Jones was re-elected member of Council.

3. Measures to reform Local Government were discussed. A Committee was appointed "to consider how the Tuberculosis Service may be rendered more efficient; whether, with this object, evidence shall be given before the Royal Commission on Local Government, and, if so, what points should be brought forward." On this Committee were appointed: Drs. Burrell, Brand, Lissant Cox, Pearson, Lyndon, Ward, Sutherland, Vallow, Sir Henry Gauvain, and Professor Cummins.

4. Research Committee. Dr. Gloyne presented a report on Disinfection. Dr. Lissant Cox had also issued 3,800 circulars on "The Fate of Children in Tuberculous Households," and replies were coming in.

5. Dr. Brand outlined Post-Graduate Courses for 1927. There would be a Copenhagen Course, one in London on Non-pulmonary Tuberculosis; Light Treatment would also be dealt with, Artificial Pneumothorax, the Interpretation of X-ray Plates, and other modern aids to diagnosis and treatment. The postponed Edinburgh Course was still under consideration.

6. Sir Henry Gauvain had received a letter from Dr. Woodhouse, of the Canadian Tuberculosis Organisation concerning the visit of American and Canadian doctors to the International Congress in 1928. The Council decided to assist their colleagues in every possible way to see Tuberculosis work in this Country, and a Committee of the Officers was appointed to go into the matter.

7. Saturday, May 21st, at 10 a.m., were the date and time fixed for the next meeting.

8. After the meeting the Chairman entertained the Council at the Hotel Russell.

The Society.

Reports, Proceeding and Announcements.

COUNCIL MEETING.

A meeting of the Council was held at the House of the Society, on Friday, February 18th, 1927. In the absence of the President (Dr. E. H. Snell) the chair was taken by the ex-President (Dr. G. F. Buchan). There were also present Drs. Cates, Gibbons Ward, Clements, Veitch Clark, Eustace Hill, Wilshaw, Lyster, Naylor Barlow, Allan, Banks, E. Ward, Jameson, Sanders, Stella Churchill, Stirk, Fenton, Annis, Nash, Evans, McIntosh, Porter, Major G. S. Parkinson, Lord Dawson, and Prof. H. Kerr.

The minutes of the last meeting having been approved and signed, apologies for absence were received from the President, Drs. Wheatley, Kidner, Jolly, Paget Moffatt, Chalmers, Pearce, and Lt.-Col. F. E. Fremantle, M.P.

Illness of the President.—The Council heard with great regret that Dr. Snell had been ill, and was not yet well enough to attend meetings in London. It was agreed to send him a letter of sympathy, with good wishes for his early recovery.

Correspondence.—(1) From the Mayor and Corporation of Royal Leamington Spa, asking the Society to hold its annual provincial meeting in that borough on March 18th, and inviting members to be the guests of the Corporation at luncheon. The invitation was accepted by acclamation. (2) From the English Branch of the World League Against Vivisection, protesting against any proposals for compulsory immunisation against disease. It was agreed that no action be taken in reference to this letter. (3) From a medical officer of health, drawing attention to the policy of the Six Point Group in regard to the Factories (No. 2) Bill which might have the effect of increasing the employment of expectant and nursing mothers, and of other women under conditions subversive to their health and well-being. It was agreed that this letter be referred to the Committee watching the progress of the Bill. (4) From a medical officer of health in reference to a questionnaire recently addressed to medical officers of health and other medical men. Agreed that the Council re-affirms its advice to members to refer all such communications to the Society, so that in suitable cases the

reply can express the corporate view of the Public Health Service. (5) From the Royal Microscopical Society inviting the Society to nominate a representative for attendance at a conference to be held at Liverpool, on March 23rd—25th. Agreed that Dr. William Hanna be asked to represent the Society on this occasion. (6) From the Association of County Medical Officers of Health, forwarding resolutions urging the importance of reliable statistics in reference to Tuberculosis, expressing the opinion that Tables I. and IV. of Memorandum 37/T., Ministry of Health, cannot be regarded as satisfactory, and suggesting that these Tables should be replaced by simple and reliable statements. The resolution was referred for consideration by Tuberculosis Group.

Representation of the Society.—Prof. H. R. Kenwood and Dr. James Fenton were re-elected to represent the Society on the National Baby Week Council. Dr. R. A. Lyster was re-elected as the Society's representative on the Central Midwives' Board. Dr. Lyster received the thanks of the Council for his report on the work of the Board during the past year.

Report of the Committee on Remuneration of Medical Officers of Local Authorities.—A report from this Committee was submitted by the Chairman (Dr. G. F. Buchan), as follows:—

1. In 1919, the Salaries Committee was set up to secure improvement in the salaries and conditions of service of Medical Officers of Local Authorities. After prolonged negotiations certain agreements were reached. The Council of the Society at their meeting on Friday, January 16th, 1925, stated that they were prepared to accept the scales of salaries recommended, provided there was substantial agreement. At the same time they called the attention of the British Medical Association to the following points in the following terms:—

"(a) That three scales of salaries have been adopted for whole time Medical Officers of Health.

"(b) That the wide range of the scale of salaries for Senior Medical Officers is likely to lead to constant attempts to pay these responsible officers on the minimum scale, with consequent disputes and the general disrepute of the agreed scales.

"(c) That the abolition of definite annual increments up to at least 25 per cent of the minimum makes no provision for subsequent increases as with an agreed scale reasonable annual increments which are at present the exception will become almost unknown.

"(d) That the wider limits of population adopted for purposes of enabling Local Authorities to exercise discretion in fixing minimum commencing salaries is

likely to operate unfairly and lead to dissatisfaction and disputes.

"(e) That the range of minimum commencing salaries between minima and maxima is likely almost invariably to result in a Local Authority within the limits of population fixing the salary on the lower limit of the scale. It should be stated that Local Authorities are expected to fix their minimum commencing salaries reasonably in accord with their population unless special circumstances are shown."

2. In May, 1925, the British Medical Association announced to Local Authorities the scale of minimum commencing salaries for whole time medical officers recommended for adoption as a standard by local authorities, and the covering letter of the British Medical Association stated the conditions under which agreement on this scale had been reached. The Society of Medical Officers of Health was hopeful:—

(1) That the scale would be accepted and given effect to by Local Authorities in the same generous spirit as that which the Society of Medical Officers of Health had shown in abating many of their just claims in order to attain agreement; and

(2) That the operation of the scale for new entrants would effect improvement in the emoluments of existing officers.

3. At a conference between representatives of the British Medical Association and the Society of Medical Officers of Health, held on October 22nd, 1926, defects of the scale were referred to, and it was

Resolved that the Society of Medical Officers of Health be invited to submit to a subsequent meeting of the conference a Memorandum dealing with questions which it desires to be considered in connection with the application of the scale.

Medical Officers Employed in Departments.

4. The minimum commencing salary of £600 is satisfactory, but the absence of increments on the very modest scale suggested in the circular letter of the British Medical Association of May, 1925, namely, after three years' satisfactory service increments of 5 per cent per annum, for 5 years is unsatisfactory, and leaves the remuneration of these officers very much as it was. Before the scale most medical officers reached £600 per annum. The increments bringing the salary for this grade up to £750 after 8 years' service, are not unreasonable.

Senior Medical Officers.

5. These officers are graded between £750 and £1,100. No basis on which an officer in this grade may be placed within the scale is clearly set forth, with the result that local authorities generally adopt the minimum salary, and rarely offer any increments whatever, and still more rarely increments that can be regarded as adequate.

6. Typical disputes under this grading have arisen at Birmingham, Surrey County, and Stoke-on-Trent. At Stoke-on-Trent the School Medical Officer after fourteen years' service is receiving as salary and bonus a total of £821. The population of Stoke-on-Trent is over 275,000. The Tuberculosis Officer for the same area after 3 years' service is still paid his commencing salary and bonus of £711. In Surrey County the specialists in Tuberculosis and Mental Deficiency with periods of service averaging 11 years are receiving only £750. The recent proposed appointment of Tuberculosis Officer at Leeds at £900, subsequently raised to £1,000 on the representation of the British Medical Association, is another case of unnecessary dispute. The further appointment at Leeds recently advertised of a Medical Officer in charge of Maternity and

Child Welfare work at £800 is still another case where practically the minimum is given as a commencing salary instead of, as it should be, practically the maximum.

Medical Officers of Health.

7. The division of the scale for medical officers of health into London Medical Officers, County Council medical officers and non-County, Council Medical Officers is unnecessary and unsatisfactory. Especially unsatisfactory is the special scale for London Medical Officers of Health on account of its wide and overlapping character. Generally the wide ranges of population which were advised in order to give local authorities a margin for choice, has acted adversely on the medical officer of health to be appointed, for no local authority has ever offered anything more than the minimum salary for the population range. The following such cases have occurred since the adoption of the scale:—

	Popn.	Salary Offered.	Scale Salary.
Poplar	164,000	£1,100.	Under 150,000 £1,000-£1,200
Paddington	144,000	£1,000-£1,250 by £50 every two years	
Bethnal Green.	117,000	£1,006	Under 250,000 £1,100-£1,400
Fulham	157,000	£1,100	

Liverpool pays its recently appointed Medical Officer of Health the minimum of £1,800.

8. It was not intended as set out in Paragraph 11a of the letter of the British Medical Association of May, 1925, that Local Authorities should construe the scale in this way, but their action is upheld as justified by the Ministry of Health.

9. In some of the cases above cited, e.g., Paddington, differences of interpretation have arisen between the Ministry of Health, the local authority, and British Medical Association, and Society of Medical Officers of Health, as to what the commencing salary should be. Such disputes would be helpful if a tribunal, as was at first intended, had been set up to decide them, but as things are such disputes often cause irritation and annoyance.

Deputy or Assistant Medical Officer of Health.

10. No definite recommendation is made as to the salary which this officer should receive, and this is a matter which requires remedy.

Conditions applicable to all Appointments.

11. The statement that "there will be a periodical review of salaries by the Local Authority, and suitable increments of salary will be given for proved ability and satisfactory service" holds out a hope to the medical officer in the employ of the local authority which has proved unjustifiable in the experience of Medical Officers of Health serving most Sanitary Authorities.

Existing Officers.

12. In spite of improvement in the commencing salaries for new appointments, there has been little, if any, improvement in the salaries of existing officers. The vast bulk of Medical Officers in the Public Health service remain lamentably underpaid, although the Society took action as long ago as 1919 to induce the British Medical Association to do something to ameliorate this position. The letter of the British Medical Association of May, 1925, indicated that there was a reasonable prospect of action being taken both centrally by the British Medical Association, and locally through the Divisions and Branches, to improve the position of existing medical officers on the strength of the scale now in operation for new appointments. The Society of Medical Officers of Health are of opinion that the time

has arrived to take action along these lines, with the object of securing improvement in the emoluments of medical men in office prior to the operation of the scale for new appointments.

Prolonged Service.

13. Medical Officers are asking that after prolonged service consideration should be given to their position and small salaries. A few such cases may be cited as follows:—

Asst. S.M.O. Wolverhampton (6 years), at £500, no increase.

Asst. M.O. (Eyes), Wolverhampton (5 years), at £600, no increase.

Asst. S.M.O., York (19 years), appointed July, 1908. Present salary £600.

Asst. M.O., Stoke-on-Trent (10 years), salary and bonus £711.

Second Asst. S.M.O., Stoke-on-Trent (7 years), salary and bonus £585.

Asst. S.M.O., Stoke-on-Trent (11 years), £585.

Second Asst. S.M.O., Stoke-on-Trent (5 years), £585.

Asst. M.O.H. and S.M.O., Cambridge (16 years), £550.

Asst. S.M.O., Berks. (8 years), £500.

14. The Society of Medical Officers of Health are of opinion that long service requires recognition in connection with all appointments both old and new, and that a special provision for increments after prolonged service should be asked for.

The Position in Scotland.

15. At the last meeting of the Council of the British Medical Association, the following was passed:—

“Scale of Salaries for Medical Officers employed by Local Authorities.

“147. The Chairman of the Committee submitted the following report on the above matter, and proposed the adoption of the relative recommendations:—

“The Committee gave renewed consideration to this problem, and had before it a report of the Chairman's Sub-Committee which has again been in conference with the Scottish Branch of the Society of Medical Officers in Scotland. The proposals of the Sub-Committee which were endorsed by those bodies, were approved by the Committee, and it was resolved to recommend them to the Council.

“*Resident Medical Officers.*—It was pointed out that in a large proportion of cases the Resident Medical Officers in Hospitals and Sanatoria in Scotland do not intend to follow a Public Health career, and that the proviso which excludes from the scale appointments for a term not exceeding one year, and not renewable, does not meet the case, and that a salary between £250 and £400 with emoluments, would be more appropriate to the conditions than the fixed £350. It was resolved to recommend:—

“Recommendation B.—That the salary for Resident Medical Officers be £250 to £400, plus emoluments.

“*Medical Officers employed in Departments.*—The Committee is assured that feeling in Scotland is unanimously in favour of the proposal already put forward for a graded scale, as being much more likely to be adopted by local authorities. It was therefore resolved to recommend:—

“Recommendation C.—That the salary of Medical Officers employed in departments be on a graded scale, the average salary over 10 years being not less than £600.

“*Chief Medical Officers.*—The duties of County Medical Officers of Health in Scotland being the same as those of burgh Medical Officers, the Committee is of

opinion that there should be no differentiation of salary. It is also of opinion that the graduations of population in the scale are not appropriate to Scottish conditions, and it was therefore resolved:—

“Recommendation D.—That the following scale of salaries for Chief Medical Officers of Health be adopted:—

Population not exceeding 50,000	... £800—£900
Population not exceeding 100,000	... £900—£1,100
Population not exceeding 250,000	... £1,100—£1,400
Population exceeding 250,000	... £1,400—£1,600

“148. *Resolved.*—That in each of the recommendations it be stated that the salaries are ‘commencing salaries.’

“149. *Resolved.*—That the following words be added to Recommendation C.; ‘The minimum commencing salary to be not less than £500.’

“150. *Resolved.*—That the Scottish Committee be authorised to enter into conference with the Scottish Board of Health and representatives of the Scottish local authorities upon the proposed variations in the association's scale of salaries for Medical Officers employed by local authorities set out in the above recommendations B, C, and D as amended; and that the Scottish Committee report to the Council at a later date as to the extent of the support likely to be given by the Scottish Board of Health and Scottish Local Authorities as to the scale varied as proposed.”

16. Apart from the principle that there should be one rate for medical officers in Scotland, and another for England and Wales, which principle is not accepted from other forms of contract medical practice, recommendation D, with its wide ranges of population is bound to operate unfairly in Scotland itself as may be seen:—

Population	Salary
99,000	£900.
101,000	£1,100
249,000	£1,100
251,000	£1,400

Recommendations.

17. The Society of Medical Officers of Health have taken all the foregoing circumstances into most careful consideration, and respectfully request:—

(1) That the British Medical Association take steps to secure the operation of the comments and recommendations in paragraph 11 of the letter of the Association dated May, 1925. This paragraph is as follows:—

“11. In submitting the Scale to Local Authorities the British Medical Association desires further to make the following comments and recommendations:—

“(a) In the Scale which applies to Chief Medical Officers of Health, the commencing salary is stated as being between two figures, e.g., population over 75,000 and not exceeding 100,000—minimum commencing salary £1,000 to £1,100. The alternatives are given in order to allow of a certain amount of elasticity, but must not be understood as suggesting that the lower figure would always constitute an acceptable offer. If the population figure in the example just given were nearer 100,000 than 75,000 (the next lower population limit), other circumstances being equal, it would not be considered equitable to offer £1,000 as a commencing salary. But the elasticity given would allow for the consideration of local differences or special circumstances which either the Local Authority or the Medical Associations, might think were exceptional. Seaside resorts, central Metropolitan Boroughs, business centres and other places where there is a large influx of population either during the day or

during certain periods of the year are examples of cases which may require special consideration.

“(b) The Association would lay particular stress in this connection on Note (2) of the Scale. If an appointment to which the note applies should be offered at a figure which is less than appears to it to be justified by all the circumstances, the Association would welcome, and indeed, would seek the intervention of the Ministry of Health, in the hope that the matter could be adjusted with the Health Authority advertising the post.

“(c) In dealing with increments of salary the Association considers that suitable increments should be given after 3 years' satisfactory service, and should be at the rate of 5 per cent per annum, rising to not less than 25 per cent above the commencing salary.

“(d) In placing existing officers in accordance with the scale, years of service and merit should receive recognition.

“(e) Medical Superintendents of Institutions and in suitable cases Chief Assistant Medical Officers in Institutions should, in addition to their salaries, be supplied with housing accommodation.

“(f) If marriage be deemed by a Local Authority a disqualification for a medical appointment this should be stated specifically when the vacancy is advertised.

“(g) There should be no differentiation of salary on account of sex. Where the work is the same the Association can recognise no justification for offering a smaller salary to a woman doctor than to a man.”

The Society of Medical Officers of Health would further request the British Medical Association to take action in accordance with the following recommendations:—

(2) That the range of salaries £750—£1,100 for Senior Medical Officers and Medical Superintendents should be according to a basis. The Society accordingly submit the following:—

MINIMUM COMMENCING SALARIES.			
Population.	Senior Medical Officers in Charge, of departments, e.g., Port Sanitation, School Medical Service, Tuberculosis, Mental Deficiency, Maternity and Child Welfare, Venereal Disease.	Medical Superintendents of Hospitals, Sanatoria or other Institutions.	Beds.
Not exceeding 150,000	£750	£750	Not exceeding 150
250,000	£850	£850	250
500,000	£1000	£1000	500
750,000	£1100	£1100	750
Exceeding 750,000	Over £1100	Over £1100	exceeding 750

(3) When a Hospital, Sanatorium or other institution with over 100 beds employs a whole-time medical officer in charge of the institution, such officer shall be considered for purposes of salary, a Medical Superintendent.

(4) That a basis for the salary payable to the Deputy or Assistant Medical Officer of Health be also adopted. The Society recommend that the basis be that adopted by the British Medical Association at Portsmouth, viz., a salary equal to 60 per cent of the salary of the Medical Officer of Health, but not less than the salary of the next grade of Medical Officer in the department.

(5) Having regard to the position of existing Medical Officers, the Society of Medical Officers of Health recommend:—

(a) That a circular letter be sent by the Council of the

British Medical Association to every employing local authority, requesting that existing Medical Officers be placed on the scale with increments as stated in paragraph 11 of the letter of the British Medical Association of May, 1925, according to their years of service.

(b) That the Council of the British Medical Association communicate with divisions urging them to take action to secure the acceptance and application of the scale with increments as above by local authorities within the division.

(6) The Society of Medical Officers of Health are also of opinion that the time has arrived when Local Authorities should be asked to recognise long and faithful service. The Society submit that after 10 years' satisfactory service Local Authorities should be asked to give further increments at the rate of 5 per cent per annum, rising to a further 25 per cent above the commencing scale salary.

(7) The Society of Medical Officers of Health are of opinion that there should be no differentiation in the scale of salaries for Medical Officers of Health in Scotland or England. The Society desire to direct the attention of the Association to the fact that Scotland desires only one scale for Medical Officers of Health. As stated in the foregoing memorandum, this is also the opinion of the Society of Medical Officers of Health for England, but the Society refrain from making a recommendation on this matter in order not to interfere with the basis on which agreement was reached.

(8) Having regard to the various disputes that have arisen from time to time between employing authorities and the medical profession, the Society of Medical Officers of Health are strongly of opinion that the British Medical Association should take steps to secure that a tribunal on the lines originally suggested be set up.

This was originally in the following terms:—“If the local authority considers that the circumstances of its area are such that a salary outside the limits appropriate to the area according to the scale should be fixed, the case will be referred to an Advisory Committee to be appointed by the local authorities' associations and the British Medical Association. The Minister of Health may also at his discretion refer exceptional cases to the Committee. The Committee will consider the cases and make a recommendation to the Minister of Health.”

The Report was adopted by an unanimous vote of the Council. It was further resolved that the Report should be referred to Branches and Groups, with a request that any observations they may wish to submit should be forwarded to the Committee not later than May 1st, 1927. Subsequent to confirmation at the May meeting of Council, it was agreed that the Report shall be forwarded to the British Medical Association with a covering letter acknowledging the progress already achieved by the Association's enforcement of the Scale of Salaries.

Milk and Dairies Order, 1926.—It was decided to postpone consideration of representations in reference to this Order from the Yorkshire Branch, in view of the issue of Ministry of Health Circular No. 757 (dated January 20th, 1927).

Administration of Maternity and Child Welfare Acts.—The following representation was received from the Yorkshire Branch, viz.:

"That the time has now arrived in the interests of the public welfare that there should be a greater measure of co-operation in the administration of the Maternity and Child Welfare Acts, particularly in the case of Non-County Boroughs, Urban and Rural Districts employing whole time Medical Officers of Health and administering the new Maternity and Child Welfare scheme, in which cases such Local Authorities should be responsible for the administration of these Acts."

It was decided to ask the Branch to submit some more definite recommendation for consideration by the Council.

Ante-natal Work by Midwives.—The West of England Branch forwarded the following representation, viz.:

(a) "That the Branch regards the ante-natal record form of the Central Midwives' Board as unadapted to the competence and training of midwives, and considers that insistence upon highly technical investigations by midwives is entirely useless and likely to prejudice efficient ante-natal work by medical practitioners." (b) "That the Council of the Society be requested to bring this matter to the notice of the Ministry of Health and the Central Midwives' Board."

It was felt that while midwives should not be asked to undertake duties calling for the experience of a medical practitioner, the Society should hesitate to discourage keener interest in pre-natal work by the more highly-trained type of midwife. It was therefore decided to refer the above representation for consideration and report by the Midwives' Acts Committee.

The Mental Deficiency Bill, 1926.—In support of action by the Central Association for Mental Welfare and other bodies its was resolved unanimously:—

"That this Society views with extreme regret, the dropping of the Mental Deficiency Bill, 1926, and presses on the Ministry of Health the desirability of the introduction of a Bill, in substantially the same form, as soon as Parliamentary proceedings permit."

Education of the Public in Health Matters. Dr. G. F. Buchan reported on the progress of the Committee appointed to deal with this matter, and promised to submit definite recommendations at the next meeting of Council.

The Council then adjourned.

ORDINARY MEETING.

An Ordinary Meeting was held at the House of the Society, on Friday, February 18th. In the regretted absence of Dr. E. H. Snell, owing to illness, the Chair was taken by Dr. G. F. Buchan (ex-President).

The minutes of the last meeting having been approved and signed, the following candidates were elected to the Society, viz.:

As Fellows:—

Boul, William Thomas Garthorpe, M.D., Ch.B., Vict., D.P.H.; Brocklehurst, George Lawton, M.B., B.S. Lond., M.R.C.S., L.R.C.P., D.P.H.; Calver, Grace Sherwood, M.B., Ch.B. Edin.; Clarke, Francis Paul M., B.A., B.Sc., L.R.C.P. and S. Ed., L.R.F.P.S.; Cohen, Harold Maurice, M.B., Ch.B. Liv., D.P.H.; Gall, Helen Mitchell, M.B., Ch.B. Ed.; Garrood, Jesse Robert, B.A., M.D., B.Ch. Cantab., D.P.H.; Gray, Kate, M.A., M.B., B.S. Durh.; Joe, Alexander, D.S.C., M.D., Ch.B. Edin., D.P.H., D.T.M.; McHugh, Mary Alice, M.R.C.S., L.R.C.P., D.P.H.; Muir, Annie Agnes, M.D., Ch.B. Liv., M.R.C.S., L.R.C.P., D.P.H.; Munro, Edmund Brodie, O.B.E., Lt.-Col., I.M.S., M.B., Ch.B. Ed., D.P.H.; Ormiston, Margaret Gemmell, M.A., M.B., Ch.B. St. And.; Park, Charles Leslie, M.D. Melb., D.P.H.; Parkinson, Amy Mary, M.B., M.R.C.S., L.R.C.P.; Porteous, Harold Burnet, Wing Cdr., R.A.F., M.B., Ch.B. Ed., D.P.H., D.P.M.; Power, John Edmund, M.B., B.Ch., N.U.I., D.P.H.; Raine, Arthur Edwin, M.B., B.S. Durh.; Samson, James Beahan, M.B., Ch.B. Aberd., D.P.H.; Stokes, Thos. George Nesbitt, Lt.-Col., I.M.S. (ret.), B.A., M.B., B.Ch. Dub., D.T.M., D.P.H.; Walters, Ethelwyn Mary, M.B., Ch.B. Glasg.

As Associates:—

Halstead, William, M.R.C.V.S., D.V.S.M.; Matthew, Robert Swan, L.D.S., R.C.S. Ed.

There followed a discussion on "Smoke Abatement as a Public Health Problem," from the point of view of:—(a) The Medical Officer of Health: Cyril Banks, M.B., B.S., D.P.H.; (b) The Manufacturer: Councillor J. R. Robson (J. Robson and Sons, Ltd., Huddersfield); (c) The Housewife: Miss Anne V. Baynes (General Sec., Manchester and Salford Women Citizens' Association); (d) The Meteorologist: J. S. Owens, M.D., A.M.Inst.C.E. (Superintendent of Advisory Committee on Atmospheric Pollution).

Lord Newton who had promised to speak from the point of view of the Legislator was unfortunately prevented by an urgent engagement elsewhere.

A cordial vote of thanks to the openers was proposed by Dr. Sanders, and supported by Dr. Naylor Barlow, Dr. Charles Porter and other speakers. A full report of the discussion will appear in an early issue of *Public Health*.

THE NORTH-WESTERN BRANCH.

President: Dr. C. W. Paget Moffatt, M.O.H., Bolton.
Hon. Secretary: Dr. G. W. N. Joseph, M.O.H., Warrington.

A meeting of this Branch was held in Manchester on January 13th, 1927, Dr. E. W. Rees Jones in the Chair. Eighteen members were present.

A letter was received from the Yorkshire Branch, stating that it was proposed to nominate Dr. John Buchan, Medical Officer of Health, Bradford, as President of the Society for the Session 1927-28, and asking for the support of the North-Western Branch. After discussion it was decided to defer the matter to the next meeting.

The Branch unanimously approved the proposal of the Committee that a portrait of Dr. T. W. Naylor Barlow, O.B.E., President of the Society for the Session 1923-4, should be presented to the Society.

A discussion on "Practical points as affecting Medical Officers of Health in the transfer of the Poor Law" was opened by Dr. Veitch Clark. Giving a short outline of the rise of the Poor Law, Dr. Clark pointed out that the Guardians were in the first instance a destitution authority, and had always remained so primarily. Emphasis was laid on the opinion of the Royal Commission that poverty was less the cause of disease than disease the cause of poverty. Assuming that the Medical Officer of Health would be in administrative control of the medical work of the Poor Law when transferred, a certain degree of mental orientation would be necessary to enable his outlook to be adjusted to the control in the communal interest of the mass of curative medicine which would come within his purview. The main object would be, in the beginning, to eliminate late and incomplete treatment. The end results of treatment altogether transcended in importance the immediate results.

Subsequently the speaker dealt with certain practical points in some detail. The centralisation of the several present sources of financial and material relief were referred to, more particularly in relation to tuberculosis and maternity and child welfare, and the block grant system discussed. The assessment of help should always have a medical side to it, and the necessity of some re-organisation of Public Health medical staffs was indicated. Vaccination, and the registration of births and deaths, it was shown, had never had a real

poor law status, and would fall into their natural niche in Public Health. The consideration of the outdoor medical work inevitably entailed the anticipation of the extension of the insurance medical benefit to dependents, and when national insurance came over to the Public Health Authority, the work in regard to tuberculosis and amongst mothers and children would be greatly facilitated. The transfer of the Poor Law Hospitals and other Institutions in itself would entail a very great amount of work, and upon its proper development depended much of the success of public medical work in the future. The proper use of those beds so that they should yield the greatest advantage to the community, the best means of medical staffing of the hospitals, their inevitable relation to the voluntary hospitals, and many other points, were also touched upon. The speaker finally urged very strongly the importance of keeping in the very front of schemes the need of closer association with the Universities and the other medical schools so that every advantage might be obtained from this huge field of medical endeavour for the training of the medical practitioners of the future in a full realisation, not only of what had been known as preventive medicine, but of the fact that all medicine when truly practised was preventive in its ultimate aim; that medicine's great object was the maintenance of health far before the cure of disease.

Dr. Rees Jones, in thanking Dr. Clark for his contribution, mentioned how near he thought the change actually was.

Dr. Morley Mathieson hoped that all relief and home assistance work would not be dealt with by the Health Department Staff, and agreed that legislation of the future must concentrate on the younger generation. There was much to be said on both sides regarding block and percentage grants. He considered that the transfer would entail a broadening of all branches of our work.

Dr. Paul asked what the position of a small County Borough would be in which there was no Poor Law Institution, but whose needs were met at present by Institutions in a neighbouring larger authority. He drew attention to the fact that at present outbreaks of infectious disease in Poor Law Institutions were not always adequately dealt with.

Dr. Talent raised the question of the relationship of the voluntary hospitals to the Poor Law Institutions.

Dr. Taylor mentioned the uses to which a large Poor Law Hospital in Aberdeen had been put after it was taken over by the municipality, and the difficulties met with in carrying this out.

The relation of the tuberculosis, school medical and maternity services to the Poor Law Institutions was broached by Dr. Hauxwell, who also asked whether an extension of the panel system would be necessary to overcome the difficulty of District Medical Officers.

Drs. Milligan and Hall also joined in the discussion, and Dr. Veitch Clark replied to the points raised.

THE WEST OF ENGLAND BRANCH.

President: Dr. C. E. Tangye, County M.O.H., Wiltshire.
Hon. Secretary: Dr. P. H. Stirk, M.O.H., Exeter.

A meeting of this Branch was held at Bath, on January 21st, 1927, the President in the Chair. Twelve members and three visitors were present.

A visit was made to the Baths under the guidance of the Matron, who kindly demonstrated the various forms of treatment, and was accorded a hearty vote of thanks on the proposal of the President.

The minutes of the meeting held on October 22nd, 1926, were read and confirmed.

Letters of regret for absence were read from Dr. Nankivell, Dr. Green, Dr. Askins, and Dr. Swan.

A letter was read from Col. Herbert Jones thanking the members for their congratulations on the honour recently conferred by the Council. Also, a letter from the Council, thanking the Branch for the gift of a chair.

A communication was submitted from the Yorkshire Branch requesting support for the nomination of Dr. Buchan as President. It was resolved to leave this matter to the discretion of the Representative.

Dr. Carey F. Coombs, of Bristol, read a paper on "A proposed investigation in connection with Rheumatic Heart Disease in Children," and a general discussion took place concerning the most convenient procedure for obtaining the necessary information for the purposes of the investigation.

A hearty vote of thanks was accorded to Dr. Carey Coombs for his interesting address, and, in reply, Dr. Coombs thanked the

members for their enthusiastic promises of help in the investigation.

Dr. Blackett presented the Treasurer's Report for the past year, which was accepted subject to audit.

The President brought before the Branch the new Rules for Midwives, issued by the Central Midwives Board, and drew particular attention to the last paragraph of Rule E.1., and the ante-natal record form drawn up by the Board, which midwives are compelled under the rule to use in their ante-natal work.

After discussion, in which several members expressed their surprise at the highly technical investigations required from midwives by the Board, the President proposed, and Dr. Blackett seconded, the following resolution:

"That the Branch regards the ante-natal record form of the Central Midwives Board as unadapted to the intelligence and training of midwives, and considers that insistence upon highly technical investigations by midwives is entirely useless, and likely to prejudice efficient ante-natal work by medical practitioners."

The Branch decided that this resolution should be sent to the Council of the Society with a request that the matter be taken up with the Ministry of Health and the Central Midwives Board.

THE YORKSHIRE BRANCH.

President: Dr. S. Fox Linton, M.O.H., Scarborough.
Hon. Secretary: Dr. G. H. Pearce, M.O.H., Batley.

A meeting of the Council of this Branch was held on January 28th, 1927, at the Education Offices, Calverley Street, Leeds.

The President was in the Chair, and there were also present Drs. Belam, Gibson, Mair, Pick, Pickup, Thornley, Scatterty, Wear, Williams, and the Hon. Secretary. Apologies for absence were received from Drs. Banks and Hill.

The Hon. Secretary reported that he had written to Dr. A. Stewart Hebblethwaite conveying the sympathy of the Branch in the great loss he had sustained through the death of his father, Dr. Harold Hebblethwaite, Medical Officer of Health, Burley-in-Wharfedale, for a number of years a Fellow of the Society, and read a reply from Dr. Stewart Hebblethwaite expressing appreciation and thanks for the kindly message from the Branch.

A letter was received from Dr. A. E. Barnes, Hon. Secretary of the Yorkshire Branch of the British Medical Association, stating that Drs. Hillman (Wakefield), and Steven (Featherstone), had been elected representatives of that Branch on the Council of the Yorkshire Branch of the Society of Medical Officers of Health.

Offers of papers were received from three gentlemen, and the Hon. Secretary was instructed to convey the thanks of the Branch to them.

It was decided that the next meeting should be held at Bradford.

An ordinary meeting of the Branch followed the Council meeting, and in addition to the members above mentioned, there were present Drs. H. T. Bates, J. J. Buchan, A. B. Dunne, W. M. Frazer, Helen M. Gall, Susan Gilchrist, A. S. Hebblethwaite, J. Johnstone Jervis, Mildred M. Thierens, and V. T. Thierens. An apology for absence was received from Dr. J. R. Kaye.

The Hon. Secretary reported that the Council of the Society had approved the proposal of the Branch that Dr. Sidney Thomas Steele, Medical Officer of Health, Morley, should be enrolled as a fully-paid Fellow of the Society in recognition of his long Public Health services, and it was unanimously resolved that Dr. Steele be invited to accept the proffered honour.

The minutes of the last meeting were read, confirmed and signed.

Papers were read on "The Midwives and Maternity Homes Act, 1926." The discussion was opened by Dr. V. T. Thierens, Assistant Medical Officer of Health, Bradford, followed by Dr. R. L. Thornley, Medical Officer of Health, East Riding County Council, and Dr. H. T. Bates, Medical Officer of Health, Ilkley. A lively discussion ensued, most of the members present participating. The papers have been sent to the Hon. Editor for publication.

Dr. Mair said that there was a very grave defect in the Act, and one which was likely to render it almost, if not quite, unworkable in those municipal boroughs which administer the Maternity and Child Welfare Acts. The local Medical Officer of Health who has knowledge of the places where births occur and of the persons attending, has no knowledge as to

whether the premises or persons were registered. The Medical Officer of the County Council, on the other hand, has knowledge of premises and persons registered, but no knowledge of births. There would appear, therefore, to be a very great difficulty in ascertaining whether unregistered premises or persons were being used. He felt very strongly that this Act should be administered in these areas by the local authority.

Dr. J. J. Buchan said that it was well known that County Councils were not able to administer Acts relating to Maternity and Child Welfare in the manner that was intended, and that, largely, County administration in this respect was a failure. In Bradford he had informed midwives that they would only be required to keep ante-natal records where the patient was not attending an Ante-Natal Clinic.

Dr. Jervis said he would have liked to hear more of the attitude of the general practitioner towards small maternity homes. In Leeds, they always demanded that the proprietress should be a trained person, but this has had to be varied in some cases. If the proprietress is not qualified, then employees must be. The installation of telephonic communication was required. It was also desirable that a special room should be set aside as a labour room, which should not be used by the household generally. This was insisted upon in Leeds.

Dr. Belam asked what procedure should be adopted in non-county borough areas with reference to the attendance of uncertified women upon confinement cases when proof was not conclusive that there was no doctor attending, and yet the doctor may not have actually been present at the confinement. Without any definite proof of actual individual engagement of an uncertified woman alone, with no doctor, there was no scope for reporting to the supervising authority. What of the doctor who regularly employed such uncertified women in midwifery cases?

Dr. Gibson asked for information as to what action members proposed taking with regard to the new rule of the Central Midwives Board which prescribed ante-natal records to be kept by midwives, many of whom are untrained and not capable of making the necessary examination. He also referred to the recent circular letter sent to the local supervising authorities asking that midwives should be examined as to their capacity to make proper external abdominal examinations of women in

labour, and he suggested that this was not the duty of the local supervising authority, but the examining body.

Dr. Susan Gilchrist asked the procedure in other towns with regard to small maternity homes which are kept by women who are untrained nurses and unqualified midwives—a doctor attending each case.

A resolution to the following effect, proposed by Dr. J. J. Buchan, and seconded by Dr. C. Leonard Williams, was unanimously carried:—

"That in the view of the Yorkshire Branch the time has now arrived that, in the interests of the public welfare, there should be a greater measure of co-operation in the administration of the Maternity and Child Welfare Acts, particularly in the case of non-county boroughs, urban and rural districts employing whole-time Medical Officers of Health and administering the new Maternity and Child Welfare scheme, in which instances such local authorities should be responsible for the administration of these Acts."

The Hon. Secretary was instructed to forward this resolution to the Council of the Society.

The readers of the papers replied to questions asked, and were thanked by the President for their contributions to the discussion.

THE SOUTHERN BRANCH.

President: Dr. A. D. Edwards, M.O.H., Bournemouth.
Hon. Secretary: Dr. H. D. Kelf, Asst. M.O.H., Hants. County Council.

A meeting of this Branch was held at East Park Terrace, Southampton, on February 4th, 1927. There were present:—The President, Drs. Neil Beattie, A. A. Cockayne, A. E. Druitt, W. J. Hart, B. L. Lloyd, P. Moxey, W. Simpson, H. T. S. Stirling, and the Hon. Secretary.

After the minutes of the previous meeting were read and confirmed, apologies for absence were announced from Surg.-Comdr. C. H. Dawe, Drs. Lockhart Livingston, Lockhart Stephens, and W. Bruce Young.

A communication was received from the Yorkshire Branch stating that they were nominating Dr. J. J. Buchan, of Bradford, for the Presidency of the Society for the Session 1927-28.

Dr. Percy Moxey again showed a case of tuberculous ulcer of the tongue, which was

being treated by a course of injections of an antimony preparation, with decided improvement.

Dr. T. S. Stirling read an interesting paper on "Pre-School Life and the Scholar," which dealt with heredity and inheritance, pre-natal and infant nurture, environmental factors, including the diet and hygienic conditions of the toddler.

Discussion followed, in which every member joined, and a cordial vote of thanks was accorded to Dr. Stirling for his thoughtful and interesting paper, which it was decided should be sent to the Editor of *Public Health* for publication.

After the meeting tea was kindly provided by Dr. R. E. Lauder.

THE MIDLAND BRANCH.

President: Dr. G. B. Dixon, Chief T.O. and Medical Superintendent, Birmingham.

Hon. Secretary: Dr. R. H. H. Jolly, M.O.H., Wolverhampton.

The fourth meeting of the Session of this Branch was held at the Medical Institute, Birmingham, on February 3rd, 1927, the President and twenty-two members being present. Apologies for unavoidable absence were read from the President of the Society (Dr. E. H. Snell), and from Drs. Miller, Bradford, and Sir John Robertson.

The President alluded to the sad loss sustained by the Branch through the death of its Hon. Treasurer and Past President, Dr. T. Ridley Bailey. He reminded members of the tremendous amount of voluntary work done by Dr. Ridley Bailey, both for the British Medical Association and for the Society of Medical Officers of Health, and instanced that he had just been re-appointed Chairman of the Public Health Committee of the B.M.A., and was one of the two B.M.A. representatives on the Council of the Society. Members present showed their sympathy by standing in silence. The President further reported that the Branch had been represented at the funeral service at Bilston by Sir John Robertson, Dr. Jolly, and Dr. Tibbetts, and at the interment at Cheltenham by Dr. J. Peebles. The action of the Hon. Secretary in sending a wreath and a letter of sympathy was approved and confirmed.

A letter was read from the Yorkshire Branch requesting support for their nominee for the Presidency of the Society for the Session 1927-28.

The Hon. Secretary reported the action taken by a Local Authority in respect of a member who had loyally supported the Society in circumstances of some difficulty. It was resolved that the matter be brought before the Council of the Society.

The post of Hon. Treasurer being vacant owing to the death of Dr. Ridley Bailey, it was resolved that the Hon. Secretary be appointed Acting Hon. Treasurer. The purchase of a despatch case was approved.

Dr. W. M. Ash read a paper on "The Inspection and Registration of Maternity Homes." Prior to taking up his present post, Dr. Ash had been one of the officers appointed to inspect maternity homes under the Middlesex County Council, in whose area a Local Act requiring registration of these institutions had been in force for some years. In addition to outlining his scheme for Derbyshire, Dr. Ash was therefore able to give some valuable information as regards the working of a somewhat similar scheme in Middlesex. His comments on the requirements of a satisfactory maternity home, and the methods he proposed to employ in respect of homes which might be classed as doubtful, were full of interest, as were his remarks with regard to a business register.

The full discussion which followed and the numerous questions asked were evidence of the importance attached to the subject and the value of the information and suggestions contained in Dr. Ash's paper.

THE HOME COUNTIES BRANCH.

President: Dr. Joseph Cates, County M.O.H., Surrey.

Hon. Secretary: Dr. H. J. Milligan, M.C. M.O.H., Reading.

By arrangement with Dr. R. A. O'Brien, C.B.E., Director of the Wellcome Physiological Research Laboratories, Beckenham, Kent, the members of this Branch visited the Laboratories on February 4th, 1927. Dr. O'Brien, after welcoming the members in the library of Langley Court, where the laboratory is most charmingly situated, gave a short introductory address on some of the work that was being done. He discussed the Schick and the Dick tests, and recent work carried out on similar lines with reference to measles. The members then divided into parties and proceeded to view the various sections of the

laboratories. Demonstrations were given of the injection and bleeding of horses for the production of diphtheria anti-toxin, and of diphtheria virulence testing, a matter of first-class importance in the practical work of a Public Health Department. Further demonstrations were given of tests for potency of diphtheria toxin and anti-toxin used for the purposes of the Schick test. Fowl diphtheria and testing for bacillary white diarrhoea of chickens were shown, and members had opportunities of seeing the leptospira in water, and slides indicating the microscopic diagnosis of diphtheria and common errors incidental thereto. A tour was made of the various buildings, including the serological, serum, and media and toxin departments, after which the party adjourned for tea. A considerable number of those present submitted themselves to the Schick and Dick tests.

In the absence of the President, Dr. Jameson conveyed the thanks of the Branch to Dr. O'Brien and his colleagues, who had gone to considerable trouble to provide a most interesting series of demonstrations. Dr. O'Brien, in reply, emphasised the need for close co-operation between the purely scientific and the administrative sides of the profession. The success of the meeting, which was attended by more than fifty members, emphasised the need for more meetings of this character to be arranged.

THE METROPOLITAN BRANCH.

President: Dr. G. Quin Lennane, M.O.H., Battersea.

Hon. Secretary: Dr. James Fenton, M.O.H., Kensington.

A meeting of the Branch was held at the House of the Society, on February 11th, 1927, the President occupying the Chair. There were present twenty-three members and two visitors.

Consideration was given to the question of registration under the Milk and Dairies Order, 1926, with a view to securing uniformity of action throughout London, particularly in regard to multiple shop firms controlling restaurants, cafés, etc., where milk is sold for consumption off the premises. The following conclusions were arrived at:—

1. That registration should be required in those cases where restaurants or cafés sell, for consumption off the premises, glasses of milk or milk by measure.

2. That registration should not be required in those cases where restaurants or cafés sell, for consumption off the premises, occasional cups or pots of tea, which are usually accompanied by a small jug of milk to be added to the tea. (In these cases it is really the tea which is being sold and not the milk, the milk being merely an accessory to the tea.)

3. That registration should not be required in the case of outdoor catering firms in regard to the milk they supply with tea at afternoon receptions, etc.

4. That a copy of these opinions should be sent to the medical officer of health of every Metropolitan Borough.

A discussion took place upon the contents of a circular letter addressed by the Metropolitan Boroughs' Standing Joint Committee to metropolitan borough councils in regard to the decision of the Wandsworth Borough Council that it is in the interests of efficiency and economy for Metropolitan Borough Councils to terminate their existing arrangements with the London County Council under which the County Council contribute approximately 25 per cent of the expenses of the tuberculosis dispensary service in each Borough, on condition that such service is supervised by them. The Branch decided to inform the Metropolitan Boroughs' Standing Joint Committee that they are not in favour of the present arrangements in connection with the tuberculosis dispensary service being discontinued entirely, but that they are of the opinion that the detailed supervision now exercised is unnecessary, and adds to the clerical work without increasing the efficiency of the service. They, therefore, suggest that it is desirable to review the system of supervision to see whether it is possible to reduce the amount of clerical work.

The Hon. Secretary read a letter from the Ministry of Health, dated January 28th, 1927, in regard to the allocation of notifications of puerperal pyrexia, in which it was stated that the words "the place of residence" at the end of Article 10 of the Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations, 1926, mean the home address of the patient, and do not relate to the hospital to which the patient may have been removed for confinement. In these circumstances, medical officers of health receiving notifications of puerperal pyrexia from maternity hospitals within their areas may transfer these notifications to the medical officer of health of the

borough in which the patient resided before admission to hospital.

Dr. James Wyatt, Assistant Obstetric Physician, St. Thomas's Hospital, read a very interesting paper on "Puerperal Sepsis—Its Prevention and Treatment," which was appreciated by all the members present. Observations were made upon the paper by the President, Professor McIlroy, Dr. Gamgee, Dr. Scrase, Dr. Foord Caiger, Dr. Goodall, and Dr. Howell, to which Dr. Wyatt replied. The President expressed the thanks of the Branch to Dr. Wyatt for his excellent contribution.

The Branch referred to the Council of the Branch for consideration a letter from the Yorkshire Branch soliciting support of the nomination by that Branch of Dr. J. J. Buchan, Medical Officer of Health, Bradford, for the Presidency of the Society for the Session 1927-1928.

A special Sub-Committee composed of the following members was appointed to consider the contents of the Draft Revised Bye-laws made by the London County Council under Section 39 (1) of the Public Health (London) Act, 1891, with respect to water closets, etc.:—The President, Dr. Porter, Dr. Annis, Dr. Shinnie, Dr. D. L. Thomas, and the Hon. Secretary.

Owing to the lateness of the hour, Dr. J. A. H. Brincker, who had attended the meeting at the invitation of the President, to open a discussion on diphtheria immunisation, kindly consented to a postponement until the meeting of the Council of the Branch to be held on March 11th.

THE MATERNITY AND CHILD WELFARE, SCHOOL MEDICAL SERVICE, AND DENTAL OFFICERS' GROUPS.

A combined meeting of these Groups was held at the House of the Society on January 28th, 1927, to discuss the subject of "The Prevention of Dental Caries in Children." Thirty-nine members and visitors were present, and Dr. Nash, Vice-President of the Maternity and Child Welfare Group, was in the Chair.

Apologies for absence were intimated from Dr. Mabel Brodie, Dr. Alden, and Dr. Rashell Davison.

Mrs. Mellanby, Sheffield, Member of the Dental Research Council, opened the discussion, and suggested that it was impossible for the physiologist and those interested in the consideration of the organism as a whole, to ignore general and developmental conditions in their relation to dental caries, and to treat the subject purely in terms of local conditions in the mouth, although such would undoubtedly influence the immediate incidence of caries. Out of over one thousand children, in 80 per cent the deciduous teeth showed signs of defective structure instead of 3 per cent as usually stated, microscopic as well as macroscopic examination having been employed. In a series of experiments on dogs reared on diets varying in their basal value, and in their lime and phosphorus and antirachitic vitamin content and balance, it appeared that in certain cereals, especially oatmeal, an anti-calcifying substance was present, which might so act as to interfere with the proper formation and development of the teeth and jaws. The important factor was a proper balance between this substance and vitamin D., granted which the cereals in question, e.g., oatmeal, became desirable foods. If the balance was impaired, ultra-violet light assisted the action of the vitamin in securing calcification. Slides were shown to illustrate these points.

Further experiments had been made to show the increased resistance to caries of the teeth of puppies, following filing, on what Mrs. Mellanby called a "good" diet. There had been an attempt to carry out a similar investigation on children in a tuberculosis hospital, other plans having failed, and although the numbers were not large, it appeared that the resistance of the teeth could be altered by varying certain factors in the diet, the factors increasing the resistance being present in milk, eggs, cod liver oil, etc. Mrs. Mellanby pleaded for further investigation and experiment along similar lines, and under, as far as possible, fully controlled conditions, so that these hypotheses of the effect of a "good" and well-balanced diet on dental structure and decay should be demonstrated on behalf of the growing child.

Dr. C. J. Thomas, on behalf of the School Medical Service Group, said that the mode of production of dental caries was a question of paramount importance, and of a certain undoubted complexity, in which the dogmatic attitudes of different schools did not altogether

help the general public. There was room for both sets of opinions, and constructive work could be done on the points on which they could agree. Nobody nowadays would discard the advantages of oral hygiene, and it was equally foolish to disparage the immense field for investigation opened up by Professor Mellanby in his experiments on dietetics. The biological point of view and the changed environment in which man now existed must not be lost sight of in comparing his teeth with those of other mammals. School dental inspection and treatment had wrought an immense improvement in the teeth of children at, or leaving, school; the work of preventing the poor state of the teeth with which the children arrived lay with Maternity and Child Welfare.

Mr. F. Breese, President of the Dental Group, said that he had great difficulty in accepting both the theory Mrs. Mellanby had put forward with regard to dental caries, and the results of any such limited and uncontrolled experiments as she had been able to carry out with tubercular children in hospital. It appeared likely that the children fed on oatmeal had received extra sugar with it which would account for the increased caries in one of Mrs. Mellanby's groups of cases. If the possibility of the calcifying vitamin increasing the density of the tooth tissues were admitted, he did not see what power such a tooth would have to resist the action of acids or to destroy the organisms of caries any more than marble would resist corrosion by an acid. If the reverse were possible, i.e., that calcium could be withdrawn from the teeth by a deficiency in diet, was it maintained that there was some selective process at work by which the teeth were affected and not the skeletal structures? This he found hard to believe.

Sir Frank Colyer said that they owed a debt to Mrs. Mellanby for her patient investigations showing that the teeth of puppies could be influenced by the diet. He had come to the conclusion from clinical observations, that the enamel of the teeth did alter in density, and recent investigations supported this view. He drew attention to the observations of Drs. Colyer and O'Hofy on the effect of carbo-hydrate on the incidence of caries in certain native races. Mrs. Mellanby had concentrated on the defence of the teeth against caries but both the attack and the defence must be taken into consideration, and

in the opinion of those best qualified to judge, the great increase in caries during the last half century was due to the introduction of more easily fermentable carbo-hydrates. Where prophylaxis had been undertaken in relation to this idea, the results had been satisfactory until the influence of the tuck-shop and the lack of proper dental hygiene in boarding school life supervened.

Mr. Thomson, Dr. Emslie and Dr. Nash also joined in the discussion, and Mrs. Mellanby replied reiterating her plea for further research among children on the lines she had indicated. The meeting closed with a hearty vote of thanks to the speakers.

THE MATERNITY AND CHILD WELFARE GROUP.

President: Dr. Mabel Brodie, Asst. Welfare M.O., Durham County.

Hon. Secretary: Dr. Margaret Emslie, 22, Wimpole Street, W.1.

The second provincial meeting of this Group was held at Newcastle-upon-Tyne, on February 10th, 11th, and 12th, 1927, and took the form of a conference to which local authorities were invited to send representatives from their Public Health medical staffs. One hundred and thirty acceptances were received from members of the Group and others.

The Lord Mayor entertained the members of the Conference to a reception at the County Hotel, on the evening of February 10th, in order to extend to them the friendly welcome of the city, and to allow them an opportunity of meeting workers in Newcastle, and from other centres, who were interested in maternity and child welfare work, and eager to exchange views and experiences.

A delightful musical programme contributed to the success of the gathering.

On Friday morning, February 11th, the delegates met in the Council Chamber, and received the formal welcome of the Lord Mayor and the City Council. The Chair was then taken by Dame Janet Campbell, D.B.E., M.D., D.P.H., Senior Medical Officer for Maternity and Child Welfare, Ministry of Health, who opened the conference with a short speech referring to its interest and importance as the first purely medical gathering of its kind, and trusting that this

factor would conduce to great benefits in the way of full and unhampered discussion.

Short papers on the undermentioned aspects of maternity and child welfare followed:—

1. "The Development and Future of Maternity and Child Welfare," by A. F. G. Spinks, M.D., M. and C.W. Medical Officer, Newcastle-upon-Tyne.

2. "The Feeding and Care of the Premature Infant in the Princess Mary Maternity Hospital," by H. Glen Davison, M.D., Pediatric Physician, Maternity Hospital, and a Medical Officer to the M. and C.W. Centres, Newcastle-upon-Tyne.

3. "Some Practical Points in Infant Feeding," by Jas. A. Stephen, M.B., D.P.H., M. and C.W. Medical Officer, Aberdeen.

4. "The Clinical Value and Uses of Measuring Infants," by T. Y. Finlay, M.D., M. and C.W. Medical Officer, Edinburgh.

At the conclusion of the morning session the Lord Mayor and City Council entertained the delegates to lunch at the County Hotel, and renewed the warm welcome which had been extended to the Conference. The loyal toast was followed by that of "Maternity and Child Welfare," proposed by the Sheriff of the City, and replied to by Dr. Glen Davison, a member of the Newcastle staff.

The toast of "The Civic Authority," was given by Dr. Mabel Brodie, President of the Group, who expressed the warm appreciation of the Conference for the generous welcome and hospitality they had received in Newcastle.

On resuming the proceedings at the City Hall, the following papers were read:—

5. "Pyloric Stenosis in Infancy," by F. C. Pybus, M.S., F.R.C.S., Surgeon, Royal Victoria Infirmary and Fleming Memorial Hospital, Newcastle-upon-Tyne.

6. "Maternity and Child Welfare Problems in a County Scheme," by Mabel G. Brodie, M.B., D.P.H., Senior Welfare Medical Officer, Durham County Council.

7. "Observations on Stillbirth and its Prevention by Ante-Natal Methods," by H. Harvey Evers, M.S., F.R.C.S., Asst. Obstetric Phys., Maternity Hospital, Asst. Gynaecologist, Royal Victoria Infirmary, and Ante-Natal Medical Officer, M. and C.W. Centres, Newcastle-upon-Tyne.

All papers were listened to with much appreciation, and there followed a lively discussion, in which numerous members took part. It is hoped that some, at least, may be

reproduced in this journal as occasion allows, but space forbids a full report of all of them, or of the discussions, which were all too short in view of their invariably stimulating and instructive nature.

On Saturday morning, February 12th, the following series of excursions were arranged, both full of interest and instruction as regards local conditions in Newcastle and in the adjoining colliery area of County Durham. The journeys were accomplished most comfortably in motor vehicles, provided by the Corporation, and the delegates were again entertained to lunch *en route*.

NEWCASTLE AND NORTHUMBERLAND COUNTY.

Diana Street and Wharnccliffe Street Centres.

Babies' Hospital and Mothercraft Centre, Westmorland Road.

Gosforth (War Memorial) M. and C.W. Centre.

Chilchen's Sanatorium, and Dairy Farm, Stannington.

DURHAM COUNTY.

Birtley M. and C.W. Centre.

West Stanley M. and C.W. Centre.

Richard Murray Hospital, Blackhill.

E. F. Peile Convalescent Home, Shotley Bridge.

These visits concluded a delightful meeting, for which cordial thanks were expressed to Dr. Spinks and Dr. Brodie, who were responsible for the excellent arrangements, and to the Corporation and others in the locality who had contributed so largely to its success, by their generous welcome and hospitality.

THE NAVAL, MILITARY AND ROYAL AIR FORCE HYGIENE GROUP.

President: Lieut.-Colonel J. Howard-Jones, T.D., R.A.M.C. (T.F.), M.O.H. Newport, Mon.

Hon. Secretary: Major G. S. Parkinson, D.S.O., R.A.M.C.

A well attended meeting of this Group was held at the House of the Society, on January, 27th, 1927, the President in the Chair. Amongst numerous visitors present were representatives of the Ministry of Health, the High Commissioner of the Commonwealth of Australia and the Port of London.

Letters of regret of absence were read from Squad.-Leader P. Keane, Surg.-Rear-Admiral R. J. Mackeown, Major-General Sir William Macpherson, and Dr. L. M. Davies.

The minutes of the last meeting were read and confirmed.

Lieut.-Col. Howard-Jones delivered his Presidential Address, entitled "Hygiene in the Merchant Service." On the conclusion of a most interesting and instructive *résumé* of the position, both past and present, of this important subject, a cordial vote of thanks was proposed by Major-General Barrow, seconded by Surgeon-Capt. Shaw, and carried by acclamation.

The President expressed his appreciation, and said that he hoped there would be a discussion as well as free criticism of his remarks. There followed an hour of perhaps one of the most interesting discussions the Group has ever heard, in which almost all present took part.

The President, in his reply referred to several points raised, and intimated his willingness to draw up some resolutions for the improvement of the existing conditions in the Merchant Service, which would be placed before the Council of the Group, as well as a General Meeting, after which they would be forwarded to the Council of the Society for consideration.

APPROVED Societies under the National Health Insurance Scheme are now spending a sum of over £2,000,000 a year on the provision of dental treatment as an additional benefit. In order to enable Societies to obtain a second opinion as to the need for such treatment and to check estimates of cost received from dentists, and the standard of work and materials supplied, a service of Regional Dental Officers is being set up by the Ministry of Health. There are to be six full-time Regional Dental Officers in England and Wales, who will be stationed at London (2), Birmingham, Manchester, Leeds and Cardiff. The following appointments have been made by the Minister of Health on the recommendation of a Committee which has considered all applications received for the posts:—Mr. H. A. Mahony (Principal Regional Dental Officer), and Mr. Arthur Taylor, in London; Mr. J. Woodford-Williams in Cardiff; and Messrs. H. G. H. Cowell and T. Dilks Page. One other appointment has yet to be made. The cost of the service is to be met out of the funds of Approved Societies providing dental benefit under the new arrangements which have been agreed upon between representatives of the Societies and the dental profession.

Review.

THE FUNDAMENTALS OF SCHOOL HEALTH. By JAMES KERR, M.A., M.D., D.P.H., Consulting Medical Officer, London County Council. London: George Allen and Unwin, Ltd., 1926. pp. 859, illustrated. Price 35s. net.

"Clemmenkoo is our man; he is the best fresh, none of your marg." Thus did a certain hard-working grocer refer to M. Clemenceau when at the acme of his power. It was the highest compliment which his restricted imagination could envisage.

Applying the simile to Dr. James Kerr's "The Fundamentals of School Health," we may confidently say this his life's work for school hygiene as recorded in this book is certainly the "best fresh" that the present generation has had the good fortune to purchase.

This book is a worthy and a permanent record of the pioneer work done by Dr. Kerr and his school of assistants during two decades.

Treatises and books on hygiene have been written for every imaginable class of reader and from every conceivable angle of approach; but like oleographs of original paintings they are only copies of the first book on Hygiene that first saw the light. Dr. Kerr's book, on the other hand, is different; it is original and interesting in every page; a masterful exposition of the subject as could only be presented by a craftsman who knows his tools and how to use them. The scope of the book is so comprehensive, and the mass of new material presented so diverse, that a short review can scarcely do justice to the work. Everyone directly or indirectly interested in Hygiene must therefore study it for himself and learn the gospel which it teaches.

The first five chapters treat of fundamentals, the important facts of heredity, growth, physique, nutrition and diet, and this is followed by a detailed exposition of Dental Hygiene and the influence that food, light, etc., have on dentition. Obviously, a chapter on the etiology of rickets is necessary, and Dr. Kerr supplies this; in this chapter is summarised the facts as known and accepted at the present time. Particular attention should be given to the chapter on nutrition which is exceptionally clear and complete. Dr. Kerr

clearly has gone to much trouble in collecting and classifying a mass of detail. He summarises the facts and draws the following conclusions: for the growing child there are five essentials in nutrition, namely (1) the removal of every physical defect; (2) inducing the child to feed sufficiently at proper times; (3) providing adequate ventilation; (4) preventing all manner of fatigue, and (5) good home control both as regards food and general health. These, he adds, can only be attained by central supervision and control, and by educational propaganda.

The succeeding chapters are devoted to posture, gait and, of course, exercises. In these chapters again we have a masterly review of a variety of topics affecting the human being in the making; thus, the mechanics of the human foot, its evolution and its relation to posture and health. Associated with them are chapters on seating and desking the child; the varieties of crippling that may occur and their orthopaedics. The important subjects of tuberculosis and rheumatism, especially in their relation to school life, are fully dealt with, and later, the hygiene of the mucous membranes, and the aims and objects of open air teaching are considered. In Dr. Kerr's view rheumatism, although only rarely expressed as an acute articular form at school ages, is the most serious danger, both immediately and remotely, to child life, especially between the ages of 5 and 14 years, in this country. He adds that for school purposes it is permissible to speak of a rheumatic syndrome. Recurrent tonsillitis, chorea, rheumatic fever, sub-acute rheumatism, and carditis with its adjuncts, are symptoms which, when present either singly or with others, should be considered as part of rheumatic infection rather than any other cause. Chapters of educational interest and value follow; they deal with a great variety of topics, such as mental development, intelligence, sight, hearing, speech in its various aspects, and then the psychology underlying education.

These are succeeded by chapters on the pre-school child, the child of sub-normal intelligence, sub-normal vision and the blind child, sub-normal hearing and the deaf child, the aphasic and the stammering child. Obviously, to bring useful material for these chapters into being requires a wide experience and research; they require also a comprehensive knowledge

of neurology, psychology, the principles of education and even Parliamentary procedure. Dr. Kerr has here carried out a labour of patience and love in searching and editing the literature of the subject, and has again shown his profound knowledge in the masterly review he has presented of these subjects within reasonable compass. Of special interest, for instance, is the summary of the emotional, mental, moral and social qualities of the healthy personality culled from the reports of the United States Committee on Health Education.

According to Dr. Kerr, intelligence is one thing, morality another, wisdom combining both in a sound mentality.

The chapters on Medical Inspection and treatment and all they entail are, of course, very full. Dr. Kerr's views as to the methods of dealing with infectious diseases as they affect schools and children of school age deserve careful study. They are based on sound common sense and an experience of many years of active participation. Many health authorities are only too eager to put the school into the limelight as a focus for diffusion of infection, forgetting the importance of age incidence and domestic environment. The school child only spends a very few hours of his life in school, and whilst there is under discipline. Schools, therefore, if well controlled, cannot be directly responsible for the spread of infective diseases; as most of these diseases are those of children of school age they obviously reflect themselves in children attending school.

Ventilation is a subject which has undergone remarkable evolution of recent years and Dr. Kerr and his assistants have added their quota to this new learning. Very original, as he always is, he summarises like a judge for the reader the things that matter and the things that do not matter in ventilation.

As an active member of the Illuminating Engineering Society, to which he has contributed much new information, Dr. Kerr gives us first-hand information, as for instance, on methods and standards of illumination, and on such subjects as glare, brightness, and colour vision.

Statistical data are essential in all scientific study, for by their application we may co-ordinate, correlate, and compare all available facts. In a final chapter Dr. Kerr makes all this admirably simple and clear.

As he remarks, "The natural history of the child is one of the most wonderful things in the world. Its growth and development can only be observed, they are beyond comprehension." In this volume we have the child's history told by one who not only knows it, because he has made a study of it during his whole lifetime, but more, it is told by one who, like a Beethoven, is able to tell his story in a clear and interesting way and build up simple chords into fascinating symphonies.

Correspondence.

The Editor does not accept responsibility for the opinions of correspondents.

"THIS ADVERTISING FEVER."

To the Editor of *Public Health*.

Sir,—It was with great satisfaction that I read, in the last issue, Dr. Cyril Banks' article under the above head, containing views which were editorially described as "a little unorthodox in parts."

The curious thing to me is that there has not appeared, long ago, even more forceful dissent from the policy which is being thrust upon us, whether we approve it or not, and I heartily concur with Dr. Banks' exceedingly well expressed "heterodoxies." I have no doubt whatever that Dr. Banks is making vocal the opinions held by very many of us.

We are unanimous in our desire to teach health principles to the public, but the method advocated, by means of Health Weeks, Baby Weeks, and so forth, does undoubtedly produce the very undesirable spectacle of medical officers of health acting like cheap-jack showmen, and, worse still, trying to out-do one another in attracting public attention. Like the old club practice, where the doctor who gave the biggest "bottle" was acclaimed the best, so nowadays the medical officer who screams loudest is quite likely to be regarded as the finest sanitarian.

The Royal Sanitary Institute in circularising our local authorities is deliberately subscribing to this doctrine, and incidentally making things decidedly difficult for the medical officer of health, whose committee thinks that he is a slacker, and quite an exception among medical officers of health, if he is not prepared to take up the suggestion wholeheartedly, even although it means the interruption and dislocation of his department's work.

In my own town, for example, two-thirds of the infants attend the welfare centres regularly. If a baby week is ordained, the doctors and health visitors have to be diverted from their routine functions, to organise and run the publicity stunt, for voluntary effort, being unskilled, requires close control and direction. What is the result? The continuity of attendances is interrupted, and in many cases is only resumed long after the flare-up. Home visiting, too, is greatly interfered with, and altogether we lose both on the swings and the roundabouts. The exhibition, however good and painstakingly thought out it may be, can only prove at best a poor attraction, visited mainly by loyalists who are themselves of the converted, and its preparation is a source of much worry and overwork for those concerned.

The health week handbooks that have been shown to me with much pride by their producers have, in every instance, contained advertisements that violated our most fundamental principles.

There is a great demand, if given any encouragement, for addresses and lectures by the medical officer of health and his staff, to every description of society and organisation of young people and adults, whether religious, political, scholastic, athletic, industrial, or purely social or philanthropic, while the local press is always eager for signed articles on health matters, if written in attractive style, and these offer channels that will take all our time to fill adequately, while continuing the routine work of the department, which of itself is the surest and steadiest means of educating the public.

No, Mr. Editor, "stunts" are usually a great waste of time and energy, and are apt to become a flashy bit of display to conceal deficiencies in essential undertakings.

I am, Sir, Yours faithfully,
HAROLD KERR.

Health Department,
Newcastle-upon-Tyne.
February 16th, 1927.

FACILITIES FOR WET-NURSING.

To the Editor of *Public Health*.

Sir,—Wet-nursing has long been advocated, and was in former times employed as the most physiological method of "artificial" feeding

in a case where the mother's breast milk had failed, or was for other reasons not available. The practice has, however, fallen into disuse in the last few decades, for reasons into which I need not enter, and it is an anomalous circumstance, that in spite of the hold which maternity and child welfare has gained on popular opinion in this country, and in spite of the almost universal advocacy of breast feeding by maternity and child welfare medical officers, no general attempt appears to have been made either by the enlightened public or by the medical profession to seize hold of the readiest means of putting this principle into practice for the benefit of difficult cases. There must in London, and in all large and congested areas where maternity hospitals, poor law infirmaries, women's homes and hostels, and maternity and child welfare centres serve public and, in particular, maternal needs, exist facilities for providing a system of wet-nursing which, conducted under proper precautions, would be of undoubted benefit to all engaged in the problem of rearing delicate and difficult infants.

If any metropolitan medical officers of health with municipal clinics or hostels in their area, medical officers of individual infant centres, or physicians to infant or maternity wards, who are interested in this idea, and would be willing to co-operate in the organisation of such a system, would send in their names to this address, a meeting would be arranged at which the possibilities, financial and otherwise, could be discussed.

I am Sir, Yours faithfully,
MARGARET EMSLIE, *Hon. Secretary*,
Maternity and Child Welfare Group.
22, Wimpole Street,
London, W.1.
February 18th, 1927.

DR. J. B. FERGUSON, formerly of Smethwick, and at present Medical Officer of Health for Bethnal Green, is resigning that position on being appointed Medical Superintendent of the Tuberculosis Division of the Government of Victoria, Australia.

DR. MEREDITH YOUNG, county Medical Officer of Health for Cheshire, has been re-appointed Lecturer in School Hygiene in the University of Manchester, for a period of three years.

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Editorial.

At Royal Leamington Spa.

IT may have been a remorse of conscience, as they say, on the part of members of the Council of the Society that accounted for the very much better attendance at the meeting held on March 18th at Leamington Spa. Or there may have been other reasons: amongst them the possession by Leamington of certain attractions denied to Manchester, for example, or a definite anticipation that there awaited the Society at the hands of the Mayor and Council of this famous spa, who had extended the invitation, a most warm welcome and kindly hospitality. If there was such an anticipation it received ample confirmation,

and members were loud in their appreciation of the hospitality shown, and the excellence of the arrangements made for their convenience, comfort and entertainment. Some of that praise went also to the President and Mrs. Snell for the part they played in the reception of the Society. To the President particularly, members were indebted for the admirable manner in which he voiced the thanks of all present, in reply to the speech of welcome by the Deputy Mayor, at the luncheon, which was only one of the entertainments provided.

So far as work was concerned, conceivably it arose out of the amenities of the meeting that

this was of the highest order, not excepting that done at the Council, where, as will be seen from the special report in the appropriate part of this number, the chief question discussed was the establishment of a Health Education Committee and the starting off of this body on what may be hoped will prove a highly successful and useful career.

The ordinary meeting, like all such meetings in the provinces, and unlike the majority of those held at headquarters, was very well attended, and though the subject for discussion, "The Co-ordination of Child Welfare and School Medical Work," was an attractive one, the feeling cannot be escaped that it would have been much better and certainly more enterprising if the time devoted to it had been given to a fuller description of the spa treatment in Leamington, and a more complete inspection of the arrangements provided.

Of the meeting as a whole, however, it may safely be said that it has added further justification to that afforded by those at Newcastle-upon-Tyne, Glasgow and Manchester to such as pressed for the introduction of some arrangement under which a certain number of meetings each year should be held elsewhere than in London.

* * * * *

A Cruel and Wasteful Disease of Childhood.

THIS disease is acute rheumatism, and this description is applied to it in the preface to the report (Special Report Series, No. 114), published by the Medical Research Council in which the results are given of an investigation into the relation between social conditions and acute rheumatism, organised by the London Committee for Child Life Investigation, under the Chairmanship of Dr. G. F. Still. Knowing that in England and Wales some 58,000 deaths occur annually from rheumatism and rheumatic heart disease, and that in London alone there are to-day, in the neighbourhood of 10,000 children suffering from heart affections following this disease, who will not regard the description as just, and such an investigation as that directed by Dr. Still as appropriate? Reading the report there can be none but will agree that it has been carried out with the utmost skill and the most painstaking thoroughness. Having regard to the composition of the band of workers chosen to make the investigations and to sort the results and test their statistical

significance, this cannot be wondered at. Of the accuracy of the investigations and the reliability of the conclusions there is no room for doubt. That these conclusions are largely of a negative character the report admits, and for those who did the work as for those on whose behalf it was undertaken there is sadness in this. Even though they are mainly negative, however, there is left certain room for optimism so far as the victims and possible victims are concerned, a certain amount of light being thrown in the direction of causation and some indication obtained as to the line to be followed in relation to prevention. From the report it is to be gathered that everything that could possibly be regarded as a social condition was investigated amongst the class of children to whom it was limited. The reason for the limitation to the class from which hospital patients are drawn was, of course, that acute rheumatism is notoriously common amongst the children of this class, and rarer among those of the more favourably situated. And it was primarily to discover why this should be so that, having marshalled all the differences there are in circumstances and surroundings between the two classes, arrangements were made for a minute investigation of each one of them in a number of centres in all their aspects by individuals presumably with special knowledge of each aspect. The field covered was wide, and was all the wider since, wherever it was possible, observations were controlled, the conditions being investigated in relation to children who escaped as well as to those who were attacked. The total number of affected children passed under review was over 700, some of them attending the Children's Hospital, Great Ormond Street, some St. Thomas's Hospital, and some the Royal Hospital for Sick Children, Glasgow. Amongst these and the controls locally chosen with the object of arriving at some decision as to the relation of heredity, there was close enquiry into familial incidence of rheumatism. Research was conducted also into the relation of throat conditions to acute rheumatism, and in this connection and for control purposes was extended to take in a number of children attending Poor Law schools. Evidence as to infectivity was also sought, and it is interesting to note that contrary to what is probably the general view, the evidence obtained was more or less at any rate in favour of those who believe in the existence of a

specific causative agent and that the disease is spread by infection with this. Indeed, so much impressed was Dr. Still by the necessity for further enquiry into the possibility of spread by contagion that he is led to suggest that, difficult as it might be, acute rheumatism should be made a notifiable disease. So far as purely social conditions were concerned, amongst the matters investigated were certain factors affecting the child, such as maternal care, sleeping accommodation, clothing, cleanliness and such like, as well as others involving the parents, their characteristics, birthplace, occupation and income. Housing was most fully gone into, and in order to obtain reliable information in this connection the assistance of members of several Health Departments very wisely was sought. The evidence obtained here, as in other respects, was largely negative. Even with regard to dampness of dwellings, in spite of views recently expressed by another group of investigators, this was so. Unable to show definite relation, the report does not, however, exclude dampness as a factor. Like many other conditions it has its part, contributing with such things as overcrowding, defective lighting and ventilation, and—most pathetic of all—maternal neglect and drunkenness, to the lowering of resistance of the child and the tendency to succumb to the disease and its sequels. Other matters enquired into were the seasonal incidence of rheumatism and its incidence in relation to pigmentation of hair and eyes. The results here were again inconclusive, no very complete support being found for the views generally held in regard to these matters. Indeed, as indicated and as admitted by Dr. Still and others, the findings in most instances were more or less negative. Even so, however, it cannot be said of them that they lead nowhere. They provide encouragement for more effort on behalf of the victims of "this cruel and wasteful disease of childhood." The need for the provision of better care and treatment for those who are affected, in order that heart sequelæ may be prevented or their effects mitigated, is made clear, and even clearer the certainty that, in spite of the inability to blame any one particular environmental factor as responsible, one of the ways to betterment and reduction in the amount of rheumatism in childhood is in the direction of improved environment. Better housing, less crowding, better social conditions generally, will all play a part, and some of these at any

rate, the Public Health Service can help to secure.

* * * * *

The Treatment of Flour With Chemical Substances.

IT is primarily owing to the fact that the lower wage-earning and very poor classes in this country obtain 50 per cent or more of their energy, and about the same percentage of their body building material from bread, that the investigations into this subject are so important. The report of the Departmental Committee appointed to make the enquiries shows the extraordinary difficulties that arise when measures necessary for guarding the health of the people from probable, but perhaps unproven, dangers appear likely to interfere with home employment or to increase the price of the article or to lessen the total amount of food available or to go against popular desires and demands. The report also gives a particularly lucid explanation of the uses of the various additions to flour and their possible deleterious effects, and from this point of view alone, it will well repay careful reading.

It is clear from the *résumé* given of the legislation affecting the purity of bread that until the passing of the Bread Act of 1922, no "chemical" substances except common salt were allowed to be added to flour or bread, and that the Act of 1922 only relaxed this prohibition with regard to substances used to make the flour 'self-raising.' Many of the additions to flour common at the present time are apparently, therefore, contrary to the law.

The various substances added to flour are for the purpose of bleaching or "improving" or for a combination of the two. "Improvers" either act upon the gluten, giving it better rising qualities and greater power of retaining gas, or they act as foods for yeast, and so cause greater development of gas. Gluten of wheat from different countries and of wheat of different grades varies much in its rising qualities. Wheat improves in this respect with keeping, and there seems reason to think that the improvement depends upon an increase of acidity or if not actually due to an increase of acidity, it varies with this increase. By keeping and by the addition of "improvers," the rising, but not necessarily the nutritive qualities of the "lower grade" wheat can be lifted to the level of the "higher grades."

The principal bleachers and improvers used are nitrogen peroxide and benzoyl peroxide for bleaching; acid calcium phosphate, acid ammonium phosphate and persulphates as improvers; and chlorine and nitrogen trichloride for both purposes. The dangers from these added substances are two-fold—the substance may directly injure the consumer, or may injure the flour and bread. From our knowledge of the instability of some of the constituents of food, and from the fact that bread is by far the most important of our diet, the injury to the food itself is probably infinitely the more important.

Advocates of "improvers" point out that the addition of some of these may be looked upon as supplying a deficiency in the lower grades of flour. This suggestion requires very careful examination before it can be accepted. The report states that the minerals are mostly added in a form and combination different from the natural minerals of the grain.

The Committee appears to have been impressed with the evidence put before them with regard to the effect of prohibition of "bleachers and improvers" upon home trade and food supplies. They say, "We cannot, however, avoid the conclusion that a prohibition of the use of bleaching agents or of improvers would probably make the competition of home millers and oversea millers more acute" and "... any restriction of the practice of bleaching and improving must apply to imported as well as home-milled flours."

There is an obvious difference between the use of bleaching agents and improvers. The employment of bleaching agents has created a demand which appears to be the only justification for its continuance. Education of the people and gradual enforced restriction of bleaching should in time solve this part of the problem. The abolition of improvers seems at present to be beset with difficulties, but the report holds out some hope that the same end may be attained by physical manipulation of the flour at raised temperatures.

That section of the report dealing with considerations of health starts off with two fundamental statements of the highest importance—"The series of legislative measures which have been enacted at intervals during the history of this country, with the object of maintaining inviolate the purity of the flour supply, we regard as inspired by a sound

instinct, and we think that the responsibility of relaxing this principle is a very grave one, particularly at a time when research is beginning to throw new light upon the existence and properties of the more subtle constituents of food-stuffs and their reactions to various forms of treatment, and when further discoveries may be anticipated. Our view, then, is that flour should be a product of the milling of wheat without the addition of any foreign substance."

Imbued as they appear to have been with these high ideals, the Committee must have been greatly impressed with the difficulties and dangers of carrying them into practice, for their report falls very short of recommending that "flour should be the product of the milling of wheat without the addition of any foreign substance."

The actual recommendations for legislation are two, and may be summarised thus:—(1) that the use of the least objectionable substances only should be allowed, and, in particular, that the use of chlorine, nitrogen trichloride and benzoyl peroxide should be prohibited; (2) that manufacturers of these chemical substances must declare their composition to their purchasers, and millers give all information as to these added substances to their customers, no suggestion, however, being made that the retail seller of bread and flour should pass on the information to his customers.

These recommendations cannot be accepted, nor are they intended as a final solution of the problem, but merely as a statement, after careful consideration from trade as well as health aspects, of what is *at present* practicable. In this connection, the law in other countries is of great interest.

It is stated in the report that the States of the Commonwealth of Australia require "that flour shall not be artificially bleached nor shall it contain any foreign matter, and that bread shall not contain any foreign mineral substance except common salt," and that the New Zealand Government have prescribed a similar standard. These countries are not confronted with the same food supply and trade difficulties as confront us, but this action shows the importance that they attach to a pure and undefiled bread supply, and they have put before the rest of the world an ideal that should be aimed at. An ordinance of the Swiss Government, dated February, 1926,

forbids the bleaching of flour, but in the United States bleaching is at present allowed unless such a quantity of bleaching agent is added as may render the flour injurious to health, but "bleached flour is required to be branded plainly to indicate that it has undergone a process of bleaching."

One can only hope that this report will be the starting point for intensive research with the object of getting rid of all additions to flour with the minimum of interference with the nation's trade and the nation's food supply. Education of the people is the most important matter of all, for with a rational demand the problem would be greatly simplified.

Perhaps the report will be the precursor of investigations and reports upon the desirability or otherwise of retaining a greater proportion of the grain in our flour and the possibility of helping this end forward by legislation.

The Committee that carried out the investigation in this case, it may be added, was that originally appointed to inquire into the question of preservatives and colouring matters in food, the reference being extended to include flour at the conclusion of the first inquiry in 1924.

* * *

The Health of the Worker.

IT is a curious thing that of all discussions that have been held with regard to health propaganda and education in health the chief reference in the majority, so far as the health service at any rate is concerned, would seem to have been to the necessity of dealing with mothers and children, the latter more particularly. Put briefly, there appears to have been more or less of a centralization around the home and the individuals most commonly encountered in the home by visitors from the health department. The working members, who, of course, are rarely seen, appear to have been overlooked in the programme; certainly not to have been given a place of any prominence or to have been considered at all in relation to their work. Overlooked or forgotten or inadequately provided for in the schemes of local authorities, they have not been neglected however, since, within the last few years, there has come into existence a body with the definitely avowed object of dealing with the working section of the population and no other; teaching its members and helping them towards better health and in regard to the

safeguards that individually and conjointly they can provide and maintain against interference with health. The body in question, the Industrial Health Education Society, a re-constitution of the Industrial Health Education Council, has only been in existence and operation in England and Wales since October, 1926, its activities prior to that date having been limited to Scotland, where it took its origin in 1925. From the annual report submitted at the first annual meeting held on February 25th, 1927, in Edinburgh, it is to be gathered that during the short time the Society has been in action a great amount of work has been done. During 1926, in spite of the general strike and the coal strike, no fewer than 112 lectures were given to the members of a number of different industries by medical practitioners and dental surgeons mainly. The medical lectures are adapted to the particular case of the trade from which the audience is drawn, and in general the audiences are large, since in all cases they are given at the request of the body representing the trade, who undertake to provide not only the audience but to make all local arrangements. So far as its organisation is concerned, the Society aims at carrying out its work through various area councils. Of these there are five, four being in England and Wales, and each includes representatives of various bodies interested in health work, amongst them the Society of Medical Officers of Health and the Royal Sanitary Institute, with, in addition, representatives of employers and employed, both of whom not only thus show approval of the objects of the Society, but contribute liberally also to the funds. The annual meeting was well attended, and from the diversity of the interests present, as well as from the declarations of certain of the speakers, it may be gathered how real the approval is and how easy it is to obtain friendly co-operation, even amongst those who are often opposed, when questions of health betterment are concerned. Of interesting personalities present may be mentioned Sir William Haldane, a prominent representative of the legal profession in Scotland, who is Chairman of the Society; Lord Salvesen; Sir John R. Findlay; Mr. Webster, President of the Scottish Trades Union General Council; Mr. Robert Smillie, M.P.; Dr. McKail, of Glasgow; Dr. Clark Trotter, Medical Officer of Health, Islington; Dr. W. H. Dickinson, O.B.E., Tuberculosis Officer, Newcastle-upon-Tyne; and Sir Thomas

Oliver. Amongst those who spoke, in addition to the Chairman, who explained the objects of the Society, was Lord Salvesen, who emphasised that these objects were non-controversial and that the body was entirely non-political and pledged to take no part in any such questions as between employers and employed and otherwise. The support of the Trades Union Council they had secured and necessarily also they had the goodwill of the employers, because while it was of importance that the operative should maintain his health, it was also of importance for employers that their workmen should not be too often absent through unnecessary causes. It was to this point of the goodwill of the employers that Mr. Robert Smillie particularly directed his remarks, expressing himself as having heard with pleasure that the great work the Society had undertaken had the approval of the employing as well as the working classes. To the members of the public health service that there is this approval by both bodies, but more particularly that of the workers themselves, must be pleasing. They will note also that Dr. Clark Trotter, a member of that service, in reporting on the work of the area councils, he himself being Hon. Secretary of the London and District Area Council, gave it as his impression that the Society was meeting a "long felt want," and that the lectures secured, by way of audience, members of the population who otherwise might be missed. Continued demands were being made for speakers and much interest had been aroused in this previously much-neglected field of health education work. These views were reiterated by Sir Thomas Oliver in the course of an able and greatly appreciated address. That the Society may go forward and prosper must be the hope of everyone interested in health propaganda and education work. That it will be of assistance to the medical officer of health cannot be doubted; nor can it be doubted that the closer the co-operation between him and the Society the better results will be. That both bodies believe this is shown by the fact that our Society has sent representatives to the Industrial Health Education Society and by the reciprocal gesture of this body in appointing a medical officer of health (Dr. Charles Porter, St. Marylebone) as vice-chairman, and Sir John Robertson, Drs. Clark Trotter, Fenton, Kerr, Veitch Clark and others to various positions on the general council or area councils.

The Common Lodging-House and the Common Lodging-House Class.

IN London the County Council is the body responsible for the licensing of common lodging-houses, employing a special staff of men and women to carry out the main part of the supervision of these places throughout the metropolitan area. Though the reasons for this may be obscure, and the economist may have difficulty in understanding why the rate-payers should be required to pay for a special central organisation when there are local organisations in each of the boroughs in which the premises are situated, there can be no doubt that the work has been well done and that as a result, most useful information has been obtained. The chief value of much of this is sociological, and in a special report* recently issued, on Common Lodging-houses and Kindred Institutions, prepared by Dr. Kay Menzies, the Medical Officer of Health of the London County Council, this is well brought out. The report, indeed, is an admirable annotation on the whole subject of common lodging-houses and the class who resort to such institutions. It provides information on a number of points that are bound to arise from time to time in the experience of every medical officer of health and that frequently prove troublesome of solution. From the description given of the class of individual to be catered for in the early part and middle of last century and the accommodation provided at that time and the facts and figures as to the state of affairs at present, there is little room for doubt that there has been improvement in both. Conceivably, the effect has been more marked in the case of the accommodation provided and it is to the efforts of the London County Council, to a large extent and so far as London is concerned, that credit must be given for the improvements. In respect of the improvement in the case of the users of the accommodation provided, though the human element is less amenable, the work done by the Council and the officers has, it may be claimed, played a great part. As the report indicates the "common lodging-house" class is a fairly definite one, and the habitués of such places have characteristics little likely to alter. Within recent times it is probable that

* Common Lodging-Houses and Kindred Institutions. London County Council Reports, No. 2,489. Published by P. S. King and Son, Ltd., 14, Great Smith Street, Victoria Street, Westminster, London, S.W.1. Price 1s. 6d.

changes for the better have occurred, though perhaps it may have been more in the nature of a grading of the individuals. In regard to all the grades, even the highest, there is, of course, some cause for anxiety since inevitably, though it may be unjustly, there is involved some loss of caste in the resort to an institution of this kind, and once the habit has been acquired the individual, in some degree at least, loses all touch with domesticity and deteriorates from the type upon which it is believed the nation must rely for its making and maintenance. In the lowest grades, which may be taken to lie just above the level in which the destitute and the completely down and out are to be found, it may be hoped that the greatest improvement of all has occurred. The accommodation available for them certainly has, even though, as is alleged, the beds may, in a few cases, be "ill-made straw sacks on sheets of corrugated iron," or consist of bedding incased in American cloth covers. As evidence of improvement may be taken the statements in the report upon which is based the view that the task of providing temporary accommodation for the homeless person in London is one that presents no real practical difficulty. The figures that have been obtained as a result of careful periodical censuses are extremely interesting so far particularly as they relate to women. One thing they do is to disprove the allegation quite commonly made as to the hundreds of women who tramp the streets of London nightly. The number actually found homeless is remarkably small, infinitely smaller than the number of beds in common lodging-houses ready and waiting to receive them. On the subject of women in relation to institutions of this kind the report is most illuminating, and most of the views expressed, even though many of them are met for the first time, few will dispute. That, for example, the ordinary working woman or girl does not really care for life in a common lodging-house, and that it is unwise to increase the amount of cheap accommodation unduly, on consideration most will admit. To support these and other views expressed the report is ready with facts and figures all impressive and so put that they are easy and pleasant to read, and none the less interesting because they tend to make the reader regard common lodging-houses and the dwellers in houses of this class from an angle which, if it is not new, is at least unusual in the case of members of the health service.

Maternal and Neo-Natal Mortalities.

MATERNAL and neo-natal mortalities alike continue to be problems distracting to the physician, while affording scope for interesting hypotheses to investigators existing in less close and harassing contact with the individual emergencies which in man they represent. Despite a propaganda carried on for some years, and in manifold places and directions, they have succeeded hitherto in exacting their toll much as when affairs ante-natal were left to themselves, and a certain heavy destruction was considered to be a natural phenomenon in human reproductive processes, in civilised countries and epochs at any rate. The result of the awakening of conscience, and of the enlightenment which has caused clinics for ante-natal supervision to be organised, or in some cases improvised, all over the country, may not be tangible for some time, though in passing it may perhaps be ventured that more would have been accomplished if these clinics had more deliberately and generally been allocated to those whom they are best calculated to instruct and assist, i.e., the practising obstetricians themselves.

Two recent publications, while adding little to essential knowledge, corroborate as reasonable, much that has been guessed and hoped for from the general provision that has been made for ante-natal work. The special report* of Drs. Eardley Holland and Janet E. Lane-Clayton is the result of an attempt to discover by clinical and pathological study the causes of death in a series of hospital cases where facilities for careful investigation appeared to be at hand, but the data available for statistical purposes have, to a large extent, as was no doubt inevitable, been impoverished by the greatly varying completeness and definition of the reports supplied by different observers. In spite of this, and thanks to the prodigious labours of the two collaborators, the report supplies a mass of valuable and instructive information. The one most interesting and significant fact elicited had reference to the occurrence of tentorial tears, which were found on post-mortem in no less than one-quarter of the total

*CHILD LIFE INVESTIGATIONS. A Clinical and Pathological Study of 1,673 Cases of Dead-Births and Neo-natal Deaths. Compiled by Eardley L. Holland, M.D., F.R.C.S., F.R.C.P., and Janet E. Lane-Clayton, D.Sc., M.D. Medical Research Council Special Report Series, No. 109. London: His Majesty's Stationery Office, 1926. pp. 94. Price 3s. 6d. net.

cases examined, and in one-half of the cases delivered as breech and occipito-posterior positions. Ante-natal work need hardly seek a better peg to hang its hat on for the future than the timely diagnosis and treatment of these two conditions, neither of which at the stage at which they ought to be treated is a matter of peculiar difficulty, danger, or even skill. With regard to contracted pelvis, out of 133 cases in which labour was allowed to occur spontaneously, no fewer than 55 of the foetuses suffered the operation of craniotomy, and 33 out of 42 cases in which forceps were applied died during delivery. This represents a considerable amount of damage for which remedial measures left till the full term of pregnancy must have been too late unless informed and dictated by previous supervision. Craniotomy as an obstetric expedient is hardly in fashionable favour we should have thought, and we have confidence that in the cases in which it occurred it meant an ultimate emergency every time; in the simple forceps cases naturally a minor lack of judgment might more easily have accounted for an equally unfortunate result. The figures relating to accidental hæmorrhage and to eclampsia bear out the accepted doctrine of the relation between these conditions and albuminuria, for the latter symptom was present in 41 out of 57 and 45 out of 46 cases respectively in which a note of the urine examination was made. Out of 52 cases of "unknown cause" of foetal death in which an examination of the placenta was made, 34 showed signs of infarction, hæmorrhage and other abnormalities, these again no doubt, representing a certain incidence of suspicious symptoms such as bleeding and pain during pregnancy, by which the ante-natal observer would have been forewarned, if not forearmed. Limited and incomplete as they are, the statistics entirely support the idea that in better ante-natal care lies the road to eliminate the unnecessary occurrence of abnormal labour and its attendant manipulations, the overlooking and neglect of ante-partum hæmorrhage and of imminent toxæmia, which contribute so startingly in the final event to foetal and neo-natal death.

Dr. J. S. Fairbairn's review of the maternity work done by the Queen Victoria Jubilee Institute during the last twenty years is a little more encouraging. He claims attention for their mortality rate, consistently under one-half the general rate for England and Wales

during that period; this rate having been maintained while the number of confinements involved had risen tenfold. Coincidentally the percentage of cases for which medical help was summoned had risen until in the last two years it had reached the somewhat curious and dismaying figure of one quarter the total cases attended, although new rules and privileges in regard to such things as temperatures and minor eye discharges, no doubt account for much of this. In the two years in which this figure was reached, two-thirds of the cases for whom help was summoned were actually in labour at the time, and one-sixth of the whole series attended required help for delay in labour, the not unexpected result in such circumstances being that in almost 50 per cent of cases for whom aid was sought delivery was effected by the use of forceps. Dr. Fairbairn shakes his head sadly in contemplating the extent of this failure of doctor and nurse to secure delivery by the natural forces, and not a little reproachfully as well when he discovers that the increased use of medical aid (from 8 per cent to 26 per cent) has shown "no corresponding improvement in the maternal mortality rate." His wish that a greater patience might well be added in some cases to the armoury of those who practise obstetrics, especially our now highly qualified midwives, we endorse with all respect to both, while heartily congratulating the Queen Victoria Jubilee Institute on the lead which they have given their own profession and ours in the campaign to secure greater safety in childbearing.

THE Preventive Medicine Section of the Royal Sanitary Institute Congress, to be held at Hastings, will discuss the Notifiable Infectious Diseases of the Nervous System on Tuesday, July 12th, and Smallpox on Wednesday, July 13th, 1927. The President of the Section is Sir John Robertson, C.M.G., O.B.E., Medical Officer of Health, City of Birmingham, and the Recording Secretary, Dr. Charles Porter, Town Hall, Marylebone Road, London, N.W.1.

THE thirteenth annual conference of the National Association for the Prevention of Tuberculosis will be held at British Medical Association House, Tavistock Square, London, W.C.1, on June 30th, and July 1st, 1927.

Puerperal Fever and Puerperal Pyrexia.

By ARCHIBALD DONALD, M.A., M.D., F.R.C.P., Consulting Honorary Surgeon, St. Mary's Hospital, Manchester; THOMAS A. GOODFELLOW, C.B.E., M.D.; J. JOHNSTONE JERVIS, M.D., D.P.H., Medical Officer of Health, Leeds; D. SAGE SUTHERLAND, M.D., Ch.B., Medical Superintendent, Manchester City Fever Hospital; and Professor W. W. C. TOPLEY, M.D., F.R.C.P., Professor in Bacteriology, Victoria University, Manchester.

Dealing with conditions of considerable importance to the medical officer of health, these papers, which were read at a meeting of the Society held in Manchester, on December 10th, 1926, and that attracted very large numbers of members of the Society, contain information given by writers of experience that cannot fail to be of great practical value.

Dr. ARCHIBALD DONALD.

The Point of View of the Consultant.

Dr. Donald gave his impressions from the point of view of a consultant. He spoke in the double capacity of a surgeon to a maternity hospital and of one who was called in to see cases in private practice.

In hospital work he went back to the time of carbolic acid. Although Listerism was an undoubted success in general surgery, it failed in midwifery practice. The solutions which were of sufficient strength to act efficiently were too irritating for the hands of the doctor and nurse and the skin of the patient. There was some improvement in hospital results, but not very much.

The real improvement came with the introduction of mercury as a disinfectant for the hands. For the first time the hospital became the safest place for a confinement. Later on aseptic methods were introduced with all their careful and elaborate technique, and the improvement in results went steadily on. At the present day the hospital statistics were very good as regards the absence of septic infection. They would be still better if a sharp line were drawn between cases which were examined before admission and those which were admitted without having been investigated outside.

In private practice carbolic acid was never generally used, on account of the objections which had been noticed. The introduction of mercury showed the same results in private as in hospital practice, although they were not so striking. More recently an attempt had been made to bring hospital conditions into the homes of the poor and this had undoubtedly done harm. There had been little or no improvement in

the incidence of puerperal fever in the last thirty years.

It was impossible for a medical man and a nurse to carry out the necessary details of the aseptic system. The proper use of gloves was impossible in cases in the homes of the poor where the doctor was single handed or was helped by one woman more or less trained. Gloves had been a snare rather than a help. They gave the doctor a false sense of security and were often responsible for a very perfunctory disinfection of the hands and arms. They had led to the abandonment of mercurial lotions which had been displaced largely by lysol. The objections to this disinfectant were the same as those that applied to carbolic acid—the solution if effective was too strong for comfort, and if too much water was added (as was usually the case) it was useless.

Dr. Donald pleaded for a return to antiseptic midwifery. The essentials were:—

(1) Disinfection of the hands. This involved a conscientious scrubbing with soap and water for five minutes, and then a soaking for at least three minutes in a solution of 1 in 1,000 perchloride or biniodide of mercury.

(2) Disinfection of the patient's skin. Iodine or picric acid might be used, but a thorough washing, followed by swabbing with the mercurial solution, was preferable. A bowl of the solution should always be at the bedside and frequent rinsing and swabbing should be performed through the whole course of the labour.

(3) After the labour was completed a sterilised or antiseptic pad should be applied. All instruments and silk worm gut sutures should be boiled in the house.

These measures were simple but essential. They could be carried out in the poorest cottage and if they were universally employed he felt sure that there would be a rapid diminution in cases of septic infection. There were advantages in some additional precautions, such as employment of sterilised overalls and towels. A stronger solution of mercury and spirit might be used for the hands. Gloves should only be used on hands which had been thoroughly sterilised. Their only advantage in these cases was that their surfaces were more easily cleansed with antiseptic solutions than the skin.

Dr. Donald called attention to the recent revival of the theory of endogenous infection and gave reasons why this theory could not be accepted. He considered it to be a very dangerous doctrine.

Dr. T. A. GOODFELLOW.

The Point of View of the General Practitioner.

The problem of puerperal fever and puerperal pyrexia as it appeals to the general practitioner is probably of greater importance than any other series of puzzles whose solution calls for his assistance, and two of the factors to whose influence it owes this position are; first, the problem is not much nearer solution than it was a generation ago, and secondly, the inherent character of its difficulties as evidenced by the fact that the Society has decided to attack the question from five points of view.

Of these five aspects there can, I think, be none of wider interest than that which falls to my lot to discuss, if only for the reason that the general practitioner ought to be the first in the field of attack.

In the time at my disposal it would be absurd to attempt to cover the whole ground legitimately open to the family doctor, and I must be content in the main to speak of the relations which should subsist between the medical officer of health and the general practitioner in our attempt to fight the scourge. But before approaching this question, I should like to say a word or two as to the association between the consultant and the general practitioner, with especial reference to the teaching of midwifery in the schools.

It is obvious that the first link in the chain of attack on the puerperal enemy must be a well-equipped practitioner, be that practitioner a medical or a certified nurse.

I have no desire to enter into that most futile of discussions as to whether the doctor or the nurse is or has been the more responsible

for the prevalence of the disease, but I think we shall all agree with the opinion of a friend, who, when asked by Sir George Newman, during an informal talk on the medical curriculum, what he considered to be the essentials to be aimed at in the training of the general practitioner, replied that the newly qualified man "must be able to diagnose an acute abdomen, and that he must know his midwifery." I am not in a position to say with conviction that the latter requirement is forthcoming to-day; my suspicion is that neither the doctor nor the nurse is sufficiently conversant with the abnormal to recognise when help should be sought, and I fear that to some extent there still remains the mental attitude of the patient who thought she was praising her doctor when she told one of his colleagues that "he was a very kind and clever man, and the way he brought her through the fever after her baby was born, was simply wonderful."

I need not stop to discuss the remedy for this state of affairs, but I venture to urge that its existence is of sufficient importance to justify the throwing open of some of our well-equipped poor law hospitals for teaching purposes and the greater use of the voluntary maternity hospitals for post-graduate work in midwifery. I am aware that such suggestions are open to methods of destructive criticism, but I am convinced that the first step in the solution of the problem before us must lie in the realm of education and re-education.

From no statement of the position as it affects the general practitioner can be omitted a reference to the importance of *pre-natal* work in midwifery practice. This is, after all, only a re-statement of ancient principles; but they can hardly be re-stated too often. We are apt to take too much for granted in our advice to pregnant women, and time is never wasted when we urge upon our patients, especially in the later months, the importance of increasing the resisting power of the individual by abundance of good food, fresh air and sunlight; freedom from mental anxiety; reasonable exercise with sufficient physical rest, and attention to personal hygiene as dictated by common-sense; nor need I stress the importance of frequent examinations of the urine for albumin or sugar.

I need not make more than a passing reference to *prophylaxis during labour*, important though the subject is. In view of the impossibility of rendering the field of operation completely free from organisms during labour,

we must I think, be content to compromise by the free, the very free, use of hot water and soap, of mercurial antiseptics (preferably, as I think, the biniodide) to the external maternal parts after cutting short the vulval hair. The same ablutionary methods are equally applicable to the hands of operator and nurse, and here again biniodide of mercury is my favourite antiseptic. To this ritual should be added the immersion of the hands in alcohol. The use of rubber gloves is a much debated practice. My own custom is to use them if I have any excoriations in the skin of the hands or if an intra-uterine exploration is necessary.

In instrumental cases everything must be carried out as in a major surgical operation, including the wearing of rubber gloves, and in my opinion an intra-uterine douche of normal saline solution or 1 drachm of Tinct. Iodine to the pint should be given. In these cases all perineal and vaginal tears must be dealt with at once; lacerations of the cervix, unless deep, may be left to nature.

Prophylaxis after delivery also demands consideration in passing, for although most severe forms of puerperal sepsis are due to organisms introduced during labour, the early days of the puerperium find the local conditions of the generative tract very favourable to the growth of pathogenic organisms. The presence of organisms in the uterine cavity after the third day of the puerperium is now an admitted fact even in cases in which there has been no digital examination during labour; but these rarely if ever give rise to untoward symptoms probably for the reason that in the majority of instances the soil is unsuitable for the development of their toxic powers. But if for any reason there has been delay in the formation of a protective granulation tissue over any breach of surface of the birth canal the importance of strict cleanliness in the after treatment along the lines adopted during labour is obvious.

Having thus very briefly outlined the principles which should underlie the training of the general practitioner and with which, I am sure, we must all be essentially in agreement, I come to deal with the association of the medical officer of health with the practitioner in relation to the puerperal state. This has always been a somewhat thorny question. It has been beset on both sides by difficulties, many of which have been vested with an importance which, in view of the seriousness of the problem at issue, can only be regarded as an exaggerated one. There can, I fear, be no doubt that the old-

time feeling of antagonism between the private practitioner and the public official has not altogether disappeared; nor do I think that its partial retention can be explained by the fact that the public official must on occasion assume the rôle of complainant.

In finding an explanation for the continued existence of this mental state one is driven to the conclusion that it is largely the outcome of the fear that the modern developments of preventive medicine are going to make it impossible for the general practitioner to live, and that we are rapidly moving towards the institution of a whole-time State Medical Service—which God forbid. The experience of a third of a century spent in general practice leads me to believe that, on mere economic grounds, this fear is a bogey, and that it is still true that, given reasonable ability, sound equipment, and good behaviour, the general practitioner can expect to live in comfort.

You have probably all seen Sir Humphrey Rolleston's address on Professional Careers, delivered at King's College Hospital in October 1926, and I beg leave to quote from it a paragraph bearing on this point. He says: "With the changes time has brought about, men in general practice, who become the guide, philosopher, and ultimately the familiar friend of their patients whom they bring into and see out of the world, have also changed, for their medical education and general equipment have greatly improved. They have thus become less dependent on the help of specialists and consultants, with whom to some extent they therefore compete. It has been thought by some that eventually general practitioners will become squeezed out by specialists and consultants on the one hand, and on the other hand by preventive and social medicine—such as school, tuberculosis, and venereal clinics, and maternity and child welfare centres. But the general practitioner is the essential element in the medical service, and his elimination would be a most serious loss. Just as they have altered in the past, so should they accommodate themselves to changing conditions, to a larger measure of team work, to a greater share in preventive medicine, and to a responsible part in public health organization."

If, as I think we must, we admit the general truth of this statement, it may well form the basis of a discussion as to the means whereby those in general practice can be encouraged to take a more responsible part in public health organisation. I am aware that in England and Wales 1,100 out of 1,450 medical officers of

health are actually in general practice—more than 75 per cent.—and it seems to me that the interests of the general practitioner, if they clash with the duties of the medical officer of health, ought to be safe in the hands of this three to one majority. But I think that in discussions in the past far too much has been made of this apparent clashing of interests. The only explanation I can offer is that on neither side have the disputants been sufficiently anxious to see the other man's point of view.

Let us take the extremist general practitioner's idea of the duties of the medical officer of health in any of the large cities. When he thinks about him at all it is probably as of an official to whom he must make returns of infectious cases "under the Act," and from whom he may expect to hear in cases of failure to notify. My impression, by the way, is that rarely is he hauled over the coals on this account unless there is smallpox about. He regards the calls of the health visitors as a nuisance, sometimes as an intrusion. I have even heard of his taking serious objection to the establishment of maternity and child welfare centres. The list of preserves on which the medical officer of health and his minions must not trespass can readily be extended—so at least I have gathered from discussions I have heard and articles I have read. This, as I have suggested, is an extreme view, but from the other point of view, I doubt if the average general practitioner has even a general idea of the extraordinarily multifarious duties that fall to the lot of the medical officer of health. The number of Acts of Parliament which govern his activities is so great that I should be surprised if there are more than half a dozen people in this room who could state it correctly off-hand, and I presume that the medical officer of health must know something of them all. He must be able to guide his Committee and keep them in the paths of medical rectitude; he must get the right type of assistants around him, and be able to organise a large office and outdoor staff. He must be something of a statistician—a *rara avis* amongst general practitioners as I know them, and, from their point of view, he must be able to cultivate happy relations with the mass of practitioners in his area. Truly only an Admirable Crichton would fail occasionally to tread on a medical corn.

The general practitioner often does feel that the medical officer of health is not in full sympathy with his point of view, and especially in some of the details which are of vital concern to both if any progress is to be made in this

attempt to deal with puerperal infection. And this feeling is, I believe, more commonly directed against the whole-time man especially if he himself has had little experience outside his official work. It is, of course, common knowledge that the general practitioner tends to develop the individual side of his work; his patients have in times past come to regard him as their medical high-priest not, perhaps, as infallible as the Pope, but tempting him to believe that he is set on a pedestal. It only requires that temptation should coincide with inclination to forecast the result. But this mental attitude is rapidly disappearing and with it the tendency for the general practitioner to remain in a position of aloofness. From the point of view of co-operation it is essential that it should disappear and so far as this city is concerned, we have every reason for contentment.

There are, however, speaking generally, a few difficulties which I fancy may not loom so large in the official mind as in that of the individual practitioner, and which, unless they are approached sympathetically, will weaken the bonds of mutual support.

One such difficulty is the want of precision shown in some of the statutory orders promulgated from time to time by the authorities. It seems to me obvious that the definition of puerperal fever under the Acts of 1889 and 1899 is quite inadequate, otherwise we should not have had the new regulations; it was, for example, quite easy for a general practitioner to find "some ascertainable cause, other than the puerperal state, of a rise of temperature exceeding 100·4°F. etc." and that definition did not, as I read it, make it obligatory to notify in cases of miscarriage. In the new Statutory Rules and Orders, too, the definition of puerperal pyrexia, concise as it is, is not without ambiguity. It speaks of a temperature having been "sustained during a period of 24 hours," or having "recurred during that period." Which period? Obviously within 21 days after childbirth or miscarriage. But it does not say so, and I venture to think it should.

The official forms of notification of both puerperal fever and puerperal pyrexia carry us a good deal further than the old one and are to be welcomed inasmuch as they acknowledge officially the practitioner's right to invite assistance. I have often been surprised that general practitioners have not in the past cultivated the habit of consulting their medical officers of health more freely in difficult infectious

cases. My own experience in Manchester certainly leads me to advise my younger colleagues to cultivate the habit. It would seem desirable, however, to have some information as to what is meant by a "second opinion." The general practitioner is apt to be somewhat sensitive where his midwifery is concerned, and will only welcome, as a second opinion, that of an expert, or may I say, that of one who has had a very great deal more experience than himself. He will not be satisfied with an official *qua* official. Nor, I take it, will the health office be content to provide a second opinion whose credentials are unsatisfactory to them. I foresee difficulties in this connection, not perhaps so much in the large towns as in the country districts, and I think it would be worth while to set at rest the mind of the general practitioner on this point, without delay.

In the main, I cannot but feel that the extension of notification in puerperal cases is a step in the right direction. It is clear that notification of puerperal fever in the past has had little, if any, effect in the reduction of the incidence and mortality of this malady. What is required is that the family doctor should realise to the full the value and the importance of the help he can give to the official, not under the pains and penalties duly set out in the "note" appended to document No. 972 for "wilful neglect or refusal," but as a fellow-worker in the field of preventive medicine. I have great sympathy with the busy practitioner who finds note-taking not only irksome but difficult to carry out. Like many others I have no love for statistics as such, nor do I find the idea of supervision of my work particularly attractive; but such considerations appear to me to be details in comparison with the value of the assistance which the general practitioner can give in diminishing this scourge.

If notification is going to help at all, it must be carried out on a far wider basis than heretofore. It will be of no value unless it includes the border-line cases, if such a term be permissible where the boundaries are so indefinite.

Only by the collation and right reading of large masses of details, including the clinical history and pathological findings in doubtful as well as in the easily recognised cases, can we hope to do our share in the direction of obtaining a better understanding of the causes of the disease and thereby of its more successful treatment, if not its eradication.

It is, of course, true that in midwifery practice one meets with cases which one fears are

likely to become septic and which do not; just as there are those which go wrong without any apparent reason. Of the former type was one in which I was asked to give an anæsthetic for a colleague who was no believer in the value of even ordinary cleanliness and who produced a naked pair of forceps from a bag and applied them to the child's head whilst still in the cervical canal. Nothing more serious followed than very free hæmorrhage and a badly torn cervix—there was no fever. An example of the latter type occurred in a secundipara whom I had attended previously without unusual incident. On the second occasion, so far as I know, only two vaginal examinations were made during labour, which was a straightforward one, yet on the third day she had a rigor with high temperature, and ultimately died in a week after repeated rigors and sweats, associated with foul smelling lochia. The night before the confinement she had regaled herself with dressed crab, and when her husband refused his portion because it was bad, she ate that too!

Such examples as these, which occurred many years ago, do not carry one very far in a search after truth, but they do at least tend to emphasize our ignorance of the subject not only on the purely clinical side, but also from the point of view of the bacteriologist and the hæmatologist.

In conclusion, I cannot but feel that much good would arise from an official association between the health office and the general practitioner, and it appears to me that such a *rapprochement* could best be brought about through the Local Medical Committees.

As you are aware, these are statutory bodies set up under the National Health Insurance Acts, and composed almost entirely of general practitioners whether working under the Act or not. They are elected annually by the whole of the medical practitioners in the area concerned, and constitute the only statutory bodies which can attempt to voice the opinions of the profession as a whole. I do not know if medical officers of health are represented on any of these committees; probably they are, especially in County areas, and in my opinion there is every reason why they should have representation in every area. Such representation would, I feel sure, bring us all closer together in the effort to deal with many medical problems, and I would urge for your careful consideration the suggestion that, in any concentrated effort to discover where we as a profession stand in the matter of puerperal fever and puerperal pyrexia,

the rôle which the general practitioner is to play could best be determined by conferring with the Local Medical Committees.

Dr. J. JOHNSTONE JERVIS.

The Point of View of the Medical Officer of Health.

Looked at from the point of view of the medical officer of health, which is the preventive point of view, puerperal fever presents one of the most baffling problems in the whole range of epidemiological science. Right from the start workers in the field of preventive medicine have recognised the importance of the disease, and the paramount necessity that they should become masters of the situation and secure control of the avenues of infection.

It is unnecessary to remind my hearers that puerperal fever was one of the infectious diseases mentioned in the Infectious Diseases (Notification) Act of 1889, but that was not its first appearance on the stage of medicine, though it was the first time it received official recognition. As far back as 1843, Oliver Wendell Holmes, appalled by the heavy toll of life exacted by the disease both in and out of hospital, wrote his now famous paper on the subject, which he read before the Boston Medical Society and published as a pamphlet in 1855. In his paper he emphasized the infectious nature of the malady and suggested that cases of the disease should be nursed in a room apart from other lying-in cases, and that precautions should be taken by doctors to avoid carrying the infection. About the same time Semmelweis of Vienna also took the matter up, and by a series of careful observations proved, at least to his own satisfaction, though, I am afraid, not to that of his contemporaries in Austria, that the disease was communicable either by direct contact or through an intermediary. He also insisted on the necessity for absolute cleanliness in both patient and attendant.

The men, however, to whom perhaps the greatest credit is due for rousing the interest of the profession in this country in the subject and pointing out what could be done by the adoption of simple methods of disinfection of the hands and skin of the patient were Dr. Charles White of this city (Manchester), and Dr. Gordon of Aberdeen. These men prepared the way for the coming of Pasteur and Lister. As a matter of fact, without knowing it, they anticipated to some extent Lister's epoch-making work. Suspecting the infectious nature

of the disease, they introduced the use of disinfectants into midwifery practice for douching and cleansing the hands.

Since those early days the subject has been taken up by the hospitals and teaching schools and, as a result, obstetric technique has been greatly improved, until to-day, in hospital practice at any rate, the same degree of asepsis is observed for childbirth as for any other surgical operation. Only in extra mural practice, and particularly in the large industrial centres, has progress lagged behind, which no doubt accounts for the abnormally high rate both of incidence and death from this cause which still exists. It is interesting to note that whereas in the last three years there has been a steady decline, amounting to as much as 23·8 per cent. in the institutional case rate, there has been an actual rise in the extra mural. I am now speaking of Leeds, but I have no reason to believe that Leeds is exceptional in this respect. Assuming that it is the same all over the country, the fact is most significant and of sufficient moment to require the closest investigation. There is evidently a weak link somewhere and it is for us to find out where. I suggest that our failure to bring the disease under control is due to two causes, the first, environmental and the second, personal.

A considerable proportion of the cases of puerperal fever occur in the cottages of the working-classes, many of which are small, poorly furnished, and ill-equipped for lying-in purposes. The mother for one reason or another, but generally as the result of overwork and excessive child-bearing, is often physically unfit to bear the strain of pregnancy and in the exhausted state of her resources, she is unable to resist attack and falls an easy prey to the disease.

The second, or personal cause, I attribute to carelessness and faulty technique. Far too little time, it seems to me, is devoted to the study of practical obstetrics, both in the medical curriculum and in the training of pupil midwives—though the Central Midwives Board has recently made an attempt by lengthening the period of training to remedy this defect—and such time as is reserved for the purpose is mainly occupied in watching others do what the student should do himself. It is easy to get a student to appreciate the need for surgical cleanliness in an operating theatre, or the surgical ward of a general hospital, or even in a labour room of a maternity hospital, but to get him to carry that appreciation into the dwellings

of the careless and the improvident in a working-class practice is quite another matter. But it is what should be and what must be if the puerperal fever rate is to be reduced.

It may interest you, and will give point to my remarks, if at this stage I quote a few figures showing the progress that has been made since the passing of the Infectious Diseases (Notification) Act in 1889. The death-rate for the quinquennium 1890-94 for England and Wales was 2·64 per 1,000 births; for the quinquennium 1903-07, that is after the passing of the Midwives Act, 1902, it was 1·75 per 1,000 births, and for the quinquennium 1919-1923, that is after the passing of the Maternity and Child Welfare Act, 1918, it fell to 1·59. That is to say, the rate was reduced by 33·7 per cent. between the first and second periods, by 9·1 per cent. between the second and third periods, and in the whole period, 1890 to 1903, by 39·8 per cent. The maternal mortality from causes other than sepsis for the same periods was 2·91, 2·25, and 2·24 per 1,000 births respectively, or a reduction between the first and second periods of 22·7 per cent.; between the second and third periods of 0·4 per cent. and for the whole period of 23·0 per cent. Taking the maternal mortality from all causes, which for the three periods was 5·55, 4·00, and 3·83 per 1,000 births respectively, the reduction between the first and second periods was 27·9 per cent.; between the second and third 4·3 per cent., and for the whole period 31·0 per cent. I have selected these three periods for comparison because they mark definite stages in the history of preventive medicine in relation to maternal mortality, and it would appear from the figures quoted that sepsis has responded to the efforts made to reduce the wastage of mother life better than "other causes." That, at least, is something to the credit of preventive medicine.

The variation in the mortality from puerperal sepsis in different parts of the country is interesting. It is high in Wales and the North of England, and low in the Midlands and South. Taking the average of the five years 1919 to 1923, that is, the last of the three periods mentioned above, the mortality rate in Wales was 1·72, in the North of England 1·66, in the Midlands 1·35, and in the South 1·43. In other words the death-rate from puerperal sepsis in Wales and the North of England exceeded that for the whole country by 13·9 per cent. and 10·0 per cent. respectively. The explanation of this, at least as far as the North of England is concerned—and possibly it may also be true

of Wales—is the large industrial element in the population and the relatively lower standard of living amongst the working-classes as a whole. And it is not alone in the mortality from sepsis that Wales and the North of England stand out from the rest of the country. There is an even more marked preponderance in the maternal mortality from "other causes." Contrary to what one would expect, the rate of decline in the sepsis figures is less rapid in urban areas than in rural; indeed in some county boroughs it is definitely on the up-grade. Exactly the opposite is the case with the maternal mortality from "other causes." That figure has been steadily falling in urban areas, but almost stationary in rural. In the face of these facts, one cannot escape the impression that over interference—too much meddling by doctors, midwives, and others—may be at the root of the excessive prevalence in urban communities. Taking one or two of our large towns as examples, the death rate per 1,000 births in Liverpool has risen from an average of 1·49 for the quinquennium 1911-15 to 1·51 for the quinquennium 1921-25; in Manchester for the same period from 1·41 to 1·84; in Bradford from 2·31 to 2·58, and in Newcastle from 0·87 to 1·21, whilst the case rates for these towns show an even more remarkable rise.

It has been stated that sepsis is no respecter of persons, and that the well-to-do mother is just as susceptible as the poor. Generally speaking, that statement is correct. It is so in Leeds, though in my opinion it is not so much a question of social status as of individual resistance, and poverty is only a factor where it is associated with dirt, carelessness, and incompetent midwifery. In Leeds—and I can only speak for that city—for the quinquennium 1921-25 the two wards with the highest rates were purely residential in character, though the four next in order of importance were inhabited by the working-classes.

An additional point of interest is that out of a total of 43 deaths from puerperal sepsis occurring during the years 1923, 1924, and 1925, 35, or 81·4 per cent., occurred in back-to-back houses and only 8, or 18·6 per cent. in through dwellings. That would rather seem to contradict the statement that rich and poor are equally vulnerable to attack, because the back-to-back house is pre-eminently the dwelling of the poor. Personally I do not think the type of house has much bearing on the subject, unless it be so insanitary as to be actually dangerous. In the 35 cases quoted, most of them occurred

in parts of the city generally associated with dirt and low ideals.

Perhaps the most encouraging feature of the history of puerperal sepsis in this country is the fall in the institutional death-rate, which at the beginning of the nineteenth century was very high and now is less than 10 per cent. of the total deaths.

As to the distribution of the cases between midwife and doctor, in a period of five years, 1921-1925, in Leeds, the average rate per 1,000 births attended by doctors was 4.01, as against 5.03 attended by midwives. These figures should not be taken as an index of blameworthiness, because one must always bear in mind the difference in social status between the class of woman attended by the doctor and by the midwife. Then again, a case occurring in the practice of a midwife, as soon as symptoms appear, is transferred to the care of a medical practitioner and at once becomes his responsibility. To attempt to apportion blame as between doctor and midwife is futile and a waste of time and energy. Besides which it only serves to embitter the relations between two individuals, both equally anxious to secure the health and safety of the lying-in mother, and both striving for the same goal, namely, the complete eradication of sepsis from obstetrics.

The brief review of the position which I have given, whilst demonstrating the complexity of the problem which confronts us, also indicates the directions in which a solution may possibly lie, and the lines we must follow to reach the solution. Let me enumerate them shortly:—

First, external interference, no matter by whom, should be reduced to a minimum.

Secondly, there is need for a keener appreciation on the part both of doctor and midwife of the importance of technical detail in attending a woman in labour, a point which teachers would do well to bear in mind.

Thirdly, there should be closer ante-natal supervision, especially with respect to the mother's general health. Septic foci, such as carious teeth, enlarged tonsils, etc., should be removed.

Fourthly, where there is extreme poverty or dirt, or where the house is unsuitable, the woman should be induced to enter a lying-in institution for her confinement.

Fifthly, when a case does occur, it should be notified to the medical officer of health without delay and, if possible, removed at once to hospital. Cases of this nature cannot be properly

treated at home, even where the house is of a superior kind.

Sixthly, close co-operation between doctor and midwife is essential; both must recognise their responsibility. It is only by developing the team spirit that any advance can be made.

Lastly, local authorities must recognise that it is their duty to provide such services as may be necessary to secure prompt and efficient treatment for every case. Many have failed in this respect in the past.

The regulations recently promulgated, making puerperal pyrexia notifiable, have been designed to assist in attaining these *desiderata*. Whether they will succeed is for the future to disclose. Personally, I am a little doubtful of the wisdom of introducing a new designation; it only makes confusion worse confounded. Already, cases which under the old conditions would have remained unnotified or been notified as puerperal fever are being sent in as pyrexia. Some of them are true cases of puerperal sepsis, others are not, the symptoms being due to some intercurrent disease often of a transient and non-infectious nature. I have no wish, however, to be a destructive critic; rather is it my desire to support any measure which holds out a reasonable hope of providing a solution to this grave problem. If these regulations take us as much as one step towards that end, they will have my unqualified support, as I know they will have yours and that of every member of the Public Health Service.

Dr. D. SAGE SUTHERLAND.

The Point of View of the Hospital Administrator.

The hospital treatment of puerperal fever may be considered from two points of view—from the standpoint of administrative methods and economy, and from the clinical side.

It is clearly to the advantage of the individual patient to be removed to hospital, where there is centralized the necessary equipment and where a specialised staff can carry out treatment with efficiency. At the same time, a possible source of infection will be isolated without delay. If the hospital unit is part of a hospital for infectious diseases, the latter should be of sufficient size to enable a special nursing staff to be detailed for this duty. A large infectious diseases hospital will usually have a well-equipped laboratory. Where cases of puerperal fever are distributed to various hospitals, separate accommodation is not always available. The laboratory may be insufficiently equipped. It may be inconvenient

to detail a special medical officer, and as the methods of treatment are of a somewhat technical character it may be difficult to command the necessary apparatus without considerable delay. Further, when cases are distributed to more than one centre, no medical man can have charge of more than a few cases at a time; and will have little experience to fall back upon to guide him in his methods of treatment.

It should be possible to arrange a special ward or pavilion at the infectious hospital of any large city, and at Monsall Hospital it has been found convenient to secure a fully equipped unit for the treatment of puerperal fever. The special wards are situated on the upper floor of an isolated block in the hospital grounds which stands apart from the buildings used for isolating cases of scarlet fever and diphtheria. No corridor or covered way connects this block with the remainder of the hospital, and the care of the cases is in the hands of an independent staff of nurses, which is solely employed in this department and whose services are not available for the general infectious fever work while detailed to this department. The accommodation has been specially reconstructed and embraces six wards of four or six beds each, one of these being detailed for the infants admitted with mother. The six wards are in groups of three, and in each group, while partial separation is maintained, all the beds are in view of a nurse on duty. There are two special single-bedded wards, with sanitary conveniences, entirely separated from the main wards. In the single-bedded wards individual patients, noisy or requiring special nursing, can be treated entirely apart from the others. The division of the main ward accommodation into small wards facilitates the grouping of patients of varying degrees of severity of sepsis and creates surroundings somewhat resembling those of home. The facilities for moving apart moribund or delirious patients prevents the depressing nature of a large ward occupied by illnesses of a grave nature. The wards are bright and airy and have, for heating purposes, large open fireplaces in addition to hot water pipes.

The infants' ward is provided with swinging cots, and babies can be conveniently brought to their mothers when nursed on the breast, or for other reasons. The presence of the infants so near that the mothers may see them frequently has certain advantages, but no infant is nursed

in the wards occupied by the patients.

Opening off the main corridor in which the puerperal wards are situated is a fully equipped operating theatre in which all local treatment and examination of patients is carried out, and which is ready for major surgery when required. In an annex off the main corridor and outside the theatre is an autoclave for the sterilization of dressings, a sterile water boiler and a crockery sterilizer. The theatre is fitted with a modern operating table, combining variety of movement with rigidity, which is adjustable to any position, the height of the table being effected by an oil pump foot lever to suit the operator. A Trendelenburg position can be secured by lifting a weighted lever and adjusting the table to the required angle. The routine method of treatment by lymph drainage, the taking of bacteriological cultures, and the examination of local conditions is carried out in the theatre which is situated near the wards. Two wheeled ambulances are necessary for the conveyance of patients to and from the theatre, and to prevent delay between the removal of one case and the arrival of the next. In the interval there is sufficient time for the sterilization of instruments.

No anæsthetic is required for ordinary routine methods of treatment. Rigid aseptic rules both as regards the preparation and examination of the patient are adopted for each case. Accurate case records are made at the time of examination, the notes being dictated by the doctor to the nurse, recorded in pencil, and later entered on the bed card.

An assistant medical officer, who has the assistance of a laboratory attendant, is employed solely in this branch of work. He does not come in contact with the general infectious cases of the hospital, although employed in administrative duty when on the duty roster. This officer ranks as second assistant medical officer, and a previous knowledge of infectious disease is considered essential before undertaking specialized work in connection with the infective conditions dealt with in the puerperal ward. It is essential that the laboratory attendant should have had some special training for bacteriological work. He should be able to prepare various media and be skilled in technical glass work. To facilitate the taking of specimens it may be necessary for him to attend at the ward. His work in the laboratory must be supervised by the doctor and carried out under his immediate direction. The close association of laboratory and ward is thus successfully

achieved. The laboratory at Monsall Hospital is situated at a short distance from the ward and is equipped for carrying out all bacteriological work short of animal experiment. The medical officer specially detailed has the assistance of two consulting gynaecological surgeons, who attend on requisition for consultation or operation, and take alternate periods of duty, and arrange to substitute one another in emergency if required.

There are twenty-six beds normally available for patients.

The nursing staff, under the control of the hospital matron, is in charge of a specially appointed sister, who is trained in general nursing and in fever nursing and who also holds the certificate of the Central Midwives Board. She has the assistance of two staff nurses permanently appointed for this work. There are, in addition, eight senior probationer nurses and a staff nurse for night duty. The sister is skilled in operating theatre duties, and her work includes the instruction of nurses who are selected from the senior probationers in the infectious wards. These probationers, after a period of quarantine, go on duty for at least three months. Cases are removed from their homes by nurses from the puerperal ward.

It has been suggested that a fever hospital is an unsuitable place for the treatment of puerperal fever cases, but during the last four years no cross infection with other infectious disease has occurred. The area of the hospital grounds is sufficiently large to enable the convalescent cases to take exercise without coming in contact with patients suffering from the more infectious diseases. In a fever hospital the presence of a large nursing staff, the capabilities of each member of which are known, provides a suitable nidus from which to draw when the need arises to fill vacancies. The sister tutor assists in the training of nurses for theatre duty. Further, the administrative department is useful in directing the work successfully. Economy of administration is effected, and any risk of infection is, in our experience, greatly exaggerated.

Cases are received which have been notified to the Public Health Office as puerperal pyrexia or as puerperal fever or puerperal septicaemia, and when any change in diagnosis is made in hospital of such cases, the following classification is used :—

(a) Puerperal pyrexia shall be the term used to describe any case of raised temperature in a puerperal woman admitted to Monsall Hospital

and in whom there is no pelvic or inflammatory condition to account for the raised temperature.

(b) Puerperal fever shall be the term used to indicate all cases of puerperal women admitted to Monsall Hospital in whom there is a raised temperature associated with an inflammatory condition of the pelvic organs, whether or not there is an inflammation in other parts or part of the body.

Thus the designation puerperal "fever" is used only for cases in which there is a septic condition originating in the pelvic generative organs.

A form is supplied for the hospital diagnosis of these cases, which is submitted to the medical officer of health as soon as a correct diagnosis can with some degree of certainty be made, and is as follows :—

HOSPITAL DIAGNOSIS OF PUERPERAL CASE.
I beg to notify you that in the case of (Name) of (Address) admitted to Monsall Hospital on with a diagnosis of puerperal fever/pyrexia the diagnosis has been altered in the Hospital to puerperal pyrexia/fever.

This decision should be arrived at as soon as possible to enable precautionary procedures to be carried out.

The clinical side, reviewed from the hospital point of view of the treatment of puerperal fever and puerperal pyrexia, may be roughly divided, first, into the general treatment of the septic uterus and of the traumatic injuries associated with parturition, and, secondly, the special treatment of cases where a bacterial invasion of the blood stream has taken place and to which we may specifically refer as puerperal septicaemia.

At Monsall Hospital we have specially noted the large number of extra-uterine injuries from which these patients suffer, and the very septic condition of the injured parts on admission to hospital. These injuries of the genital tract are frequently situated high up in the vaginal canal and, by manual examination, may escape observation, hence the importance of a thorough visual examination in the theatre of each case after admission and from day to day.

With regard to the first class of case referred to the treatment found most successful has been that recommended and fully described by Dr. Remington Hobbs, of St. Mary Abbots Hospital, Kensington*. The primary line of attack is

* Public Health, July, 1926, p. 297.

by uterine drainage using glycerine, glycerine being a powerful dehydrant, viscid in character and remaining for a considerable time in contact with the tissues.

To carry out the treatment efficiently, the patient is prepared in the ward as for a major surgical operation and when brought into the theatre is placed in the gynaecological position. Cultures from the cervix are made before the administration of a douche. Thereafter a vaginal douche of 1/100 lysol is given. The vagina is exposed by passing a posterior speculum and anterior retractor (Dr. Remington Hobbs modification). Individual lesions can thus be clearly seen and dealt with. The cervix and cervical canal are cleaned, followed by the introduction of a long terminal-eyed soft rubber catheter, size 6, to the end of which is fitted a 10 c.c. Record syringe filled with glycerine. The catheter is introduced into the uterus by a long pair of forceps and pushed right up to the fundus and the glycerine injected slowly, while the speculum is held by an assistant nurse. The catheter is left *in situ* to facilitate drainage, a soft piece of ribbon gauze being tied round the end and pushed into the vagina. In this way the catheter may be removed in four hours by simple traction of the gauze. The use of volsellum forceps, or any instrument which may bruise or injure the parts, is avoided. A 10 per cent. glycerine iodine solution may be substituted for pure glycerine with the object of stimulating uterine contraction.

Uterine drainage is established without undue movement. The passage of the catheter and the injection of glycerine immediately helps to remove the pus in utero, a condition frequently found in the septic puerperal uterus. The retention of the tube to secure drainage is of great value in cases with inflammatory occlusion of the cervical canal. The presence of profuse purulent vaginal discharge before local examination is frequently erroneously regarded as indicating free uterine drainage. The discharge comes from the vagina while the uterus is filled with purulent material, the drainage of which is prevented by inflammation of the cervical canal.

This method by glycerine irrigation is repeated daily, or more often, while there is any pyrexia or purulent discharge, and is omitted when the discharge becomes very slight or the uterus completely involuted.

No exploration of the uterus is undertaken except when fragments of membrane, placenta

or decidua present on admission fail to come away under this routine method of treatment.

Contra indications for lymph drainage are the presence of septicaemia or thrombo phlebitis. Careful clinical observation is required to ensure that a patient with pelvic thrombo phlebitis is not disturbed.

While the patients are undergoing treatment by lymph irrigation, vaginal injuries and sores and torn perineum can be attended to, stitches removed and abdominal and other examinations made.

In every case a culture from the cervix is made after admission to hospital and before the commencement of treatment.

Vaginal and cervical lesions are swabbed at the time of irrigation with a 10 per cent. argyrol solution in spirit, and if there is much sloughing the vaginal cavity is packed with gauze soaked in eusol for four hours each day. The early establishment of uterine drainage rapidly reduces toxæmia and a marked improvement in the general condition takes place. Septicaemia is prevented and the incidence of septic complications. The rapid improvement of the average case, associated with subsidence of temperature, leads to a feeling of confidence.

In the first hundred cases treated by lymph drainage at Monsall Hospital the percentage

Complications.	(1)	(2)	(3)	(4)
Pelvic abscess	3	Nil	Nil	1
Parametritis	1	Nil	Nil	6
Parametritis and abscess	1	1	Nil	4
Parametritis and mastitis	Nil	Nil	Nil	1
Salpingitis	4	1	1	Nil
Salpingitis and pyosalpinx	1	Nil	Nil	Nil
Salpingitis and phlegmasia	Nil	1	Nil	Nil
Phlegmasia, one leg	2	2	4	1
Phlegmasia, both legs	2	Nil	2	2
Phlegmasia and cystitis	1	Nil	Nil	Nil
Phlegmasia and pyæmia	1	Nil	Nil	1
Phlegmasia and mastitis	Nil	Nil	Nil	1
Pyæmic abscesses	5	Nil	1	3
General peritonitis	1	Nil	Nil	Nil
Cystitis	1	3	1	2
Pyuria	2	Nil	Nil	Nil
Nephritis	1	Nil	1	Nil
Oophoritis	1	Nil	Nil	Nil
Lobar pneumonia	1	Nil	Nil	Nil
Lobar pneumonia and pleurisy	Nil	Nil	1	Nil
Mania	2	Nil	1	1
Arthritis	2	2	1	Nil
Mastitis	Nil	1	2	Nil
Facial erysipelas	Nil	1	1	1
Tonsillitis	Nil	Nil	2	Nil
Broncho-pneumonia	Nil	Nil	2	Nil
Acute otitis media	Nil	Nil	1	Nil
Herpes facialis	Nil	Nil	1	Nil
Pelvic cellulitis	Nil	Nil	Nil	1
Empyema, cystitis and phlegmasia (1 leg)	Nil	Nil	Nil	1
Prepatellar bursitis and phlegmasia (1 leg)	Nil	Nil	Nil	1
Pleurisy	Nil	Nil	Nil	2
Percentage	29	12	18	24

mortality fell to 13 per cent. The average number of treatments per patient was 7. The stay in hospital of recovered cases was reduced from 38 days to 26.2 days, 38 days being the average for several previous years. Only 13 per cent. of cases developed complications. Only one case showed pus formation.

I am indebted to Dr. J. A. Kerr, who is in charge of the ward, for the following tables which give an analysis of complications of in

(1) 110 recovered cases treated on ordinary lines.

(2) 100 consecutive recovered cases treated by lymph-drainage during 1924-25.

(3) The total number of cases (124) treated by lymph-drainage during 1925.

(4) The total number of cases (128) treated by lymph-drainage during 1926.

The average stay in hospital of the 13 fatal cases of the series was 9.1 days. Of these, one case was admitted six weeks after delivery and was suffering from septicæmia caused by *B. acidi lactici*. A second case came in on the 22nd day after delivery, and one on the 24th. These cases had severe local injuries. The causes of death were as follows:—

<i>B. acidi lactici</i> septicæmia	1
Hæmolytic streptococcic septicæmia... ..	3
Hæmolytic streptococcic septicæmia and pulmonary embolism	1
Hæmolytic streptococcic septicæmia with chronic rheumatic endocarditis	1
Clinical septicæmia, infective organism not isolated	2
General peritonitis	1
Lobar pneumonia	2
Phlegmasia, pyæmia, with chronic rheumatic endocarditis	1
Ruptured abscess causing general peritonitis	1

The signs suggestive of septicæmia are rigors, rapid pulse, delirium, etc. Blood cultures in all suspected cases have been made. While clinical signs as a means of distinction are useful, I am inclined to think we should be working on a surer foundation if blood cultures were made on all cases on admission, as we propose to do in the future.

The inclusion of a few slight and unsuspected cases of septicæmia which recover by the natural bactericidal action of the patient's own blood, and without resort to the use of intra-venous remedies, would show a higher recovery rate.

At the suggestion of Dr. Colebrook and the Medical Research Council two lines of treatment have been adopted for the acute blood infections:—

(1) The intra-venous injection of arsenical

products as a direct bactericidal agent. Dr. Colebrook states that arsenical products have a specificity for the streptococcus of puerperal fever, other types being little affected.

(2) The transfusion of immunized blood to help the patient's own defensive mechanism.* A new apparatus, a modification of Ungar's instrument, for whole blood transfusion as a therapeutic measure and recommended by Dr. Colebrook has been put into use, but it is too soon to give definite results. This promising line of treatment substitutes direct transfusion of whole blood for the defibrinated blood as hitherto used in immuno transfusion, and in which more than 30 per cent. of the leucocytes are lost in the process of defibrination. By the induction of artificial leucocytis in the donor by the administration of nuclein, which acts as a leuco stimulant, the killing power of the blood can be increased. The leucocytes play a main part in the creation of immunity. By thus stimulating the attacking power, resistance of the body against invading bacteria may be attained. Dr. Colebrook reports that after the injection of a donor with 2½ c.c. of nuclein intra-muscularly, the leucocytic count was increased from 2,500 to 20,000 per c.c. Comparing the bactericidal power of the same blood before and after injection, by inoculating a 50 c.c. sample of each blood with 3,600 cocci, in the blood sample before injection 1,050 colonies were counted and in the blood taken four hours after injection, 8 colonies.

Serum treatment has hitherto been found disappointing and is rarely used to-day.

I have recently received from Dr. O'Brien, of the Wellcome Physiological Research Laboratories, a batch of a new puerperal anti-serum. In his letter he states that:—

"It is prepared from two horses which have been injected for some months with material from streptococci isolated from the blood of cases of puerperal septicæmia.

"On the analogy of scarlet fever these sera should contain antitoxin, but we have, of course, no laboratory means whatever of deciding whether any antitoxin is present or not. I fear our only test can be the result in patients.

"The serum is unconcentrated. I did not wish to concentrate the serum and so introduce a further unknown factor until there is clear evidence that some antitoxin was present.

* *Lancet*, 1923, p. 1341, Colebrook and Storrer. *British Journal of Experimental Pathology*, 1924, p. 47. *Proceedings of the Royal Society of Medicine, Section Obstetrics and Gynaecology*, Vol. 19, No. 4, p. 31.

Therefore, at present, we must expect a fairly high percentage of rashes.

"Of course, we know nothing about the dose. I would suggest that not less than 20 c.c. should be tried with a preference for higher doses, but on this point you will naturally know the best course to take."

The results of treatment by immuno transfusion we found to be disappointing. Seven cases were transfused, five of these receiving 500 c.c. of blood, one case 600 c.c., and another two transfusions of 500 c.c. Six of the seven cases were fatal. In four cases there were definite hæmolytic streptococci present. This treatment was carefully checked by estimations of the hæmolytic streptococci before and at definite intervals following treatment and by estimation of the effect of the drug on the bactericidal power of the patients' leucocytes. While temporary improvement was noted, both clinically and by laboratory tests, along these lines, the ultimate results were disappointing.

A second line of treatment, which was used in some cases in addition to immuno transfusion, was the intra-venous injection of certain arsenical products. Novarsenobillon was found to give the best results. Doses of .1 of a gram to .15 were repeated every 24 to 48 hours, or large single doses of .6 of a gram were given. The large single doses have been found the more satisfactory. In no case did we find treatment interfere with the leucocytic bactericidal efficiency of the blood, and the marked improvement was attributed to the increased bactericidal power of the serum.

During the year 1926 immuno transfusion was discontinued and treatment in septicæmic cases was confined to this line of treatment alone. One hundred and seventy cases have been under treatment during the year 1926, with a case mortality of 17.1 per cent. In 57 cases the bacteriological examination of the patient's blood was made, and in 22 a definite septicæmia was found. Nine of these septicæmic cases recovered, giving a recovery rate of 41 per cent. The arsenical injections were not confined to the cases referred to, but included injections in a few cases where no definite organism could be found but which were probably septicæmic in nature. Results in this fatal type of case should not be regarded as very satisfactory unless the mortality falls below 50 per cent.

During the last year normal blood transfusions were carried out in three cases of severe hæmorrhage. An apparatus for blood trans-

fusion is kept handy and is extremely valuable in such occurrence, which is not uncommon in septic miscarriage.

The number of glycerine iodine irrigations performed was 823, averaging 7.3 per patient.

Surgical treatment in the past has included:—

(1) Hysterectomy.

(2) Operations for peritonitis, including flushing of the peritoneal sack and drainage per vaginam.

(3) Ligation of veins.

I am glad to say that the drastic methods under the first heading have been discontinued at Monsall Hospital. Ligation of veins might be followed by benefit in certain cases, but considerable difficulties in diagnosis arise. During 1926, among 170 cases the following surgical operations have been performed:—

Tubo ovarian abscess with cellulitis	1
Parametritis incision and drainage	2
Parametric abscess	1
Septic abortion dilatation and curettage	4
Curettage of uterus	1
Pelvic abscess	2
Laparotomy and drainage	1

Consulting gynæcologists are usually requisitioned for:

(1) Retained products following miscarriage. These products are frequently expelled by glycerine irrigation, so that surgical interference is seldom required.

(2) Incision of parametric abscesses. Since the introduction of glycerine irrigation these cases are more infrequent, but many cases coming under treatment late are almost ready for incision.

The most intractable type of case, and one which remains in hospital for months, is that with severe lacerations and large para vaginal abscesses. While the uterus becomes well involuted such cases frequently show persisting pyrexia with periods of intermission, due in many instances to parametric infiltration and fixation of the uterus. Treatment by the insertion of a glycerine ichthyol pessary and the administration of a potassium iodide and quinine mixture sometimes results in clearing up cases of this nature more quickly.

Phlegmasia and cystosis are treated on the usual routine lines.

All patients are allowed citric acid drinks *ad lib.* with the intention of diminishing the coagulability of the blood and preventing thrombosis.

The inclusion of cases of puerperal pyrexia it is hoped may lead to earlier treatment.

From the 1st October, 1926 to 31st January, 1927, of six cases certified as such, the diagnosis of puerperal pyrexia has been changed to puerperal fever, with one exception.

Much remains to be achieved in the treatment of puerperal fever cases, and facilities should be offered for the co-operation of medical officers working at various centres.

PROF. W. W. C. TOPLEY.

The Point of View of the Bacteriologist.

I would first emphasise the fact that I am quite unqualified to take part in this discussion except from the purely bacteriological point of view, and that my remarks are confined entirely to the problem as it presents itself to the bacteriologist. Regarded from this standpoint I confess that I can attach no rational meaning to the terms "puerperal fever" or "puerperal pyrexia," as they are apparently defined for administrative purposes. They seem to me to be a form of words offered as a sacrifice to some definition-loving deity. Since I do not know what the discussion, as defined, is about, I can hardly offer any suggestions as to possible methods of solution by laboratory investigation. I would, therefore, ask permission to state a problem of my own which, it seems to me, might be attacked along bacteriological lines with some hopes of success. If we confine our attention to the more serious forms of puerperal fever, associated with a high mortality rate, the question which naturally arises in the mind of any bacteriologist is whether or not the organism known as the *Streptococcus hæmolyticus* is responsible for the whole, or the greater part, of such puerperal mortality. If we could either prevent infection with any organism of this particular type, or could discover some efficient form of treatment, should we reduce the mortality from puerperal fever to negligible proportions? I strongly suspect that we should, and I believe that most bacteriologists would agree with me, but I know of no conclusive data. The problem is important, because the incrimination of a particular bacterial parasite narrows the field of investigation to practicable limits, when it comes to determining possible sources of infection. It is particularly important in the condition under discussion, and at the present time, because recent experience with scarlet fever encourages us to hope that real progress may be made in regard to the serum-treatment of acute streptococcal infections. If, therefore, the present activity on the bacteriological front of Public Health enquiries in

relation to puerperal fever were directed to ascertaining the frequency of infection with hæmolytic streptococci in this condition, I should regard the necessary expenditure of time and money as amply justified. Whether the more general results obtained in examining swabs from the cervix or vagina, or specimens of lochial discharge, by films or cultures, are of any interest to anybody, I do not know. I cannot myself conceive that they serve any useful purpose whatever. As I have already stated, I have no criticism to offer on the clinical side, of which I know nothing, but I regard a general attack, along bacteriological lines, on some vast undefined evil labelled "puerperal pyrexia," or "puerperal infection," as doomed to futility. Until a problem is really defined, not dressed up in a form of words, scientific attack is impossible.

I would like, in conclusion, to say how heartily I agree with Professor Donald's view that, in the present state of our ignorance, the only right course is to proceed on the assumption that serious puerperal infection is always introduced from without. The easy acceptance of any other view is likely to result in a laxity of technique, which would be unjustified unless it could be shown that such extraneous infection is quite unimportant; while such evidence as is available suggests that it is very important indeed.

THE next International Tuberculosis Congress will be held at Rome in 1928 under the presidency of Professor Raphael Paolucci, President of the International Federation against Tuberculosis.

THE Joint Tuberculosis Council has arranged for a Post Graduate Course on Tuberculosis to be held in Copenhagen in May next, leaving Harwich on the 7th, and returning on the 21st. The course, which has been arranged by Dr. Axel Reyn, will be largely of a clinical nature, and will include excursions to various sanatoria, and a series of shorter lectures at the Serum institute in Copenhagen. The approximate fare per person (for a party) would be £25, covering travelling, hotel accommodation, etc. An application has been made to the Minister of Health to allow the course to rank for grant. Further information may be obtained from the Hon. Secretary, Post Graduate Courses, Joint Tuberculosis Council, The Larches, Farnham Royal, Bucks.

Ut Ita Dicam.

(Being Comments, apropos and otherwise, on Sundry Matters.)

Medical Views on Birth Control.

Birth control as a subject is regarded as having a number of aspects—ethical, economic and medical, and from the national point of view no doubt all of these are of immense importance, and call for serious consideration. As viewed by the individual, however, when it comes to the point, the probability is that the only aspect upon which he or she feels that information and guidance are required is the medical. Ethical and economic questions, if the individual worries about them at all, he regards as matters private to himself; something that it is impossible for anyone to know so much about as himself or to be better qualified to decide than himself. The medical side he feels he must leave to the expert, and he leaves it, being full of conviction that the medical profession knows all about it, and could, if it only would, provide some absolutely safe and simple solution for the whole problem.

Some Essays on the Subject.

A fond belief this, that nothing up to the present appears to have been able to shake. Under the title set out at the head of the preceding paragraph there has recently been issued a book that may be regarded as a further attempt to shake it.* Gratifyingly well written, sound, sane and reasonable—the distinction of the pens that have contributed to it, Sir Thomas Horder, Sir Arthur Newsholme, Sir John Robertson, Dame Mary Scharlieb, Professor Leonard Hill, Dr. Arthur Giles, Dr. Crichton Miller, and others of a quality chosen by Sir James Marchant, is sufficient guarantee of that—it is nevertheless certain to be found disappointing by many. This for the reason that it does not describe the method or prescribe the nostrum that these many believe must exist. On the contrary, hardly a one of the contributors to the symposium but refers to the extreme difficulty of indicating a course and none of them but hints, more or less plainly, that the idea of interference does not appeal and that it is difficult to clear the mind entirely of the notion that interference is associated with danger, definite or indefinite.

* "Medical Views on Birth Control." Edited by Sir James Marchant K.B.E. London: Martin Hopkinson & Co., Ltd. Price 6s.

Promising but Complex.

In the introduction written by Sir Thomas Horder, and as pleasant a bit of English as anybody could wish to read, these points are well brought out, and with more clearness than is usually exhibited it is shown how extraordinarily complex the whole subject is, and that though as a reform birth control sounds attractive and promising, the benefits are highly problematical and the methods of attaining them by no means certain or practicable. Also it is explained why the medical profession in general and in public has been so silent on this matter: that it is due "more to an appreciation of the difficulties surrounding it than to indifference to its supposed benefits on the one hand or to defective training on the other hand, though doctors are not infrequently accused of both these faults."

Science and Birth Control.

These are words, though probably intended for lay persons mainly, that might be taken to heart by protagonists of birth control in the profession and the public health service itself. Those others who are hesitant with regard to this matter, who feel that the Ministry of Health is justified in the refusal to be rushed into a general and official recognition and approval of birth control clinics, resent a little the implied suggestion that their hesitation is due to mental deficiency or inability to recognize that there will be no progress until the methods recommended by a few as eminently suitable and desirable are generally adopted. Mostly this book provides support for these reactionaries and puts into words the reasons so many cannot or do not express for an unreadiness to leap forward along the line of so-called advance. To some extent Sir Thomas Horder apologizes because the essays in the volume are "written more in the spirit of scientific enquiry than to give expression to personal conviction, still less to personal inclination." Surely, however, it is because this is the spirit, that the essays are so valuable and helpful and it is permissible to wish that those who have written on the other side had evidenced more of the like spirit in their approach to the subject. Study of much of the literature crying up birth control and contraceptive methods almost inevitably gives the

impression that it is written to press forward the idea in spite of a recognition of the existence of very real difficulties in the way of finding a safe, certain and practicable method.

Crude Methods.

Of the methods in vogue at the generality of clinics it can only be felt that they could be resorted to only in cases of desperation and dire extremity, because of what their practice must involve. And frankly it cannot be believed that the vast majority of those who profess to be convinced of the advantages of and need for birth control and that it should be blessed by the authorities, know anything whatever about the methods to be employed. The implements are of shocking and almost incredible crudity, those for the female particularly, designed to bring about what is aimed at in the crudest manner possible, while the methods that must be associated with their application are calculated to lead to doubts as to the possibility of this being the twentieth century and as to the degree of refinement and civilization we claim to have reached.

The Implements.

Regarding the female implements—implement is the right word—it is almost impossible to share the fears that Sir John Robertson voices again in this book as to the effect on the unmarried of contraceptive teaching. The mere sight of the things would, it may be imagined, be sufficient to drive any but the most hardened and most multiparous to the straight and narrow path of virtue for ever. That, if it is only read, is likely to be the effect of this book as a whole. Another effect that it is calculated to produce, but that in all probability it will not produce, is in the direction of toning down the cocksureness of those who talk so much of the need for and advantages of birth control. For the administrator there is only one time for urging the adoption of any particular scheme, system or procedure, and that is after the advantages have been clearly shown and a practical and practicable method of securing these advantages has been devised. Assuredly, so far as birth control is concerned, that time has not yet arrived, and the wise medical officer of health will continue to maintain a discrete silence, or at any rate, to exercise a judicious reticence.

"Where There is Life, There is Soap."

The Bermondsey Public Health Department it is announced, is engaged in the making of a film with this title. Would it not have been

more attractive, and possibly more accurate if it had been inverted and made to read "Where there's Soap, there's Life?" It does not at all follow, that where there are people there is soap. Only too often there is no soap, a fact that was pointed out some years ago by Foote in his relation of the adventures of the Grand Panjandrum, more particularly in that portion having reference to the shopping expedition of the Great She-Bear.

Tidings of Joy and Generosity.

The Lewisham Borough Council have recently increased the salary of Dr. J. W. Miller, Assistant Medical Officer of Health and Maternity Medical Officer, from £550 to £600 per annum. Almost the salary of his grade.

The salary of Dr. T. P. Cole, Medical Officer of Health of Bognor, has been increased by £50 per annum.

Lancaster Town Council have increased the salary of Dr. J. D. Buchanan, Medical Officer of Health, from £700 to £800 per annum.

Leeds City Council, by general agreement, have decided on the withdrawal of various proposals for increasing the salaries of officials, including, doubtless, the medical officer of health.

Worthy Your Attention.

(a) Notes of a visit to Denmark by Dr. Picken (Cardiff), in the report of the Welsh Branch; (b) summary of a paper by Dr. Deacon (Birkenhead), on "Chemical Analysis of Milk of Nursing Mothers," in the report of the North-Western Branch; (c) remarks of Prof. Kenwood and others, in a discussion on "Co-ordination of Maternity and Child Welfare Work with the Hospital Services," in the M. and C.W. Group report. P.

AMONG the recommendations of the Departmental Committee on the use of preservatives and colouring matters in food, was one to ensure that any prohibitions or limitations imposed by the regulations should bind the Courts in proceedings taken under the Sale of Food and Drugs Acts. In order, *inter alia*, to give effect to this recommendation the Sale of Food and Drugs Bill passed through Standing Committee A of the House of Commons on March 8th, 1927, and was ordered to be reported to the House. The Minister of Health congratulated Mr. Jacob (Liverpool, E. Toxteth) as the member responsible for the first Bill to get through Standing Committee this Session.

The Society. Reports, Proceedings and Announcements.

NOTICES.

The next meeting of the Naval, Military and Air Force Hygiene Group will be held on Tuesday, April 26th, 1927, at No. 1, Upper Montague Street, at 5 p.m., when Dr. Andrew Balfour, C.M.G., has kindly consented to open a discussion on "Some Gaps in our Knowledge of Malaria."

Tea will be served at 4.45 p.m.

The School Medical Group will meet at the House of the Society on Saturday, April 30th, at 3 p.m., to elect officers for the Session 1927-28. Dr. A. C. Williams, Div. M.O., London County Council, will read a paper on "Combined Defect."

The Council of the Fever Hospital Medical Service Group will meet on Friday, April 22nd. Otherwise the Group is holding no meetings during April.

The Maternity and Child Welfare Group are not meeting during April, but provisional arrangements have been made for a clinical meeting to be held on Wednesday, May 18th, at the Carnegie Centre, Shoreditch. The medical staff will demonstrate the work of the Centre, and Dr. H. Glen Davison will read a paper on "The Feeding of Premature Infants," as an extension of his remarks on this subject at the recent Newcastle Conference of the Group. The full programme of the Shoreditch meeting will be issued in due course.

Members of the Society who have not yet paid their subscriptions for the Session 1926-27 are urged to do so at their early convenience, and thus reduce the labour of collection.

The following candidates, who were duly nominated at Leamington, on March 18th, will come up for election at the next Ordinary Meeting of the Society, viz.: Dr. Constance Emily Appleton, Asst. M.O.H., Croydon; Dr. Elizabeth Critchley, 2, North Road, Preston; Dr. Violet M. R. King, Asst. M.O.H., Swindon; Dr. Annie R. McKail, M.O. (M. and C.W.), Derby; Dr. Robert Weaver, M.O.H., Tipton U.D.; Dr. H. C. M.

Williams, Asst. M.O.H., Southampton, and Mr. John S. Roberts, L.D.S., School D.O., Hants C.C.

COUNCIL MEETING.

A meeting of the Council was held at the Town Hall, Leamington Spa, on Friday, March 18th, 1927. The President (Dr. E. H. Snell) was in the chair, and there were present Drs. Barlow, Lyster, G. F. Buchan, Veitch Clark, Wheatley, Allan, Fenton, Wilshaw, E. Ward, Kidner, Stella Churchill, Gibbons Ward, Sanders, Jameson, Paget Moffatt, Porter, Jolly, McIntosh, Stirk, and Major Parkinson.

The minutes of the last meeting having been approved, apologies for absence were received from Prof. H. Kerr, Lord Dawson, Dr. Cyril Banks, Dr. Eustace Hill, Dr. G. H. Pearce, Dr. Cates, Dr. Annis, Dr. Joseph, Dr. Clements, Col. F. E. Fremantle, M.P., and Prof. H. R. Kenwood.

Correspondence.—(1) From the Consultative Committee of the Board of Education asking for the nomination of expert witnesses for an enquiry into the possible spread of infectious diseases by means of books in elementary schools. The opinion was generally expressed that the Society should hesitate to make any definite pronouncement in this matter, but it was decided to submit the names of Dr. Duncan Forbes, Dr. J. A. H. Brincker and Dr. James Wheatley as witnesses who might assist the enquiry with useful evidence. (2) From the Southern Branch asking the Council to urge the granting of first-class railway fares for medical officers travelling on duty. It was decided to take no action in this matter. (3) From the College of Nursing asking the Society to meet them in conference in reference to the Training and conditions of service for Health Visitors. Dr. Stella Churchill and Dr. W. W. Jameson were nominated to represent the Society in conference with representatives of the College. (4) From the Maternity and Child Welfare Group, forwarding a report on the instruction of medical students in ante-natal conditions and Infant Hygiene. It was agreed that the report be circulated and discussed at the next meeting of Council. (5) From the British

Medical Association asking the Society to nominate representatives to attend a meeting to be held on April 6th, to protest against the Dogs' Protection Bill now before Parliament, which if passed into law, would seriously hamper the work of medical research. The President, with Drs. Porter, Allan, Lyster, and Fenton undertook to represent the Society on this occasion.

The Lister Centenary.—An invitation was received from the Royal Society, for the President and representatives of the Society of Medical Officers of Health to assist in the commemoration of the centenary of Lord Lister's birth. Dr. Snell promised to attend in his capacity as President, and it was agreed to nominate Dr. Charles Porter, Dr. F. J. Allan, and Dr. R. A. Lyster for acceptance of the invitation.

Health Education Work by Local Authorities.—The Council approved the recommendations of the Special Committee in reference to the establishment of a Standing Committee to assist Local Authorities in health education work under Sect. 67, Public Health Act, 1925. It was agreed to proceed with the organisation of the Committee, and to ask the Branches and Groups to promote the development of the Scheme in directions which will be indicated for their consideration.

A memorandum adopted by the Public Health Committee of the British Medical Association proposing the lines on which Branches and Divisions of the Association can contribute towards Public Education in Health was also before the Council, and it was agreed that the schemes might be regarded as complementary, and that useful co-operation should result between the public health service and private practitioners.

The Representative Body, B.M.A.—It was agreed to recommend members of the Society to support the following candidates for election to represent Public Health Service members of the British Medical Association on the (a) *Council*: Dr. E. H. Snell, Dr. G. F. Buchan (b) *Representative Body*: Dr Eustace Hill, Dr. Ernest Ward, Dr. G. H. Pearce, and Dr. Lyster. It was left to the President and the Executive Secretary to ascertain the names of members of Council who would be attending the Edinburgh meeting of the B.M.A., and who would accept nomination as deputy-representatives for the Representative Body.

The Vinegar Bill.—It was agreed to support the Bill, now before Parliament, for securing

a legal standard for Vinegar, and to prevent fraud in the sale thereof.

The Council then adjourned.

ORDINARY MEETING.

An ordinary meeting of the Society was held at the Town Hall, Royal Leamington Spa, on Friday, March 18th, 1927, at 4 p.m.

[Earlier in the day, the President (Dr. E. H. Snell) and upwards of eighty members of the Society were entertained at luncheon and accorded a civic welcome by the Deputy-Mayor and members of the borough corporation. Responding to the toast in honour of the Society, Dr. Snell expressed their gratitude for the kindly hospitality that had been extended to them, and for the opportunity of meeting in that beautiful town. He added that when his colleagues, many of whom came from far distances, had seen the recent extensions to the Pump Room and Baths they would be able to testify to the progressive administration of Leamington Spa. The toast of the Mayor and Corporation, proposed by Dr. G. F. Buchan, was acknowledged in a happy speech by Capt. R. A. Eden, M.P. After Dr. F. J. Allan had proposed the health of the Chairman, and a brief reply by the Deputy-Mayor, the company visited the Pump Room and admired the varied types of baths and light treatments now available for patients. Later the party were entertained at tea by the President and Mrs. Snell.]

The minutes of the last Ordinary Meeting having been approved, the following candidates were elected to the Society:—

As Fellows:

Jones, Ernest, M.B., Ch.B., M.Sc. Manch., D.P.H.; Nicholas, Wilfrid A., L.M.S., Singapore; O'Brien, Richard Alfred, C.B.E., M.D., B.S. Melb., D.P.H.; Perkins, Alan Christopher Temple, M.B., B.S. Lond., M.R.C.S., L.R.C.P., D.P.H.; Powrie, Janetta Jackson, M.B., Ch.B. Ed., D.P.H.; Sutcliffe, Maurice Lister, M.R.C.S., L.R.C.P., D.P.H., D.P.M.; Toussaint, Charles Hugh Christie, M.R.C.S., L.R.C.P.; Tyrrell, James Munro, M.B., Ch.B., Ed., D.P.H.; Watkins, Eric Holmes, M.B., B.Ch., B.A. Oxon.; Williams, Anna May, M.B., Ch.B. Ed., D.P.H.

As Associates:

Breese, W. Leigh, L.D.S., Eng.; Rabagliati, Duncan Silvestro, O.B.E., B.Sc. Edin., F.R.C.V.S., D.V.S.M.

There followed a discussion on "The Co-ordination of Child Welfare and School Medical Work," from the point of view of: (a) The Medical Officer of Health: R. Veitch Clark, M.A., M.B., D.P.H.; (b) The School

Medical Officer: G. A. Auden, M.A., M.D., F.R.C.P., D.P.H.; (c) The Medical Officer (M. and C.W.): Ethel Cassie, M.D., Ch.B., D.P.H.

After the opening papers many members took part in a very interesting discussion, which will be reported in an early issue of *Public Health*.

At the close of the proceedings, Dr. Charles Sanders proposed a cordial vote of thanks to all those who had contributed to the great success of a very enjoyable meeting. He referred to the kind hospitality extended by the Mayor and Corporation, and by the President and Mrs. Snell. He also made especial mention of the admirable arrangements made by Dr. W. L. M. Goldie, M.O.H. to ensure the comfort and convenience of his fellow members. The vote was carried by acclamation, and the meeting then adjourned.

THE CENTRAL MIDWIVES' BOARD.

Report by ROBERT A. LYSTER, M.D., Ch.B., B.Sc., D.P.H., Representative of the Society of Medical Officers of Health.

Your representative during the past year has attended nearly all the meetings of the Board and its Committees, and has also continued to serve as a member of the Sub-Committee dealing with the approvals of lecturers and teachers.

Training of Midwives.

During the year several new rules have come into force, the most important being the revision of the training period. Candidates now have to receive twelve months' training unless they are fully trained nurses, in which case the period is reduced to six months. It is at present premature to suggest what the results of this substantial addition to training may prove to be, but there is every reason to believe that the number of candidates will be considerably reduced. The Society might consider at an early date the advisability of expressing views as to the need for further concessions to be given to fully trained nurses who wish to become candidates for the certificate of the Central Midwives' Board.

The opinion of your representative is that, as a general rule, a fully trained nurse with three or four months' concentrated midwifery teaching is likely to make a better midwife than an untrained candidate with twelve months' midwifery instruction.

As regards training centres, the policy of the

Board is to decrease the number of centres and lecturers, and to concentrate the training and the teaching in large institutions where a great variety of experience can be obtained. Another part of the policy is to remove Poor Law institutions from the specially favoured position which they had obtained under the old rules, and to cause them to comply with the same conditions as others.

Penal Cases.

In connection with the hearing of penal cases your representative wishes again to suggest to medical officers of local supervising authorities the necessity for a better preparation of the case, and, in particular, the desirability either of attending these cases personally, or of making every endeavour to send a representative who will worthily represent their department. The facts relating to the case, and the documentary evidence upon which the case is to some extent based are frequently not ready for presentation, and the request at the end of the hearing for the general character of the accused midwife, i.e., a detailed account of previous misdemeanours, warnings, etc., frequently takes the officer entirely by surprise.

Notification of Births—Health Visitors.

Your representative has for many years been convinced of the necessity for the health visitor to make her first visit before the midwife finishes; the seventh or eighth day would be best. Illustrations of the unfortunate results of delay in the commencement of the visits of the health visitor continue to be common in the cases that come before the Central Midwives Board. A health visitor, appearing first a few days after the midwife has finished her visits, frequently discovers discharging eyes, and such facts often constitute part of the charges against a midwife who appears before the Board. The interval between the midwife's last attendance and the date of the discovery by the health visitor enables the Board to give the midwife the benefit of the doubt, and to assume it possible that the infection commenced and developed after the midwife last saw the child. Evidence given by the parent, or relatives or neighbours, on this vitally important point is not regarded by the Board as sufficient.

Conferences between Members of the Board and Representatives of Local Supervising Authorities.

An important event during the year was the Conference which was arranged between the

members of the Board and representatives of the local supervising authorities. This Conference appears to be likely to be arranged at regular intervals in the future, and the Society might take an active part in the framing of resolutions which are forwarded to that Conference for discussion. Several important resolutions were forwarded to the Board by the recent Conference, among which may specially be mentioned the following:—

(1) *That in penal cases the case for the prosecution should be prepared and presented by the local supervising authority, and not by the Central Midwives Board.*

The Central Midwives Board makes the following observations upon this:—

“The Board is prepared for the present to send the draft indictment to the local supervising authorities for their information and observations, and to include in the indictment any count which they deliberately desire should be so included.

“The Board reminds the local supervising authorities that unless the indictments are promptly returned to the Board inconvenient delay in the trial of cases before the Penal Board may result.

“The Board welcomes the presence of a legal representative at the consideration of the penal cases reported by the local supervising authority whenever it desires to send one. The Board hopes and believes that this arrangement will overcome any objection which the local supervising authorities may have to the present procedure.”

(2) *That the post of Superintendent of the County Nursing Association should be compulsorily separated from that of Inspector of Midwives under the local supervising authority.*

The Central Midwives' Board points out that the carrying out of this recommendation is not within the province of the Board. It is a matter for each local supervising authority to settle for itself. The Conference representing local supervising authorities all over the country were unanimously in favour of the resolution, and this Society might consider what steps are necessary in order to press the matter upon local supervising authorities.

(3) *That midwives acting as maternity nurses should be subject to the same rules as midwives, and that the rules should apply whether or not a doctor was in attendance.*

The opinion was expressed very strongly at the Conference that a considerable amount

of evasion of the Rules of the Central Midwives' Board and also evasion of inspection and supervision was made possible by the fact that midwives acting as maternity nurses were not subject to the same rules as when acting as midwives.

Dangerous Drugs.

The Board still receives resolutions from professional and other bodies concerning the use of dangerous drugs by midwives, but continues its previous practice of sending stereotyped replies to these representations.

Inspection and Supervision.

There is abundant evidence in many of the cases coming before the Board that an increased amount of strict supervision of midwifery practice is desirable in the interests of the public. Cases continually occur which show plainly that, speaking generally, there is no real effective inspection and supervision of midwives and their practice in this country.

Position of Local Supervising Authorities.

As the result of experience obtained as a member of the Board your representative feels strongly that perhaps the most important alteration that he can suggest, and possibly help to bring about, is an alteration of the relations between the Board on the one hand and the local supervising authority on the other. It is no exaggeration to say that evidence is constantly being produced to the effect that there still exists an atmosphere of veiled hostility between the two bodies. This is most unfortunate. The Midwives Act obviously intended the Board to act as the central supervising authority and for it to be represented in each locality by the local supervising authority. The Board should regard the local supervising authority as its direct local representative and communications should only be made to practising midwives through the medium of the local supervising authority.

THE WELSH BRANCH.

President: Dr. T. Roberts, County M.O.H., Denbighshire
Hon. Secretary: Dr. Thomas Evans, M.O.H., Swansea.

A meeting of this Branch was held at the City Hall, Cardiff, on February 24th, 1927. Twelve members attended, and the gathering was also favoured by the presence of Mr. Howell E. James, Secretary of the Welsh Board of Health, as a visitor. Apologies for absence were received from Drs. P. W. Kent and L. W. Pole.

The minutes of the last meeting were read and signed, and after the correspondence had been considered, the President called on Dr. Picken (Cardiff) to address the Branch on his visit, under the auspices of the League of Nations, to Denmark to study Public Health administration.

Dr. Picken introduced his address by describing the geographical characteristics of Denmark, and emphasised their influence on the climate and upon the health of the people. The enumeration of the population at the last census showed that a greater proportion of the inhabitants were engaged in rural industries than in this country; in Denmark, 57 per cent of the total population lived in rural areas as compared with about 37 per cent in Wales.

The allocation of the public health or social services under the control of the various ministries of the central government was given, and though a national Board of Health had been established since 1909, its duties were mainly confined to the purely medical aspects of public health problems. Owing to the irregular coast line rendering inter-communication between the capital and various portions of the country less practicable than in this country the functions of local government seemed to have been more highly developed at an early stage of the history of the country.

With the exception of a whole-time officer at Copenhagen, all medical officers undertaking public health work held part-time appointments, and such appointments were made, not by the local authorities, but by the central government; the public health medical officers were members of committees of the local authorities, and could take action without the preliminary sanction of the authority. The system of part-time appointments enabled the medical officers to enter into private practice as general or sick club practitioners, vaccination officers, or to hold medical appointments of various kinds, with the result that the curative and medical aspects of the work were efficiently done, but the preventive and administrative duties were perhaps not so easy to organise, as under the whole-time system of appointments.

Comparable with our National Insurance scheme, there had been established Sick Benefit Clubs, and, though membership was voluntary, approximately 80 per cent of the total population were members, largely in consequence of the wide range of medical benefits administered by the clubs.

The hospitals were all under municipal control, and in 1923, the hospital accommodation throughout the country provided 4·3 beds per 1,000 of the population; in Copenhagen, there were 8·3 beds per 1,000 of the population, which was a more ample provision than existed in comparable towns in this country. The devolution of hospital work to provincial centres was taking place, and in regard to equipment and organisation the majority of the hospitals visited were equal to the best types of voluntary hospitals in this country, and the best hospitals in Denmark were better than any we have. Medical education was undertaken in a splendidly equipped hospital supported by government funds; the professional training of nurses was also very efficiently done, and the period of training of each nurse included a course of six months duration in a hospital for infectious diseases.

The institutional treatment of tuberculous patients was provided for on a lavish scale, and the aggregate number of beds available in the country was 3,460, equivalent to slightly over one bed per 1,000 of the population as compared with an allowance of one bed per 1,850 persons in Wales; for every 100 deaths from tuberculosis there are 109 beds for this disease; provision was also made for the reception of families of tuberculous persons in suitable houses or homes where they could be regularly supervised without imposing undue restrictions; the provision of hospital accommodation for advanced cases resulted in the occurrence in hospitals of 70 per cent of the total deaths in Copenhagen from tuberculosis. Except in Copenhagen, the “dispensary” system of dealing with tuberculous patients was poorly developed and the main channel through which patients obtained institutional treatment was by recommendations for admission made by the private practitioners.

Maternity and child welfare work in the English sense of the term was not undertaken on a large scale, but the supervision of orphans and illegitimate children was effectively done, whilst crèches and kindergarten classes were also extensively developed; in Copenhagen “breast feeding clinics,” comparable to our baby clinics, were organised by religious bodies.

The school medical service had received scanty attention, except in Copenhagen, and the treatment of school children was undertaken by the private practitioners and state hospitals. The treatment of dental defects

was undergoing rapid development, and twelve school dentists were employed by the municipality of Copenhagen, and one large clinic provided sufficient accommodation for eight dentists working simultaneously. Special schools for children suffering from defective vision and for partially deaf children were well equipped with special appliances for purposes of instruction, and in the training of children belonging to the latter group, special attention was paid to deep breathing and lip reading. Accommodation for the treatment and training of cripples had been instituted in Copenhagen so long ago as 1871, and though the hospital school was not ideally situated in regard to its environment, the training or workshop department was very well equipped, and great importance was attached to the learning of a trade during the period of treatment. Vaccination of children was compulsory, and no child was admitted to school unless efficient vaccination had been done.

In regard to the milk supply of the country, one was impressed by the general degree of cleanliness of cowsheds and the premises appertaining thereto. A grade of milk known as "Children's milk" was comparable to the "Certified" milk sold in American cities; the herds producing such milk were submitted to veterinary inspection at fortnightly intervals, and tuberculin tested once a year. The bacteriological examination of milk was not extensively done for the purposes of grading, and more importance was apparently attached to the fat content and the results of the reductase test. The "flash" process of pasteurisation was largely employed.

Housing accommodation was mainly limited to small tenements; only about 13 per cent of the population lived in houses containing more than four rooms per family.

The physical condition of the population showed, generally, an exceptional state of cleanliness and was comparable in other respects to that of the inhabitants of the less densely populated eastern portions of Scotland and England.

Dr. Picken stated that such visits, though affording insufficient time for undertaking a thorough study of any special problem in public health, provided valuable facilities for the interchange of ideas with medical officers from other countries and from conversations he concluded that America was more comparable to the United Kingdom in its ideas

of preventive medicine than most of the Continental countries.

The various subjects were fully discussed and amplified by reference to statistical records and by quotations from speeches delivered by prominent personages connected with public health administration in Denmark; plans of hospitals and interesting photographs of clinics were also handed round for inspection by the members present.

The meeting concluded with a cordial vote of thanks to Dr. Picken for his interesting address.

THE METROPOLITAN BRANCH.

President: Dr. G. Quin Lennane, M.O.H., Battersea.

Hon. Secretary: Dr. James Fenton, M.O.H., Kensington

The Council of this Branch held their monthly meeting, at the House of the Society, on March 11th, 1927, the President occupying the Chair. There were present fifteen members and two visitors.

After the minutes of the last meeting had been read and signed, Dr. J. A. H. Brincker read a very interesting paper entitled "Why Diphtheria Immunisation is Necessary." Following a discussion lasting over an hour, to which Dr. Brincker replied, Dr. D. L. Thomas moved a hearty vote of thanks to the reader for his excellent paper. The President seconded the motion which was carried unanimously.

The Council gave careful consideration to a précis of evidence, prepared by the President, dealing with the needs for legislation to control the fixation and user of gas stoves in old buildings. It was resolved that a copy of this evidence should be submitted to the London County Council with the suggestion that controlling legislation should be secured in a London County Council (General Powers) Bill.

Consideration was given to the nominations submitted for the Presidency of the Society for the Session 1927-1928. It was proposed by Dr. Howell, seconded by Dr. Hewat, and agreed that the support of the Branch should be given to the nomination of Dr. J. Wheatley, County Medical Officer of Health, Shropshire.

The Council had before them the report of the Sub-Committee appointed by the Branch to consider the Draft Revised Bye-laws made by the London County Council under

Section 39 (1) of the Public Health (London) Act, 1891, with respect to water closets, etc., but in view of the fact that the lateness of the hour did not permit of a full discussion of the recommendations contained in the report, it was decided to postpone consideration until the next meeting of the Council.

THE NORTHERN BRANCH.

President: Dr. Roderick Macleod, M.O.H., Hetton, Durham.

Hon. Secretary: Prof. Harold Kerr, O.B.E., M.O.H. Newcastle-upon-Tyne.

A meeting of this Branch was held at Newcastle-upon-Tyne, on February 11th, 1927, the President in the Chair. Fifteen members were present.

The minutes of the meeting held on December 3rd, 1926 were taken as read and approved.

An apology for absence was received from the Vice-President (Dr. James Bannerman).

The Hon. Secretary referred in sympathetic terms to the loss the Branch had sustained through the death of Dr. R. C. De Lacey, Assistant School Medical Officer, Newcastle-upon-Tyne. It was moved that the Hon. Secretary send a letter of condolence to the widow, and the motion was carried in silence, the members standing. The Society was represented at the funeral by Dr. R. F. Lunn.

Sympathetic reference was made to the serious illness of Dr. P. A. Dormer, Medical Officer of Health, Jarrow, and the Hon. Secretary was instructed to convey to him the sympathy of the members, and wish him a speedy and complete recovery.

The Hon. Secretary was instructed to write to the medical officers of health of the counties and county boroughs within the area of the Branch to ascertain what arrangements, if any, had been made regarding the fees to be paid to specialists called upon under the Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations, 1926.

Dr. Kerr referred to the fact that among the portraits of ex-Presidents of the Society hung in the Council Room in London, that of Dr. Henry E. Armstrong, formerly Medical Officer of Health, Newcastle-upon-Tyne, did not appear. As Dr. Armstrong was one of the outstanding figures among the pioneers of the Public Health Service, and was a President of the Northern Branch for ten years, Dr.

Kerr felt the omission to be something of a slur upon its members. In discussing the subject with Mrs. H. E. Davison (Dr. Armstrong's daughter) she at once most kindly offered to give to the Northern Branch a portrait of her father taken at the time of his two years' Presidency of the Society. This Dr. Kerr accepted gratefully on behalf of the Branch, and suggested that it should be presented officially to the Council of the Society for inclusion amongst those of the other honoured leaders of the Public Health Service.

It was unanimously agreed to accept the portrait for presentation to the Society, and to offer the warmest thanks of the Branch to Mrs. Davison for her kindly thought.

THE NORTH-WESTERN BRANCH.

President: Dr. C. W. Paget Moffatt, M.O.H., Bolton.

Hon. Secretary: Dr. G. W. N. Joseph, M.O.H., Warrington.

An ordinary meeting of this Branch was held at Birkenhead, on February 11th, 1927, the President in the Chair. Seventeen members were present.

A letter was received from the Yorkshire Branch nominating Dr. J. J. Buchan, Bradford, for the Presidency of the Society during 1927-28, and it was resolved that this nomination be supported by the North-Western Branch.

Consideration was given to a communication from Colonel Brittlebank, President of the Royal College of Veterinary Surgeons, suggesting a Joint Meeting of the Branch and the Veterinary Officers' Association, and it was resolved that a Joint Meeting be held on March 24th.

A paper was read by Dr. Mary Deacon, Assistant Medical Officer of Health, Birkenhead, on "Chemical Analysis of Milk of Nursing Mothers attending post-natal clinics."

Her main conclusions were:—

(a) That individual milks vary greatly, and very frequently from week to week.

(b) That a milk of constant composition is a good milk.

(c) That infants fed on milk of varying composition do not thrive very well.

(d) That there is no striking difference in composition, beyond the usual variation between the milks of the first and last month.

(e) That the chief variation lies in the percentage of fats.

Dr. Deacon was of opinion, as a result of her investigations:—

1.—That it is unwise to give an opinion on a human milk which is apparently not agreeing with the infant until an analysis has been made. Every mother's milk should be analysed on her first appearance at a Clinic, and, if possible, every month afterwards. Abnormal milks should of necessity be analysed more frequently.

2.—In an individual milk the fat percentage is the most important, and shows the greatest variation. Where the percentage lies between 2 per cent and 3 per cent then no alteration appears desirable. If below 2 per cent then extra fat for the mother is indicated, but if the fat is above 3 per cent this seems more prejudicial to a child than a milk with a low fat content. In such cases steps should be taken to reduce this amount by dieting the mother and giving water to the baby.

3.—By reason of the fact that no striking differences occur in the composition of the milk of the first and last month it would appear that when artificially feeding the child the composition of the food given should be kept as nearly constant as possible during the normal lactation period.

4.—Among the poorer class of mothers the milk is so often of poor quality, especially as regards fat, that it may give the baby a bad start in life. This poorness of milk is not always very greatly improved by the amount of free food given at the Clinics.

With a view to improving the milk at the start of the baby's separate existence, free food should, if possible, be given to poor mothers during the whole of their ante-natal period.

Dr. F. T. H. Wood, in proposing a vote of thanks to Dr. Deacon, said he thought the results would have been more valuable if comparisons had been made only of mixed milks of all six feeds. Short of absolute starvation in cattle, no feeding had much effect on the proportion of non-fatty solids. A practical point that might be elicited from such an inquiry was whether the granting of free dried milk to a nursing mother had any effect on the composition of the human milk.

A demonstration of the latest form of glass cubicle pavilion was given by Dr. Morley Mathieson, who first outlined the history of the use of such wards. The Infectious

Diseases Hospital in Birkenhead has 88 beds in ordinary wards, and 8 beds in a cubicle pavilion. This pavilion is used for the isolation of doubtful cases, cases of mixed infection, and sporadic cases of the less common infectious diseases. The pavilion is brick-built, with tiled roof and "Rockwood" Composition flooring. In the centre of the building there is a "duty room" for the special use of the nursing staff, from this there is a clear view of all the cubicles, which are separated from each other by polished plate glass screens. In front of the pavilion, under the main verandah, lavatory basins are provided for washing and disinfection when passing from one cubicle to another. Low pressure hot water heating apparatus is installed throughout. The pavilion was opened in November, 1925, and cost £1,902, made up as follows:—Shell of building £1,675; apparatus for heating and hot water supply, £171; sanitary fittings, £56. The approximate cost of furniture, bedding, etc., was £250.

THE YORKSHIRE BRANCH.

President: Dr. S. Fox Linton, M.O.H., Scarborough.
Hon. Secretary: Dr. G. H. Pearce, M.O.H., Batley.

A meeting of the Council of this Branch was held on February 25th, 1927, at the Town Hall, Bradford.

The President was in the Chair, and there were also present Drs. Banks, Belam, Buchan, Gibson, Pick, Pickup, Scatterty, Williams, and the Hon. Secretary. Apologies for absence were received from Drs. Hill, Jervis, Thornley and Wear.

Various matters were discussed respecting arrangements for future meetings.

An ordinary meeting of the Branch followed the Council meeting, and in addition to the members above-mentioned, there were present Drs. A. B. Dunne, W. M. Frazer, A. Stuart Hebblethwaite, J. Mair, V. T. Thierens, P. Vieyra, and Mr. B. North. Apologies for absence were received from Drs. Daley and Mildred M. Thierens.

A report was received from the North-Western Branch that it was the intention of that Branch to support the nomination of Dr. J. J. Buchan by the Yorkshire Branch for the Presidency of the Society for the session 1927-28.

The Hon. Secretary read a letter from Dr. Sidney Thomas Steele, Medical Officer of

Health, Borough of Morley, the only survivor of the meeting at York in September, 1875, when the Yorkshire Association of Medical Officers of Health (now the Yorkshire Branch of the Society of Medical Officers of Health) was formed, expressing grateful thanks to the Council of the Society for their unanimous resolution inviting him to accept life membership of the Society, and intimating his pleasure in accepting.

An expression of opinion has been invited from all the members of the Branch as to the most convenient day and hour for meetings. The result showed that 144 were in favour of the last Friday in the month, as at present, and 6 suggested other days. The meeting decided that no alteration of existing arrangements be made.

A most interesting paper was read by Surgeon-Commander Pick, R.N., entitled "Some Experiences in the Prevention of Infectious Disease." The paper had special reference to outbreaks of measles, German measles, mumps, and chicken pox which the Commander had had under his control both at the Dartmouth Naval College and elsewhere. A discussion followed in which many members took part.

Dr. Walker, Deputy Lord Mayor, Alderman and Vice-Chairman of the Health Committee of the City of Bradford, proposed a hearty vote of thanks to Commander Pick for his excellent paper. The proposition was seconded by Dr. Gibson, Medical Officer of Health, City of Wakefield, and carried by acclamation. Commander Pick replied, and dealt with a number of questions which had been put to him by members.

The President proposed a vote of thanks to the Lord Mayor of Bradford for his kindness in providing tea, and to the City Council for the use of a Committee room. This was seconded by Dr. Scatterty, the Senior ex-President of the Branch present, and carried unanimously. The Deputy Lord Mayor, Alderman Dr. Walker, replied.

THE MATERNITY AND CHILD WELFARE GROUP.

President: Dr. Mabel Brodie, Asst. Welfare M.O., Durham County.
Hon. Secretary: Dr. Margaret Emslie, 22, Wimpole Street, W.1.

A meeting of this Group was held in the House of the Society, on March 11th, 1927,

when twenty-four members and visitors were present. The President occupied the Chair.

The minutes of the last two meetings were taken as read. Apologies for absence were intimated from Drs. Churchill, Kidd, Rashell Davison, and Waller.

Dr. J. S. Fairbairn opened a discussion on the co-ordination of maternity and child welfare work with the hospital services, in a most interesting and stimulating paper, which has been forwarded to the Hon. Editor of *Public Health*.

He was followed by Professor Kenwood, who dealt principally with the after-care of mothers and children discharged from hospital which, from an extensive enquiry he had made in the metropolitan area, appeared to be most unevenly and imperfectly organised, although in the case of some hospitals great pains were taken to secure co-operation with the local authority in any matter in which assistance might be required. The after-care provided by the hospitals themselves in the way of home visiting too often was restricted to enquiries into financial conditions, when the health visitors provided by the local authorities might be able to provide really helpful assistance in various other details. Where after-care in connection with maternity cases and infants and young children attending hospital was not provided, the loss was three-fold: first of all to the hospital itself in securing really satisfactory treatment; secondly, to the patients in the assistance which they might require in carrying out the instructions given by the hospital, and thirdly, to the maternity and child welfare work of the local authority, because the assistance which the authorities might provide in various matters was an excellent ground for securing the interest and goodwill of mothers. Professor Kenwood had on one occasion sent a circular letter from his own borough to certain hospitals, requesting that in all cases where after-care or home visiting was required, the hospital should inform his department, the expenses of this being borne by the public health authority and not by the hospital. Ten out of twelve hospitals accepted this offer of co-operation and from the ten hospitals a fair response was made throughout the first year, but greatly lapsed after that period. Professor Kenwood felt that this was a most urgent matter pertaining to the welfare of mothers and young children, in which a great deal of work still remained to be done.

Professor McIlroy dealt particularly with the maternity side of this question, and suggested that the ante-natal clinic in a large hospital was often a clearing house from which different cases were relegated to the proper departments for advice on special matters, such as heart disease, high blood pressure, etc., and felt that the difficulty of running clinics where hospital facilities were not available for difficult cases must be considerable; although, on the other hand, only a small proportion of the cases referred to hospital from centres seemed to suffer from real abnormalities. She felt that every expectant case should be seen at least once by a medical practitioner, and that in this particular, further co-operation with the midwives was much to be desired, and that their confidence should be secured. In her own hospital a copy of the notes on each maternity case, including mother and baby, was sent to the local authority on the day the case was discharged, signed by senior members of the staff. She felt that the perfect maternity hospital had still to be organised, but that there was much scope for a large central hospital of this type in London, at which both medical practitioners and midwives should be able to receive post-graduate training.

Dr. Nash felt that co-ordination with the general practitioner was one of the almost insurmountable difficulties in securing satisfactory maternity and child welfare work. The trouble in securing hospital investigation and advice for complicated maternity cases was very considerable in rural areas, where transport might be both difficult and expensive to secure. He felt that the question of co-ordination between hospital departments and the public health authority was so important that it might in time perhaps be made a condition of individual hospitals receiving grants from the King Edward's Hospital Fund. He considered very strongly that, while in ante-natal cases it might be desirable to have all the facilities of a general hospital available, there was an atmosphere about the specialised children's hospital which was not obtained in any other institution, and that it would be a great loss if children's hospitals were absorbed in large general hospitals.

Dr. Gamgee quoted as an instance of good co-ordination the practice in Paris whereby at certain hospitals there is attached to the unit of every chief a visitor who is a real home visitor carrying out or securing facilities for any necessary home treatment, and not simply an

almoner making necessary financial investigations. She agreed with the suggestion that it was most necessary to improve the conditions of confidence and goodwill between ante-natal and hospital clinics and midwives. She referred to the question of the so-called consultative infant welfare clinics held at hospitals, and said that the ordinary maternity and child welfare officer acquired in the course of carrying out his or her duties a very considerable experience and knowledge comparable with that of the hospital clinician.

Dr. Maitland Radford referred to the difficulty of getting patients to accept in-patient maternity treatment, even where an excellent organisation was available; but as regards children, mothers wanted to use the clinics for treatment under a quite mistaken idea that they were free to secure the same amount of treatment there as at the overcrowded hospital clinics, where they had to wait many hours for attention. He felt that the question of extending facilities for the treatment of maternity and child welfare cases referred to hospitals was an urgent one, as the present premises and staff of most hospitals were quite inadequate to cope with the number of cases attending daily.

Dr. Alden quoted from the *Revue Internationale des Enfants* to show that at a meeting of the New York Academy of Medicine, the same need for co-ordination between different branches of the work had been expressed, and she suggested that not only was there enormous scope for research in the work done at infant clinics, but that the hospitals did not make use of the information and experience available from these sources, and tended to ignore the considered information with which an experienced maternity and child welfare officer would often refer cases for further investigation.

Dr. Chodak Gregory referred to the difficulties of running a consultative hospital clinic for cases sent up from ordinary centres. It was often necessary to see the case more than once before an opinion could be given, and apart from these cases it was desirable for the sake of students that ordinary normal cases should attend at the clinics as well as specially difficult cases referred from elsewhere.

Dr. Nicoll felt that in spite of some of the discouraging things that had been said, a great improvement was noticeable in the desire for co-operation already evinced by certain hospitals, and mentioned cases in which full reports had been sent back to the centres of

the investigations and treatment carried out in hospital.

Dr. Thomson referred, as other medical officers had done, to the great difficulty of getting cases referred to hospital seen by a senior member of the staff, and to the exasperating frequency with which cases were seen by the junior staff and had their careful treatments altered.

Dr. Emslie mentioned a useful example of co-ordination which she believed had taken place in Edinburgh, where the chief maternity and child welfare medical officer of the City had been received on the staff of the maternity and children's hospitals for the purpose of giving specialist pediatric advice in necessary cases. Regarding the difficulties of co-operation with the general practitioner, she was of opinion that more might have been done to make use of his services with regard to ante-natal work, as it seemed a little anomalous that so much of the ante-natal work of the country was done by officers who did no practical obstetrics whatever, and she felt that in order to secure the fullest benefits of ante-natal work to parents and to practitioners it might be desirable that the salutary experience of being responsible for cases throughout should not be denied to those who supervised the ante-natal period, and in many cases had to decide the actual obstetric conditions of delivery.

Dr. Fairbairn replied briefly during the discussion, mentioning his appreciation of the invaluable work done by the almoner and sister mothercraft at his own hospital (St. Thomas's) and suggested that one day perhaps the specialist in preventive medicine might be a regular and accepted member of the staff of all general hospitals.

Professor Kenwood also replied, and Dr. Nash's suggestion regarding King Edward's Hospital Fund was discussed more fully, and it was decided that so many points had been brought up that the Council of the Society should be asked to appoint a Committee to discuss the whole subject in its larger aspects, i.e., involving children of school age, as well as under five years, and that this Committee should report to the Council and should make recommendations so that suitable action might eventually be taken.

The President proposed a very hearty vote of thanks to Dr. Fairbairn and Professor Kenwood, which was accorded with enthusiasm.

THE SOUTHERN BRANCH.

President: Dr. A. D. Edwards, M.O.H., Bournemouth.
Hon. Secretary: Dr. H. D. Kelf, Asst. M.O.H., Hants County Council.

A meeting of this Branch was held at Winchester on March 4th, 1927, twelve members being present. In the absence of the President, the Chair was taken by Lieut.-Col. J. G. McNaught.

Consideration of the Salaries Report and of nominations for the Presidency of the Society was postponed until the April meeting.

A paper was read by Mr. A. W. T. Ward, on "Dental Caries," illustrated by diagrams and specimens. An interesting discussion followed, in which many members joined.

THE Registrar General's Statistical Review, 1925, Tables, Part II. Civil (price 5s.) is now on sale at H.M. Stationery Office. The report shows that the estimated population of England and Wales at June 30th, 1925, was 38,890,000, as against 38,746,000 in 1924, an increase of 144,000. The births registered in the year 1925 totalled 710,582, representing a rate of 18.3 per 1,000 population, which was 0.5 per 1,000 below the rate for 1924, and, with the exception of the War years 1917-1918, was the lowest recorded. Excepting the War years 1917-1919, the number of births is the lowest number registered in any year since 1861. The proportion of male to 1,000 female births was 1,045. This proportion showed a great increase during the War years, and reached a maximum of 1,060 in 1919, since when with one exception it has shown a continuous decline, but is still above the proportions recorded since 1860. The deaths numbered 472,841 and corresponded to a rate of 12.2 per 1,000, the same as for the previous year, but 0.6 more than that for 1923, which was the lowest on record. The marriages registered in England and Wales during the year 1925 numbered 295,689, corresponding to a rate of 15.2 persons married per 1,000 of the population, and shows a decrease of 727 over 1924. The greatest number of marriages was again registered in the third quarter of the year, being 90,314 or 30.5 per cent of the total whereas the number for the first quarter of the year was 46,263 or 15 per cent. This preference for the third quarter has been a feature of the returns since the beginning of the present century, prior to which the highest rate was recorded in the fourth quarter.

Correspondence.

The Editor does not accept responsibility for the opinions of correspondents.

"THIS ADVERTISING FEVER."

To the Editor of *Public Health*.

Sir,—There is much in the article of Dr. Banks and the letter of Professor Kerr, with which all of us will agree. There is also that which is regrettable and a pity. It is suggested that medical officers of health who believe in public health propaganda are "advertisers," are "superficially minded" and are engaged in "stunts," "a flashy bit of display to conceal deficiencies in essential undertakings." Consideration for the space at your disposal, Mr. Editor, deters me from going into all the points raised, but I wish to deal with what are termed "popular public lectures." These are (1) lectures given at the annual meeting of the Royal Sanitary Institute, and such like; (2) lectures to health societies and those given as a series in some districts, such, for example, as at Willesden a year or two ago; (3) Health Week lectures, and (4) lectures given to "religious, political, scholastic and other societies." The first three of these are lectures which call for long preparation and careful thought; the fourth is the easy talk which gives no difficulty to the experienced man. Prof. Kerr and Dr. Banks seem to think that popular lectures are more or less trashy, and that medical officers of health indulge in these for purposes of personal gain and advertisement. I am curious to know how my friend Prof. Kerr has learned that those who so indulge do so to conceal deficiencies in essential undertakings. Nearly all these lectures are given without fee or recompense; they are prepared at home after the day's work is over. No one would say that Professor Kerr's University lectures, for which he receives or should receive payment, and which are given during the day to his students, lead to any deficiency in his administrative duties. The fact is, there is an element of lofty disdain exhibited towards "popular" health lectures which is not justified. In these matters one should be willing to be judged by one's peers, and I, personally, am willing to be judged by medical officers of health who have taken the Chair at any of my lectures. Dr. Banks smells a rat and frowns upon those who lecture, as "advertisers." I advise all

assistant medical officers of health to do their duty by their fellow-men and go in strongly for lectures. Learn to speak in public. Begin with first aid classes, sick nursing and what not. In time you will gain confidence, and perhaps get rid of the thin, piping, reedy voice which arises mostly from nerves. There is a great demand for knowledge concerning disease, and it is your privilege and good fortune to be in a position to help your fellow men. As your lecture should be known widely, do not trust to the local reporter to take down your story, give him a copy of your address, and your story will be given to a wider circle. You will make a name for yourself, and will meet with your reward. There are those, of course, who will gird in their sleep when your face flashes across their subconscious memory; these people remind me of the ragged urchins who, as the wedding feast breaks up, stand at the door and shout "Hard up." Chronics, dead-brokes, and "also rans" will meet in their favourite pub. and wonder how it is that so and so is so successful. The answer is that he is a man who has his ideals, who goes on his way rejoicing, and who only hits back when he is attacked. The toast, gentlemen, is "the advertisers."

I am, Sir, yours faithfully,

CHARLES S. THOMSON.

Town Hall, Deptford, S.E.14.

The following extract, submitted by Dr. D. S. Davies, Medical Officer of Health, Bristol, from his annual report for 1924, which shows that the view taken by Dr. Cyril Banks is shared by others, may be introduced as a contribution to the correspondence on this subject, initiated by Professor Harold Kerr, of Newcastle-upon-Tyne, in the last issue:—

"With regard to propaganda, the mere arrangement of a course of lectures appears to me to be inadequate and ineffectual, and audiences attending a free show without any present personal interest in the subject will derive little or no benefit beyond exchange of confidences on local gossip; advice proffered in the homes when sickness is present by a tactful and well-trained Health Visitor or Home Nurse, or given at the School for Mothers where all the interest is centred on babyhood, is fruitful in good results, and it is by extension of this work rather than by the academic multiplication of lectures that the greatest good is to be secured."

PUBLIC HEALTH

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Editorial.

Lister.

THE surgeons, of course, claim and acclaim him; and on account of his contributions to the subjects in which they are concerned the physiologists and the bacteriologists also regard Lord Lister as their own, to an extent at least that justifies Sir Charles Sherrington in writing of him as a Physiologist and Dr. Bullock as a Pathologist and Bacteriologist. Neither of these writers, nor Sir Berkeley Moynihan, nor the myriads of others who have dealt with various aspects of his work, have made it clear that of all he did the most important part was preventive. He was the first to recognise the existence of a

preventive side in surgery; the first to note the need for preventive action in relation to it; the first to see in bacteriology not the mere revelation of the existence of a few odd low-grade organisms, but a way to disease prevention and life saving and to map out that way; these are the reasons for claiming him as a pioneer of prevention and seizing this opportunity to express gratitude for the contributions he made to the science of preventive medicine. So much has been written of Lister during the last few weeks; so much has been told of his life, his history, his work and his goodness, that nothing in these regards need be added to what has been already said.

endemic, and from the old missionary records appears to have been so for at least a hundred years. Pandemics occur with great regularity, not with the 33 week periodicity noted in this country, but twice yearly, always in February and August. Dr. Hutton advances a theory that the habit of refuse disposal is likely to be answerable for the origin of these outbreaks. Domestic refuse of all kinds, including excreta, is thrown on the ground outside each hut, the heaps growing from year to year. During the greater part of the year the heaps are frozen and inoffensive, but in February a short thaw occurs and in the short summer in August there is a more thorough thawing and heating of the refuse heaps with a recrudescence in them of germ life. Whether or not this be the explanation, it is of interest to note that the August epidemics are always more severe than those in February, although at the latter month the natives are not in such good physical condition as they are in August.

Child mortality has always been high (many infants die from inanition at birth) and notwithstanding the lowered birth-rate it is becoming worse, especially where the natives have relinquished their primitive methods of feeding and dressing. Bottle feeding has been introduced with disastrous effects. Some small hope is held out that better housing, and the teaching of cleaner habits may improve matters, but the natives' resentment to anything which appears to interfere with the liberty of the individual is a hindrance to advance.

* * * * *

"Life Extension."

THIS is estimate time: there is a clamant call for economy, economy and yet again economy. The Trading Committees of the local authorities sit smugly in their seats; they make no call on the harassed ratepayers: they make profits—tangible, spendable—and their only concern is whether or not they shall hand over a portion of their earnings to assist the "spending" committees. In vain does the medical officer talk about the extravagance of false economy; how great will be the saving if but one poor cripple is made whole, or if the death-rate should come down by but one per thousand; but he suffers from an insuperable handicap. The saving of life has nothing spectacular about it; the averted epidemic is not recorded. Our triumphs are unsung; it is only when we fail

and serious epidemics assail us that our work is written up in all the newspapers and there is a general broadcast from all stations.

Yet there is to hand a booklet which sets out in cold print what some of us have been preaching for years, namely, that life is money and that our efforts save money. The booklet is issued by the Metropolitan Life Insurance Company of New York, and is entitled "Educating for Longer Life." This company has 18,000,000 persons in the United States and in Canada at risk in its industrial insurance department; one-third of them are children. In 1911 they considered it advisable, *as a business proposition*, to take active steps to educate those insured with them on how to live healthy lives. This Company has a staff of 21,000; in calling for the insurance contributions they act as health advisers, much in the way that health visitors do in this country. One is compelled to regret that the host of insurance agents in this country do not appear to have realised that they can be of great assistance in promoting the health of the community in general and of their clients in particular. To do this, they would of course have to educate themselves on the lines of their American *confrères*, and pass on the information to those whose contributions they gather. Many undoubtedly, would be quite unfitted for this new development of the work, but the idea even, does not appear to have been adopted in this country.

One of the biggest things done by the Metropolitan Life Insurance Company was the world-famed Framingham experiment; it started in 1916, and lasted seven years, being conducted in co-operation with the National Tuberculosis Association, and financed by the Company. For the decade prior to 1916 the tuberculosis death-rate in that City had averaged 121 per 100,000: at the end of seven years the rate had dropped to 38. The methods shewn to be so successful in Framingham are now being used elsewhere.

The Metropolitan Life Insurance Company co-operate with all agencies, private or public, which promote health: they produce films, publish handbills and pamphlets, and prepare exhibits.

What are the results of this campaign? Is it a business proposition? The mortality amongst their policy holders has declined from 12.5 per 1,000 in 1911 to 8.8 in 1926: the expectation of life of their policy holders has increased in that period by 9 years, compared

with an increase of only 5 years in the population as a whole. This means that during 1926 there were 63,330 fewer deaths, and in consequence 63,330 fewer claims amongst their policy holders than if the 1911 death-rate had prevailed. The age distribution of these 63,330 is interesting: 20,528 lives were saved of children under 14 years of age; 7,169 of adolescents between 15 and 24 years; 21,437 of those in the prime of life—25 to 44 years; 11,400 in middle age—45 to 64, and 2,766 deaths were postponed of those over 65 years of age. The saving to the Company occasioned by this smaller death-rate was 18,000,000 dollars in 1926 alone; the accumulated savings of life and claims between 1911 and 1926 were 417,628 lives and 71,500,000 dollars. This is apart from the additional premiums paid because of the longer life of their policy holders. It may be asked "what is the cost of this disease prevention work?" In 1926, 1,113,240 dollars were spent on general welfare work and 3,246,746 dollars on curative work which was intended to be, and often actually was, the cure of minor ills to prevent more serious ones. Was there ever a better investment?

In this country the Wesleyan and General Insurance Company Limited, recognise that by assisting the educational work of public health authorities they are helping themselves, and they are to be commended for their pioneer efforts. What have the other large British Insurance Companies done to help on the work of preventive medicine in this country? They need to be reminded that our efforts are a direct and considerable financial saving to them.

What of the practical relationship of these matters to public expenditure: large sums of public money levied compulsorily in the form of rates and taxes are spent in treating those suffering from preventable diseases. The State has no Life Insurance Department which benefits directly by postponement of death; in fact, the longer the life after attaining the age of 70 years, or even 65 in many cases now, the greater the payment to be made under our Old Age Pension Schemes, but the charge on the payer of the Poor Rates caused by the premature death of wage earners is very great, and the loss to the State of their potential earnings is even greater. The savings caused by a reduction of sickness go to swell the "surplus" of the Approved Societies.

It is all very complicated: the Health Com-

mittees have to find the bulk of the money and the result of their work benefits Life Insurance Companies because of fewer death claims, Approved Societies because of smaller payments for sickness and disablement benefit, Boards of Guardians because there are fewer widows and orphans to maintain, and the Treasury because by good health earnings increase. A contribution to the cost of our work by the first two of these beneficiaries would be welcome.

* * * * *

Malaya.

EXCEPT for those people interested in rubber or tin, how few in Great Britain have anything but a remote idea of this outlying portion of the British Empire. In the peninsula with Penang at one end, and the great Port of Singapore at the other, lying almost on the Equator, are comprised three different Colonies and Protectorates, viz., the Colony of the Straits Settlement, the Federated Malay States, and the Unfederated Malay States, the two last both Protectorates.

The Secretary for the Colonies recently stated that Malaya exported per head of the population a larger amount than any other portion of the Empire. She has also shown her appreciation of the true Imperial spirit by providing, previously a first-class battleship, the *Malaya*, which helped to make history during the Great War, and more recently by subscribing two million pounds towards the expense of the new Naval Base at Singapore. It would be expected, therefore, that a portion of the Empire, so liberal in ideas and so well endowed, would possess a Public Health Service capable and efficient, and when one reads the last annual reports of the Medical Officers, one can see how valuable is the work being accomplished.

In the *Straits Settlements*, Dr. Hoops is able to record the lowest death rate on record, viz., 27.26. There were 53 deaths from plague, 12 from smallpox, 2 from cholera, and 21 from cerebro-spinal fever.

Of the 12 cases of smallpox at least six came on ships. Malaria was responsible for no less than 6,278 deaths, but large as this figure is, it compares favourably with past years; in 1922 it was 7,028. Tuberculosis was fatal in 2,389 cases, and dysentery in 857. Ankylostomiasis caused 123 deaths, while 4,499 patients received treatment.

In the *Federated Malay States* the

general death rate was 22·6, while the only deaths from zymotic disease were: cholera 1, smallpox 10, and cerebro-spinal fever 7.

Malaria and fevers (mostly malarial) caused no less than 14,377 deaths, or 42·09 per cent of the total mortality, and large as this figure is it is the lowest ever recorded. It will be seen that at the present time malaria is the great cause of mortality, and could it be eliminated (as it no doubt will be to a large extent in the future) the death rate of this portion of the tropics would be little more than that of the Mother Country.

Both in the Colony and in the Federated Malay States much work has been done in dealing with venereal disease. In Singapore, owing to special reasons, the question has been fully considered, and is in process of being dealt with on modern British lines. Clinics have been established and hospital beds provided in considerable number, while educational means (leaflets, lectures, etc.) are being utilised. In the States, too, clinics are doing excellent work, notably in Kuala Lumpur. Infant mortality, as might be expected, is a serious problem, and it is gratifying to find that in the Colony and the Protectorate, welfare centres have been opened and well staffed by European and Asiatic women medical practitioners. Both reports have appendices dealing with work done in the various departments. After perusing them, one cannot but feel that though the underlying problem of Preventive Medicine is the same all over the world, yet in practice its methods have to be applied differently, and a feeling of congratulation arises in the mind that while the medical workers in our own particular branch are under conditions of service by no means easy, they are well sustaining the reputation of British Public Health work.

Death of Dr. C. E. Humphreys.

WE record with regret the death of Dr. Charles Evan Humphreys, for twenty years County Medical Officer of Health for Montgomeryshire. A member of the Executive of the Welsh Branch since its formation, and one of the past Presidents, he evinced the keenest interest in everything promoting the welfare of the Service and its members. He spent the whole of his professional life in his native county which he so much

loved. Dr. Humphreys was first in general practice at Llanfair Caereinion, subsequently becoming, in 1911, the first full-time County Medical Officer. Quite early in his career he took an active interest in the Volunteer movement, and during the War he and his four sons served with the Colours. He reached the rank of Lieut.-Colonel, and was D.A.D.M.S. to the 68th and 53rd Divisions. One of his sons was killed in action and another seriously wounded. After the War he returned to his official duties and went to reside at Meifod. He loved the country side, was a keen angler and a good shot, and had many an entertaining story to relate about his angling experiences. He was a Justice of the Peace, and Chairman of the Llanfair Bench of Magistrates. Dr. Humphreys leaves a widow, one daughter, and three sons to mourn his loss.

A COURSE of four Lectures on National, Regional and Town Development Planning will be given by Mr. W. H. McLean, M.Inst.C.E., Member of the Regional Planning Advisory Council for Scotland, at University College, Gower Street, London, W.C.1., at 5.30 p.m. on Tuesdays, May 10th, 17th, 24th, and 31st, 1927. The lectures, which will have special reference to schemes prepared by the lecturer, their practical application, and some of their aspects, will be illustrated with lantern views of plans and photographs. At the first lecture the Chair will be taken by Dr. Andrew Balfour, C.B., C.M.G. Admission to all lectures is free, without ticket.

A SUMMARY of replies received from twenty-seven metropolitan boroughs, in response to an inquiry regarding fees to be paid to consultants for a second opinion in cases notified under the Public Health (Notification of Puerperal Fever and Puerperal Pyrexia) Regulations, 1926, shows that in eighteen boroughs the fee for a first visit varies from £1 1s. to £5 5s., and for each subsequent visit from £1 1s. to £3 3s. (in seven cases £3 3s. is paid for every visit, and in two instances a total fee of £5 5s. covers both visits and treatment); in two districts an honorarium of fifty guineas per annum is offered; while in seven boroughs no arrangements whatever have yet been made. Generally speaking, no special provision appears to have been introduced for the carrying out of bacteriological examinations.

The Education of the Public in Regard to Modern Methods of Disease Prevention.

By S. MONCKTON COPEMAN, M.D., F.R.C.P., F.R.S., late Medical Officer, Ministry of Health; The LORD RIDDELL; C. W. HUTT, M.A., M.D., D.P.H., Medical Officer of Health, Holborn; The VERY REV. DEAN INGE, C.V.O., D.D.; and Prof. J. C. G. LEDINGHAM, C.M.G., F.R.C.P., F.R.S., Chief Bacteriologist, Lister Institute.

The contributions of Dean Inge, Lord Riddell, and others who dealt with various aspects of this subject at the symposium on January 21st, 1927, proved extremely interesting to the large numbers present at the meeting, and are certain to be found no less interesting and helpful to those others who were unfortunately unable to attend.

DR. S. MONCKTON COPEMAN.

The Point of View of the Government Department.

WITH the approval of the Government Department concerned, I will attempt to put before you the point of view of the Department in regard to measures of propaganda dealing with the important question of prophylactic immunisation.

Professor Ledingham will doubtless explain, much more authoritatively than I can do, what precisely is to be understood by the term immunisation, but I may perhaps give in somewhat crude form what may serve as a working definition. By the term immunisation is meant, roughly speaking, the inducing of such conditions in the tissues and body-fluids as may enable the individual to offer adequate resistance to invasion of the system by the specific living germs of a particular infectious disease.

Ages ago it gradually came to be realised that, in the event of recovery from an attack of a disease of this nature, the patient was unlikely afterwards to suffer from a second attack of the same disease and, further, that a comparatively mild attack might suffice to protect the individual even when subsequently brought into contact with the disease in virulent form.

Smallpox was apparently the disease in connection with which advantage was first taken of these experiences for preventing a severe and possibly fatal attack by the use of a method known as *variolation*, that is, the intentional infection of individuals with the disease in comparatively mild form. Knowledge of this method, which appears to have

originated in the East, gradually travelled westwards, and was eventually introduced into England in 1721, by Lady Mary Wortley Montagu, who, while living at Constantinople where her husband was British Ambassador, had opportunity of learning the technique of the operation, and of observing the results obtained.

Subsequently variolation was superseded by Jenner's introduction of cow-pox vaccination which, while seemingly of equal protective power against smallpox, had the advantage of not being infectious. The earlier method was then prohibited by legislation. In Jennerian vaccination, as in variolation, a living virus is undoubtedly the active agent, but in most of the more recent work on immunisation, non-living materials in the shape of killed cultures of a micro-organism or, more recently still, of toxins and other products of bacterial activity, have been employed. An important advantage consequent on these developments is found in the fact that it now became possible not only to standardise the material employed, but also to control dosage with far greater accuracy than when the use of a living virus is in question.

The more important diseases of mankind in which preventive treatment on these various lines has afforded favourable results are: smallpox, plague, cholera, enteric fever, and diphtheria, while there would appear to be reasonable grounds for anticipating success, in the near future, in the case of scarlet fever and measles.

In regard to propaganda dealing with immunisation against one of these diseases—

diphtheria—I propose to say something later on, but before dealing with official activities in this direction it may be well to make some brief statement as to certain ways in which the Health Department of the State functions in reference, more particularly, to the preventive control of infectious disease.

Incidentally it has on occasion been suggested that the Ministry of Health should give more of a lead towards the adoption of new methods based on new knowledge, but it must be borne in mind that a Government department cannot usefully take special action in advance of public opinion. In reference to this standpoint, Sir George Newman, in his "Outline of the Practice of Preventive Medicine," points out, indeed, that the *positive* principle which is so vital to the administration of a medical service is that the method of government, be it central or local, shall have regard to the content of medicine and its progress, but he goes on to say, "A word must be added as to the *negative*, namely, the limitations of government . . . particularly in relation to medical service." It means, he says:—

- (a) A considerable degree of uniformity;
- (b) A standard of objective and of work which constitutes something of the nature of *A national minimum* of what is both necessary and practicable in all areas rather than what might be desirable if carried out by the most enlightened and competent authorities;
- (c) The achievement of its ends within the limits of law, and through the agency and understanding of local authorities;
- (d) An appreciation of the relative spheres of the State and of the individual, of statutory and voluntary service, and of central and local authority.

As the outcome of these considerations it will be obvious that the function of the Government Department is regarded as comprising a minimum of direct propaganda while doing everything in its power to advise and encourage local authorities and voluntary agencies in efforts to educate the public, and so, eventually, to ensure success for such propaganda work as one or the other may consider it desirable to initiate.

The work of the Medical Department of the Ministry of Health is carried out not only by the epidemiological and other investigations of individual members of the staff, but also with the assistance of a number of Depart-

mental Committees of which those on Cancer, Rheumatism, Diphtheria, and Scarlet Fever may be instanced. In addition, it has a special Medical Intelligence Sub-department which issues monthly bulletins and abstracts of all the more important British and foreign literature for official use. The Medical Department is also in close touch with the General Intelligence Department — practically a Publicity Department of the Ministry, from which, in co-ordination with the Medical Department, statements are issued to the press from time to time, on application or otherwise, as may be considered desirable.

As regards publications, the most important and the most widely issued is, of course, the Annual Report of the Chief Medical Officer, which affords an interesting and valuable general retrospect and prospect of public health work in this and other countries. I would specially direct attention also to the recent re-issue of Sir George Newman's "An Outline of the Practice of Preventive Medicine," to which reference has already been made. A series of "Reports on Public Health and Medical Subjects," the work of various members of the staff and others, some dealing specifically with the results of laboratory investigations, are published from time to time. Many of these constitute monographs in which is summarised the present state of existing knowledge on the particular subject under consideration. In addition, a certain number of papers dealing with work carried out for the Department appear in the current medical and scientific press. With the exception of these latter all printed reports are supplied to sanitary authorities and are also placed on sale to the public. Much of this literary output from the Ministry may, I think, be regarded as propaganda of considerable interest and importance.

The recent history of immunisation work for the prevention of diphtheria may be cited as a good illustration of the manner in which the Medical Department endeavours to assist in the forwarding of work which it considers is likely to prove of practical advantage to the community. In addition to frequent references to the subject in the Chief Medical Officer's annual volumes, the Department issued several years ago a "Report on Diphtheria," of which a second edition is now in the press, and will be issued shortly. In this was set out a full account of the work of Schick and of others who have undertaken

investigation of the methods he originally introduced, together with an account of the practical application of these methods as carried out in certain localities under the auspices of the Department and at the request of local authorities. From that time onwards, in consequence of the knowledge that the Department would welcome enquiries, numerous requests for help and guidance have been received from medical officers of health, and from medical officers of institutions or of public and private schools of various grades. The actual work, thus far, has mainly been carried out by members of the Departmental Staff assisted, in certain instances, by Dr. O'Brien and his colleagues of the Wellcome Physiological Research Laboratories, from which the necessary material for testing and inoculation purposes has been obtained.

Originated in this fashion, Schick testing, followed by immunisation of individuals giving a positive reaction to the test, has now been carried out on some 6,000 children and adults, with the satisfactory result that, with the exception of two or three specially susceptible cases, none of those who had undergone immunisation, even when exposed to risk of infection, has subsequently contracted the disease. And, as I mentioned in my Presidential Address to the Epidemiological Section of the Royal Society of Medicine, whereas in one of the institutions concerned, limited outbreaks of diphtheria had for several years been the cause of much trouble and expense at intervals of a few months only, since the work was completed, with the added precaution of the immunisation, when requisite, of further admissions, there has been absolutely no recrudescence of the disease. But it is perhaps of even more importance to aim at immunisation of all children of pre-school age, in order to obviate appreciable risk of contracting the disease when they come into close contact with other children on joining school. Up to the present, however, work in this direction has only been attempted on a comparatively insignificant scale in this country. In London, pioneer work has been carried out by Dr. Hutt, in connection with which the Ministry expressed their interest in practical form by sanctioning, under a special order, necessary expenditure incurred at the welfare centres of the Holborn Borough Council.

The occurrence of certain fatalities in Austria and, at a previous date, in America,

has doubtless adversely influenced the effect of propaganda on behalf of diphtheria prophylaxis. But, humanly speaking, such mishaps are improbable in future, owing to the fact that anatoxin, which is entirely non-poisonous, has now successfully replaced toxin in the immunising mixture. There can, indeed, be no doubt that we have at our disposal, in the immunisation of infants and children of school age, an easily applied, safe and most powerful weapon in our fight against the ravages of diphtheria. And realising that the value of Schick immunisation is now assured, the Ministry have under consideration the question as to the advisability of initiating more direct propaganda than hitherto by arranging for an extension of the system of local conferences to be attended by expert members of the staff of the Medical Department.

In conclusion, I would like to suggest that, from the point of view of this discussion, the Medical Department of the Ministry of Health, the propaganda work of which is, for the most part, carried out indirectly rather than directly, may properly be regarded as a Central Bureau of Information, continuously engaged, moreover, in the investigation and recording of epidemiological, statistical, and laboratory work in this country and abroad, bearing on the prevention of infectious disease. The outcome of this work, together with all relevant advice and practical assistance when necessary, is always freely at the disposal of public bodies and their officials, of responsible voluntary associations, and of medical practitioners generally. On the local medical officer of health, however, must usually fall the responsibility of initiating arrangements for getting directly in touch with the general public, and of supervising the technical work involved in production of immunity.

LORD RIDDELL.

The Point of View of the Press.

There seems to be a considerable body of opinion that some general scheme of immunisation is necessary for certain diseases, and that this may be extended to other diseases such as enteric fever and scarlet fever. Needless to say, this is a very important and drastic change in our social arrangements. I gather that the Ministry of Health are not disposed to take the initiative in educating the public; their object is to get somebody else to educate

the public in their views. That having been done they propose to put in force these beneficial, though drastic, methods of protecting the public against infectious disease. So far as the press is concerned, I do not think they can be charged with disinclination to deal with medical matters, or that they are backward in giving information on any subject of public interest. Every day I read of what I should and should not eat and drink; what exercise I should take, and what are the causes of longevity. In addition, there constantly appear in lesser known but widely circulating journals, which appeal particularly to women, medical hints on all kinds of subjects. But I am still doubtful as to what is expected from the newspapers in regard to the subject under discussion. The first step, it seems to me, is for the Ministry of Health to formulate their proposals, which should then be discussed by Parliament. This, of course, will attract public attention to the matter, and the press will give it full notice. It is most refreshing to know that medical officers of health, not being in private practice, are permitted to place their vast knowledge at the disposal of the public, and if they are prepared to supply interesting "copy" on vital matters they may rest assured of space in the press. The questions here involved are of a very serious character for three reasons. First, we are committing ourselves to the efficacy of a certain treatment; secondly, we are interfering with the liberty of the individual—a matter of great importance; and thirdly, there is the danger of starting agitation against beneficial measures. I think that every reasonable person will agree that vaccination has been of great benefit to the community yet we find that because vaccination has been compulsory and because a certain measure of public attention has been given to the matter there is a great deal of opposition to vaccination and a weakening on the part of Parliament in regard to compulsion. It is to be regretted that such a state of affairs exists in reference to a method of immunisation which has been in vogue for so long, and the merits of which in my judgment as a layman, have been absolutely proved. Therefore, one regards with considerable apprehension this new movement for vaccination against other diseases. If there is opposition against vaccination for smallpox what will be the effect in regard to other diseases? Another important question is as to whether the medical profession as a whole is

in favour of these measures, and what are the measures to be. Are they to be compulsory? If not compulsory, is it proposed to suggest that every small child in the country shall be immunised against diphtheria, and is the procedure to be extended to other diseases? Is it to be part of the preliminary equipment of life to be immunised against enteric fever, smallpox, scarlet fever and so forth? If that is to be the policy, it is as well that the high priests who control our destinies in these matters should make their meaning clear. The press can hardly be expected to take the lead. The lead must be with the medical profession. I am confident that if this Society with the concurrence of the Ministry of Health, were to make a pronouncement to the effect that it is desirable and necessary that every child before reaching the age of two years should be vaccinated against diphtheria, a very good press would be secured. I can also promise that different papers would express different views. Some papers would support the idea; others would oppose it on various grounds. It is unlikely that you would get unanimity, but you would certainly get publicity. Perhaps you can tell me what the press is expected to do in this matter. It is most improbable that the newspapers would undertake the task of educating the public in these things, but they would, I feel certain, be only too happy to open their columns to properly qualified persons to enable them to bring the subject before the people. The important revolutions in the world are the silent revolutions, the things that happen without our noticing them very much and that are continually taking place around us. These new proposals would be revolutionary; they may be desirable, but I have not sufficient knowledge to express an opinion on that point. I may, however, express the hope that the medical profession is not going to turn us into a race of hypochondriacs. If at every turn you are fretting about your health; if you are always fearing and warding off disease, the chances are that you will so weaken your mentality that you will get the diseases from which you are trying to escape.

DR. C. W. HUTT.

The Point of View of the Medical Officer of Health.

Let us begin by considering very shortly what immunology has to offer the public in this country. First of all, there is vaccination against smallpox, then inoculation against

diphtheria; vaccination against enteric fever is available, immunisation against catarrh is gaining adherents, and inoculation against tuberculosis has reached the stage where its application should be seriously considered.

May I be allowed to sum up the position briefly? There is no question at the present moment of the general immunisation of the population against the enteric fevers, yet during the War, of course, a very large proportion of the male population were so inoculated. The results were extraordinarily valuable; if the enteric fevers had occurred to the same extent in the Great War as they did in the Russo-Japanese and South African Wars, instead of only 12,000 cases there would have been half a million. Evidence is available that these results were *not* brought about primarily by improved sanitation and chlorination of the water supply. During the earlier part of the War, in a certain part of the French lines, where the sanitation was satisfactory, and the water properly chlorinated, but where the men were only vaccinated against typhoid, there was a large outbreak of paratyphoid B. which gradually ceased when the triple vaccine was used in the French Army.

In France, where there is much typhoid, during most of the recent epidemics many of the people residing in the area affected have been vaccinated. When I was in Germany recently, a typhoid epidemic was raging in Hanover, and a picture appeared in the German illustrated papers showing people thronging to the vaccination station. In this country the Ministry of Health have, of course, made arrangements for the supply of T.A.B. vaccine in case of need.

As regards scarlet fever, I understand that the best bacteriological opinion is that the products available for use in immunisation against this disease are not sufficiently reliable to warrant their being used municipally, but that in the near future we may expect that a suitable product will be forthcoming.

It does not seem to me that a medical officer of health is justified in advising his Council to offer immunisation against a certain disease to the population of the area unless he is able to produce evidence that the disease will thereby be prevented. It might be thought that the necessary degree of assurance cannot yet be given in connection with influenza vaccine. On the other hand, one appreciates the fact that the wide use even of an imperfect

vaccine might stimulate the bacteriologists to produce a better product. The interest that has been taken by the Public Health world in diphtheria immunisation has worked in this way; we have seen toxin-antitoxin mixture replaced by toxoid-antitoxin mixtures and now a floc preparation is on the market which is expected to afford the immunisation required with one injection only instead of the customary three. The importance of this possibility appeared to me so considerable that I went over to Germany recently to see both the people who had carried out the work and those who were making the material, and was convinced that the results obtained and the methods of manufacture were such that the material could with safety and a considerable prospect of success, be used in this country.

During the next few years medical officers of health will have to decide whether they will advocate the use of the Calmette-Guérin vaccine for the prevention of tuberculosis; it is being used with success in France. In the last two years some 11,000 babies between the third and fourth day of their lives have been orally vaccinated by the ingestion of 3 doses of 1 centigram each of fresh emulsion of B.C.G.; a proportion of these babies were born of mothers suffering from open tuberculosis and remained in contact with them. Recently at the Institut Pasteur, Dr. Nègre was so good as to show me the procedure adopted; for each baby there is an index card, and its condition is systematically followed up by letter. Prof. Calmette considers that the results show that premunisation by B.C.G. is capable of protecting 99 out of every 100 babies exposed to maternal or familial infection.

In this country there is, of course, a fully organised Tuberculosis Service which could apply this method of prevention; a link would have to be forged to connect the work with that of the Maternity and Child Welfare organisation.

At the present time, however, the problem we are discussing is mainly centred round smallpox and diphtheria. As a matter of routine, probably every medical officer of health, when there is a danger of the spread of smallpox, brings out a poster on the advantages of vaccination. Use is less frequently made of the excellent pictorial propaganda of Dr. Drury and of the *Medical Officer*.

Objections from the point of view of advertising technique have been made to some

of this anti-smallpox propaganda. It has been said that there is too much solid text, but my experience is that in the presence of smallpox the desire of the public for information is so great that they are prepared to digest almost any quantity of well-written text. This is not to say that practically any health "literature" cannot be improved. But on the other hand, such "literature," in the process of being altered to meet the views of all the members of a Committee, may be emasculated; the productions of a Committee may compare very unfavourably with those of a single individual.

Propaganda against smallpox in the inter-epidemic periods is even more important. The encouragement given by law to the conscientious objector makes any firm action with regard to vaccination somewhat difficult. In Holborn vaccination propaganda is somewhat limited. A leaflet setting out its advantages is sent by post to the parent at once on receipt of the notification of birth. Dr. Kentish Wright was of the opinion that the leaflet used was too dull; as an experiment a much more attractive leaflet, brought out by him at his own expense, was issued to one hundred Holborn parents alternately with the usual leaflet. In the end we found that 50 per cent of each set of children were vaccinated; a very slight advantage might perhaps be assigned to Dr. Wright's leaflet. Subsequent to the use of leaflets an increased percentage of vaccination over previous years occurred. From this it would seem that if the medical officer of health exerts himself in the matter and does *anything* to put before parents the advantages of vaccination and gives them the necessary impulse, he gets better results. Apparently the attractiveness or otherwise of the leaflet used does not matter very much.

Vaccination against smallpox has been before the public for over a century; everybody knows its merits. Diphtheria immunisation is relatively new; not only the public, but the general practitioners have to be persuaded that the procedure *does* prevent diphtheria, and that their children or that the children or the adults for whom they are responsible will not suffer in any way from the inoculation. How is that to be done? May I relate to you our experiences in Holborn?

We started the work some four years ago under the aegis of St. Bartholomew's Hospital, the inoculations being carried out in the outpatient department by Dr. O'Brien and his

staff. For some time previously I had asked the Sanitary Inspectors and Health Visitors when they were calling on parents to tell them that arrangements were being made shortly for diphtheria immunisation; a leaflet was left in the hope that the advice would be followed, and the number of parents spoken to was reported to me weekly. The attendances at the Hospital were very poor. The work was shifted to the Municipal Infant Welfare Centre and reliance placed on the personal persuasion of the Health Visitors. The attendances at once improved, and the work has gone on steadily ever since.

It is during their routine visits in the home that the Health Visitors carry on the propaganda; practically no visit is paid for any purpose by them without an explanation or reminder of the value of diphtheria immunisation. It is also customary to visit especially in the near neighbourhood of a home where a case of diphtheria has recently occurred.

The mothers attending the Centre are repeatedly advised to allow their children to be tested and, if necessary, immunised. Addresses have been given to the mothers at our Centres on the advantages of diphtheria immunisation. Most of the attendances are the result of repeated efforts of individual persuasion and encouragement. For much of the indifference to advocacy, want of imagination of suffering is responsible. A widespread and deeply rooted conviction of the malignity of fate destroys the parents' belief in the possibility of preventive measures. They dread reaction to inoculation, and many fail to appreciate that even if some discomfort does follow, it is insignificant in comparison with the suffering and danger of an attack of diphtheria.

Prejudice against inoculation is widespread; some of the most stubborn opponents admit that if T.A.T. could be given in tabloid form or in spoonfuls they would agree to it. They object, in fact, to the introduction of animal products into the human body by means of a hypodermic syringe. Some raise the objection that the child has already been vaccinated, and that this should be enough to satisfy any ardent believer in the doctrine of preventive treatment; they fail to understand that ordinary vaccination is intended to prevent smallpox alone, and argue in all sincerity that vaccination and inoculation of any kind is useless, since such diseases as scarlet fever, measles, and whooping cough have occurred in many vaccinated children they know. Some

parents believe that the process is an interesting experiment of doctors from whom they must protect their children; it is a help to be able to tell such people that a publicly elected body such as a Municipal Council would not allow such work to be carried on if they themselves did not believe in it.

Men who reacted to typhoid inoculation when in the Army are often opposed to the inoculation of their children; they consider that they know all about inoculation. They seem to think that their children must inevitably run the risk of a severe reaction; it needs careful explanation to make them realise that for each disease there is a different degree of reaction. We have steadily endeavoured to combat this prejudice and ignorance; to supplement the spoken word we have used the written word and picture. Experience showed that after the parents had received the first leaflet brought out they almost invariably asked the same questions: "Will the injections upset the child? How do you know that the child will be prevented from catching diphtheria?" Consequently another leaflet was drawn up in question and answer form to follow the first; this plan seems to answer very well. Later we added a photographic illustration showing the treatment being carried out, and copies of the photograph have been put up in suitable positions. The Hospital for Sick Children, Great Ormond Street, have put up one in their Out-Patient Department; a Crèche has put up another. Last Health Week we were able to bring out a humorous pictorial poster with colloquial text; this was posted up in various parts of the Borough by an advertising company. The poster is still being displayed on any buildings belonging to the Council, and in the Public Conveniences. During Health Week a special leaflet with short, snappy text and one of the humorous illustrations from the poster was used for distribution by the Holborn tradespeople.

The possibilities of certificates of immunisation have been utilised; a certificate printed on a substantial card, and duly signed by the Mayor and the Medical Officer of Health is given to the parents after the re-Schick test has proved the child to be satisfactorily immunised; the certificates seem to be appreciated by the parents and children.

If diphtheria immunisation were to be offered to the public elementary school population generally, a great stride forward would be made. Dr. W. T. Benson has set out the

propaganda adopted in connection with the Edinburgh Schools. In May and June, 1923, an outbreak of diphtheria occurred in connection with a Leith School, which could not be controlled by the usual methods. While this epidemic was fresh in the minds of the parents, a meeting was convened at the school under the auspices of the Parents' Association. The parents were addressed by the Medical Officer of Health of Edinburgh (Dr. Robertson), and the Superintendent of the City Hospital (Dr. C. B. Ker), on the advantages of diphtheria immunisation. The Education Authority was approached and gave the Public Health Authority permission to carry out the immunisation in the Leith schools. A personal visit was paid to each headmaster, when the methods and aims of the work were explained, and an endeavour made to enlist his sympathy and support. A memorandum on the Schick Test and active immunisation, specially drawn up by Dr. Ker, was given to each headmaster. As it was anticipated that the advice of the family doctor would influence many parents to grant or withhold consent, a copy of this memorandum was sent to every general practitioner in Edinburgh before starting the campaign. An information leaflet and consent slip for signature was sent to each parent.

In Holborn during last Health Week, through the good offices of the London County Council and the local Head and Assistant teachers, we were enabled to distribute leaflets for the children in the Senior Departments to take home. Since then some of the school children have come to the Centre to be immunised. In the course of our efforts to persuade parents to have their children immunised, we are always coming up against this objection which is thought by them to be very real and unanswerable, "If this immunisation is such a good thing why aren't they doing it in other places?" The force of this argument is fortunately now being removed by Westminster and Camberwell starting the work; these are places which are actualities to Holborn parents; they are more real to them than Edinburgh, Aberdeen, Belgium, and America, the only places we have hitherto been able to quote. If an imposing organisation like the school which plays so great a part in their thoughts and lives offers immunisation this objection loses all its imagined force.

We have not escaped the notice of the National Anti-Vaccination League. During

a London County Council election they distributed leaflets calling the attention of the voters to our awful practices; some of the statements made were so grossly inaccurate that I thought some reasoned reply should be available for any open-minded enquirer, and wrote to the Secretary of the Research Defence Society, who published a brochure on the subject.

An attempt was also made to enlist the help of the voluntary organisations whose special function is propaganda, e.g., the National Baby Week Council. An outbreak of small-pox occurred about that time, and the opportunity was taken of incorporating into one of their leaflets on vaccination a paragraph pointing out the advantages of inoculation against diphtheria. The Editor of *National Health* has, on more than one occasion, helped us by advocating diphtheria immunisation in that journal.

Insurance companies are now coming on the scene. Some time ago a large Insurance Company, after writing round to medical officers of health to obtain specimens of their propaganda literature, issued a leaflet on diphtheria in which, *inter alia*, parents were advised to have their children immunised; these leaflets the Insurance Company were prepared to give free to medical officers of health for distribution. Very recently another Insurance Company has brought out a film; possibly if a good film were shown to medical audiences the interest of the general practitioner might be aroused and his help enlisted. Our experience is that parents sometimes ask their doctor if they shall have their children immunised; often the very honest answer is given by the doctor that he does not know enough about the immunisation to be able to advocate it. The increasing complexity of medicine and of the demands on the general practitioner render the acquisition of such special knowledge difficult; possibly the film might be of more avail than invitations to immunisation clinics and the distribution of reprints.

Can the help of the daily press be enlisted? On several occasions news items relating to diphtheria immunisation have appeared in the daily press, but from their very nature have not been suitable for repetition, an essential feature of propaganda.

For daily newspapers to be of service, repetition is necessary. We want not only news items, but articles, signed or otherwise,

commented on in editorials. I wonder how many middle-class parents know there is such a thing as diphtheria immunisation, and that it is a practical proposition to-day? How can we get this knowledge home to them without the help of the daily press? Wireless would help, but more people are reached by the newspaper, and there are still many people who believe that what is in print must be true.

DEAN INGE.

The Point of View of the Public.

It was under a good deal of pressure that I was induced to speak at this meeting, and it is no pleasure to me to address an audience of experts on a subject of which I know next to nothing. During the first weeks of the War a number of our newspapers published full-page advertisements urging the public to assist in preventing the vaccination of our troops against typhoid fever. In the Boer War, in which we employed about 200,000 troops, there were between 16,000 and 17,000 deaths from typhoid fever. It is easy, therefore, to imagine what would have happened in the Great War, in which five million or more men were engaged, if they had been exposed without protection to the dangers of that disease. It is not too much to say that if this wicked agitation had succeeded we might have lost the war. I have been asked to speak specially about the education of the public. Lord Riddell has already spoken of the press. Of course, the press is the best means of approach to the public, but certainly the ignorance of the people is still astounding, although not quite so bad as it was twenty years ago. We no longer see people wrapped up, especially about the throat and chest, and wearing respirators to prevent them from breathing pure air, but I do not think the public in general realise that tuberculosis is infectious. The public still believe there is a lockjaw vein between the finger and the thumb; they still stuff their children with butcher's meat on the theory that if you eat an ox it makes you strong. All this, and other things, go to show how gross is the ignorance amongst the public of the causes of disease.

I have only one practical suggestion to offer as to educating the public. I think the churches might very well start a Health Sunday, which might be the Sunday nearest to St. Luke's Day, and put the medical officer of health in the pulpit and give the people a

straight talk. I do not think there can be any question about it being the proper thing to do when we consider the important part that physical and mental treatment play in our ministry. I do wish to suggest that the main responsibility rests with the doctors themselves. I think they have been decidedly too timid in the past, have been afraid of public opinion, and have not shown the courage they ought to. For example, they were rather slow in enlightening the public about certain diseases which are very much more serious than smallpox. I think also that the doctors might try to enlighten the public on the well-established laws of heredity, and might help to make it widely known that there are certain diseases which tend to become hereditary. Doctors are now listened to with attention and respect, and can be a great force in the education of the public on matters of health. A man may doubt if he has a soul, and may forget that he has a mind, but needs no reminding that he has a body. If my suggestion is taken up I will do my best to persuade my colleagues to invite one of your members to occupy the pulpit at St. Paul's, on a Sunday in October.

PROF. J. C. G. LEDINGHAM.

The Point of View of the Laboratory Director.

I have to admit that a considerable responsibility rests upon me in endeavouring to represent the attitude of the laboratory towards those methods which may be desirably employed with a view to enlisting public interest in the subject of our symposium. If there were no research laboratories, it is certain that a symposium such as this could not take place, and, that being so, it behoves me to discuss with some circumspection the position of the research worker faced with a discovery which may possibly have an application to the cure or prevention of infectious disease in man. So far as the laboratory is concerned, I might content myself by asserting simply that the best advertisement one can give to any research product possessing some possible application to man is the assurance that the discovery to be exploited rests on the soundest scientific foundation, has no secret corners about it, and has been tried out as far as possible on experimental animals, or, it may be, on human volunteers.

Such an assurance in the case of a curative remedy applicable to man should command its general diffusion without the need of special

propaganda and, indeed, where curative remedies are concerned, history has shown that for public acceptance any very rigorous scientific guarantee has not been demanded. It is unfortunate that this should be so, but while I maintain that the tentative application of a new specific remedy to man should be preceded by the most rigorous demonstration of its efficacy in experimental animals, provided these are in every way suitable for such tests, we have to reckon with certain psychological factors which come prominently to the front whenever research reveals some new principle which may profoundly affect the treatment or prevention of disease in man.

Both layman and research worker must keep cool. The former, stimulated perhaps by a curious but indiscriminating press, must not be tempted to force the researcher's hands, nor must the researcher yield to the temptation of securing some temporary notoriety by premature application of uncontrolled or incompletely documented work. Such can only bring laboratory endeavour into public disrepute and constitutes, moreover, a very disturbing factor in laboratory life.

The value of diphtheria antitoxin in experimentally infected animals was irrefutably demonstrated before the remedy was tested on human cases of diphtheria. Pasteur's many contributions to preventive veterinary medicine were made possible by his demonstration that a virulent organism could be so attenuated as to justify its employment for prophylactic purposes. In issuing the attenuated organism for general use, however, he was not quite prepared for the occasional and often serious breakdown in the prophylactic machinery due to the very nature of the agent employed—a flaw which his critic Robert Koch was not slow to point out. The experience with anthrax prevention simply demonstrated the fact that the application of a laboratory discovery to general use involves new experiment, and a new set of problems which the laboratory may again be called upon to solve as they arise. There can be no finality.

The sad story of tuberculin illustrates strikingly how even a great figurehead in bacteriology such as Robert Koch could err in his vision of the application to man of an intensely interesting phenomenon he had met with in experimental tuberculosis.

The curious immediate effect of inoculating the tubercle bacillus or its products into already infected animals and the apparent temporary

arrest of the disease which followed, seemed to Koch to have one interpretation only, viz., that the tubercle bacillus could produce some substance capable of arresting its further growth in the animal body. The tuberculin reaction was in itself a brilliant discovery, destined to be exploited widely in the diagnosis of human and animal tuberculosis, but the very contemplation of the possibility that a seeming arrest of the disease in experimental animals might foreshadow a specific therapy of tuberculosis was potent enough to upset the great master's mental balance. In his famous address on the progress of bacteriology to the International Congress of Medicine in Berlin in 1890, Koch laid down clearly and excellently the conditions which a new remedy must satisfy before its application to man could be justified. He said we must not experiment first with man but with the disease parasites. Even when we have got a remedy which will arrest the development of the tubercle bacillus in culture, we must not go straight to man. We must further test whether *in vitro* results hold good in the living body. If they do then we may safely pass to man. He finished his lecture with the announcement that he had got a substance which could stop the growth of tubercle bacilli in the animal body. He had worked with the particular preparation for about a year in the laboratory, and the results were not finished, but he could say this, that guinea pigs when given this substance would no longer respond to the inoculation of tubercle bacilli, and that in guinea pigs, suffering from severe tuberculosis experimentally induced, the process could be brought to a standstill. He apologised for departing on this occasion, from his usual custom of announcing only completed work, on the ground that the field he had opened up was pregnant with possibilities, and one in which the research workers of all nations could fruitfully dig. Koch was clearly the exalted victim of his own magic. The reports he was getting as to the remarkable immediate results of the use of his remedy in human tuberculosis were telling enough to justify his optimism, and yet the all-important experimental proof that the remedy could, as he said, immunise guinea pigs against experimental infection or bring such to a complete standstill, was not forthcoming, and is not forthcoming to this day. The laboratory proof that Koch's remedy could protect against or cure experimental tuberculosis has

never been produced. A curious feature of the tuberculin episode was the fact that Koch did not actually announce what the substance was until his third paper on the subject. His view was that the tests by physicians and surgeons would be all the more unprejudiced the less they knew about the remedy they were testing. On this latter point, I think, responsible opinion of the present day has changed, and rightly.

I have thought it important to cite the tuberculin episode as it illustrates very cogently the necessity of adhering to the rules of the game, however distinguished the promoter and however pregnant with possibilities the outlook may be.

Having dealt thus summarily with the provisions that any laboratory discovery should satisfy before its tentative application to man, and some of the psychological difficulties which sometimes militate against their full realisation, I pass to the special problem this symposium is designed to ventilate.

In the first place, I would say that I share the view of many that preventive medicine is destined to become more and more the medicine of the future.

We are concerned to-night with the discussion of propaganda for securing public interest in recently developed methods for reducing the incidence of certain acute infectious diseases, particularly, I think, diphtheria and scarlet fever.

In the case of the first we have abundant evidence derived from experiment on animals and human volunteers that the inoculation of a particular type of antigen can secure such a tolerance to diphtheria toxin that a natural infection by the diphtheria bacillus is unable to mature. Further, we are able to detect those individuals in the community who have little or no resisting power against diphtheria, but whose resistance can be satisfactorily raised by artificial immunisation. It may be said that when diphtheria comes along we possess a potent remedy in antitoxin, and so we have, and I believe there is still room for publicity even here among the medical profession, which would ensure the best use of the remedy, viz., its prompt administration on well-founded clinical suspicion and without waiting for bacteriological confirmation. There is a place here for more enlightened propaganda with a consequent saving of child life. Antitoxin, however, does not affect

incidence and, indeed, as I have said in a former Harben lecture, while public health measures have worked wonders in controlling the prevalence of the enteric group of infections they have been largely ineffective in modifying the incidence of the respiratory group to which diphtheria and probably many of the exanthemata belong.

In some less fortunate countries artificial immunisation of the civil population has been called in to aid the sanitary control even of enteric disease.

In scarlet fever the renewed attention to the streptococcal flora of the throat in recent years and particularly the discovery that these cocci produce a toxin which acts on man but not apparently on other animals has led to similar claims for the general use of an active immunising agent which will reduce incidence. Incidentally also a therapeutic serum prepared by the immunisation of horses with streptococci from scarlet fever has been evolved and bids fair to supplement or even to replace the ordinary expectant symptomatic therapy of the past.

In measles again, which at present is a greater death-dealing disease by virtue of serious complications than scarlet fever, we have advanced this far, that the passive immunity of contacts with the serum of convalescent measles cases can diminish very materially the incidence of contact infections.

It is admitted that these prophylactic measures are thoroughly well based scientifically and though nearly all the evidence in the case of scarlet fever and measles has been obtained from experiment on human volunteers, susceptible animals not being available, that evidence is constantly multiplying and is at present abundant enough to justify a wide extension of the method. It should be pointed out that transference to man, on the large scale, of any scientifically based method of prophylaxis involves a new set of conditions. Man must take his share in the experimental pioneer stage, and all honour, therefore, to those pioneers whose work has rendered the general diffusion of the method justifiable and safe.

If then we possess agents which can control incidence and are safe to use, how best are we to diffuse the knowledge of them with a view to securing the voluntary submission to that slight interference which their inoculation entails?

In this country we have hitherto been some-

what slow to move. We have allowed ourselves to benefit by the work of pioneer health authorities in other countries, particularly in America—possibly a safe but rather selfish and short-sighted principle.

My views as to desirable propaganda methods may be shortly expressed. To secure public interest, we need an informed and sympathetic press, not a press which misleads by scare headlines, and rarely fails to burlesque, out of sheer ignorance, the activities of microbes. A good press can do much to stimulate interest and consequently to secure a supply of volunteer applicants for immunisation, always provided that the organisation for carrying out the method is actually in existence and under the direction of expert officers working with reliable and safe material. The burden of executing work of this kind would most appropriately fall on child welfare organisations, school medical officers, and institutional authorities. I presume that those who cannot afford to pay would be immunised free. On the other hand, I am certain that many would be prepared to pay, and pay well, if the facilities were made easily available. Isolated action by the general practitioner is possible even now, at least, in so far as diphtheria and scarlet fever are concerned, but I believe the general practitioner would be glad to delegate the task of individual immunisations which come his way, and instead to exercise his great personal influence on heads of households with a view to their participation in facilities specially provided.

Financial considerations I am unable to discuss, but on the principle that vaccination is cheaper than smallpox I would anticipate that the reduction of incidence, following the wide employment of immunisation methods, would be cheaply gained.

I should just say in conclusion, that in view of the fact that the Therapeutic Substances Act will shortly come into operation, there will be an additional guarantee that the materials employed for immunisation are of reliable potency and safe to use.

DISCUSSION.

THE PRESIDENT, before declaring the subject open for general discussion, conveyed the cordial thanks of the Society to the several speakers for their excellent contributions.

DR. C. S. THOMSON (Medical Officer of Health, Deptford), said the whole point was

how were they going to persuade the man in the street to allow them to inoculate his children against diphtheria. While Lord Riddell had held that if any important matter, like immunisation, came forward it should be discussed by Parliament, Dr. Copeman had expressed the view that the Government could not act in advance of public opinion. As the medical officer of health of the only Labour Council in the Empire which had permitted the carrying out of the Schick test, he had found that by explaining the matter fully and clearly there had been no difficulty in obtaining support for the scheme from the local authority. Health Weeks and lectures, though of assistance in directing public attention to matters of health, were not enough; what was needed was adequate help from the press. In this connection, however, the policy of the General Medical Council made it difficult for a health officer to submit for publication information which he might desire to see in the newspapers. Meanwhile, in Deptford, full use was being made of any suitable publicity matter available, and arrangements had been completed for the showing of a film on the Schick test recently produced by one of the insurance companies. This led him to ask why had not the Society a film on the subject a long time ago, instead of waiting for a commercial firm to come in and show them what was required? Referring to a point in the speech of Dean Inge, Dr. Thomson said he would like it to be understood that many medical officers of health had already spoken from the pulpit on questions of health.

DR. CHARLES PORTER (Medical Officer of Health, St. Marylebone) congratulated the speakers on the ground that had been covered in their admirable and interesting addresses. The only point he desired to make was in regard to the getting of information into the hands of the people. In the United States he had seen a good deal of Schick testing and toxin antitoxin immunisation in certain of the cities, and more particularly in Boston, and what had struck him very much was that all the work that was being done by the school medical service was in what were called the parochial schools, which were run not by the local authorities, but by the churches, and more especially by the Roman Catholic church. As everybody knew, Boston was largely Irish, and mainly a

Roman Catholic city, and the priests of the Roman Catholic churches had apparently been induced to take up Schick testing and active immunisation very definitely; they had gone amongst the people, had shown themselves to be in favour of it, and had got the public health department into the Roman Catholic schools. What one would term the Council schools at the time of his visit appeared to be doing little or nothing at all in the matter. Dr. Porter, in thanking Dean Inge for his very helpful address, said that he had been tremendously impressed by the kindliness of its tone and by the evident desire with which he was filled to help them in every way possible. He appreciated also Dr. Thomson's reference to the fact that many medical officers of health had already occupied a pulpit and taken their share in spreading the health word from that highly important position. In America again, it seemed to him that much more was done in this direction, and the medical profession there were continually taking part in health work through the churches.

DR. STELLA CHURCHILL, L.C.C., said that she had found that local authorities were not willing to spend money on propaganda, and in regard to information, lay and medical, intended for publication in the newspapers, it was frequently required of a medical officer that before sending anything to the press he should submit it to his local authority for their approval.

DR. W. W. JAMESON (Medical Officer of Health, Hornsey) expressed the view that they were a little bit inclined sometimes to overdo propaganda, and thought that they would reach their ends more satisfactorily by continuing quiet and steady work in their own districts, and doing a slight amount of propaganda without enlisting the help of newspapers. There was no competition in the articles they had to sell. Maternity and child welfare work had become an important and successful part of the country's scheme for safeguarding health, but it had never really been advertised by the press or by any other organisation, and if they started this work of immunisation, interested the people in it, and the work appeared good to the public, just as satisfactory results would be obtained as by a campaign of intensive propaganda.

DR. W. A. LETHAM, M.C. (Medical Officer, Ministry of Health) said he disagreed with the views of Dr. Jameson. Provided they had a good article to offer—and they had—there was no reason why it should not be brought prominently to the notice of the public. They had good health to sell, and the more it was advertised the better it would be for the community.

Ut Ita Dicam.

(Being Comments, apropos and otherwise, on Sundry Matters.)

On Thinking Back.

I often think that what we suffer from in the service is an unwillingness to look back. We are, most of us, so many quidnuncs; concerned about the moment and what to do about it; how to do something that will meet what is believed to be the immediate need in the matter of the public health; trying to anticipate what is to be counted the next need, and to foresee the effect of what the moment is busy about. In fact, it is a curious spirit that is abroad amongst us: there is so much restlessness and discontent; what is being done may be right, what has been done has been most certainly wrong, and it is not worth thinking of or discussing. And anyone who dares to think back or refer to the doings of our predecessors and to these predecessors themselves is certain to be written down as old and old-fashioned and unfit to be a member of the merry band of propagandists of which the service at present exclusively consists. Most of us, therefore, or at any rate, most of us who suspect that we are on someone's "possible" list, hesitate to talk of old-time public health, to suggest that it had a value and was effective. We are so near foggydom that we are afraid to show any of the signs of the foggy, the chief of which is the talking of the days when the slogan was scarce heard in the land, and the poster and the platform played a part less prominent in preventive medicine.

Interpreters of Nature.

This, of course, is general. There are, it is fortunate, some who do not fear to look back; to read and think and speak and write of the workers of the past, and to try to show the effect of and the wisdom behind the work

DR. C. W. HUTT (Medical Officer of Health, Holborn), stated that he also found himself in absolute opposition to Dr. Jameson's opinion. In the matter of immunisation they had to get people to do something of which they were profoundly ignorant. They did not know that it was any good, and the health service had to tell them, first of all that there was no harm in it, and secondly that results beneficial to their children's welfare would follow its acceptance.

done and the incentive and the lesson to be obtained from a consideration of that work and the life of the worker. Most outstanding amongst those who dare is Sir George Newman. Thinking nothing of the craze for modernity or the fashions in public health circles, during the last year or two he has engaged himself in research into the life and works of some who have been called masters, but who he prefers to name "Interpreters of Nature," and from time to time, as appropriate occasion offered, he has come to read an essay, now on this one, now on that. Each essay as it has been heard has caused delight, and many there are who as the essays have appeared have read them, to be stirred anew and to find them no less fascinating in written form than as delivered by Newman himself. And Newman, as we all agree, is the orator of our branch of medicine. Finding them good, to the many who read, it was a source of dissatisfaction that the essays should be hid in the pages of some journal or in constant danger of being lost when in pamphlet form. Some better and safer setting, it was the common view, was wanted, and to those who felt so it will come as a pleasure and a relief that Sir George Newman has seen the wisdom of collecting them and making them into a book. Under the title of "Interpreters of Nature" this book, it is safe to say, will make a host of lovers for itself and of admirers for its author.*

Keats, Pasteur and Some Others.

The art of the essay is a difficult one to acquire, and to those who know the work Sir

* INTERPRETERS OF NATURE. Essays by Sir George Newman, K.C.B., M.D., D.C.L., LL.D. London: Faber and Gwyer, Ltd. Price 12s. 6d. net.

George Newman has to do and how strenuously and unsparingly he devotes his energies to it, it cannot but be a source of wonder how he has mastered it and where the time comes from to practise it. Read the essay on Keats in the volume; tell me that, although at first, like me, you wondered why in the world Keats should be in the same galley with Pasteur, with Hunter, with Boerhaave, you agree that, of course, he should be there, and that because of the technique employed, because of the simplicity and sympathy of the language, this essay stands out and holds something of perfection and of beauty. Then tell me, if you can, that I should have been satisfied that I had learned the secret of the essay writing of Sir George Newman when, in reply to a question as to the how and the when of it, all I was told was—"Sunday afternoons, my boy." Though there may be a fraction somewhere about—I am no mathematician—in most years there can be no more than fifty-two Sunday afternoons. To produce nine such essays as make up this volume would mean many and many afternoons for reading alone, and for most there could not be enough Sunday afternoons in life to give to the fashioning of an article much less an essay out of what had been read. There must be more than Sunday afternoons in it. You who, having read the essay on Keats, have read "The Great Paduans," and "Hermann Boerhaave" and "The Character of Louis Pasteur" and the others of the nine, and have admired the ease of the flow and felt the neatness and the charm of the writing, agree with me that there must be more than Sunday afternoons in it. And still you wonder, until you conclude it is useless to wonder.

One of Us.

Ceasing to wonder, there is no reason to cease to admire. Nor reason to cease being proud that these essays are the work of a member of a service of which we are the rank and file. A man is known by the company he keeps, and a service by the men who compose it. It is not only to Sir George Newman's credit that his "Interpreters of Nature" will redound. We—it is a pleasant thought—share in his credit and benefit because there is in our ranks a man capable of producing work of the standard represented in this book. I am glad that there are Sunday afternoons: I am glad that Sir George Newman used them for so fine a purpose as

writing these essays, both for the joy I find in reading them and the pride it gives me to think that the author is a fellow member of my service and engaged in work much like mine.

More Literature.

And while I am on literature, may I tell you of the delight with which I read a little essay by another distinguished "one of us" on "The Nursing Service of To-day?" Of course I may. Being what I am *je prends mon bien ou je le trouve*, and I go further and quote you one of the writer's finest and most moving passages. Writing of nurses, members of the noblest of all professions for women, it occurred to our author that nothing could be more appropriate as an opening than a reference to the "Lady of the Lamp, Florence Nightingale to wit." And having made it so, and talked of the strenuous endeavour of the successors of the never-to-be-forgotten founder of the profession and the obstacles in their way, he proceeds:—

"It requires a woman's *heart* to understand the needs of suffering humanity.

"But it has required the *brains*, as well as the heart, of collective womanhood to raise, from the grain of mustard seed sown by the great pioneer of nursing, the vigorous tree which now rears its branches far and wide to shelter the halt, maimed and suffering mortals in our hospitals and in our homes."

Beautiful and inspiring, is it not? Revealing too; telling us so much of the up-hill fights for recognition and accounting for sinapisms, trips to Brighton, and why the Middlesex Hospital is falling down.

Tidings of Joy and Generosity.

The salary of Dr. P. H. Stirk as medical officer of health of the City of Exeter, has been increased from £825 to £900 per annum, with an allowance for upkeep of a motor-car.

Norfolk County Council have increased the salary of Dr. J. T. C. Nash, medical officer of health, from £950 by £100, with two further annual increases of £50 to follow. The minimum *commencing* salary for a county of the size and importance of Norfolk is £1,200 per annum.

Nature Notes.

The sanitary inspector will now requisition one gallon of a volatile oil, and will see that his bath and a change of clothing are ready each evening against his return from his labours. *He* knows why. P.

The Health Officer and Health Law.

By R. MACLEOD, M.B., Ch.B., D.P.H., Medical Officer of Health, Hetton-le-Hole, Durham.

This paper, the Presidential Address of Dr. Macleod to the Northern Branch, deals with the complexities of Public Health Law, and contains an appeal for consolidation not only of the laws, but of the Health Service.

IN no sphere of life perhaps have such rapid or more remarkable attempts at progress been made during the past fifty years as in that of the Public Health. If proof of this were needed, one finds it in the numerous Acts of Parliament, beginning with the great Public Health Act of 1875, and in the almost innumerable Orders and Regulations that have been put into operation during that period—coming almost with the regularity of minute guns at sea. Indeed, the output of Acts and Orders and Regulations, either adding to, or amending, repealing or revoking former Acts, Orders, or Regulations, has been so great that the Public Health Medical Officer is simply swept off his feet and left in a state of complete bewilderment. It must be quite obvious to anyone who has given the matter the least thought or who has tried to administer the various enactments, that Public Health law, as it stands, is much too complicated. There is no doubt at all that Medical Officers shrink from taking certain cases into the Courts, because of this complicated and uncertain nature of the law, and thus some insanitary conditions go unremedied. Is sufficient care and time taken in the framing of these Acts, Orders and Regulations? Before these are passed into law is there any attempt made to discuss them with Public Health Medical Officers up and down the country, who, with their great knowledge and ripe experience, know most about the need, the possible effects and difficulties of administration of such laws? Is our own Society, in which is represented practically every aspect of the Public Health, sufficiently taken into the confidence of the Ministry, and thus made use of? Then I will ask: Is any serious attempt being made to consolidate the various laws and make them more intelligible and more easy to follow? And as we are not all lawyers, may I also ask: Are not these Acts sometimes further complicated by ambiguity, too legal phraseology and long unnecessarily involved sentences? As a consequence does not the understanding and

interpretation of these make an undue demand on the time of the Public Health Officer? In our own interest, not less than in that of the public, we must ask these questions of ourselves.

After fifty years of vast sanitary changes we are, to vary a well-known recent expression, in the position not only to look forwards, but also backwards, and reviewing the past we are able to say at once, that it has been a period of great improvement in Public Health generally. The death rate has diminished, infant mortality has fallen, there is greater longevity, the incidence of infectious diseases has lessened, as has also the mortality from these diseases, and our knowledge of the causation of disease has greatly increased through bacteriological and other investigations. There has been a continuous education of the people in Public Health matters which has made for the improvement and increased the well-being of the race. We can look back on this with satisfaction and pride, and ask ourselves: How could we have done better? It is well to revel and bask in the glories of our past, but that is not sufficient; we must maintain an active vigilance and keep on devising schemes by which the Public Health may be still further advanced.

It has been discovered that the Poor Law System with its Medical Service is in a sad condition, if not, in fact, moribund. The Public Health Medical Service has also been diagnosed as in a low state of health, and a Royal Commission is at present sitting to enquire into the cause of the disease, and, I suppose, to suggest a remedy.

Most of you, perhaps, will recollect the Memorandum of evidence on Local Administration prepared by the British Medical Association and submitted to the Commission. In order, however, to refresh your memory, let me state the principles there laid down with regard to local administration:—

(1) That the health service should be as completely as possible separated from other

administrative services not of a health character;

(2) That when these health functions had been separated they should be combined in administration with all other health services, so that all the health services of the country, central and local, should be under one form of administration and under one local Authority.

Now with these general principles none of you, I take it, will be disposed to quarrel. It is when you come to consider what is the area and what is the body most suitable for the local administration of these unified health services that very considerable difference of opinion arises, some believing that the proper authority is the County Council, others being of the opinion that the County Council is unsuited for the work. The question we should ask ourselves is: Which is the area and authority which is likely to give the best result, both in the interests of the public and in our own interests because it is impossible to get away from the fact that the two interests are inseparably united? Administrative Counties vary very much in size and population, and I submit that generally such an area would be found too large and unwieldy, and would lose grip of sanitary administration amongst its innumerable villages. However good the central or headquarters administration, there would be bound to be slackness and inefficiency at the periphery. Personally, I should have three great objections to the area being such an extensive one. My first objection is that it would be perpetuating a system which in practice is wholly unsatisfactory. Some of you are School Medical Officers, Maternity and Child Welfare Medical Officers, Tuberculosis Medical Officers. If you are fortunate enough in being employed by a Local Authority who pays according to the salary scale you start with a very nice commencing salary, a very much better salary than you could hope to obtain, for some years at least, in general practice, and you are very pleased at getting such an appointment. Years after, however, whatever your qualifications, whatever number of valuable years of service you have given to your Authority, whatever your family responsibilities, you will have to remain in that sub-position with little hope of promotion or of much increase of salary, and you find you have got into a cul-de-sac. Now, bad as that is, it represents the better side of the picture, for on the other hand, you may be employed by a Local

Authority who does not pay according to the scale, and your circumstances will then be infinitely worse; you are, with all your training, with all your experience, with all your responsibilities, doomed to a state of miserable penury throughout your life, because you adopted a line of medicine which you loved and for which you trained and thought yourself especially suited.

My second objection to such an area is that it would of necessity mean a large Medical Staff in sub-positions, reminiscent of the old feudal system; that such Medical Officers would have to confine their work to one subject or department. The School Medical Officer does only school work, the Tuberculosis Officer tuberculosis only. While the knowledge required to qualify for a Public Health Diploma is now of a very extensive and thorough character, under the above system only a very limited part of that knowledge would ever be required. The result is that such an officer tends to get into a groove, his horizon becomes limited, his vision impaired; and because of this his chances of securing one of the highest posts are very remote. And he gets tired of being a mere hewer of wood and drawer of water—a mere cog in a wheel moved by a central lever. Besides, the monotony of the work is too much for many people.

My third objection is that, in addition to the lack of the personal touch with all the Public Health activities of the area, there is also the lack of the personal touch of each member of the staff with the others in their work. And I am reminded that, while in the North of England we have one of the strongest Branches of the Society, the sub-groups are showing little vitality. Is it not possible that the lack of animation is due in a large measure to the defects I have enumerated?

In examining the whole position thus, I think most of you will agree that the County Council is not the ideal area. In a smaller area the Medical Officer of Health and his assistants would keep in personal touch with every department of Public Health. In this way the work would always be interesting, and the assistants would be qualifying for the highest posts in the service, with every chance of securing these posts in due course, as they would be much more numerous. The principal would be in constant touch with his assistants, and the assistants with their principal, to their mutual advantage. The

daily problems, as they occurred, would be discussed, and positions reviewed. Those of you who have travelled in ocean-going ships must have watched the daily procession of all the navigating officers just before mid-day to the ship's bridge to find the ship's position and to set the course for the next 24 hours. The course, however, is not set until the calculations of all the officers are compared and recorded, and the correct course thus determined. This eliminates error as far as it is humanely possible to do so. If then, this is necessary in the navigation of an ocean liner surely it is equally necessary in directing the ship of Public Health.

In the case of towns and boroughs and large urban areas which have hitherto run a complete health service, these geographically are such compact and complete units that it would be quite impolitic to disturb their arrangements, and I do not suppose any one would seriously suggest it.

During the great war we heard a great deal about a C.3. population. In the future, in the face of the keen international competition which is inevitable—more, I hope, in commerce and industry than in war—an A.I. population will be more than ever necessary, and the nation will look to its Public Health Service more than to any other power for the

necessary improvement in the general health of the people. Now it is quite obvious that for this service we shall require first class men, and I will ask the questions: Are we producing such men, and is the nation giving every encouragement to attract and retain them? Personally, I believe we *are* producing the men. As you all know, the standard of the requirements for a Public Health qualification, always an honours degree, was raised some two years ago, and I take it the standard of the teaching has been raised accordingly, making it very difficult indeed to satisfy the examiners. The man who has emerged successfully from his examination is undoubtedly well equipped, under proper guidance at first, to take his part in the service. I have, however, great doubts as to whether the nation is doing enough to foster and keep these men in the service. Many Local Authorities have discouraged such men by offering inadequate salaries, and by placing in side lines for years Assistant Medical Officers who find themselves in the cul-de-sacs already referred to. Unfortunately also, in the past the Local Government Board gave very little help over the matter of salaries, but there is pleasing evidence that the present Ministry of Health are becoming alive to the necessity of adequate remuneration being offered.

The Society.

Reports, Proceedings and Announcements.

NOTICES.

The following candidates, having been duly nominated, will come up for election at the next Ordinary Meeting of the Society, viz., Dr. A. H. Kynaston, Asst. M.O.H., Lindsey (Lincs.) C.C., 5, Witham Place, Boston, Lincs.; Major J. Du Plessis Langrishe, D.S.O., D.A.D.H., Catterick Camp, Yorks.; Dr. Alex. Livingston, M.D.S., Asst. M.O. (Dental Services), L.C.C., King's College Hospital, S.E. 5; Dr. A. Lowry Robinson, District T.O., Durham C.C., 56, Cockton Hill Road, Bishop Auckland; Dr. Marion Stocks, "Caldy," Hale Road, Hale, Cheshire; Dr. F. L. Keith, M.O.H., Bethnal Green Town Hall, Cambridge Road, E.2.

The Maternity and Child Welfare Group will meet at the Shoreditch Model Welfare

Centre, 210, Kingsland Road, London, E.2, on Wednesday afternoon, May 18th, 1927, when an inspection of the Centre will be made and cases will be shown by the Medical Officers of the Shoreditch Maternity and Child Welfare Department. The meeting will commence at 4.30, when members are invited to tea. At 5.45 Dr. Glen Davison will read a paper entitled "The Newcastle-upon-Tyne caloric percentage method of dieting the premature and the sick infant." The Centre can be reached in 10 minutes from Liverpool Street by 'buses Nos. 22, 35, and 69.

The Tuberculosis Group Committee will meet at the House of the Society, 1, Upper Montague Street, W.C.1, on Friday, May 20th, 1927, at 10.15 a.m.

The Fever Hospital Medical Service Group will meet on Friday, May 27th, 1927, at 3 p.m., at the House of the Society, 1, Upper Montague Street, W.C.1, when the election of officers and members of Council for the session 1927-28 will take place. Dr. E. W. Goodall, O.B.E., will read a paper on "The Epidemic Constitution."

THE NORTH-WESTERN BRANCH.

President: Dr. C. W. Paget Moffatt, M.O.H., Bolton.
Hon. Secretary: Dr. G. W. N. Joseph, M.O.H., Warrington.

A meeting of this Branch was held at the School of Hygiene, Liverpool, on March 11th, 1927, the President in the Chair. Twenty-seven members were present.

The minutes of the last meeting were read and confirmed.

It was proposed, seconded and unanimously resolved that Dr. James Wheatley be nominated as President of the Society for the session 1927-28.

The report on the Memorandum of the Salaries Committee on Remuneration of Medical Officers of Local Authorities (*Public Health*, March, 1927, pages 180 to 183) was submitted, and it was resolved that consideration of the Memorandum be referred to a small Sub-Committee for report at the next Branch Meeting. The following members were appointed to serve on the Sub-Committee:— Drs. Barlow, Mathieson, Cox, Wheatley and Ferguson, together with the President and the Hon. Secretary, with power to co-opt, if necessary, not more than three other members.

Dr. C. O. Stallybrass read a most interesting paper on "The Evolution of the Idea of Contagion." He traced its development from the magical conceptions of the earliest times up to Hippocrates, who believed epidemics to be of natural origin, due to epidemic constitutions of the atmosphere. This opinion was revived and elaborated by Sydenham. In 1671, the invention of the microscope by Van Leeuwenhoek, and his discovery of "animalcula," led Kircher to propound the germ theory of disease. This theory was overlaid by that of the spontaneous origin of germs from decomposing materials, and it was not until 1857, when Pasteur proved that this never occurred, that the specific character of germs was first proved, and then generally

accepted. All modern knowledge of the infective diseases and their prevention derives from Pasteur's work. The influence of the study of certain diseases, notably puerperal fever, cholera, and typhoid fever, but more especially of plague, on men's ideas of contagion was also discussed.

The President, in declaring the subject open for discussion, pointed out that the problems of discovery of the causes of infection now were much more difficult, though none the less important when it was considered that 6,000,000 persons died of influenza in India in 1918. He considered there was no real difference between the term infection and contagion, and that the proper term was infection.

Dr. Wheatley felt that the paper would be one of great use for reference on anything in connection with the history of contagion. One prominent feature was the extraordinary genius of Pasteur. Modern ideas really originated with Pasteur; Lister only applied his theories. One matter he would like to mention was the rôle of the house fly as a cause of disease. Dr. Martin of Middleton, was the first one he knew who constantly averred that the fly was a connecting link between diseased materials and individuals. It was many years before this was accepted by the medical profession as a whole, and Dr. Martin had never received any recognition in connection with it.

Dr. Brindley expressed admiration for the philosophical summing up in Dr. Stallybrass's paper, and instanced carrier and missed cases in the recent small-pox outbreak at Derby. He also endorsed what Dr. Wheatley had said with regard to Dr. Martin.

Dr. White gave an amusing illustration of the way in which the general public may occasionally understand the question of infection.

Dr. Rundle said it must be realised at times how little had been discovered from the earliest days, and if it had not been for the microscope nothing at all would have been discovered. He questioned whether it was actually Van Leeuwenhoek who had invented this useful appliance. A book entitled the "Micro-hunters," published in America, was well worth reading.

Dr. Barlow was of opinion that health departments offered great opportunity for research.

A hearty vote of thanks was accorded to Dr. Stallybrass for his excellent paper, which will

be published in full in *Public Health* in due course.

On March 11th, 1927, the Officers and Vice-Presidents of the North-Western Branch, together with certain medical officers present in Liverpool under the auspices of the League of Nations, were entertained at luncheon at the Town Hall, by the Lord Mayor of Liverpool (Councillor F. C. Bowring) and the Lady Mayoress (Mrs. E. W. Hope, wife of Professor Hope). Altogether twenty-four members of the Branch attended the gathering, which included many ladies and members of the City Council. The medical officers from abroad were Dr. Schlaegar (Germany), Dr. Hiroshi Kusama (Japan), and Dr. T. C. Chin (China).

After an excellent repast the toast of the Society of Medical Officers of Health and the Representatives of the League of Nations was proposed by the Lord Mayor, and responded to by the President of the Branch (Dr. Paget Moffatt) and Dr. Hiroshi Kusama.

During the entertainment excellent music was rendered by the Liverpool Police Band, and at the conclusion, Dr. A. A. Mussen conveyed to the Lord Mayor and Lady Mayoress the warmest thanks of the party for the delightful function.

A meeting of this Branch was held in Manchester, on April 8th, 1927, the President in the Chair. Twenty-seven members were present.

The minutes of last meeting were read and confirmed.

The report of the Sub-Committee appointed to consider the Memorandum on Remuneration of Medical Officers of Local Authorities (see *Public Health*, March, 1927) was submitted, and after discussion it was resolved that: This Branch is of opinion that the present time is not opportune for amending the salaries scale and circularising Local Authorities, and it would appear to be better to defer the matter for 12 months. In the event, however, of the Council deciding to proceed the Branch offer the following suggestions:—

(1) They are of opinion that nothing should be done which would in any way tend to upset or to bring into the melting pot again that which has already been agreed upon by the Society, the Ministry of Health, and the Association of Municipal Corporations.

(2) In Para. 7 it is advisable that the first six lines should be omitted.

(3) Para. 8 would be better if amended as follows: after "in this way" read "but some have done so and their action has not been officially disapproved by the Ministry of Health."

(4) (a) A. in para. 17 (letter of the Association, dated May, 1925) should not be inserted in this paragraph of recommendations, but might be appended at the end of the Memorandum for reference.

(b) An attempt should be made to make it clearer to local authorities in any circular sent out that the salaries laid down are commencing salaries only, and that no indication of a maximum is offered.

(c) Delete the following which is redundant and has been inserted before Section (2): "The Society of Medical Officers of Health would further request the B.M.A. to take action in accordance with the following recommendations."

(d) There is too much vagueness about the term "Senior Medical Officers in charge of Departments" and there should be a clearer definition of it.

(e) In Section (4) the words "Or Assistant" should be deleted.

(f) With regard to Section (6) in combination with clause (c) of the letter it should be clearly stated that increments should be paid in all appointments as follows:—

After 1 year's satisfactory service	...
After 2 years'	...
" 3 "	5%
" 4 "	10%
" 5 "	15%
" 6 "	20%
" 7 "	25%
" 8 "	...
" 9 "	...
" 10 "	30%
" 11 "	35%
" 12 "	40%
" 13 "	45%
" 14 "	50%

A paper on "What every Health Visitor should know" was read by Dr. F. A. Sharpe. He began by tracing the various Orders and Regulations of the Ministry of Health and Board of Education dealing with the training of Health Visitors and mentioned the Schools approved by the Ministry of Health. After pointing out the multifarious duties expected of them he criticised the training and compared

it and the salaries to be obtained in this country with the United States. In the latter country the average salary of a Health Visitor is £350 per annum. He considered that we would have to raise salaries in order to attract educated women in large numbers.

Dr. Wood, in proposing a vote of thanks, said that the properly trained Health Visitor is going to be the most useful member of the staff, as she is in a position to deal with individuals in the best place—the home. He agreed that to raise status, salaries would have to be increased. The Health Visitor must primarily be a nurse, and her training should be grafted on the nurse's training. There had been a move in parts of the United States to appoint Public Health Advisors as heads of departments who were not necessarily medical men, and he thought that this was a retrograde step.

Dr. Spence, who seconded, considered that it was up to all of us to support the campaign for raising the status of Health Visitors. They should have a 3 years' general training as a basis, and these would prove superior to those trained under the 2 years' college course. In addition to training, a natural aptitude for the work was essential.

Dr. Wheatley was of opinion that the relative positions of Hospital Nurses and Health Visitors wanted emphasising very strongly. So far as hospital training for Health Visitors was concerned, it had been in the past a bad training. There was too much drudgery; no attempt was made to develop mental capacity. We ought to agitate for a better training for all nurses whilst in hospital. A nurse's duty was to improve the environment of her patients. From the point of view of the sick person the general practitioner and the general nurse are the important people—not the specialist. Whenever we have the opportunity we ought to emphasise the fact that the district nurse, not the hospital nurse, was the really important person. He did not think that tuberculosis should be separated from ordinary health visiting.

Dr. Moffatt said he thought that a 2 years' fever training was more useful for a Health Visitor than the 3 years' general training.

Dr. Stallybrass submitted that the various Orders and Regulations seemed to point to the fact that the Ministry had the idea that a Health Visitor could be trained *ab initio* in a college without any previous nurse's training.

Dr. Sharpe replied to the vote of thanks.

THE YORKSHIRE BRANCH.

President: Dr. S. Fox Linton, M.O.H., Scarborough.
Hon. Secretary: Dr. G. H. Pearce, M.O.H., Batley.

A meeting of the Council of this Branch was held on March 25th, 1927, at the Hotel Metropole, Leeds.

The President was in the Chair, and there were also present Drs. Banks, Belam, Buck, Moore, Pick, Pickup, Scatterty, Williams, and the Hon. Secretary.

The meeting was preceded by a luncheon in honour of their guest, Dr. George F. Buchan, immediate past President of the Society. The occasion had been chosen as a convenient one for the Yorkshire Branch to show its appreciation of the services rendered to the Society by Dr. G. F. Buchan, he having come to Leeds to preside at a sessional meeting of the Royal Sanitary Institute, held the same day. After the loyal toast, the health of their guest was enthusiastically drunk by the members of the Council at the call of the President. Dr. Buchan briefly responded.

Some business was then transacted by the Council round the table. It was decided that the Hon. Secretary be instructed to convey to Dr. J. Mitchell Wilson the Council's regret on hearing of his indisposition, and expressing the hope that he would soon be restored to health.

The Council then adjourned to the Education Offices, Calverley Street, Leeds, where an Ordinary Meeting of the Branch took place. In addition to the members above mentioned, there were present Drs. Barr, Francis, Frazer, Hebblethwaite, Jefferson, Mair, Thornley, Mildred M. Thierens, V. T. Thierens, and Wear. Dr. G. F. Buchan also attended.

The minutes of the last meeting were read, confirmed and signed.

A letter was read from the North-Western Branch stating that at a meeting of that Branch on March 11th, 1927, it was unanimously decided to nominate Dr. James Wheatley, Medical Officer of Health, Shropshire County Council, as President of the Society for the session 1927-28, and asking for the support of the Yorkshire Branch. At the meeting of the Yorkshire Branch on February 25th, a letter which had been received from the North-Western Branch was read stating that it was the intention of that Branch to support the nomination of Dr. J. J. Buchan by the Yorkshire Branch for the

Presidency of the Society for the year 1927-8. It was unanimously resolved that the Yorkshire Branch adhere to its original nomination and that Dr. J. J. Buchan's candidature be supported.

Notice of motion by Dr. F. A. Belam, seconded by Dr. W. Bertram Hill, had been received to the following effect:—

"That the representatives of the Yorkshire Branch on the Council of the Society be instructed to re-open the question of the administration of the Milk and Dairies Order, 1926, and request the Council to reconsider the recommendations of this Branch for presentation to the Ministry of Health."

It was unanimously resolved, after some discussion, that consideration of this matter be further adjourned to the next meeting.

The meeting considered the report of the Committee on Remuneration of Medical Officers of Local Authorities, and great assistance was rendered by Dr. George F. Buchan who answered numerous questions, and explained various points of difficulty. It was resolved that the report be adopted subject to the following reservations, and that the Hon. Secretary be instructed to forward the decision of the Yorkshire Branch to the Executive Secretary:—

1.—That wherever an officer, not a chief medical officer, is under one authority engaged on duties comprehended under different sections of the salaries scale, that officer shall enjoy the remuneration of the higher appointment. [See *Public Health*, March, 1927, page 183, para. 17 (2).]

2.—All assistant medical officers of health shall be appointed at a salary not below £600 per annum, the medical officer having had three years' experience at least since obtaining a medical and surgical qualification. [Page 183, para 17 (4).]

3.—That the word "scale" be inserted in front of "salary" in lines 5 and 6 of para. 17 (4).

The meeting concluded with a hearty vote of thanks to Dr. George F. Buchan.

The members then proceeded to the Town Hall, Leeds, where tea was kindly provided by the Lord Mayor, after which the Sessional Meeting of the Royal Sanitary Institute was attended. Dr. George F. Buchan presided, and addresses on Cancer were given by Sir Berkeley Moynihan, Bart., and Professor R. D. Passey. In a discussion which followed

several of the members of the Branch took part.

THE EASTERN BRANCH.

President: Dr. A. M. N. Pringle, M.O.H., Ipswich.
Hon. Secretary: Dr. J. T. C. Nash, County M.O.H., Norfolk.

An ordinary meeting of this Branch was held at Norwich on April 2nd, 1927, the President in the Chair. Nine members were present.

After the minutes of the last meeting had been read and signed, consideration was given to the nominations submitted for the Presidency of the Society for the session 1927-1928, and it was resolved that the support of the Branch should be given to the nomination of Dr. J. Wheatley, County Medical Officer of Health, Shropshire.

The Branch gave consideration to the Salaries Report, and it was agreed that the Branch approve of the Society approaching the B.M.A. with regard to existing officers, but it was suggested that in the first instance the Society and the B.M.A. should concentrate on certain areas where the existing officers were entitled by exceptional merit and service to a suitable increment, which they were not at present receiving. The Hon. Secretary was asked to prepare for the next meeting a précis of the Memorandum on the action the British Medical Association could take in regard to Public Education in Health.

An interesting discussion took place on the points raised in the President's Address delivered at the last meeting, and published in *Public Health*, February, 1927.

Dr. J. T. C. Nash expressed the view with regard to vital statistics that it was very difficult and generally impossible to draw any reasonable conclusions from the yearly figures of a small urban or rural district. If the medical officer of health wished to draw any conclusions he would be wise in these areas of small population to take periods of at least 3-5 years for comparison, and even then the figures would be too small to be of much value. He thought logic should be made a compulsory subject for the entrance examination for all medical qualifications. He generally agreed with Dr. Pringle's observations on influenza, and went even further in thinking the evidence available not only showed a lack of immunity through a first

it and the salaries to be obtained in this country with the United States. In the latter country the average salary of a Health Visitor is £350 per annum. He considered that we would have to raise salaries in order to attract educated women in large numbers.

Dr. Wood, in proposing a vote of thanks, said that the properly trained Health Visitor is going to be the most useful member of the staff, as she is in a position to deal with individuals in the best place—the home. He agreed that to raise status, salaries would have to be increased. The Health Visitor must primarily be a nurse, and her training should be grafted on the nurse's training. There had been a move in parts of the United States to appoint Public Health Advisors as heads of departments who were not necessarily medical men, and he thought that this was a retrograde step.

Dr. Spence, who seconded, considered that it was up to all of us to support the campaign for raising the status of Health Visitors. They should have a 3 years' general training as a basis, and these would prove superior to those trained under the 2 years' college course. In addition to training, a natural aptitude for the work was essential.

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Dr. Stallybrass submitted that the various Orders and Regulations seemed to point to the fact that the Ministry had the idea that a Health Visitor could be trained *ab initio* in a college without any previous nurse's training.

Dr. Sharpe replied to the vote of thanks.

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President: Dr. S. Fox Linton, M.O.H., Scarborough.
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Some business was then transacted by the Council round the table. It was decided that the Hon. Secretary be instructed to convey to Dr. J. Mitchell Wilson the Council's regret on hearing of his indisposition, and expressing the hope that he would soon be restored to health.

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The minutes of the last meeting were read, confirmed and signed.

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Presidency of the Society for the year 1927-8. It was unanimously resolved that the Yorkshire Branch adhere to its original nomination and that Dr. J. J. Buchan's candidature be supported.

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It was unanimously resolved, after some discussion, that consideration of this matter be further adjourned to the next meeting.

The meeting considered the report of the Committee on Remuneration of Medical Officers of Local Authorities, and great assistance was rendered by Dr. George F. Buchan who answered numerous questions, and explained various points of difficulty. It was resolved that the report be adopted subject to the following reservations, and that the Hon. Secretary be instructed to forward the decision of the Yorkshire Branch to the Executive Secretary:—

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THE EASTERN BRANCH.

President: Dr. A. M. N. Pringle, M.O.H., Ipswich.
Hon. Secretary: Dr. J. T. C. Nash, County M.O.H., Norfolk.

An ordinary meeting of this Branch was held at Norwich on April 2nd, 1927, the President in the Chair. Nine members were present.

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The Branch gave consideration to the Salaries Report, and it was agreed that the Branch approve of the Society approaching the B.M.A. with regard to existing officers, but it was suggested that in the first instance the Society and the B.M.A. should concentrate on certain areas where the existing officers were entitled by exceptional merit and service to a suitable increment, which they were not at present receiving. The Hon. Secretary was asked to prepare for the next meeting a précis of the Memorandum on the action the British Medical Association could take in regard to Public Education in Health.

An interesting discussion took place on the points raised in the President's Address delivered at the last meeting, and published in *Public Health*, February, 1927.

Dr. J. T. C. Nash expressed the view with regard to vital statistics that it was very difficult and generally impossible to draw any reasonable conclusions from the yearly figures of a small urban or rural district. If the medical officer of health wished to draw any conclusions he would be wise in these areas of small population to take periods of at least 3-5 years for comparison, and even then the figures would be too small to be of much value. He thought logic should be made a compulsory subject for the entrance examination for all medical qualifications. He generally agreed with Dr. Pringle's observations on influenza, and went even further in thinking the evidence available not only showed a lack of immunity through a first

attack, but even an increased susceptibility to similar attacks. He was inclined to think that the infective agent in influenza was one which increased the virulence of other associated organisms, such as streptococci, pneumococcus, etc. He agreed that tuberculosis statistics showed evidence of the acquirement of a steady progressive immunity long before any tuberculosis schemes came into existence, and left room for conjecture as to the part played by the increased consumption of milk of mixed herds containing a diluted or small number of tubercle bacilli. The pasteurisation of milk might be a doubtful benefit in more ways than one. As regards epidemic diarrhoea and the disappearance of the horse; this, of course, worked chiefly through the curtailment of the breeding places of *musca domestica*, but there were still other breeding places which required attention.

Dr. Campbell was of opinion that Pfeiffer's Bacillus was an established organism of influenza, and also that cancer was due to an infective organism.

Dr. Christopherson thought the comparative virulence of a given strain of tubercle bacilli was the determining factor in connection with hereditary immunity in tuberculosis.

Dr. Williams could never satisfy himself that there was any connection between a clay pipe and cancer, or between a chimney-sweeper and cancer. He also was opposed to the part played by flies in connection with epidemic diarrhoea.

The President, in his reply, gave abundant evidence for supporting the opinion that flies were active agents in the spread of epidemic diarrhoea, amply confirming Dr. Nash's experience at Southend-on-Sea.

THE NORTHERN BRANCH.

President: Dr. Roderick Macleod, M.O.H., Hetton, Durham.

Hon. Secretary: Prof. Harold Kerr, O.B.E., M.O.H., Newcastle-upon-Tyne.

A meeting of this Branch was held at Newcastle-upon-Tyne, on April 8th, 1927, the President in the Chair. Nineteen members were present. Apologies for absence were received from Dr. Jas. A. Hislop and Dr. H. Kerr.

The minutes of the meeting held on

February 11th, 1927, were taken as read and approved.

It was reported that Dr. J. E. Dormer (father of Dr. P. A. Dormer, Medical Officer of Health, Jarrow) had sent a letter thanking the Branch for its expression of sympathy with regard to the illness of his son.

It was resolved that, providing a sufficient number of members agree to attend, the Northern Branch accept the kind invitation of the Yorkshire Branch to visit Scarborough, and that the meeting be held in June. It was also agreed that the Hon. Secretary should circularise the members of the Northern Branch to ascertain how many will attend the proposed joint meeting. Failing a satisfactory number of replies, it was left to the President and Hon. Secretary to arrange the place and date of the Summer Meeting of the Branch.

The following were elected as Members of the Branch:—

Drs. E. T. Colville, M.O.H., Ashington U.D.C.; D. W. Tough, Asst. M.O.H., Gateshead; Eleanor M. Henderson, Temporary Asst. M.O. (M. and C.W.), Durham C.C.; Christine J. Thomson, Asst. M.O. (M. and C.W.), Durham C.C.; Mabel C. Clark, Arthur E. Raine, Kate Gray, Amy Mary Parkinson, and G. Wilson, Asst. School Medical Officers, Durham C.C.

It was unanimously resolved that the Northern Branch nominate Dr. James Wheatley, County Medical Officer of Health, Shropshire, as President of the Society for the Session 1927-1928.

Reported that a joint conference of the Finance Committee of the North of England Branch of the British Medical Association and the Council of the Northern Branch of the Society of Medical Officers of Health was held at Newcastle-upon-Tyne on March 8th, 1927, at which the question of the minimum fee for consultants in cases of puerperal pyrexia was discussed. It was resolved to recommend the Branch to adopt a minimum of two guineas per consultation, with one guinea for every three miles outwards after the first three miles, and that this should be for an experimental period of 12 months. It was agreed that the services of consultants should be limited to persons who could not afford to pay ordinary consultation fees.

Attention was drawn to the three categories framed by the B.M.A., into which consultants might be divided, viz., (1) the ordinary whole-time consultant only; (2) a practitioner who

could show that he had had special training and special experience in the subject; and (3) a practitioner recognised by his fellows as having suitable qualifications for a consultant (this applying especially to out-of-the-way country districts).

The Conference also recommended that a Panel of Consultants should be formed under the auspices of the Branch through the Joint Committee, and that a liaison committee be appointed, consisting of the Chairman and Secretary of the B.M.A. Branch, together with three other members, and the same number from the Council of the Northern Branch of the Society of Medical Officers of Health, the liaison committee to take into consideration also the fees that should be paid for operations.

The report of the joint meeting was approved.

After considerable discussion of the Salaries report, the following resolution was unanimously agreed to:—

"That the Northern Branch endorses the Council's approval of the Report of the Committee on Remuneration of Medical Officers of Local Authorities, but while it is aware of the many defects in the existing scale, the Branch feels that the present time is inopportune to ask the British Medical Association to commence any new negotiations with Local Authorities on this matter.

Further, that the Northern Branch highly appreciates the very great assistance that the British Medical Association has rendered to the Society of Medical Officers of Health on the question of salaries."

THE WELSH BRANCH.

President: Dr. T. Roberts, County M.O.H., Denbighshire.
Hon. Secretary: Dr. Thomas Evans, M.O.H., Swansea.

A meeting of this Branch was held at Swansea on April 9th, 1927. Fifteen members attended and, in the unavoidable absence of the President, Dr. J. Howard Jones occupied the Chair. At the outset reference was made to the death of Dr. C. E. Humphreys, County Medical Officer of Health, Montgomeryshire, whereby the Branch had lost one of its staunchest supporters from amongst its North Wales members. Dr. Humphreys was President of the Branch during the session

1923-24. On the motion of the Chairman a vote of condolence with the relatives was passed.

The minutes of the last meeting were read and signed. The report of the Executive Committee of the Branch on the recommendations of the Society's Committee on the remuneration of Medical Officers of Local Authorities was received, and after a thorough discussion it was decided to support the views expressed by the Executive Committee.

Dr. Helena G. Jones, Assist. Medical Officer, Rhondda, read a short paper on "The Effect of Feeding and Environment of the Child under five on the Causation of Rickets," as an introduction to a discussion on the subject. Dr. Jones stressed the importance of rickets as a disease of early infancy followed by the development of deformities in adolescence which became permanent in adult life, and recent researches on the etiology of rickets were reviewed especially in relation to the dietetic experiments undertaken by Mellanby, Korenchesky, Chick and Corry Mann. These experiments showed that the principal dietetic factors conducive to the development of rickets were excessive carbohydrate intake with a corresponding diminution of fat together with absence of the appropriate vitamins; the importance of calcium was also demonstrated by a deficiency of calcium compounds in the milk of mothers whose children, though breast-fed, developed the disease as compared with the milk of mothers whose children showed no rachitic symptoms. In maternity and child welfare work it was therefore essential to devote attention to the diet of the expectant and nursing mother as well as to that of the child.

For the former group a diet rich in animal fats together with meat, green vegetables, fresh fruit, and a small proportion of carbohydrates proved most satisfactory; a small quantity of cod liver oil also proved a useful adjunct to the diet of the nursing mother. For the infant, breast feeding should be urged in all cases and used as the source of nourishment until the child was eleven or twelve months old; where artificial feeding had to be resorted to, fresh cow's milk or dried milk, suitably diluted, should be used and the addition of sugar to the latter in the course of preparation of the feed should be discouraged. After weaning, butter and dripping should be used as the main source of fat in the diet,

whilst a daily allowance of one and a half pints of cow's milk until the child was about eighteen months old was helpful; yolk of egg, fresh salads and fruit were also valuable adjuvants to the diet, and the speaker did not recommend meat or fish until the child was over two years of age.

In the ensuing discussion all members present took part.

Dr. Pole (Llanelly) did not advocate the modification of the diets according to age after the process of weaning; he was in favour of giving the child, who was healthy and had well-formed teeth, the same articles of food in appropriate quantities, as the other members of the household partook.

Dr. Tighe (Swansea) recommended the administration of small quantities of cod liver oil to all children, and referred to the recent isolation of Vitamin D, the absence of which in the diet was now regarded as the causative factor in the development of rickets. He deplored the non-assimilation of the results of recent researches into the etiology of rickets by public health officers and the infrequency with which the subject was discussed in public health journals. Dr. Tighe also described the condition designated "Status Calciprivos," as described by Dr. Eric Pritchard, and the researches of Dr. Cramer on the influence of diets deficient in Vitamins B and D on metabolism and resistance to infections in experimental animals.

Dr. Picken (Cardiff) advocated more complete ascertainment of the disease which necessitates the installation of special X-ray apparatus in order to discover the minor changes produced in bones in the early stages; the major manifestations of the disease were rarely seen amongst the population of Cardiff, and the influence of diminution of ultra-violet radiation on the incidence of the disease was probably more important than dietary deficiencies.

Dr. Howard Jones expressed the opinion that rickets was gaining in prevalence in Newport, and that the dietary of the nursing and expectant mother was a most important factor in controlling the incidence of the disease. He found that an oleo-margarine, containing the anti-rachitic vitamin, recently placed on the market by a well-known firm, was hardly distinguishable from butter in appearance and taste, but was considerably more expensive than ordinary margarine.

Dr. Mary I. Adams (Cardiff) subsequently

addressed the meeting on "Maternity Home Registration and Supervision," and recounted her experience in the administration of the relevant part of the Midwives and Maternity Homes Act, 1926. Nine members took part in the ensuing discussion, and it was resolved that Dr. Adams should submit her paper in its entirety for publication in *Public Health*. In the course of the discussion Dr. Picken observed that, in the bye-laws adopted at Cardiff, the definition of "patient" as given in the model series issued by the Ministry of Health had been modified so that the term also included children received into a maternity home within a period not exceeding fourteen days after birth, and records obtained from maternity homes and kept in the Health Department were made available for inspection by officers of the Board of Guardians in order that the Guardians might exercise uninterrupted control over the after-care of children born in homes where such care was considered necessary.

Owing to the long and interesting discussions evoked by the above papers, the delivery of a third paper, prepared by Dr. Jean M. Mackintosh (Llanelly) on "The Backward School Child" was unavoidably postponed to a later meeting of the Branch.

Hearty votes of thanks were accorded to Drs. Jones and Adams for their interesting papers.

THE SOUTHERN BRANCH.

President: Dr. A. D. Edwards, M.O.H., Bournemouth.
Hon. Secretary: Dr. H. D. Kelf, Asst. M.O.H., Hants County Council.

A meeting of this Branch was held at Southampton on April 1st, 1927, the President in the Chair. Eleven members were present. Apologies for absence were received from Drs. Cockayne, McNaught and Lockhart Stephens.

The minutes of the previous meeting were read and confirmed.

It was unanimously resolved to nominate Dr. James Wheatley, County Medical Officer of Health, Shropshire, as President of the Society for the Session 1927-28.

Consideration was given to the Salaries Report, as published in the March number of the journal, and it was resolved that the Branch is in agreement with the Report of the Council, and has no observations to submit, except to emphasise the importance of the

recognition of prolonged service of medical officers engaged in public health work.

Dr. A. E. Druitt showed a case of dextrocardia in a boy of eleven years.

Dr. Percy Moxey read a paper on "The Treatment of Tuberculosis with Antimony Injections," and gave full details of the technique and indications for treatment, illustrated by twelve actual cases with their case sheets, temperature charts and X-ray photographs. Great interest was shown by all the members present, and in thanking Dr. Moxey for his valuable paper it was recommended that the manuscript be sent to the Hon. Editor of *Public Health* for publication.

After the meeting tea was kindly provided by Dr. R. E. Lauder.

THE METROPOLITAN BRANCH.

President: Dr. G. Quin Lennane, M.O.H., Battersea.
Hon. Secretary: Dr. James Fenton, M.O.H., Kensington.

A meeting of this Branch was held at the House of the Society on April 8th, 1927, the President occupying the Chair. Nineteen other members were present.

Close attention was given to the report of a Sub-Committee appointed by the Branch in the matter of the Draft Revised Bye-laws made by the London County Council under Section 39 (1) of the Public Health (London) Act, 1891, with respect to water-closets, etc., and after certain technical amendments were made, it was decided to forward a copy to the London County Council and the Metropolitan Boroughs' Standing Joint Committee.

The report of the Committee appointed by the Society to deal with the question of the remuneration of medical officers of local authorities, which appeared on pages 180-183 of the March, 1927, issue of *Public Health*, was presented and explained by the Hon. Secretary and, after discussion, the Branch expressed themselves in entire agreement with the views set forth therein.

The Bastardy Bill, 1927, was discussed fully, but in view of the fact that it was thought unlikely that the Bill would become law this Session it was agreed that further consideration on the part of the Branch should be adjourned.

Attention was drawn to the difficulty experienced in securing disinfection of bedrooms and bedding in lodging houses, hotels, boarding houses, etc., after the departure of boarders suffering from tuberculosis. It is

found that patients frequently leave such premises, either moving elsewhere or entering hospitals, and that succeeding tenants or lodgers have occupied the vacated room and bed without any disinfection having been carried out, despite the verbal warning given to the patient by the health visitor when the usual investigations into domiciliary conditions are made on receipt of notification. In the case of certain diseases, namely, diphtheria and scarlet fever, a warning notice can be handed to the patient or to the landlord advising them of their liability; this is done under Section 65 of the Public Health (London) Act, 1891. Under the Tuberculosis Regulations it is forbidden to divulge the nature of the patient's illness to the landlord; therefore it is impossible to ensure disinfection of the room or bedding after the patient has gone. The suggestion was made that legislation might be introduced in a General Powers Bill of the London County Council to enable Borough Councils to secure such disinfection. The Branch requested the Hon. Secretary and Dr. Hewat to draft an appropriate clause for consideration at the next meeting of the Council of the Branch.

Visit to Chippenham by the Metropolitan and Home Counties Branches.—Some thirty-five members of the Metropolitan and Home Counties Branches of the Society of Medical Officers of Health, together with Dr. Rolf Hallgren (Sweden), Dr. Victor Groza (Roumania), and Capt. R. C. Malhotra (Indian Medical Service), accepted the invitation of the Nestlé and Anglo-Swiss Condensed Milk Company to visit their Condensery at Chippenham on April 1st, 1927. Reserved saloon carriages conveyed the party from Paddington to Chippenham, where the forenoon was spent in going over that part of the establishment where various processes are carried out in connection with the production of condensed milk, including the weighing, bacteriological examination and chemical analysis of fresh milk received from farms in the surrounding country, the cleansing of churns, the pasteurisation of the milk and its subsequent conversion into the condensed state.

After luncheon at the Angel Hotel, Chippenham, Mr. O. Rogers, the Condensery Manager, proposed the health of the Society, and extended a cordial welcome to the members and to the medical officers from abroad. Dr.

G. Quin Lennane, President of the Metropolitan Branch, in reply referred to the excellent arrangements found at Chippenham, and Dr. Charles Porter also expressed the thanks of the Society for the delightful manner in which the members of the party had been entertained. The toast of the Nestlé Company was warmly accorded by the visitors. Dr. Hallgren added thanks on behalf of Dr. Groza, Capt. Malhotra and himself, and expressed regret that the remaining members of the party of foreign medical officers, who had been visiting this country under the auspices of the Health Section of the League of Nations, had proceeded to Geneva, and were thus unable to take part in a most instructive and enjoyable visit. Mr. E. B. Green and Mr. W. P. Crocker responded to the toast on behalf of Messrs. Nestlé.

During the afternoon an inspection was made of the tin making, filling, labelling and packing plant.

The party then returned to London, tea being provided during the journey.

Reviews.

THE HOUSING OF THE NATION. By Lieut.-Colonel F. E. FREMANTLE, M.P., F.R.C.P., F.R.C.S., D.P.H., Consulting County Medical Officer of Health for Hertfordshire. With a Foreword by the Right Honourable Neville Chamberlain, M.P., Minister of Health. London: Philip Allan and Co., Ltd., 1927. pp. 193. Price 8s. 6d. net.

This book deals very comprehensively with one of the most pressing problems of the day. As the author in his opening chapter very wisely points out, the housing problem is not new. What is new is the rapidly growing public realisation of the problem and the demand for higher standards. The social and moral evils associated with insanitary and inadequate and bad housing conditions are a blot on our boasted civilisation and demand our united efforts to abate. The extent of overcrowding in London and other great towns in Great Britain is shown by the Census of 1921, and the author's statement that over the whole country one-tenth of the population live in overcrowded dwellings is probably an underestimate of the magnitude of the evil. Even if we accept the figures quoted as approximately correct, the fact is sufficiently

grave to call for a careful study of the views of the author as to the causes responsible for the evil and the measures suggested to abate it.

Few, and least of all medical officers of health, will be disposed to disagree with the author that housing is an epitome of the highest wisdom, and that the War has roused the nation to its need; that the standard must be sufficient and must find three bedrooms for the growing family or spare rooms for lodgers, and yet provide for the limited use of the aged and infirm; that overcrowding is largely due to poverty and to changed economic conditions; and that no family can afford to pay more than one-fifth of its income on the three R's—rent, rates and rail fares. The main objective must be a sufficiency of houses at rentals within the capacity of the workers to pay. The slum is a symbol of bad housing, and housing is the essence of social reform. So long as there is a lack of houses available at low rentals for the poorest classes of the community there will be slums, as the needs of such people can only be met by crowding into the lowest class dwellings, which are in the main, old, worn out, and only fit for demolition.

The political history of housing before, during and after the War is dealt with in a clear and concise manner in consecutive chapters. The history of housing legislation for the past ninety years is briefly sketched, and the defects of the earlier Housing Acts are referred to, leading up to the passing of the 1919 and subsequent Housing Acts with their greatly increased powers and simplified procedure for dealing with the housing question. It is, however, to chapters IV, V, and VI, wherein comparisons and criticisms are made between the respective housing policies which after the War the successive and politically diverse administrations adopted to meet the serious housing shortage following the War, that special interest attaches. It would be out of place in a brief review of this book to discuss in any controversial sense these differences, and it must be admitted that the author has endeavoured to be scrupulously fair in his analysis of the various policies. His training and experience as a county medical officer of health have peculiarly fitted him to undertake an analysis of housing policies, and that he has succeeded in maintaining an impartial attitude will be generally conceded.

The future housing programme is very fully discussed, and while no doubt there has been within the past two years a speeding-up in the provision of new houses, mainly due to the granting of subsidies, there is still much leeway to be made up before the housing shortage has been adequately met. A curtailment of this provision will, it is feared, lead to a reduction in the present building output both by public authorities and private enterprise. The author is, perhaps, too optimistic in considering that at the present rate of progress the housing deficiency will have been met by 1930.

The problem of the slum is fully dealt with by the author and the statement that practically little or nothing has been done to deal with this evil since the War will be readily endorsed. The cost of slum clearance is, of course, the main stumbling block. The author appears to approve the recommendation of the Chamberlain Committee in 1921 that, pending reconstruction, local authorities should purchase areas and re-condition the houses, and that Town Planning schemes should be applied to built-up areas and not restricted, as hitherto, to areas in course of development. While no doubt a dual application of the system of Town Planning will be found both remedial and preventive in its effects, it is, however, clear that, as shewn in the case of the provision of new houses for the working classes, material progress will not be made in securing the accomplishment of this most pressing need until the State comes to the assistance of local authorities.

It is satisfactory to note that the author is strongly opposed to the erection of high buildings as a means of overcoming the difficulties of re-housing surplus population in condemned areas.

The question of insanitary houses and the application of a vigorous administrative policy under the Housing and Public Health Acts in dealing with such properties, receives detailed consideration and the importance, as suggested by the author, of securing by means of friendly negotiation with the owner the necessary repairs without recourse to the service of notices will be endorsed by all medical officers of health who have experience of the value of such informal methods, which is, moreover, fully supported by statistical evidence, as during the five years ending 1924, out of one and a half million houses found unfit or not in all respects reasonably fit for habitation, one

and a quarter million had been rendered fit by informal action by local authorities.

Other matters dealt with in this useful and instructive book relate to rents, costs of labour and building materials, new methods of house construction, etc. Rural housing and Town planning, Garden Cities and Housing in Scotland are also included in what must be regarded as one of the most valuable contributions to housing literature yet issued.

There is a foreword by the Minister of Health, in which he refers to the improved progress made in the production of new houses. He sounds a warning note as to the rashness of committing ourselves to the view that any particular number of houses is yet required to overcome the housing shortage. He refers to the problem of the slums, pointing out that this is the last, and perhaps the greatest, problem before us. He expresses the opinion, in which he is probably correct, that much of the trouble in the past has led to carelessness and destructiveness on the part of tenants, followed by deterioration of property; and the lowering of general standards of the neighbourhood has been due to faulty management. The buying up by syndicates of house farmers of leasehold property with short terms of lease remaining prior to the passing of the 1909 and later Housing Acts and the limited powers of sanitary authorities for dealing with this class of owner under the Public Health Act contributed to the same unhappy result.

Colonel Fremantle is to be congratulated on the manner in which he has handled a most complex problem and medical officers of health and other municipal officers will find the book a *vade mecum* and invaluable for reference.

A SYNOPSIS OF HYGIENE. By W. WILSON JAMESON, M.A., M.D., M.R.C.P., D.P.H., Lecturer on Public Health and Preventive Medicine, Guy's Hospital Medical School, and Medical Officer of Health, Hornsey; and F. T. MARCHANT, M.R.San.Inst., Senior Assistant, Department of Hygiene, University College, London. Second Edition. London: J. & A. Churchill, 1927. pp. 514, illustrated. Price 18s. net.

In the six years that have elapsed since Jameson and Marchant first appeared it has made a host of friends for itself, particularly amongst students for the diploma in public

health, for whom it was primarily intended. In its second edition it is certain to receive a warm welcome from these also, since in addition to providing a summary of information on the older and standard subjects that are supposed to be in favour with examiners and likely to crop up at the examination, it gives a synopsis also of recent views and of advances made in the various fields, epidemiological, legislative, and so on, that the student is expected to explore. Being merely a synopsis, pretending indeed to be no more than that, the amount of detail given and analysis made of various researches that have been carried out is, of course, limited. Possibly in the section relating to disease this is most noticeable, the newer preventive measures in connection with diphtheria and scarlet fever, for example, being dismissed in a comparatively few words. Speaking generally, however, the summarising has been well done and sound judgment has been shown in connection with the choice of subjects to be treated at length. Dr. Jameson and Mr. Marchant in producing their book have used to the full all the great experience they possess as teachers and of the needs of candidates for the diploma, and the second edition is sure to be even more popular amongst students than was the first.

THE PRINCIPLES AND PRACTICE OF MEAT INSPECTION. By **GERALD LEIGHTON**, O.B.E., M.D., D.Sc., F.R.S.E., Medical Officer (Foods), Scottish Board of Health; late Professor of Pathology and Meat Inspection, Royal (Dick) Veterinary College, Edinburgh. London: William Hodge & Co., Ltd., 1927. pp. 465, illustrated. Price 25s. net.

For long there has been a real lack of a sound text-book on meat inspection written for workers and learners in this country by someone who knows the needs, knows the subject, and how to deal with it. In the public health service there can only be few better qualified to provide what is wanted than Dr. Gerald Leighton. In this book he has provided it, and has removed what to many has appeared to be a slur, that Britain has produced no book on meat inspection for the British. What Dr. Leighton's qualifications for writing the book are it is unnecessary to tell. That he is an authority on meat and food generally from the health point of view is

known. That he has had opportunities of seeing and doing, his position in the Scottish Board of Health is sufficient proof; that his opinion is valued by fellow workers and respected by the traders is evidence that he possesses the necessary knowledge and qualifications. In the making of books, however, something more than knowledge of the subject to be treated is required. In the case of a book that is to be the guide, philosopher and friend of the student and the practitioner, the writer must know how to arrange his matter to the best advantage of his readers, and the scheming and planning of the book are very much the affair of an expert. That Dr. Leighton has knowledge and experience of this, too, is very evident. There is no haphazard throwing together of information. Thought has gone to the arrangement; and this is shown in the way in which the student is first grounded in the principles of the subject and then introduced to the study of methods of inspection of parts and organs and conditions. Holding that knowledge of comparative pathology is necessary, Dr. Leighton goes into this, outlining clearly and simply the chief points to which attention should be directed. In the more practical part of the book instructions easy to understand are given with regard to the detection of diseased and unsound conditions and the procedure to be adopted. In this section there are many illustrations, most of them calculated to prove helpful, though with regard to these it may be said that it is unfortunate that some or all of them were not coloured. Their value, considerable as it is, would have been tremendously enhanced if they had been. As the book is certain to become the standard text-book on meat inspection of this country it may very safely be recommended.

SIR GEORGE NEWMAN, K.C.B., M.D., has been elected a Fellow of the New York Academy of Medicine.

DESIRING to recognise Dr. J. R. Kaye, County Medical Officer of Health, West Riding of Yorkshire, as having done the most noteworthy work in the discharge of his official duties, the Royal Institute of Public Health have made him the Smith award, which is given triennially, and consists of a bronze figure of Hygæia.

Correspondence.

The Editor does not accept responsibility for the opinions of correspondents.

THE MUNICIPAL LABORATORY.

To the Editor of *Public Health*.

Sir,—I have read with interest, in the March issue, Professor Topley's paper on Research Work in Preventive Medicine, but find his views on the combination of routine and research rather confusing, and also consider his criticism of the small laboratory much too severe.

Professor Topley states that it is very unsatisfactory for University Departments or Research Institutes to combine routine Public Health laboratory work with research, and proposes to get over this difficulty by establishing large, well-equipped and staffed State Laboratories which will be able to combine original research with routine investigation. It would seem more logical to establish a few separate Public Health Research Institutes, preferably in connection with our larger Universities, and leave the ordinary Municipal Laboratory free for routine.

It is, I am afraid, inevitable that research should take a back seat in a department where a large amount of routine work has to be carefully performed, otherwise this work is apt to be neglected. The Municipal Bacteriologist, if keen, will, however, find time to investigate minor problems occurring in connection with his daily tasks.

According to Professor Topley, the smallest laboratory should be one costing £10,000 to £20,000 to equip, £5,000 to £8,000 a year to run, and should serve a population of from 400,000 to 500,000. The points given in favour of the large laboratory as opposed to the small one are:—

(a) Owing to larger staff and better equipment, it is possible to combine routine and research.

(b) Overhead charges of the small institution form a high proportion of the total cost, and it is, therefore, grossly uneconomical.

(c) Routine examinations are more satisfactorily performed in the large laboratory, especially examinations which are made in large numbers daily, e.g., Wassermanns.

Let us deal with these points individually:

(a) One doubts the advisability of combining

routine and research in Municipal Laboratories.

(b) A Public Health Bacteriological Department serving a population of 250,000 can be amply equipped for routine work at a cost of £1,000. The money required, exclusive of salaries to staff, to run such a laboratory should not exceed £400 per annum, which is less than 25 per cent of the total yearly expenditure, inclusive of salaries. In an institution where a large, well-paid staff (one agrees that they should be well paid) is employed to combine routine and research, the percentage will, of course, be smaller as the total cost is thereby markedly increased.

(c) One also doubts whether routine work is more satisfactorily performed in a large laboratory where a considerable amount of research work is carried out. When the leading members of the staff of the laboratory are mainly occupied with research and practically all the routine work is left to juniors with relatively little experience, the advantages of extra equipment, as far as routine is concerned, are apt to be annulled. With regard to Wassermanns, this test is essentially a "one man job" and is much more likely to be reliable when personally performed in numbers of from 25 to 40 per week by one trained qualified bacteriologist than when done in large numbers of 60 to 100 daily by a multiple staff under the supervision of a qualified bacteriologist.

The expenditure involved in doing 20 to 40 Wassermanns per week is a mere detail.

A few more words may be added in favour of the small laboratory. A Bacteriological Department serving a population of 250,000 can be easily fitted up in the Municipal Buildings along with the other Public Health Departments. Rent and upkeep are, therefore, low. It is centrally situated and easily accessible to general practitioners who wish to call there. Most important of all, close co-operation is ensured between the laboratory and the other departments; there is no delay in the issuing and delivery of reports, and the Bacteriologist is always at hand for consultation when necessary. As a result of this, one is compelled to take a more personal interest in the routine work; it must be carefully performed, as mistakes are soon brought home to the laboratory, and are not so easily glossed over as in a larger institution.

In conclusion, I wish to state that I heartily endorse Professor Topley's plea for research

in Preventive Medicine—a branch in which he himself has made valuable investigations—but consider that this should be performed primarily at Public Health Research Institutes.

With regard to the size of Municipal Laboratories, I would be inclined to place the minimum population served at 200,000, as the advantages of the small laboratory are considerable, and economically it is quite sound.

I am, Sir, Yours faithfully,
G. J. CRAWFORD.
City Bacteriologist.

Salford.

March 30th, 1927.

"THIS ADVERTISING FEVER."

To the Editor of *Public Health*.

Sir,—The correspondence which you have published in the last two issues of *Public Health* has undoubtedly served the useful purpose of defining the issue between those who consider that advertising assists them in the performance of their duties and those who hold that most propaganda is more a means of boosting the stock of the medical officer of health himself than of improving the health of the inhabitants of his district.

Whether we like it or not, advertising is being steadily thrust upon us, not only by the Royal Sanitary Institute, and other similar bodies, but also by local societies of every sort, each of which considers that the medical officer of health is a fair victim for at least one lecture per year on a health subject. I use the term "victim" advisedly, as the demands of these societies, repeated year after year, are by way of being a minor persecution, and, if yielded to, add much to the unrequited labour of the health official. Occasionally, of course, the worm will turn and, no matter how keen he may be on health lectures and talks, the medical officer of health is probably justified in refusing to turn out of his bed early on Sunday morning in order to give an address to a nine o'clock Bible Class.

During recent years apparently it has been the policy of the Royal Sanitary Institute to circularise local authorities annually, suggesting that they should hold a health week on a specified date in the year. But this is only one—although a very important one—of the societies which from time to time circularise local authorities with suggestions for propaganda, conferences, and "weeks" of various

kinds and differing degrees of usefulness. These communications are usually addressed to the Town Clerk, who, as in duty bound, reports them to the appropriate committees. The medical officer of health, when consulted, is compelled to point out that if his department undertook all that was suggested in this way there would be little, if any, time left for the carrying out of its proper duties.

I am not suggesting that these health societies do not in many cases fulfil a useful function: They are certainly always willing to assist health departments in any way they can when asked to do so. What I do suggest is that there are too many of them, and that they circularise local authorities too frequently with recommendations for propaganda. It is difficult to turn down everything without getting into disfavour with one's committees, although most medical officers of health realise perfectly well that "stunts" are only useful if organised at long intervals and in such a manner as to cause the minimum of dislocation or interference with the proper work of their departments.

"Stunts" are not, however, in my opinion, organised in order "to conceal deficiencies in essential undertakings," as Professor Kerr would have it, but are, in many cases, a concession to the pressure which is exerted on all sides by persons who consider that information about health and disease can be disseminated in much the same way as the merits of particular kinds of soap or makes of motor-car. It is much more satisfactory, and certainly an easier undertaking, to endeavour to remedy the deficiencies which exist in all health departments than to undergo the hard work and worry inseparable from the organisation of, say, a health week and exhibition. Possibly, however, a "stunt" of this kind has at least one incidental advantage in that it temporarily shakes the medical officer of health from his routine habits of life, and thereby provides a mental stimulus which is of some value if it does not occur too frequently.

By all means let the health official indulge in such propaganda as his knowledge of his district leads him to consider useful, but let there be less interference from outside in a matter which properly rests with him and his local authority.

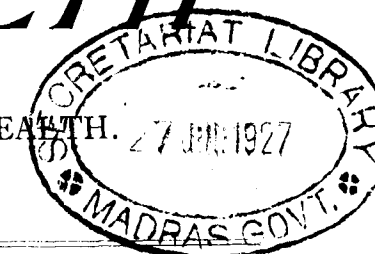
I am, Sir, Yours faithfully,
W. M. FRAZER.

Public Health Department, Dewsbury.
April 7th, 1927.

PUBLIC HEALTH

THE JOURNAL OF
THE SOCIETY OF MEDICAL OFFICERS OF HEALTH.

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Editorial.

The Medical Curriculum and Preventive Medicine.

"LONDON," said the old lady up for the day, "will be a fine place when it is finished." So also will the medical curriculum be a very perfect thing if a determination can be made as to what are the subjects that should be included and those that may safely be omitted. Up to the present there appears to have been no particularly definite method of deciding. The rival specialists have taken their stand and shouted and, as always happens, the loudest and most persistent have alone been heard. Reason has played little or no part it is clear, and the order of inclusion

gives little ground for belief that the importance of the subject from the point of view of the people has ever been considered. Had there been such consideration, how is it possible that in the curriculum as it now stands there is so little provision for the teaching of any of the subjects, even the most outstanding, having relation to preventive medicine? The reason for the omission cannot be that attention has not been directed to the need; nor is it possible, it may be hoped, that the curriculum makers have not seen for themselves how important a part prevention occupies in the life's work of the medical practitioner. Only it must be that they have

been overborne by specialists in other branches who, limited to the specialism they practise, over-estimate its importance. Or, as another explanation for the omission of preventive medicine, there is this, that the medical schools were not actually in a position to do the teaching. As a reason this is put forward with a certain amount of hesitation since it might suggest the existence of a spirit of fault-finding with the schools. There is no desire to find fault. These lines are not critical but explanatory, and are to explain that the failure of the medical schools, and the institutions associated with them to attack the problem of the teaching of preventive medicine, arose because they were unable to do the teaching. They were not able, and most still are unable, to do it because they are not organised for the purpose, and have not the personnel. The lack of organisation and of teachers is due to a failure to note what was happening, to listen to those who knew, and to seize opportunities. A little foresight and imagination only, on the part of the clinical teachers, and the teaching hospitals would have been important centres in the preventive schemes of the health authorities, with the reputation and prominence such a position brings, and with additional teaching material of the utmost value to the practitioner and those he seeks to benefit. One of the directions in which the effect of this failure is most noticeable is in relation to infant and child welfare. Everybody says, everybody has always said, that the knowledge that is most valuable to the medical practitioner is knowledge of infants and young children. This has always been said regretfully, because in the main, the knowledge was not; and was absent because opportunities were not provided for obtaining it in the schools and hospitals, because the student was not required to show he possessed the knowledge before he passed into the ranks of the practitioner. That so far as this is concerned, there are signs of improvement is to be gathered from a most useful investigation carried out by the Maternity and Child Welfare Group of the Society amongst the medical schools and qualifying bodies, as to what steps were being taken with a view to complying with the requirements of the General Medical Council in regard to instruction and examination in ante-natal conditions and infant hygiene. The results of their investigation are embodied in a report repro-

duced elsewhere in this number. To some extent only is the information as to the position to be regarded as satisfactory, there being in a number of instances a certain amount of vagueness as to the methods adopted in relation both to the teaching and the examination. Standing out most prominently as a school in which an attempt has been made to deal with the subject and to draft a comprehensive scheme is St. Thomas's Hospital. Here, as will be gathered from the report, a real effort has been made to determine just what was wanted and how best it could be provided. The scheme as drafted by the St. Thomas's Hospital Staff is clear cut and definite; it deals with the theoretical as well as the practical sides, and links up maternity work and infant hygiene logically and conveniently. It is a scheme that must be pleasing to members of the public health service as showing that in some quarters their views are being met. It will be all the more pleasing if it stimulates other schools to follow similar lines, and encourages St. Thomas's or any or all other schools to draft complete schemes for providing adequate teaching in other or all branches of preventive medicine.

* * * * *

Small-Pox and Soiled Linen.

"HOWEVER small the importance that may attach to this method of conveyance in the case of, say, scarlet fever, it seems reasonable to expect that the infection of small-pox could be conveyed by articles of clothing of such a kind as pyjamas, night-gowns, pillows, etc., any of which may become heavily soiled with pus and crusts. That the virus of vaccinia contained in pus and crusts remains active for considerable periods is known, and it is natural to assume that the virus of small-pox may retain its activity in a similar manner."

In these words Dr. T. S. McIntosh, the Medical Officer of Health of Hendon, summarises the conclusion he reaches after a most careful and painstaking investigation into the source of infection in a certain group of cases in the recent outbreak of small-pox in his area, that, but for his efforts, might have attained to most serious dimensions. As the work done by Dr. McIntosh constitutes a valuable contribution to the etiology of small-pox and is an excellent example of epidemiological research, no apology is necessary for

directing attention to the main lines of the enquiry made and the chief of the conclusions reached.

Briefly, the facts are these: The first four cases were all members of one family; all the subsequent cases (with the exception of a baby born while its mother was suffering from the disease) were workers in the laundry to which the linen from the infected house was sent on Thursdays, and returned on the Wednesdays following.

The batches in which interest chiefly centres were received at and sent out from the laundry as follows:—

Date of receipt.	Date of return.
March 31st.	April 6th.
April 7th.	April 13th.
April 14th.	April 20th.
April 21st.	

The batch received on April 21st was found soaking in a trough, which contained no other linen, and was removed by the sanitary inspector from the laundry on April 24th. Those received on April 14th and 21st were in a special bag labelled "Chicken-pox," and were put by the manageress to soak in a trough separate from other customers' linen. The consignment of the 14th was boiled, and that of the 21st removed, before it was touched by any other worker. The previous batches were treated in the ordinary way without any precautions. That received on March 31st appears to have done no damage. It was sorted by case No. 8 (the fourth in the laundry group) but her onset is dated April 23rd, and the rash appeared not earlier than the 25th of that month. As the rash in the original case appeared on March 29th it is quite possible that no infected articles were sent to the laundry on March 31st. The rash of cases Nos. 5, 6, 7 and 8 (the second, or laundry group) appeared in each instance fourteen days after a date between April 7th and 13th, and there is nothing to show whether or not the individuals handled the infected articles. Two of the laundry group were sorters and packers, and two were ironers. The ironers do not, in the course of their duties, handle linen until it has been washed. The batch of washing received on April 7th contained a suit of pyjamas belonging to the first case. There is no record to show whether they were boiled or not, but, as they contained a "silk stripe," they were probably not boiled, and so may have reached the ironing room in an infected condition. In any case, all the workers

pass through the sorting-room in entering and leaving the laundry, so that any of them might come in contact with infected articles there. The laundry records indicate that an unvaccinated worker sorted the washing on April 7th. She, however, remained perfectly well, and was successfully vaccinated on April 25th. In spite of the escape of this girl, the dates of onset and rash in the other cases, together with the absence of any alternative discoverable source of infection, seem almost conclusive evidence that they were infected from the suspected linen. No connection, it may be mentioned, existed between the family originally involved and the laundry or workers, apart from the receipt of the washing, nor was there even a remote possibility of all four having been infected from a common source outside the laundry. Indeed, it is difficult to imagine a source outside causing four separate severe cases, three of them fatal, among the laundry workers and causing no other recognised case. The question of a possible missed case among the laundry workers having infected cases Nos. 5, 6, 7 and 8 was carefully considered. In the case of the great majority of the laundry workers this possibility was excluded by successful vaccination on or after April 25th. Where this test failed, by examination or otherwise the possibility of their having suffered from an unrecognised attack of small-pox was excluded. Particular attention was paid to workers who had been absent from work for even part of a day during February and March. In all, except one, small-pox was excluded by successful vaccination on or after April 25th. In this case, however, small-pox was excluded by careful examination.

All workers (with the exception of one who last worked at the laundry on January 7th) who had left the employment of the laundry since January 1st, 1927, were traced and examined. All passed the test.

So far as the source of infection in the first case of all is concerned, this in spite of every effort, still remains a mystery. The individual is a commercial traveller, but his beat lies in and around London, and he has not been farther from London than Woking for months. No case has been reported in or near London which could be the source of his infection, and the closest cross-examination failed to disclose association with anyone from abroad or from the North or Midlands.

A fact which may be significant is that two

cases occurred, one at Gravesend and one at Wimbledon, on almost the same date as the first of the Hendon cases. Their rashes are given as having appeared on March 29th and 30th respectively. That in the first Hendon case appeared on March 29th or 30th. The Wimbledon case disembarked at Gravesend on March 17th from a ship from which a case of small-pox had been landed at Gibraltar on March 13th. The interval between March 13th and 30th (17 days) suggests that the Wimbledon case was not infected by the recognised case landed at Gibraltar, and may have been infected by an unrecognised case on the ship. Some passengers disembarked at Marseilles on March 11th, and proceeded overland to London, where they probably arrived about March 13th. The dates of the rash of the Gravesend case and the first Hendon case are compatible with their having been infected by one of these passengers. The Gravesend case was a waterman, and business took the Hendon patient frequently to districts not far distant from the docks. No association between either of these cases and the ship in question can be traced.

A case was reported in Hampstead on May 7th, and one in Poplar on May 10th. No connection can be traced between these two cases and the Hendon series. All these facts appear to point to the existence of one or more undiscovered cases in London recently.

Time alone may show whence the infection came to Hendon; may show also other cases in this area. Because, however, several weeks have elapsed since the occurrence of the last case there is reason to believe that the progress of the outbreak has been stayed, and reason also for offering congratulations to Dr. McIntosh and others concerned on the success that has attended their efforts. This is the chief of the rewards their labours and devotion have earned.

Radium in Cancer.

THE Report of the Medical Research Council on this subject (Special Report Series, No. 112), which contains a summary of reports from Research Centres for the year 1925, strikes a more hopeful note than its predecessors. The results recorded seem to show that radium properly applied in correct dosage will in a certain proportion of cases, bring about arrest of cancer. The word "arrest" is used advisedly, though "cure" might be a better and even permissible term

had tuberculosis not taught appreciation of the dangers of dogmatism. As in the case of surgical treatment, so in that by radium, success varies immensely with the stage of the disease. Unlike its predecessors, the report does not deal with non-malignant conditions, nor with rodent ulcer, the reason being that the evidence of its therapeutic value on these is sufficiently strong to require no further proof. It is largely devoted to a detailed description of the technique employed at the various centres: the Middlesex Hospital, St. Bartholomew's Hospital, University College Hospital, the General Hospital, Birmingham, the Royal Infirmary, Aberdeen, etc.

Perhaps the most noticeable feature of the report is the conclusion, arrived at by nearly all the centres, that numerous small sources of radium applied over long periods (7 to 10 days) give better results than a concentration of the rays from a single source over a correspondingly shorter period. Particularly was this remarked in the case of cancer of the tongue, mouth, and throat.

The investigations dealt with in the report include:—

- (a) Cancer of Breast and Uterus.
- (b) Carcinoma of Mouth, Naso-Pharynx, Larynx, and Oesophagus.
- (c) Carcinoma of Rectum, Bladder, and Prostate.
- (d) Sarcoma and Lympho-Sarcoma.

So far as cancer of the breast is concerned, the results in early cases were distinctly good; in recurrent cases very bad. The effect in some cases was to slacken the rate of growth and prolong life for a number of years. Cancer of the cervix uteri improved under treatment, but the number of cures were few and these mostly in operable cases. The results in inoperable cases were not encouraging, being good in not more than 20 per cent. of the total cases treated.

As regards the second group, the difficulties of site, sepsis, and area of involvement militated against success, and frankly the results were bad.

Carcinoma of the rectum in some cases responded well; in others, mostly inoperable, very indifferently. Bladder cancer gave satisfactory results in the four cases noted. Only one case of cancer of the prostate is mentioned and that improved under the treatment.

Sarcoma in some cases, especially two of the tonsil reported from Birmingham, responded well. Lympho-sarcoma did badly.

The picture presented by the report is patchy and hardly likely to inspire enthusiasm. Would that it had been otherwise, for mankind stands much in need of a message of comfort in the face of an ever-lengthening casualty list from this fell disease.

Sterilised Milk in Sealed Bottles.

WE are indebted to Dr. Fenton, of Kensington for the following notes of a case which has many important bearings, and which will prove of great interest and value to all concerned in the administration of legislation relating to the sale of milk.

In December, 1925, the Stipendiary Magistrate presiding at Marylebone Police Court decided that it was not compulsory for shopkeepers, who sold sterilised milk in the same properly closed and unopened receptacles in which it was delivered to them, to register as purveyors of milk. In giving this judgment, the Magistrate intimated that he was satisfied that sterilised milk was not milk within the meaning of the Dairies, Cowsheds and Milkshops Order, 1885.

Wholesalers of bottled sterilised milk circulated this decision of the Magistrate to shopkeepers in the London area, and a number of persons who dealt in general articles commenced to sell bottled sterilised milk from their premises without applying to the local authority for registration. Moreover, certain small tradesmen did not hesitate to open bottles of milk in their shops in order to sell a smaller quantity than a whole bottle.

In January, 1926, a shopkeeper sold the Kensington Borough Council Food Inspector half a pint of milk which had been taken from a bottle opened for the purpose. On completing the purchase, the Inspector divided the sample into three parts, in accordance with the procedure laid down by the Sale of Food and Drugs Acts, and in due course a certificate was received from the Public Analyst certifying that it was milk of genuine composition. Proceedings against the shopkeeper were taken before the Kensington Justices under Article 6 (1) of the Dairies, Cowsheds and Milkshops Order, 1885.

The Bench convicted, and ordered the defendant to pay ten shillings costs.

Notwithstanding this decision, unregistered shopkeepers continued to sell bottled sterilised milk, and in April, 1926, the Kensington Food

Inspector purchased an unopened bottle. Similar proceedings as before were instituted, and in this case also a conviction was recorded, a fine of £2, together with five guineas costs, being imposed. The defendant appealed against this decision, and the case was heard before the Lord Chief Justice, Mr. Justice Avory and Mr. Justice Shearman on April 29th, 1927.

The appeal was dismissed, and the following are the shorthand notes of the judgment:—

"THE LORD CHIEF JUSTICE: The only question in this case is whether there was evidence upon which the Justices could find as they did. In my opinion there was such evidence. Here was a person who was carrying on the business, among other businesses, of selling sterilised milk. He bought sterilised milk in bottles, not in order that he might use the contents for the purpose of cooking or mixing with tea or coffee, but for the purpose of reselling these bottles of milk as bottles of milk, and the case finds as a fact that the sale of sterilised milk was two or three dozen bottles a week. I think, therefore, that there was evidence upon which the Justices were entitled to find that he was carrying on the trade of a purveyor of milk. He was charged with unlawfully carrying on the trade of a dairyman. If he was carrying on the trade of a purveyor of milk it follows, by reason of the definition in Section 19 of the Milk and Dairies (Consolidation) Act of 1915, that he was carrying on the business of a dairyman. It has been said, and said with force, at first blush, that this case is defective inasmuch as that when the Justices are explaining their opinion they say that they were satisfied that on the facts proved or admitted, the Appellant was a dairyman and purveyor of milk. It is said that that phrase omits the important words 'was carrying on the business of a dairyman and purveyor of milk,' but I am satisfied that that is what the Justices meant to express, although they have used an elliptical phrase. I say I am satisfied for various reasons. The information was that this man unlawfully carried on the trade of a dairyman. It is apparent, and Mr. Cassels frankly admits, that the point was argued whether it was true to say that he was carrying on the trade of a purveyor of milk. Hence the reference in the Case to the number of bottles per week which he sold. Hence the contention, on behalf of the Appellant in Paragraph 7 (2) that 'The Appellant was excluded from the necessity of registration by reason of the fact that the sale of the said substance did not form a substantial part of the trade which he carried on at his said shop.' Hence also the citation of the Case of Spiers and Pond v. Green in 1912, King's Bench Division, at page 576, from which case this phrase about 'a substantial part of the trade which he carried on' is manifestly taken. I think, therefore, that the Justices directed their minds to the true question: Is it true to say that this man at the material time was carrying on the trade of a purveyor of milk? In my opinion there was evidence justifying the finding that he was, and I think the Justices have so found, although they have somewhat too briefly expressed the finding. In these circumstances, I think that this Appeal fails.

"MR. JUSTICE AVORY: I am of the same opinion, and having glanced at the shorthand notes, I rather doubt whether the point which has been argued to-day was the one which was really in dispute before the Justices. The whole of the time, or most of it, seems to have been

occupied in discussing whether this was in fact milk which was being sold, and witnesses were called for the purpose of saying it was not milk.

"MR. JUSTICE SHEARMAN: I am of the same opinion, and I have nothing to add.

"THE LORD CHIEF JUSTICE: The Appeal, therefore, is dismissed with costs."

This decision is of considerable importance for it makes it clear now that, whilst a shop from which milk is not supplied otherwise than in the properly closed and unopened receptacles in which it is delivered to the shop is not a dairy within the meaning of Section 19 of the Milk and Dairies (Consolidation) Act, 1915, the person who sells that milk in the unopened receptacles is a purveyor of milk who is required to register with the local authority before he is entitled to sell bottled milk.

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Practical Hygiene in Japan.

THE publications issued by the League of Nations have recently been increased by the addition of three valuable treatises from Japan. The literature of Japan is mainly a closed book to any but the Japanese, and it is an obvious advantage that expert monographs on such subjects as pneumonic plague and cholera should be available in a European language. The publications will appeal in particular to the Colonial Medical Services.

Dr. Wu Lien-Teh's *Treatise on Pneumonic Plague* gives most valuable information on the disease in wild rodents, the countries which such rodents inhabit, and the distinguishing features of such animals, together with their modes of life and the existence in them of natural plague. The epidemiology of plague is considered in detail, and the relation between the bubonic and pneumonic types carefully discussed. The treatise should appeal not only to those likely to meet cases of plague, but also to all public health authorities, epidemiologists, and historians. Prophylaxis, the control of personnel and the management of epidemics are described, and are an excellent example of what can be done in dealing with an epidemic under difficult conditions. The history of the disease and its illustration with interesting plates of mediæval anti-plague costumes should appeal to any reader. The bibliography is very extensive and includes even references to Russian literature. The treatise will probably remain the standard work on the subject for many years.

Studies of Cholera in Japan is a treatise by Dr. Rokuro Takano, which deals in the main with bacteriological technique, and is un-

doubtedly a valuable contribution to this aspect of the disease. The authors have been careful to include meticulous detail, making the book of immense value to the bacteriologist. The work is remarkable for bringing out the value of co-operation between sanitarians, laboratory workers and clinicians in dealing with and stamping out choleraic infections.

The *Progress of the Science of Nutrition in Japan*, Dr. Tadasu Saiki provides a most exhaustive investigation into all problems connected with the feeding of a nation. The subject has been studied not only from the laboratory aspect, but also from the point of view of the economist, the paediatrician and the public. In that the latter are sometimes the innocent victims of the pure laboratory worker it is as well that their point of view should be considered when adequate dietaries are being scientifically compounded. The treatise is not very readable, but is an excellent work of reference. Nine-tenths of its contents are in tabular form. It is evident from the amount of time devoted to problems of nutrition that Japan would be well equipped for husbanding her resources in times of a national crisis.

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Wet-Nursing in London.

FOLLOWING the publication of a letter from Dr. Margaret Emslie in the March number of *Public Health*, a number of medical officers of maternity and child welfare centres met recently and discussed the possibility of establishing a scheme of wet-nursing in the London area in connection with maternity and child welfare centres and hospitals.

It was agreed, after discussion, that direct wet-nursing of infants by foster-mothers was not likely to work in practice on any large scale; that a system of collection by expression would be more readily organisable, and that in order to assure the use of the milk for the most necessitous cases and to form some estimate of its real value in practice, it would be desirable, in the first place, to use the available breast milk for in-patient cases in hospital.

Dr. Eric Pritchard, Medical Director of the Infants' Hospital, Vincent Square, Westminster, S.W.1, has been approached with regard to this suggestion, and arrangements are now in progress whereby, within a certain area adjacent to this hospital, breast

milk will be collected in sterile bottles by a trained officer sent out from the hospital, from foster-mothers whose names have been notified for the purpose; the milk to be pooled and used for suitable cases in the wards until such time as a supply may be available for external distribution.

The following examinations will be carried out before cases are accepted: (a) Wasserman test; (b) examination for tuberculosis; (c) examination for contagious disease; and (d) examination for oral sepsis, any marked degree of which will be considered a disqualification. The medical officer, in recommending the case, will also be expected to ascertain that the home conditions and diet of the mother are reasonably satisfactory, as reported on a visit by the health visitor. A monthly analysis of each individual milk collected will be made at the Infants' Hospital.

The mothers giving the milk will be remunerated at the rate of one shilling per day, and it is hoped that in most cases two expressions of milk per day will be secured.

The difficulties of transport make it impossible at the moment to arrange for collecting the milk from all the centres which originally notified their desire to co-operate in this scheme, but it is hoped that at least some of them will be able to inaugurate a similar system in their own area.

The centres with which it is intended to make a start are located in the Westminster, Chelsea, Fulham, Hammersmith, Kensington and Holborn areas, and it is hoped to include certain others situated reasonably near the Infants' Hospital, whose medical officers have not yet had their attention drawn to these proposals.

In addition to the monthly analysis of the milk of each foster-mother, the Wasserman test, and examination of sputum where necessary, will be carried out at the Infants' Hospital where centres do not desire to make their own arrangements for carrying out these tests.

Medical officers of centres, maternity and poor law hospitals, etc., who are interested, and who have not yet notified their desire to co-operate should communicate with Dr. Margaret Emslie, 22, Wimpole Street, London, W.1. (Telephone: Kensington 8163), to whom also, on behalf of Dr. Pritchard, names of all suitable foster-mothers may, from now onwards, be forwarded.

Atmospheric Pollution.

THE Twelfth Report of the Advisory Committee on Atmospheric Pollution, prepared by the Secretary, Dr. J. S. Owens, gives an account of the work of the Committee during the year ending March 31st, 1926. Following the lines of previous reports, it is divided into four sections, the first dealing with measurement of impurities deposited from the atmosphere as obtained by the standard gauge. During the year sixty-one gauges were in use, an increase of twelve over the previous year, twenty-nine authorities co-operating in the collection of data. At about two-thirds of the stations the amount of impurity deposited during the year was less than the average for the previous five years, while at one-third it was greater.

In the second section the impurity suspended in the air, as measured by the automatic filter, is discussed, and it is shown that at Victoria Street and South Kensington the percentage of hazy days was definitely higher than in the previous year, but at Blackburn and Stoke-on-Trent, where instruments are also in operation, it was lower.

Included under observations with the jet dust counter in section 3 is an account of observations made in America into the relationship between suspended impurity and wind velocity. The results obtained confirmed those of a similar investigation published in the Eleventh Report of the Committee.

In Section 4 a description is given of an attempt to correlate the obstruction of ultra-violet radiation with the quantity of suspended impurity in the atmosphere.

An appendix written by Dr. J. R. Ashworth, of Rochdale, describes an instrument designed by himself for measuring the amount of deposit from the atmosphere day by day, or hour by hour. The results obtained with the instrument are detailed, including a discussion of the effects of wind and rain on the quantity of matter deposited.

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Obituary.

IT is with great regret that we have to announce the death on April 29th, at the age of 73, of Dr. William Collingridge, of Pennington, Lymington, Hampshire, eldest son of Mr. William Hill Collingridge, the founder and one-time editor of the "City Press." From Christ's Cambridge and St.

Bartholomew's Hospital he became a member of the Royal College of Surgeons in 1877, and B.A. and M.B. (Cantab.) in 1878. He was also Diplomat in Public Health, M.A., M.D., and LL.M., and was called to the Bar at Gray's Inn.

Dr. Collingridge took a place amid the pioneers of Public Health, and the organisation of Port Sanitation in London in its present form was largely his work. He served the City Corporation for twenty years as Medical Officer of Health of the Port of London, and as Medical Officer of Health of the City of London for twelve years.

For many years Dr. Collingridge was a member of the Council of the Society of Medical Officers of Health.

Throughout the whole of his career from the time of the Turco-Serbian War he held many military appointments.

Having himself been much examined, there could be no more competent examiner in state medicine, a function he exercised in the Universities of Cambridge and London. He was also a Justice of the Peace for the County of Berkshire.

The passing of one of the stalwarts who saw Public Health as a science take firm root and who did so much to plant and tend it, no less than the removal from our midst of a genial and strong personality, leaves a sense of loss which is only tempered by that of a life spent in the effective service of mankind.

We record with great regret the death of Dr. Herbert Pattison Wiltshire, of Hemsworth, near Wakefield, which occurred at Colwyn Bay on April 25th. Dr. Wiltshire, who was about fifty years of age, had not been in good health for some time, and had recently undergone a serious operation.

The third son of the late Charles Henry Wiltshire of Bradwell, Suffolk, he obtained his medical education at Cambridge University and Guy's Hospital, graduating B.A. and obtaining the diplomas of M.R.C.S. (Eng.), and L.R.C.P. (Lond.) in 1902.

He had been Medical Officer of Health of the Hemsworth urban district since its formation in 1921, and was previously Medical Officer of Health of the Hemsworth rural district. Dr. Wiltshire was also Medical Superintendent of the Hemsworth Poor Law Institution, and the principal of a general practice in the surrounding colliery district.

One of his brothers, Mr. C. J. Wiltshire, is a solicitor in Great Yarmouth, and another, Captain F. Wiltshire, is Town Clerk of Birmingham.

A Fellow of the Society of Medical Officers of Health, Dr. Wiltshire occupied the Presidential Chair of the Yorkshire Branch in 1919, and at the last meeting of that Branch very great regret, in which the members of the Society generally will join, was expressed at his early death. At the annual meeting of the Hemsworth Urban District Council a vote of condolence was also passed with the widow and family.

The funeral took place at Llandrillo Church, Colwyn Bay, on April 28th.

THE Metropolitan Asylums Board have decided to extend Queen Mary's Hospital for Children, Carshalton, Surrey, to accommodate 350 children in need of hospital treatment for rheumatism.

THE National Baby Week Council, while regarding all aspects of maternity and child welfare work as important, desires to draw special attention this year to the following: (a) Atmospheric Pollution in Relation to Maternity and Child Welfare; (b) Development of Dental Clinics and Dental Care for Mothers and for Children under five; and (c) The Home in Relation to Maternity and Child Welfare.

"HOSTELS in London for Professional and Working Women and Girls" is the title of a handbook constituting a mine of information of a kind that is not uncommonly sought in the department of the medical officer of health. Its object is to assist girls and women to obtain suitable hostel accommodation in London, and the list it contains, with few exceptions, is restricted to those hostels which charge two guineas a week or less. The Central Council for Rescue and Preventive Work in London, who have compiled the list, feel keenly "that one of the most effective methods of prevention is to insure that girls living in London can live in healthy surroundings, the term healthy being interpreted as including, not only sanitation, but also a healthy social atmosphere." In this view they are probably right. The price of the handbook is one shilling, and the headquarters of the Central Council are at 117, Piccadilly, London, W.1.

Smoke Abatement as a Public Health Problem.

By CYRIL BANKS, M.B., B.S., D.P.H., Medical Officer of Health, County Borough of Halifax; Ex-Councillor J. H. ROBSON, Huddersfield; Miss ANNE V. BAYNES, General Secretary, Manchester and Salford Women Citizens' Association; and J. S. OWENS, M.D., A.M.Inst.C.E., Superintendent, Advisory Committee on Atmospheric Pollution.

This symposium, which was held at a meeting of the Society on February 18th, 1927, is peculiarly appropriate having regard to the coming into operation of new legislation with respect to smoke abatement on July 1st, 1927. The four papers reproduced here, which opened the discussion, were contributed by speakers recognised as authorities on the subject, and the Society was exceedingly fortunate in securing their interest and assistance in the symposium.

DR. CYRIL BANKS.

The Point of View of the Medical Officer of Health.

IT is the duty of a medical officer of health "to endeavour to acquire an accurate knowledge of the influences—social, environmental and industrial—which may operate prejudicially to health in the area." In an industrial district this will involve the study of atmospheric pollution by smoke. It is not easy to provide direct and absolute proof that the death-rate in any area is influenced by the smoke pall. There have been various researches to this end, but Cohen and Ruston in their well-known book say, "However much we may be convinced, or wish to be convinced, of the deleterious effects on health produced by breathing a smoke-laden atmosphere, ordinary medical statistics afford little definite information. It is impossible, in the majority of cases, to point with any certainty to specific cases of disease or mortality as due to this cause, unless it be during the occasional occurrence of dense fog." That statement will meet with general agreement, notwithstanding the researches of Ascher quoted in the book mentioned. The increased mortality from respiratory disease in times of fog has been the subject of several statistical enquiries, but it has not, I believe, been possible to prove *absolutely* that smoke is the only cause of the effects noted. The figures go far enough, however, to convince most of us. Few medical problems have been solved with the accuracy of detail required in the mathematical classroom, and in the case of the smoke nuisance most of us are satisfied that there is sufficient evidence of an indirect nature to enable us to condemn it

as harmful to human life. The human body needs sunshine. Smoke obstructs light and deprives man of the rays he needs. There is no need to discuss this at length. Modern medical research has given scientific confirmation in detail of what has been common knowledge for a long time, namely, that man needs sunlight and suffers if he is deprived of it. We should, therefore, like to see combustion in houses and factories as smokeless as can be, so that the sun may not be obstructed. Unfortunately, even with complete combustion of the carbon in the coal, we shall not do away with the presence of acids in the air of towns, and these acids may have something to do with respiratory diseases. The evil effects of these acids may be less serious in an atmosphere free from soot, because it is said that the sticky tarry portions of the soot hold the acids and enable them to exert prolonged action upon the objects to which they cling. This may not be an important consideration as regards respiratory disease, and it may be said that the evil effects of smoke-acids upon buildings, fabrics and metals is no concern of the medical officer of health. To this one may give reply that these things affect the life of the housewife, and if there is one person above all others to whom the medical officer of health desires to give protection and relief from strain it is the housewife and mother of the family.

Even if these considerations fail to make the medical officer of health interested in the smoke abatement campaign, the terms of his employment make him responsible for seeing that the law as regards smoke nuisances is put into action. The Public Health Act of 1875, so far as it relates to smoke, has not proved

sufficient to abolish the nuisance; but feeble as our powers have been in the past, we need to ask ourselves whether we have applied even these limited powers as energetically as we ought to have done. The Public Health (Smoke Abatement) Act, 1926, will be operative on July 1st, 1927, and it remains to be seen whether the new powers will prove helpful or not. But whether with the old or the new powers, the results will depend to a considerable extent upon the enthusiasm of the medical officer of health and the efficiency of the smoke inspector. The medical officer of health of a large industrial area should regard it as a duty to persuade his council to appoint a well-qualified smoke inspector. However well-intentioned an ordinary sanitary inspector may be, it is unlikely that he will do much beyond making observations of chimneys and taking action against defaulters. This is not enough. A smoke inspector should be a man with a deep knowledge of the principles which underlie combustion in the furnace, particularly the boiler furnace. He should be able to go into a boiler-house where hand-firing is being carried on, and give a demonstration of method which will convince a stoker that hand-firing is an art worth attaining. The inspector should be clever at finding out those small, elusive, but important defects in flues which give rise to trouble, such as faulty brick-work, airleaks, and details of wrong construction of flues. He should be able to discuss with engineers the merits and demerits of the various mechanical devices for stoking and draught production, having due regard to their applicability to any individual boiler plant under discussion. He must understand fuel, and it may be then possible for him to recommend a cheaper coal than is in use at the time, so as to produce, with suitable modifications of the plant, less smoke with greater steam production. There is no doubt whatever that while an ignorant inspector may merely irritate those with whom he comes in contact, a tactful man with a deep knowledge of his subject will be able to bring about reforms which will at once free many chimneys from smoke nuisance and at the same time yield a handsome financial return to those who have accepted his advice. The latter statement is sometimes questioned on theoretical grounds by engineers; time will permit me to say only that I am referring to cases which are within my own knowledge, in

which mill owners have reported that steps taken to abate a smoke nuisance have resulted in saving of large sums of money. I am aware that the amount of coal directly represented by the soot in the smoke is not a great proportion, but a very smoky chimney always points to faulty furnace or flue construction or bad boiler practice, and it is in the correction of this that the saving lies. There may be cases in which no saving is possible.

The most hopeful sign of the times as regards industrial smoke abatement lies in the fact that the engineers have really taken up the subject of fuel economy. There is a steady output of good work by Government departments and commercial organisations, and with the advance of engineering and chemistry we may expect to see great improvements.

In the meantime the medical officer of health can do something to encourage the adoption of smokeless methods. This comes under the head of public health propaganda, concerning which the present speaker has recently expressed views which have been considered unorthodox. Briefly, the suggestion is that it is not worth while spending large sums of money to force specialised propaganda on all and sundry. The seed should be sown on the right soil. It is useless to talk about the evils of factory smoke to a miscellaneous collection of people gathered out of the streets into a health exhibition, because it is not calculated to produce results.

Limit propaganda to factory owners, engineers and boiler men. When an offending chimney is put under informal notice it is a good plan for the medical officer of health to ring up the owner and ask him whether the department and the firm cannot get together to try to solve the problem, having regard to the interests of both the firm and the public. There are more nice people in the world than nasty ones, and in most cases if this method is adopted tactfully the offer is gratefully accepted. The inspector can then go down to the works and suggest lines of investigation, followed perhaps by visits with the mill owner to works in which fuel economy devices have been successfully adopted. No one device is applicable to each and every boiler; failure to recognise this has been responsible for many disheartening and costly experiences. The successful firms are usually willing to display their plants, being proud of them. A few of these visits put the mill

owner in the right frame of mind, and he will then be ready to discuss improvements in his own plant. These may be suggested by the inspector, or it may be left to the owner to engage his own consulting engineer for the purpose.

The other people to whom it is worth while to address propaganda are the working engineers and boiler hands. The smoke inspector with whom I am associated prepared a card, suitable for hanging in the boiler house, containing hints to stokers, and these were sent round by the council to all places in which there were hand-fired boilers. (These cards are now available for all, having been published by Messrs. H. K. Lewis and Co., Ltd.) This attracted the attention of the unions and led to invitations to lecture to the men. The gatherings were very successful and encouraging. A suitable plan on these occasions is for the medical officer of health to open with a talk on the reasons why smoke abatement is desirable; he is then followed by the smoke inspector, or some other person skilled in boiler-house practice, who discusses the technical side. The medical officer of health will be wise to leave the technical side severely alone. Gatherings such as these may stimulate so much interest among the men that there may later be a call for the formation of classes for stokers at the local technical school. By this time there will have developed in the men a sense of pride and interest in their work, and nothing could be better than this. Good results will follow.

Important as is the question of domestic smoke, I think it is of little use to talk to the public at large about it. The average householder is not likely to adopt smokeless methods merely because they are smokeless. The adoption of smokeless appliances in houses is occurring, and will occur, only to the extent to which such appliances appeal to the public by reason of their convenience, cheapness, and efficiency. The future, then, lies with the great commercial interests which deal with gas and electricity, gas and electrical appliances, and smokeless solid fuel. With the development of efficient and cheap appliances or satisfactory smokeless fuel we shall see these things being gradually adopted by the public. The commercial interests may be relied upon to make rapid advances in these directions and to give wide advertisement to the products of their ingenuity. It is a waste of time to appeal to the public to adopt smoke-

less methods merely on the grounds that they are smokeless, because few people can be induced to spend money on the pursuit of an ideal, unless in doing so they know they are conferring material benefit on themselves. This side of propaganda work may safely be left to the commercial interests.

MR. JOHN H. ROBSON.

The Point of View of the Manufacturer.

As a member of the Health Committee of the Huddersfield Council for over thirteen years I have always felt that there was great need for a fuller understanding of this question of smoke prevention, and this necessity was forcibly brought home to me after many balloon ascents made some years ago, mainly from the Bradford district, during which I was able to obtain a striking view of the pall of smoke that hung over most of the West Riding, and particularly over the larger cities and towns. Thirty-five years' experience in the dyeing trade has brought me into close contact with one of the most difficult industries in which to prevent the emission of smoke, for the reason that at times the works require some three, four or five times as much steam as at others, and there arises a real practical difficulty in connection with the boiler firing. At one time we had in use four 7-ft. 6-in. Lancashire boilers, but as they became obsolete we found it expedient to go in for larger boilers. There was an idea prevalent that you could only secure by hand firing that elasticity of steam generation so necessary in a plant of the character referred to, and only after a long fight was I able to convince my colleagues that it might be desirable to try mechanical stoking. We found that with two 9-ft. boilers fitted with efficient mechanical stokers we were able with the same consumption of coal to evaporate about 40 per cent more water than previously, and to keep the works far more regularly supplied with the steam required, at the same time greatly reducing smoke emission. The mechanical stokers were also found to take much smaller coal than hand firing necessitated, and in that way alone a saving of two shillings or three shillings per ton was effected. A careful calculation showed that there was a return of from 30 to 35 per cent on the outlay necessary for the alteration of the boilers and the introduction of mechanical stokers. Another firm in the vicinity, whose mill had been the subject of strong complaints,

was also persuaded to go in for mechanical stokers, and after two years' experience with the apparatus they find that they are saving at least £10 a week on coal consumption, and would not go back to hand firing on any consideration. That is another instance of the excellent results achieved by co-operation between the local authority and the manufacturer.

Without appearing presumptuous, I would like to offer a few suggestions as to steps that might be taken to stimulate interest in this problem of smoke prevention. First, I believe that Chambers of Commerce and trade organisations are far more ready to listen to representations on this subject than they are commonly supposed to be, and in the average Chamber of Commerce you have the bulk of the users of coal in boiler furnaces. If a medical officer of health is going in for what I prefer to call clean air, rather than smoke abatement, a great deal may be done in securing the co-operation of Chambers of Commerce.

The West Riding Regional Smoke Abatement Committee are busily engaged in promoting boiler firing tests which are to be run in as many of the works as possible where hand firing is still in operation, with a view to giving prizes to the boiler firemen who obtain the greatest amount of efficiency and the least amount of smoke. Nearly every Chamber of Commerce in the West Riding has promised its support to the scheme, and some are helping to provide the prize money for the successful firers.

Secondly, I should like to put particular emphasis on the need for the keeping of adequate records. There are not enough data available in our large cities and towns of variations in the amount of sunshine or of the amount of solids in rainfall. This is a matter that needs better organisation than exists at present, for I am convinced that nothing touches the imagination of the people so much as well-kept and accurate records of this character. They bring home the importance of the subject not only to the general public but to the leaders of industry as well. The necessity for stirring the imagination of the manufacturer and factory owner is apparent, but I want to urge too the need for appealing to the imagination of the fireman—the man who is in control, whether the boiler be hand fired or mechanically fired.

Classes for boiler firemen are in operation

in many of the towns in the North of England, and wherever they are being held they are productive of enormous good. We shall never get clean air in our towns until there is co-operation between all the parties concerned—the State, the local authority, the manufacturer, and the man who has to use the coal, and if I may offer a third suggestion it is that medical officers of health should, in whatever way might seem best to them, endeavour to get classes started in every district for the education of boiler firemen.

In conclusion, I may repeat that I am a firm believer in mechanical stoking, and I have not yet seen the steam-raising plant that cannot be made so nearly smokeless as to meet all requirements.

MISS ANNE V. BAYNES.

The Point of View of the Housewife.

It will perhaps be appropriate if the opening reference of the contribution which I am privileged to make to this discussion is to the report issued in 1920 by the Air Pollution Advisory Board of the Manchester City Council, with regard to the damage done by smoke, and containing details of an inquiry into the comparative cost of family washing in Manchester and Harrogate. In this valuable publication it was shown that as between the two towns the extra cost of the Manchester wash in materials and fuel was 7½d. per week per household, and that the weekly wash was one hour longer in the performance in Manchester than in Harrogate.

I have taken every opportunity of discussing the smoke problem with all grades of women in order to obtain as wide a variety of opinion as possible, and I find that while the middle class woman has adopted smokeless methods as far as she is able, the working-class housewife for financial reasons finds it much more difficult to take advantage of these means. Both, however, have a very definite point of view on smoke—that it should be abolished. In many households, in industrial centres especially, there is a constant fight between cleanliness and fresh air; there may be a tendency, for example, for the housewife to keep the windows closed in order to avoid the dirt and sooty particles which blow into the rooms if the windows are left open. After the experiences of the coal strike in 1921, and more particularly that of 1926, which brought home in a striking manner the advantages to the housewife of a cleaner atmosphere, it is

not surprising that within recent years there has been a greater realisation of the damage and extra work caused by a smoke-laden air.

The modern grates fitted in the new corporation houses were regarded at first with suspicion, and with some reason in Manchester, for a type of range was installed which had been successful in the south, but which was not suited to the softer coal used in the north. The difficulty was overcome in some measure by demonstrations arranged by the Women Citizens' Association. The Housing Committee lent a partly finished house in which tenants who could not manage the grates were shown how to get the best results from them. Most working class women have now had some experience of modern grates, and the advantages they offer over the old-fashioned range common to the older working class house are greatly appreciated.

The prejudice that existed at one time against gas has practically disappeared. The use of gas both for cooking and heating is now general, and only the very poor are without a gas appliance of some kind. Electricity for heating and cooking also appears to be in greater demand, and I have been surprised to find how many people of the lower middle class are now using this method for domestic purposes. In Manchester and Salford the "all in" system has been adopted, i.e., a fixed annual charge on the rateable value of the house, and a further charge of ½d. per unit for current for all purposes, subject to the installation of certain appliances. Electric cookers are also let out on hire by both authorities. Nevertheless, the cost of wiring, and of various appliances is still regarded as prohibitive by many people. A rebate on rates, suggested by Sir Napier Shaw and Dr. Owens, might be useful here as an inducement to those who have the money but are reluctant to spend it for this purpose.

I should like to refer to an experiment carried out by Dr. Osborne, Medical Officer of Health of Salford, with a firebrick grate consuming a form of coke obtained from vertical retorts. It was found that the coke gave a slightly higher temperature than coal, although the cost of the coke was only a little over half that of coal. To convert the old type grate to the firebrick pattern involves, I gather, an expenditure of from £4 to £5. A firebrick grate, fitted with back boiler, to burn coke, would be an immense boon to the woman

in the small house, but the cost of conversion is prohibitive. Would it not be possible for local authorities to afford financial assistance in some way in order to bring about this undoubted improvement from the public health viewpoint? If the present annual cost of smoke is thirty shillings a head, surely it is worth spending £5 per house to abolish it, or even to reduce the evil. Public health authorities took action with regard to privies and earth closets when a higher standard of sanitation was adopted. Would it not be worth while to follow the same course to secure a purer atmosphere?

To turn to an unfortunate aspect of the smoke problem—the firing of chimneys. It is estimated that there are in Manchester some 100,000 houses of from fifty to a hundred years old. In many of these the kitchen ranges are inefficient, and the badly built flues, with their bends, ledges and beams, make thorough sweeping impossible. Largely in consequence, the practice of firing chimneys, with its disastrous results, is widespread. In Manchester, with a population of 750,000, there were 258 prosecutions in the month of May, 1926, alone, whereas in Leicester, with 250,000 inhabitants, there were only 26 prosecutions during the whole of 1925. The only suggestion I can offer as a solution to this objectionable practice I think I have already indicated, viz., the use of gas wherever possible for cooking, and the fitting of grates that will consume coke for the heating of water and for ordinary burning purposes.

Dr. Banks referred in his paper to the valuable work done by smoke inspectors in advising millowners and their staffs how to avoid smoke production. Our experience in Manchester in regard to the value of the demonstrations in the use of unfamiliar grates fitted in the new houses, to which I have already referred, leads me to suggest that similar help should be given to the housewife.

While the most difficult problem is that of the small working-class house where one fire serves all needs, I think I may safely say, in conclusion, that all housewives are ready to adopt any method to abolish smoke that is within their means.

DR. J. S. OWENS.

The Point of View of the Meteorologist.

Introduction.—For a clear understanding of the position with regard to smoke pollution of the atmosphere it will be helpful to keep

before our minds the analogy with sewage pollution in rivers. In the past, and before our cities grew to such dimensions, little trouble was taken in the disposal of sewage; it was allowed to run into the nearest river or stream, trusting to Nature to remove the impurities. She did so until the quantities became so great that natural scavenging commenced to fail with the result that sewage pollution of drinking water became such a danger that steps had to be taken to keep it pure. Thus the haphazard method of discharging untreated sewage into the nearest stream had to be abandoned.

We are in a somewhat similar condition now with regard to smoke; the steady growth in magnitude of cities has increased the quantity to such an extent that the natural ventilation is not able to cope with it. We have been pouring out for years the impurities from our fires into the streams of air, trusting that Nature will dispose of the smoke. It is not necessary to inform residents in a city such as London that this method is often a complete failure, while at no time is it a complete success.

The quantity of smoke now delivered into the air in a city such as London is so great that there is a permanent impurity content in the air. The amount of smoke produced of a winter forenoon in London is of the order of 200 tons and, whether this is concentrated into the form of a smoke fog or is spread thinly over a larger area, is entirely dependent on meteorological conditions. With regard to the time of production of smoke it is to be noted that practically the whole of the smoke in an ordinary city is produced during the day, so that we find, when observations on hourly smoke content of the air are taken, the only period of the twenty-four hours which is reasonably free from smoke is from midnight till early morning. Thus the air is comparatively clean at night when people leave the city, and is at its dirtiest in the day time when they return. Also it is during the day when the sun is sending us his vitalising rays that the smoke cloud over our cities is thickest. Broadly speaking, when the conditions over a city are such that the smoke is dammed up and prevented from escaping, the density of the smoke cloud is likely to increase most rapidly. The forenoon is the period of the day when smoke production is at its greatest, and therefore most likely to experience the worst result. With regard to the complete

failure of ventilation over cities, we have two types of smoke cloud which are experienced. These may be roughly divided into surface fog and high fog, and which of the two will occur is entirely dependent upon meteorological conditions.

To gather up the general points so far, we may say that as long as there is a sufficient and fairly continuous supply of smoke in a city the density found in the air at any moment will depend upon the efficiency of Nature's provision for scavenging. We have no control over Nature, and must take what she sends, but we can control the smoke emission.

METEOROLOGICAL CONDITIONS AFFECTING SMOKE POLLUTION.

Wind.—The movement of the air is probably the most important factor governing the density of atmospheric impurities. If the wind blows over a large smoky city at five or six miles per hour it is sufficient to remove the danger of smoke fogs, but if the velocity falls to a value of about two miles per hour the danger of smoke fog becomes imminent, indeed, at about this velocity there is what might almost be called a critical point; all higher velocities keep the air comparatively clear while lower velocities fail to do so. When the author plotted the result of about four years' observations of suspended impurities in London air against wind velocities it was found that a fairly uniform curve was produced, and that the concentration of impurity varied inversely as wind velocity. The actual equation of the curve obtained was $I = \frac{0.55}{V} + 0.27$ in which I represents suspended impurity in milligrammes per cubic metre, V wind velocity in metres per second. This result was obtained for Westminster, and is of interest since it was hardly expected that the concentration would be found to vary inversely as the first power of the velocity.

The point of immediate importance is, however, that we must have a good breeze if the air is to be kept reasonably free from impurity. In such a breeze there are eddies which mix the air at different levels and distribute smoke uniformly through it, and it is important to note that there is nearly always sufficient wind to carry off smoke impurities at a level of about 500 metres above the ground. The wind then is the scavenger, and it will, if strong enough, deal with the smoke in the sense that it will take it away from one place and bring it to

another; a point not always fully realised by dwellers in the country within a few miles of large cities.

Stratification.—The stratification of the atmosphere has a profound effect upon the behaviour of smoke impurities. The normal condition is for the air to cool as the height above the ground increases; this results from the falling pressure with elevation, and there is a regular rate of fall thus brought about at the rate of approximately 1° Centigrade for each 100 metres elevation, or 1° Fahrenheit per 172 feet. The vertical mixing of air from the lower levels is carried out to a great extent by convection currents. We are all familiar with the fact that warm air tends to rise, but it only does so if surrounded by air cooler than itself and, as long as the natural vertical temperature gradient of about 1° Centigrade per 100 metres obtains, warm unsaturated air starting from the ground level can rise steadily through it, always meeting air a little cooler. Here it is well to remember that smoke particles are heavier than air, and are only carried upwards by virtue of air currents.

Sometimes this temperature gradient is disturbed by what is called an "inversion" so that instead of falling regularly with elevation the temperature may actually begin to rise again at some distance above the ground. Such an inversion acts as a ceiling and cannot be penetrated by air from below. You can now picture what must happen when smoke is discharged into the lower layers of the atmosphere and in travelling upward with convection currents meets such a ceiling or inversion; it is stopped and collects underneath as a cloud.

This inversion of the vertical temperature gradient may be actually in contact with the ground instead of some distance above it, in which case it will be quite impossible for the smoke to rise at all, and we shall find it settling down upon the ground as a smoke fog. The cause of such inversions need not be gone into here except in the case of that in contact with the ground. This often results from cooling of the lower layers of the air by contact with the cold ground which is itself cooled by radiation to a clear sky; thus it is common to find such conditions when the ground is very cold and, whenever we get a cold layer of surface air with warm air higher up, as occurs on clear nights at any time of the year, there may be a complete failure of the natural scavenging, and if there is an absence

of wind and a sufficient supply of smoke the conditions for a dense smoke fog are provided.

Picture then a condition in which the wind is indeterminate and below two miles per hour, while there is an inversion of the vertical temperature gradient making an air ceiling a little above the ground; the smoke is then held down in a thin layer and drifts over the country as a dense pall.

Water Fogs and Smoke Fogs.—It is a fact that when ordinary white fog is general, smoke fogs are likely to be met with in our great cities, and this co-existence has in the past caused people to believe that the two phenomena were so intimately connected as to be inseparable. It is now known, however, that this is not the case. The position is rather that the atmospheric conditions which are favourable to the production of fogs due to condensed particles of water, are also favourable to the accumulation of smoke clouds. Thus, when such conditions exist we find the two forms of fog occur together though due to totally different causes. In the case of the water fog we have simply a condensation of the water vapour in the air due to cooling, so that the air becomes filled with little droplets of water; these water droplets may be present to the extent of about five grammes per cubic metre of air in a dense fog which is about a thousand times the weight of soot in a dense smoke haze. Again, the water particles are very much larger, ranging from about 5 to 20 microns in diameter, while the particles of a smoke haze are nearly all under 1 micron diameter. Owing to the large size of the water particles they have not got the same selective scattering effect on the sun's rays as the smoke particles have; thus with a water fog you do not see the red sun, which can be seen at any time during a smoke haze; however, this will be discussed later.

There is one fortunate circumstance which is not fully realised in connection with our great cities—that owing to the amount of heat generated in a city the air is kept a little warmer over it than over the surrounding country. A simple calculation will show that in London, consuming about 17,000,000 tons of coal per annum, the temperature under suitable conditions may be 10° or 15° Fahrenheit above that in the surrounding country. An important result follows from this. Since water fog is due to cooling and condensation it may be dispersed by warming the air; thus we might expect that over a large city, water

fogs would be less frequent than over the surrounding country, and careful observation shows that this is indeed the case. When you find a white fog in the country with the trees dripping on the roads you will usually find the air in London comparatively free from fog. Unfortunately, however, since the conditions for water fog formation are similar to those for concentration of smoke we often find that, although the water fog may be completely or partly dispersed, its place has been taken by a smoke haze, and as you approach a large city you will find white country fog gradually giving place to yellow smoke haze.

This is a highly important point, since one obvious conclusion is that in the absence of smoke our great cities would have less fog than in the open country; in fact, we should often have patches of clear air over the cities while the country might be shrouded in a white fog.

Suspension of Particles in Air.—The size of water and smoke particles has been referred to above, and this has an important bearing upon the rate of settlement through the air which in turn determines the permanence, or otherwise, of a smoke haze.

When very small particles of solid or liquid matter are suspended in the air they fall under the influence of gravity at a uniform velocity. The phenomenon is not the same as you are accustomed to visualise in the case of large falling bodies generally. In such cases the body has a definite acceleration, and its velocity goes on increasing according to well-known laws, but when the particles are very small the viscosity of the air becomes one of the governing factors. The particle then has a very short accelerating period, and almost immediately attains a definite uniform velocity known as the terminal velocity, when the resistance to movement through the air becomes equal to the weight of the particle. This terminal velocity varies with the square of the radius, and a particle of smoke 1 micron in diameter, that is, about $1/25,000$ of an inch, will settle at a uniform rate of 0.003 cm. per second, so that it might be carried a very great distance before reaching the ground, if thrown out from a high chimney; the distance, in fact, depends upon the wind velocity and the rate of settlement. The bearing which this has upon the present subject is that it shows the ease with which smoke may be carried for great distances across the country. The rate of settlement mentioned is for still

air, a condition which is practically never met with. The air is usually full of eddies which tend to keep the small particles stirred up and in permanent suspension. As pointed out elsewhere, the author has detected smoke particles in the air on the east coast which had drifted across the North Sea (Proc. Roy. Soc. A., 1922); similarly, a smoke haze from the Midlands has been detected on the south coast of England. The transport of sulphur impurities emitted from chimneys is also an important result of this slow rate of settlement of small particles, and there is some curious factor governing the deposit of sulphur impurity which results in an increase in the percentage of sulphates in places having a low deposit of total impurity.

Obstruction of Sun's Rays.—Lord Rayleigh has shown that when light passes through a disperse system such as a suspension of smoke particles in the air it undergoes a scattering which is inversely proportional to the fourth power of the wave length. Now the wave length of red light is about 6,700 Ao. while that of the most active ultra-violet is between 2,000 and 3,000 Ao.; thus the latter rays are much more highly obstructed than the former; indeed, according to this law, the shorter wave lengths one-third of the red would be scattered eighty-one times as much as the red rays. Thus the very rays which are known to be most valuable for human health are cut off to the greatest extent by smoke, a very important point. It has been shown by Professor Leonard Hill that the amount of ultra-violet received in Kingsway, London, is only about half that received at Hampstead, and probably less than a quarter of that in the country. The amount of ordinary daylight which is received in some of our great cities is about 50 per cent of that in the surrounding country, while the same applies to direct sunlight. There can be no question as to the injurious effect of cutting down our supply of sunlight in a country like this where the total is by no means too great.

DR. A. H. KYNASTON, Assistant Tuberculosis Officer, Metropolitan Borough of Bermondsey, has been appointed Assistant Medical Officer of Health and Assistant Tuberculosis Officer under the Holland (Lincs.) County Council at a salary of £600 per annum together with travelling expenses.

Ut Ita Dicam.

(Being Comments, apropos and otherwise, on Sundry Matters.)

Work and Song.

In some quarters there is a demand for the man who sings at his work, no doubt because the indulgence in the practice suggests that the individual concerned likes what he is doing, and therefore does it well. To persons following certain occupations—tea-tasters and wine-tasters for example—singing at work is a practical impossibility, and some other method expressive of pleasure must be devised, since it is inevitable that there must be some tea-tasters and wine-tasters who do enjoy their work and would like to show it. For these, if such there be, there is only one course open, and that is to follow the example of Sir Alexander Houston and to sing about their work.

Singing and Reporting.

Singing about his work looks like becoming a habit with Sir Alexander. That he loves it everybody knows, or if there is anyone who does not know, all that he need do is to read some of the reports to the Water Board, the twentieth and twenty-first—the latter just issued—particularly, and he will find all the proof he needs. There Houston, with every sign of joy, sings the song of his work, makes a poem to show the sheer pleasure he takes in it. In the twentieth report he took us with him all along the New River, chanting the praises of old Hugh Myddelton in poetry of his own and others making.

Water from Kent.

In 1926 we are off with him again, to Kent this time, ostensibly to visit wells, but really to listen to brave songs of the work that has been done, and that Houston and others are doing to bring the sweet Kentish water to the thirsty London dweller. And is there any thirsty London dweller. And is there any one who could talk and write in praise of water and where it comes from as Houston does? It is clear that he joys in what he is doing, believes there is nothing more important, no places so beautiful as those from which the water comes, no nectar half so sweet as that same water. Indeed, he says so; and shows pictures so delightful of rural Kent and sleepy Eynsford, of Orpington and Westerham, that none can doubt him when he says

“there are days when the country looks so charming that a draught of cold water from one of the Kent wells seems to borrow additional sweetness from its surroundings, and tastes like nectar.”

Let's all Sing.

It is good to hear people talk like that. It is good to be able to talk of the details of one's work as Houston talks of his: to make a visit to sources of water supply a romantic journey; not to forget that nature has beauty because there is a pumping-station near. It is a gift to be able to weave into tabular statements and descriptions of methods and results of water examination, and of chlorination of supplies, its effect and cost and saving, so much charm and simplicity; so much of romance and beauty worship. After reading these reports of Houston, I am all for the man who sings at his work, or who makes a song about it, whether he be the tea-taster who may not sing because his mouth is full of tea, or the wine-taster because he is savouring the wines of France or the Rhine, or a dressmaker of the Rue de la Paix with his mouth full of pins, or a director of water examinations who, after twenty years and more of analysis, still finds water nectar and the places from which it comes little bits of paradise.

Medical Research Council Reports.

Apart from this report of Sir Alexander Houston's which I confess to have found altogether fascinating, two others that have claimed my attention, and that have interested me too, are those of Dr. George Buchanan, of Edinburgh Infirmary, and Dr. Graham Forbes, of the London County Council, the first on Spirochaetal Jaundice, and the other on the Prevention of Diphtheria. Both of these belong to the Special Report Series of the Medical Research Council, and are of the high standard that one expects to find in publications coming from this source; publications that are very widely read, and that bring us much honour amongst minds that matter in countries other than our own. Like all works bearing the cachet of the Council, these two are authoritative, the investigations are sound, and the conclusions reliable.

Spirochaetal Jaundice.

Dr. Buchanan on Spirochaetal Jaundice provides information that is needed, since there are few of us but have felt that we ought to have some thought of this condition in mind ever since attention was directed to it. In this country than Dr. Buchanan there is none better qualified to offer advice and guidance. During the last few years he has investigated all the cases in which there has been a possibility of the existence of the infection; he has studied the literature and carried out original work in relation to causation, distribution of the causal organism, methods of diagnosis and prevention. The report is one to be kept in a safe place, where the hand can readily find it, and the "tidier up" cannot reach it.

Diphtheria Prevention.

Dr. Graham Forbes' report on Diphtheria Prevention was originally prepared for the Public Health Committee of the London County Council, and is obviously (no disrespect is meant) much too valuable to be buried in the archives of that body. In it there is given an excellent summary of the history of the disease, and the progress made

in the attempts to cope with it. Particularly valuable is the information given with regard to what has been done in the direction of immunisation, both in the United States and here. What Dr. Forbes has set out can, and no doubt will, be used in all kinds of ways, but for the supply of propaganda material it will prove invaluable. In it there are facts and figures for the confounding of councillors and the stimulation of all who need it when the question of the adoption of the procedure is under discussion in any area. In the making of popular lectures this report will be found to be worth very much more than the modest florin that it costs.

Dr. Howarth.

It was with a great regret, that I know is shared by many others, that I heard of the arising of the necessity for extending the leave granted to Dr. Howarth by the Corporation of the City of London. It is not the news I desired to hear of his progress, but I hope before the additional three months has ended to learn that he is on the mend, and will soon be back amongst us again. P.

The Board of Control and Mental Deficiency.

Memorandum submitted by the Association of County Medical Officers on the Annual Report of the Board of Control for the year 1925, and adopted by the Council of the Society of Medical Officers of Health, May 20th, 1927.

UNDER Section 2 of the Ministry of Health Act 1919, it is the duty of the Minister of Health to take such steps as may be desirable to secure the preparation, effective carrying out, and co-ordination of measures conducive to the health of the people, including measures for the prevention and cure of diseases and the treatment of physical and mental defects, etc. Authority was retained under Section 3 of the same Act to enable the powers and duties of the Secretary of State under the enactments relating to Lunacy and Mental Deficiency to be transferred to the Minister of Health. The authority so given was duly exercised in 1920.

It was hoped that the result would be the real and effective co-ordination of all health services. In practice the co-ordination leaves much to be desired and there is still a strong tendency to regard each branch of health work as a separate entity rather than as a part of

the great whole, but under the Chief Medical Officer of the Ministry there certainly is a more or less intimate relationship between the various branches.

Sir George Newman, Chief Medical Officer of the Ministry of Health, in his annual report for 1925, says:—

"The problem of the mentally sub-normal child should not be dealt with only as a form of curative or ameliorative medicine but as an integral part of Preventive Medicine. Some of it is physical rather than mental in origin, all of it should be studied and handled as are the other diseases, and in so far as environment and heredity play a part in its production, we know in a general way how to prevent it."

This statement embodies the hope of every experienced medical officer of health that all medical work undertaken by local authorities

may be organised as a whole and essentially from its preventive aspect. Experience has shown conclusively that unless all the medical work undertaken by any Local Authority is co-ordinated and administered from a preventive aspect under one control, there is serious danger of any particular subject being dealt with merely as a form of curative or ameliorative medicine, with grave disadvantage to the public interest, instead of becoming included in the steady advancement of public health which has resulted from the efforts of preventive medicine during the past few years.

Mental deficiency is an important and promising part of public health and preventive medicine. The problem is far-reaching and urgent, and various types of social betterment await its solution. Persons with mental defects are expensive to care for and to educate: they are still more costly to neglect; the condition may be found not incapable of prevention. It is a well-known and tragic fact that the home in which there is a case of mental deficiency is also the home where there is a greater probability of finding a physical defective, a tuberculous child or adult, an infant in such a weakly condition as to need exceptional "following-up" by the health visitor, an absentee from school believed to be away on account of ill-health, as well as an attender, or one who ought to be an attender at the nearest Venereal Diseases Clinic.

The Board's Attitude towards Public Health.

A perusal of the report of the Board of Control for 1925 gives the impression that the Board have every intention to endeavour to get rid of the control resulting from the passing of the Ministry of Health Act of 1919, and to take every step available to keep the work for which the Board are responsible as distinct as may be from every other kind of public health work. The report contains many statements and suggestions, moreover, which seem to indicate that the Board will use every means in their power to make the gulf as wide as the Minister of Health will allow.

The Board have apparently come to the conclusion that the cleavage should first of all be introduced into the areas of the local authorities and with this object in view have introduced into their report, at every possible opportunity, statements which although minor in consequence and, in the opinion of the Association, ill-founded, are calculated to induce local authorities to isolate mental

deficiency work from the general work of public health.

Isolation of Mental Deficiency.

The Board apparently view as an ideal state of affairs an arrangement whereby the mental deficiency work is carried on altogether apart from all other medical work undertaken by the local authority. Everyone dealing with mental deficiency also should, in the opinion of the Board, be interested in this subject only, and need have no acquaintance with any other. Such an opinion betrays an astonishing lack of knowledge of the elementary principles of administrative work in general, and particularly the medical administrative work in connection with mental deficiency. Even in connection with the diagnosis and measurement of mental deficiency a wide general medical experience, and the broadest possible outlook, in addition to special experience, are essential for the proper execution of the work, and this can best be obtained by adding mental deficiency to the other subjects which are included in the range of preventive medicine and which are administered by Health Departments.

An expert knowledge of mental deficiency is incomplete for these ascertainment unless it is coupled with the widest possible experience of normal conditions. The basis of comparison needs constant standardisation, and this can only be obtained by continuous association with very large numbers of normal beings in all kinds of conditions. Such frequent standardisation is not possible in the case of an officer dealing only with mental defects, and without such standardisation certification under the Mental Deficiency Act would constitute a serious public danger.

In welcome contrast with the general tendency of the report, which is to belittle Public Health Departments and Public Health Officers, and to claim isolation for the work of mental deficiency, is the reference to the work of mental deficiency as carried out by the local education authorities. Referring to this subject, the report says:—

"We regard the work of the Local Education Authorities as the basis of any future provision and the foundation of preventive work for defectives. Unless it is complete throughout the country many defectives will not be dealt with by the Local Authorities until after they have reached the procreative age, and then only if they can be proved to be neglected, abandoned, cruelly treated, or to have committed a crime."

The Board, therefore, appear to have realised the impossibility of separating mental deficiency work from the ordinary work of medical inspection of school children and, inasmuch as the medical inspection of school children is now universally acknowledged to be part of the general public health work of the country, it would appear both difficult and undesirable to attempt any separation of mental deficiency from public health. Any such attempt could only be made by those lacking in experience in public administrative work.

It is evident in the report that the Board are of the opinion that the most promising way in which to commence their work of separation of mental deficiency from public health is to arrange for mental deficiency work to be carried out under the control of a medical officer who is not attached to the Public Health Department. The Society of Medical Officers of Health understand that definite suggestions in this direction have been made by the Board to certain Local Authorities, and the report of the Board generally has that aim in view and adduces various arguments in favour of its adoption by Local Authorities. Some of these arguments are based on fallacies and in others the Board have made statements which in the opinion of the Society are not founded upon fact.

DUTIES OF LOCAL AUTHORITIES.

The report of the Board of Control definitely charges Local Authorities with having, as a whole, failed to carry out their duties under the Mental Deficiency Act of 1913. Such sentences as, "The failure of Local Authorities to fulfil their duties is hampering the beneficent objects of the Mental Deficiency Act," and "A large number of defects have not yet been ascertained," occur, and the report generally must be intended to make public complaint against Local Authorities. It also makes a charge against Local Authorities of having superimposed upon other duties, without any special or definite allocation of time for it, the medical work connected with mental deficiency.

It is obvious from the Board's remarks that they have been contending with authorities and with medical officers who have already more duties to carry out than they are able to perform. Upon this aspect of the case the Society of Medical Officers of Health have no comment to make except to say that it should

surely be obvious that effective work cannot be expected from an officer in connection with duties placed upon him in excess of what he has time to carry out, and that if, in such circumstances the additional work is neglected or done badly such facts constitute no proof of the incapacity of the officer or of the undesirability of associating the work with other subjects.

The report contains no real arguments in favour of the appointment of separate officers, although the wishes of the Board are obviously in that direction, and the report must have been written with that definite object. Those with administrative experience will not fail to realise, however, that by association of mental deficiency work with other medical work considerable economy and also increased efficiency will usually be secured. There is no suggestion in the whole report that, as the result of such combinations there has been bad work done, and there is a marked omission to attempt to prove in any way that those authorities which have employed whole-time medical officers exclusively for mental deficiency work have obtained the best results. The view of the Society of Medical Officers of Health is that such proof is not capable of demonstration.

ASCERTAINMENT.

Under the heading "Ascertainment" particulars are given as to the extent to which ascertainment has been carried out in various areas, and the report makes it clear that the Board have formed the opinion that the higher the ascertainment the better the work done. There is not, so far as is indicated, a possibility in the mind of the Board of a difference of opinion as to whether a case is, or is not, mentally defective: if an Authority's returns show a high figure of ascertainment then that Authority is carrying out its work well.

Basing its case on the assumption that any percentage of ascertainment lower than the highest falls short of the true position, the report declares that,

"There is still no doubt that a large number of defectives have yet to be ascertained. The returns, from districts which merge into one another geographically and in which the populations are racially and industrially the same, vary so much that we are led to conclude that the variations must

be caused by the difference in the Local Authority's methods and the persistence with which they carry them out."

Acting upon this assumption, the Board have written to some Authorities pointing out that as their percentage of ascertainment is *but little above* the average for the whole country it is *probably incomplete*!

Much more than this. It is well known that the figures of the Board are illusory for other reasons. It has been ascertained that the returns on which the statistics were furnished were not all made on the same basis: from some areas only cases subject to be dealt with under the Mental Deficiency Act were included: others took into consideration non-statutory cases placed under voluntary supervision: a third group excluded cases dealt with by the Education Authority. As is so frequently the case with reports, returns and statistics furnished mainly or entirely by voluntary societies the ascertainment figures given in the Board's report do not appear to be capable of verification and do not agree with the figures given in the reports of the respective voluntary associations.

A list of the 21 Local Authorities with the highest ascertainment is given, and also a list of 10 Local Authorities with the lowest ascertainment. It is not clear why equal numbers of the highest and the lowest ascertainment were not given, but possibly, if this had been done, the comparison, as stated, between the Local Authorities at the top and at the bottom of the scale with reference to their use of voluntary associations would not have been possible. Even with this partial presentation of records the claims made in the report will not bear investigation.

For example, an attempt is made by the Board to use 21 Authorities with the highest ascertainment as proof of the value of voluntary associations, and the statement is made that 15 of the 21 Local Authorities "make full use of the voluntary associations in their area." A knowledge of local conditions, however, leads to the conclusion that this statement is misleading. The County Authority at the head of the list has no voluntary society at all, and the whole of the mental deficiency work is done by the ordinary staff of the Public Health Department. Speaking generally, so far as the County Authorities in this list are concerned, it may be said definitely that voluntary associations play either no part at all, or a very minor part,

in the work of ascertainment, and there are several Authorities in that list where it is stated by members of this Society that no effective work whatever is done by the voluntary association.

Neither does the classification of Authorities in the order of merit as regards ascertainment afford any argument in favour of the recommendation of the Board that whole-time medical officers, devoted exclusively to mental deficiency, are desirable. The two County Authorities employing a whole-time medical officer exclusively devoted to mental deficiency, and with a mental deficiency department entirely isolated and quite apart from all public health activity, do not appear at all in the list of 21 highest ascertainment.

MEDICAL OFFICERS.

Two outstanding features of the report of the Board of Control are the magnification of the work and usefulness of voluntary associations and voluntary workers on the one hand and the belittlement of the value of the services of medical officers of health and members of the staff of public health departments on the other.

The obvious prejudice pervading the report in these directions may reasonably be expected to defeat the object of the Board, but there are some comments which it is considered desirable to make.

The Board would appear to be dominated by two main ideas in connection with medical officers. First of all the report repeatedly refers to medical officers appointed to carry out duties connected with mental deficiency, but having little or no time to spare for any active work. This is a matter easy of adjustment, and a combined effort might be made by the Ministry of Health and the Board of Control to secure a proper allocation of time and adjustment of staff for the work of mental deficiency. This has been obtained in many areas with completely satisfactory results, and the combination of mental deficiency work with other public health duties has been found to result in economy and efficiency to a degree which would be quite unobtainable if the work were done separately.

The second point is the desire on the part of the Board for mental deficiency to have "first claim on the Medical Officer's time." No one with administrative experience in preventive medicine would insist upon such a

requirement for any particular section of public health work. The imposition of such a condition would create in every area a number of petty competing specialisms which would destroy the great scheme of prevention. A moment's consideration will convince most people that the essential condition should be that any given officer must have sufficient time to carry out the work expected from him.

The Society of Medical Officers of Health consider it necessary to mention specially the paragraph on page 85 of the report of the Board of Control, which refers to the general practice of placing the medical work of mental deficiency under the direction of the medical officer of health, the bulk of the actual clinical work being frequently carried out by the assistant medical officers attached to the Department of the Medical Officer of Health. At the end of that paragraph the report of the Board states:—

“ We think it is generally desirable that the medical officers actually doing the work should be in direct touch with the statutory committee for mental deficiency.”

The Society have reason to believe that this suggestion has been made deliberately with the intention of it being used as an argument in favour of separation of the work from the Health Department.

The Society feel most strongly that all medical work of the County Council should form part of the work of the Health Department and the medical officer of health should deal directly with the statutory committees in all branches of the work.

In every form of local government on a fairly large scale it is customary to place in charge of each Department of the Local Authority an administrative officer with technical knowledge, in this case the medical officer of health. Such an expert is necessary in order that the quality and quantity of the work done by members of the staff may be judged accurately, and that the results thereof may be adequately assessed and compared with other available facts so that the whole may be presented properly to the statutory committee concerned.

If the policy of Committees dealing personally with the individual doing the minutiae of the work were to be followed by other Committees of Local Authorities then it would be necessary for all technical officers in all Departments to deal direct with the Com-

mittees instead of the head of the Department to which they are attached. The Education Committee, for example, would, instead of relying upon their expert educational adviser, deal with individual head teachers doing the work in the schools, or even every separate teacher in their employ. Of course, such developments are not possible because the Government Departments controlling other parts of the work of Local Authorities are never likely to make to Local Authorities suggestions such as are now being made by the Board of Control.

In the opinion of this Society, the Chief Medical Adviser to the Mental Deficiency Act Committee should be the Medical Officer of Health, in whose Department and under whose administrative supervision the whole of the work of mental deficiency undertaken by the County Local Authority should be carried out. Any separation of the mental deficiency work from the Health Department must inevitably lead to increased cost and decreased efficiency. By combining various duties in one officer a substantial economy in working expenses is obtained, and at the same time, by allocating given proportions of time to the various duties, there is no danger of any particular duty being neglected.

A third point upon which the Board appear to have seriously prejudiced views is that medical officers attached to public health departments are “ without special training ” in mental deficiency, and are “ chiefly interested in other public health services.” It is difficult to understand exactly what such a statement means, but it undoubtedly illustrates the bias and prejudice which underlies a great part of the report, and which also serves to illustrate how far the Board have failed to appreciate the broad outlook of general public health work and preventive medicine as it is viewed to-day by the Ministry of Health and the whole public health service.

HEALTH VISITORS.

The report makes a special point of belittling the value of the services of health visitors, and under the heading of “ Statutory Supervision ” these officers are compared to their disadvantage with voluntary workers. It is noteworthy that in the view of the Board a voluntary worker with no training at all, or a secretary of a voluntary society with next to no training, is ideally capable of carrying out all this work, whereas a health visitor with

very substantial training is of little value, and no opportunity is lost to point out that in the case of health visitors “ their ordinary duties leave but little time for additional work.” If health visitors have placed upon them amongst other duties, responsibilities in connection with mental deficiency, then these become “ their ordinary duties,” but the Board seem to be incapable of regarding mental deficiency as anything but an “ extra ”: the work in connection with it, whether in the way of ascertainment or otherwise, is never for a moment allowed to be regarded as ordinary work; it is always extraordinary and superimposed.

The Instruction of Medical Students in Ante-Natal Conditions and Infant Hygiene.

A Report submitted by the Maternity and Child Welfare Group, and adopted by the Council of the Society of Medical Officers of Health, May 20th, 1927.

IN an Enquiry recently issued to the Medical Schools and Qualifying Bodies, the Maternity and Child Welfare Group of the Society of Medical Officers of Health drew attention to the requirements of the General Medical Council with regard to the inclusion of Ante-Natal Conditions and Infant Hygiene in the Medical Curriculum and sought information as to how these requirements were carried out in respect of the clinical instruction and examination of students. The requirements of the General Medical Council to which attention was directed are as follows:—

INSTRUCTIONS WITH REGARD TO PROFESSIONAL EDUCATION IN MEDICINE.

I.—Sub-heading X.3 (a) and (b). Students are required to obtain instruction and pass an examination in Ante-Natal Conditions and Infant Hygiene (as a part of the general subject of Midwifery and the Diseases of Women).

II.—As an Additional Resolution, that “ throughout the whole period of study the attention of the student should be directed by his teachers to the importance of the preventive aspects of medicine.”

From replies received the following information appears to have been elicited although in certain cases the indication as to what actually took place in the way of examination as apart from instruction, and in

The report makes a point of the need for frequent visits, and gives this as a reason why health visitors should not be employed: it is mentioned that a visit at least once a month should be paid, but the Board are presumably ignorant of the fact that in the course of their “ ordinary duties ” most health visitors already visit every part of the area more often than once a month, and could easily undertake such work, and would do far more efficient work, and be more popular than the average voluntary visitor. The wide general knowledge possessed by health visitors would be extremely valuable in dealing with these cases.

clinical instruction as apart from systematic lectures, was somewhat incompletely or ambiguously stated. In some cases no reply at all was received even to a second request for information.

REGULATIONS OF THE QUALIFYING BODIES.

Ante-Natal Conditions.

Clinical instruction in Ante-Natal Conditions is required by the following *Qualifying Bodies*:—

Universities of Belfast,
Bristol,
Cardiff,
Durham,
Edinburgh,
London,
Manchester,
Oxford,
St. Andrew's,
and probably Dublin.
National University of Ireland,
Royal Colleges of Edinburgh.

At the University of Leeds “ instruction in Ante-Natal Conditions and Infant Hygiene is receiving more attention, and written paper questions are often set in these subjects.”

Infant Hygiene.

Infant Hygiene is included as part of the systematic course of Midwifery and the

Diseases of Women and Children by the following *Qualifying Bodies* :—

Universities of Birmingham,
Cambridge,
Liverpool,
Oxford.

Society of Apothecaries of London,
National University of Ireland.

Clinical instruction in Infant Hygiene, as apart from systematic lectures, is required by the—

Universities of Belfast,
Bristol,
Cardiff,
Durham,
Edinburgh,
Liverpool,
London,
and probably Dublin
and Leeds (*vide supra*).

(C.f. remarks at end of Report.)

FACILITIES FOR INSTRUCTION.

Clinical Instruction in Ante-Natal Conditions is provided for in the Medical Schools of the following :—

*Universities of Belfast,
Birmingham (Queen's
Hospital only),
* Bristol,
* Cardiff,
* Dublin,
* Durham,
Edinburgh,
Glasgow,
Leeds,
Liverpool,
Manchester,
St. Andrew's,

*The Royal Colleges of Physicians and Surgeons, Edinburgh;

St. Mungo's College, Glasgow;
*The London School of Medicine for Women;
*Guy's Hospital;
The London Hospital;
*The Middlesex Hospital;
*St. Bartholomew's Hospital;
St. George's Hospital;
*St. Thomas's Hospital;
*University College Hospital;
Westminster Hospital.

Attendance at the Ante-Natal Clinics is explicitly stated to be compulsory at those Medical Schools marked *.

Students taking their Obstetrics Course at Queen Charlotte's Maternity Hospital are required to attend the Ante-Natal Clinics of the Hospital.

Clinical Instruction in Infant Hygiene.

The Medical Schools of the following are provided with, or are in touch with Infant Welfare Centres supplying suitable facilities for clinical instruction in Infant Hygiene.

Universities of Aberdeen,
* Belfast,
* Bristol,
Cardiff,
* Dublin,
Durham,
* Glasgow,
* Liverpool,
The Royal Colleges of Edinburgh,
*The London School of Medicine for Women,
St. Bartholomew's Hospital,
*Guy's Hospital,
*The London Hospital,
*The Middlesex Hospital,
*St. Thomas's Hospital,
*University College Hospital,
Westminster Hospital.

Attendance at these Infant Centres appears to be more or less compulsory in the cases marked *.

Queen Charlotte's Hospital has an Infant Consultation Centre attached which is not attended by the students.

SCOPE OF THE ENQUIRY.

The Enquiry was addressed to the Deans and Secretaries of the various Medical Schools and Universities of Great Britain and Ireland. The Committee wish to record their gratitude to those Officers of the various institutions who have supplied them with the information embodied in the foregoing report.

REMARKS.

1.—The term " Infant Hygiene " used by the General Medical Council in its " Instructions with regard to Professional Education in Medicine " is subject to a variety of interpretations, and the Committee desire to state that, in their opinion, *Infant Hygiene should include the study of the normal child up to the age of five years.*

It appears from the returns, however, that in only a few instances is the term understood to mean the hygiene of the child beyond the age of one month and that, on this account, the student receives in most cases minimal

instruction, if any, in the management of the child beyond puerperium.

2.—The Committee have been gratified to discover that the majority of the Schools appear to be fully alive to the value and importance of these branches of preventive teaching and have already made arrangements for instruction of students *in advance* of the requirements imposed on them for examination.

In a few cases, however, it is doubtful whether the existing arrangements make any attempt to provide for the clinical initiation of students into these particular subjects, which lend themselves, if at all, to other methods of instruction only with difficulty.

APPENDIX I. AND II.

For the interest and information of those Universities which have not yet made specific arrangements for clinical instruction of students in Ante-Natal Conditions and Infant Hygiene the Committee have thought it well to set out in full two comprehensive schemes, which are already in operation at Saint Thomas's Hospital and the London School of Medicine for Women, respectively. They desire to quote first from the Calendar of Saint Thomas's Hospital, the introductory paragraph in which is described the hospital's conception of a scheme for instruction in Gynæcology, Obstetrics and Pædiatrics on the basis of the study of the normal and of preventive Medicine.

" A change has been made in order to allow of the clinical teaching of these subjects (Gynæcology, Obstetrics and Pædiatrics) being conducted in chronological order, and presented as a scheme of preventive medicine, starting with the care of the pregnant mother, with a view to the maintenance of her health throughout reproductive life, and leading up to that of the young child of school age. The practice of obstetrics, gynæcology and pædiatrics is thus learnt in a new atmosphere. A view of medicine is presented as applied to the problems of reproduction and the care of the rising generation as well as to the individual patient, and with prevention as its primary objective. In this way a much more correct perspective of the relative importance of the different parts of the work is obtained than was formerly the case when maternity cases, gynæcological and pædiatric practice were attended as isolated events in the curriculum.

" The student now begins with the pregnant woman in the Ante-Natal Clinic and learns the diagnosis and treatment of the diseases and disorders of pregnancy and how to avoid preventable difficulties in labour. The more serious cases admitted for further investigation and treatment afford opportunities for more detailed observation. He also attends the Infant Welfare Clinics, where instruction in the management and feeding of the child is given, and thus obtains a view of the whole system of

prevention early in his term. The actual birth he is taught to look on not as the sole or even chief object of his study, but merely as a stage, though a critical one, calling for special care, in the history of mother and infant. For a month he is drilled in the Maternity Ward (600 deliveries per annum), in the examination and management of the woman during labour and lying-in, and in the care and feeding of the new-born infant, and learns the work with all the resources of the Hospital to his hand; then, for a month, goes out in the district to apply those methods to the very different conditions he finds in the patient's own home. Throughout this service he is in close touch with the Social Workers of the Almoner's Department, and thus acquires some acquaintance with the relationship of his professional duties to human society, and the great social problems which he will soon discover to be pressing round him.

" The next two months of his term are devoted to the study of the Diseases of Women in Out-Patient and In-Patient Departments, where the results of the injuries and infections of child-bed, which his previous training was designed to teach him to avoid, are seen, together with other ailments of the female reproductive tract.

" In his final two months he returns to the Infant Welfare Clinics, and attends both Out and In-Patients Department for the Diseases of Children, where again he sees the effects of failure of prevention—this time on the growing child—and continues his gynæcological practice by attendance on two afternoons a week in the Out-Patient Department for Diseases of Women.

" He can thus follow the mother, watched during pregnancy, labour and lying-in, and her baby, whose early management he has studied, and learn the application of the methods of Preventive Medicine to the developing child and thus to the improvement of the physique of the race."

I.—SAINT THOMAS'S HOSPITAL MEDICAL SCHOOL SCHEME (Recapitulated).

The scheme includes :—

(a) Two months' instruction in Midwifery (In and Out-Patient). Attendance at the Ante-Natal Clinic and Infant Welfare Centre.

(b) Two months' instruction in the Diseases of Women (In and Out-Patient).

(c) Two months' further attendance at Infant Welfare Centre and Gynæcological Out-Patients Instruction in Diseases of Children (In and Out-Patient).

Clinical clerks in Maternity, Gynæcological and Children's Department are appointed every three months for a period of six months.

II.—LONDON (ROYAL FREE HOSPITAL) SCHOOL OF MEDICINE FOR WOMEN.

Scheme for Students.

Every student is required to pursue the following course of study in the order given :

(a) Gynæcology Clerkship (In and Out-Patients) 3 months.

(b) Attendance at 20 Venereal Diseases Women's Clinics—3 months.

(c) Obstetrics Clerkship. (1 month in Lying-in Ward—2 months on District)—3 months. Attendance throughout this period at Ante-Natal and Post-Natal Clinics.

(d) (1) Child Welfare Clinic—once a week.

(2) Clinic for Sick Children—once a week.

(3) An Infant Ward of six cots for Feeding and Observation Cases is clerked by the Students on this post—3 months.

(e) Diseases of Children. Special instruction in this branch of medicine is received during the 3 months Medical Clerkship in the Children's Ward and at Children's Out-Patients.

(f) A Sunlight Clinic for Children under the Electro-therapeutic Department is held daily.

All students hold a clerkship in this Department for one month.

(g) All students hold a Dressership in the Dental Department for one month. Children's Dentistry is undertaken three times a week.

In addition to the above Clinical work, students are required to attend the following courses of lectures:—

(i) 10 Elementary Obstetrical Demonstrations.

(ii) 20 Lectures in Obstetrics and Gynaecology.

(iii) Course of Operative Midwifery.

(iv) Course of Obstetrical Pathology.

(v) Special Tutorials in Obstetrics and Gynaecology. 20 classes.

The Society.

Reports, Proceedings and Announcements.

NOTICES.

The Royal Institute of British Architects have been asked by the British Medical Association to report on the structural condition of damp houses in relation to the prevalence of Rheumatic Heart Disease in Children. The Committee of the Institute who are dealing with this matter have asked for preliminary assistance from the Society of Medical Officers of Health. A circular letter and questionnaire issued by the Committee is enclosed with this issue of *Public Health*, and it is hoped that members of the Society will supply the Committee with the information they seek.

The annual general meeting of the *Tuberculosis Group* will be held at the House of the Society, on Friday, July 1st, 1927, at 4 p.m. Dr. Harold Vallow has been nominated for election as President of the Group, and Dr. Ernest Ward for re-election as Group Secretary and representative on the Council of the Society.

The following candidates having been duly nominated will come up for election at the next Ordinary Meeting of the Society, viz., Dr. W. J. Thomas, Asst. S.M.O., Town Hall, West Ham, E.; Dr. W. G. Clark, Asst. M.O.H., 23, Montrose Street, Glasgow; Dr. Barbara Sutherland, Senior M.O.

(C.W.), 97, Queensborough Gardens, Glasgow; Dr. W. E. Haigh, lately Epidemic Commissioner, League of Nations, 57, Brighton Road, Southport; Dr. J. McPhail Campbell, M.O. (Sen.), Kenya Medical Service, 1, York Road, North Berwick; Dr. K. S. Sethna, M.O.H., Municipality of Delhi, c/o Thos. Cook and Sons, Berkeley Street, Piccadilly, W.; Dr. G. M. Mayberry, Med. Supt., West Ham Sanatorium, Dagenham, Essex; Dr. Margaret Sands, Asst. M.O.H., Health Dept., Bromley, Kent.

The annual general meeting of the *Maternity and Child Welfare Group* will be held at the House of the Society, on Thursday, June 9th, 1927, at 6.30 p.m. Nominations are asked for the following officers: (a) President; (b) Vice-President; (c) Hon. Secretary; (d) Hon. Treasurer; (e) Group Representative on Council of the Society; (f) eleven members of Executive Committee.

The Executive Committee for 1926-27 will meet at 6 p.m., before the annual general meeting.

This year, for the first time, the *Maternity and Child Welfare Group* is taking an official part in the English-Speaking Conference on Maternity and Child Welfare, to be held at B.M.A. House, Tavistock Square, on July 5th, 6th and 7th. The Group has made the following arrangements: *Tuesday, July 5th*,

Dinner at Florence Restaurant at 7.30 for 8 p.m., followed by an informal discussion on Immunisation against Diphtheria. Dr. W. Ashley Lethem, M.C., of the Ministry of Health, has promised to speak. All medical practitioners attending the conference are invited to be present. The price of the dinner tickets will be announced later.

Thursday, July 7th.

10.30—1 p.m.—Chairman: Dr. Mabel Brodie, President of the Section.

Discussion: The Workings of the Maternity and Child Welfare Act, 1918, and some indications for its development. (2) The provision of observation wards and hospital beds for infants and children under school age.

Opener: Dr. James A. Stephen, Maternity and Child Welfare Medical Officer, Aberdeen.

3.—The provision of further beds for maternity cases.

Opener: Mr. Harvey Evers, F.R.C.S. (Newcastle).

2.30 to 4.30 p.m.

Chairman: The President of the Section for 1927-28.

Subject for Debate: Respiratory Disease as a factor in the infantile mortality, and measures necessary for its nursing and treatment.

Speakers: Dr. A. S. M. MacGregor (M.O.H., Glasgow); Dr. Kerr Simpson (M.O.H., Barking); Dr. H. H. Chodak Gregory (Royal Free Hospital, London), etc.

The annual meeting of the *Non-County Group* of the Society will be held at Hastings during the Royal Sanitary Institute Congress week. The time and place of meeting will be announced on the Notice Board in the Congress Reception Room, and members of the Group are asked to make a note of this.

COUNCIL MEETING.

A meeting of the Council was held at the House of the Society, on Friday, May 20th, 1927. The President (Dr. E. H. Snell) was in the Chair, and there were present: Profs. Bostock Hill and H. Kerr, Drs. G. F. Buchan, Lyster, Allan, Jameson, Milligan, E. Ward, Joseph, Stirk, Barlow, Evans, Annis, Sanders, Stella Churchill, J. T. C. Nash, Banks, Pearce, Cates, Eustace Hill, Wilshaw, Gibbons Ward, Jolly, Clements,

Brackenbury, W. Paterson, Wheatley, McIntosh, and Major Parkinson.

Messages of apology for absence were received from Dr. Fenton, Col. F. E. Fremantle, M.P., Dr. Veitch Clark, Lord Dawson, and Prof. H. R. Kenwood.

New Members.—The Executive Secretary announced the election by the British Medical Association of Dr. W. Paterson, as one of their representatives on the Council of the Society, in place of the late Dr. T. Ridley Bailey. The Dental Group also notified the election to Council of Mr. A. E. Baker, M.R.C.S., L.R.C.P., L.D.S., as their representative in place of the late Mr. C. E. Wallis. Dr. Paterson was cordially welcomed by the President, but Mr. Baker was obliged to defer his first attendance owing to illness. The President also welcomed Prof. Bostock Hill on his return from the Far East after some months' absence.

Correspondence.—(1) From the British Medical Association asking for information in reference to remuneration for Public Health lectures in Universities and Medical Schools. It was agreed that the Executive Secretary should get a complete return from members of the Society who hold teaching appointments, and give the B.M.A. a tabulated reply to their enquiry. (2) From Dr. Kerr Simpson notifying the Society of his resignation from the post of M.O.H., Barking Town U.D., and stating reasons for his retirement which he thought should be known to any colleagues in the public health service who might be interested in the appointment of his successor. (3) From the Yorkshire Branch of the Society, asking the Council to give early consideration to recommendations in reference to administration of the Milk and Dairies Order, 1926, forwarded by the Branch for the February meeting of the Council. It was recalled that consideration of these recommendations was deferred in view of the issue of the Ministry of Health Circular, No. 757 (dated January 20th, 1927), but it was agreed to include them in the agenda for the September meeting of Council. (4) From the Kent Branch, B.M.A., asking the Society, in view of their close relations with the B.M.A., to ensure a definite place for general practitioners in schemes for the treatment of crippled children. The Executive Secretary was directed to reply advising that representations in this connection should be made by the B.M.A. in the first instance to the Board of Education, upon

whose suggestions the orthopædic schemes of Local Authorities are based, and upon whose approval they depend for sanction. (5) From members of the Society drawing attention to the decision of the Durham C.C. requiring the retirement of women medical officers on marriage, when their husbands have adequate means. It was pointed out that although the Society could approve no differentiation in the treatment of men and women practitioners, the retirement of medical officers on marriage had been a rule in Government Departments for years past, and while that was so the Society could hardly resist adoption of the same rule by a Local Authority. It was agreed however that the Durham C.C. should be reminded of the following condition in the circular issued by the B.M.A. to Local Authorities in May, 1925, with the Scale of Salaries approved by the Ministry of Health, viz., "If marriage be deemed by a Local Authority a disqualification for a medical appointment, this should be stated specifically when the vacancy is advertised," and he asked to suspend operation of their new decision in the case of women medical officers who were appointed without any reference to retirement on marriage.

Portrait of Dr. Henry E. Armstrong.—On behalf of the Northern Branch Prof. H. Kerr asked the Council to accept a framed portrait of Dr. H. E. Armstrong to hang with those of other Past-Presidents in the Lecture Room of the Society. Dr. Kerr recalled that it was thirty-seven years since Dr. Armstrong occupied the presidential chair, and he had served the Society in many other capacities during the long period of his connection with the Public Health Service. By some inadvertence the presentation of his portrait had been unduly delayed, but the Northern Branch felt it was not too late to do honour to one of the most loyal members who had presided over the Society, and who still survived, although enfeebled by old age. The President in accepting the gift regretted that he was old enough to remember the active part Dr. Armstrong had taken in the affairs of the Society, and he was glad that the portrait would remain as a record of one who had deserved well of his colleagues and who had played a prominent part in the advancement of public health.

Report of Salaries Committee.—Dr. G. F. Buchan (Chairman) submitted a report from

the Salaries Committee, which, after minor amendments was adopted as follows:—

Your Committee received observations on the report of the Salaries Committee appearing in March issue of *Public Health*, pages 180-183, from the following branches:—

North Western Branch,
West of England Branch,
Southern Branch,
Yorkshire Branch,
Northern Branch,
Midland Branch,
Home Counties Branch, and
Non-County Group.

They also received a letter from Dr. Davies, Barry, Glam., on the report.

Your Committee recommend that the following alterations be made in the report:—

Paragraph 8, on page 181, to read:

"It was not intended as set out in Paragraph 11a of the letter of the British Medical Association of May, 1925, that Local Authorities should construe the scale in this way, but some have done so, and their action is upheld as justified by the Ministry of Health."

Paragraph 4, on page 183, to read:

"That a basis for the salary payable to the Deputy or Assistant Medical Officer of Health be also adopted. The Society recommend that the basis be that adopted by the British Medical Association at Portsmouth, viz., a scale salary not less than 60 per cent of the scale salary of the Medical Officer of Health, but not less than the salary of the next grade of Medical Officer in the department."

Appointments which include the position of Medical Officer of Health.

We have received a request from the Non-County Group and from the Yorkshire Branch that appointments which include the appointment of Medical Officer of Health should be paid for wholly on the higher rate. We do not submit any recommendation on this proposal at the present time as we are anxious to get the salaries scale generally put on a satisfactory basis without unduly introducing new controversial matter.

Assistant Medical Officer of Health, Leeds.

We regret the acceptance of the advertisement for this post at £900 by the British Medical Association. The Senior Maternity and Child Welfare Officer at Leeds was appointed at £800 per annum, the Tuberculosis Officer was appointed at £1,000 per annum. The Assistant Medical Officer of Health therefore should not have been appointed at less than £1,000 per annum according to the agreed scale. We desire to draw the attention of the British Medical Association to these circumstances.

Assistant School Medical Officer, Stoke-on-Trent.

We desire to call attention to the fact that the Stoke-on-Trent Education Committee advertised for an Assistant School Medical Officer and the advertisement contained the following: "Salary £500 rising to £600 per annum after the completion of one year's satisfactory probationary service." This advertisement is again a contravention of the agreed scale, and we desire to call the attention of the British Medical Association thereto.

Promotion of Assistants after advertisement.

We note that in a considerable number of recent important appointments the Assistant has been promoted after the post has been advertised and many candidates have come forward. In two recent cases the Assistant was not even

one of those recommended as suitable for appointment by the Selecting Committee. Nevertheless the appointment was given to him by the Council. While we recognise that it is not desirable to prevent Local Authorities promoting assistants, we are of opinion that if they intend to do so they should not advertise the posts, putting other candidates to the expense of making application. We are further of opinion that any system which makes the promotion of assistants within any area a universal rule is not in the best interests of the development of public health. We further desire to call attention to this more or less general habit of promoting assistants in connection with the limitation of the chances of promotion of Medical Officers doing public health work. It is generally felt by Medical Officers that they are merely in the service of the Local Authority and likely to remain there, and that they are not in a Local Government Service for the United Kingdom. We are of opinion that such conditions are unsatisfactory and detrimental to the establishment of a sound and attractive service.

Report of Council of British Medical Association.

We desire to call attention to the report of the Council of the British Medical Association for 1926-27 and particularly to the following:—

"Co-operation between B.M.A. and Society of M.O.H.

142.—The scheme of co-operation between the Association and Society of Medical Officers of Health agreed to by the Representative Body in 1923 (Min. 39) is under consideration with a view to defining more clearly the relationship between the two bodies and to render their co-operation more effective. As a first step in this direction it has been decided that the offices of the Association and Society shall keep each other advised in all matters relating to prospective public health appointments, and that the Society shall make it clear to all its members that any action taken locally must be by and through the British Medical Association Division."

"Scottish Public Health Appointments.

144.—Pending the result of negotiations between the Scottish Committee and the Scottish Health Authorities, the Council has decided not to insert 'Important Notices' in the 'British Medical Journal' relative to any Scottish public health appointment in which the salary, although less than the scale minimum commencing salary of £600 a year, offers such increments as will make the total salary over a limited number of years equal to that which would be received under the scale provided that the commencing salary offered is not less than £500 a year."

"Deputations to Local Authorities in regard to Public Health Matters.

148.—In view of the number of requests received by the Association to send deputations to local authorities in support of representations made on behalf of public health medical officers, the Council has decided, as a general rule, only to agree to deputations asked for by medical officers or Divisions (a) in the case of new appointments; (b) where there is urgency, and if sanctioned by the Chairman of the Committee after consultation with the Medical Secretary, and (c) in cases which have been approved by the Public Health Committee."

None of the foregoing items have been agreed to by the Council of the Society of Medical Officers of Health, although some of them have been before a conference of representatives of the British Medical Association and the Society of Medical Officers of Health. That conference

however, has not completed its work, and we think it undesirable that any report of the proceedings of the conference should be published until the deliberations of the conference have been finally completed and approved by the Councils of both bodies.

We therefore recommend that the British Medical Association be asked to withhold the foregoing items from their report for further discussion at the next conference to be held between the representatives of the two bodies.

We desire to remind the Council that the date of the next conference was to be fixed after the British Medical Association had received the report of the Council on the salaries question.

The Board of Control and Mental Deficiency.—On behalf of the Association of County Medical Officers, Dr. Lyster submitted a Memorandum dealing with recommendations of the Board of Control in reference to the administration of Mental Deficiency work. The memorandum was unanimously approved and adopted by the Council, and it was agreed that copies be sent to the Ministry of Health and the professional journals, and that it be printed in full in the journal of the Society.

Nomination of President.—By an unanimous vote, it was decided to nominate Dr. James Wheatley, Medical Officer of Health for Shropshire for election as President of the Society for the Session 1927-28. Drs. Pearce and Banks speaking on behalf of the Yorkshire Branch expressed regret that their Branch had not had a fair share of presidential honours. In view of Dr. Wheatley's long services to the Society, and the universal esteem in which he was held by his colleagues in all parts of the country, they would vote for him that day on the clear understanding that the Yorkshire Branch would press the claims of Dr. J. J. Buchan for election as his successor. Dr. T. Evans, on behalf of the Welsh Branch of the Society, said he was sure that their nominee, Dr. J. Howard-Jones, would not wish to stand in opposition to Dr. Wheatley, and he would therefore give the latter the support of his Branch. The President then congratulated Dr. Wheatley on his unopposed nomination which would undoubtedly be confirmed by the approval of the Society as a whole.

Election of Vice-Presidents.—The Council approved the following recommendation from the officers of the Society: "In view of the fact that a number of seats on the Council are available for special nominations by the Council in September of each year, your officers recommend that, in the absence of special reasons to the contrary, the three immediate past-Presidents be elected Vice-Presidents in each succeeding year, thus

ensuring continuity in the conduct of the Society's business." In accordance with this decision Dr. E. H. Snell, Dr. G. F. Buchan, and Dr. R. A. Lyster were unanimously elected Vice-Presidents of the Society for the session 1927-28.

Election of Hon. Treasurer and Hon. Editor.—Dr. Joseph Cates and Dr. Charles Porter were unanimously re-elected as Hon. Treasurer and Hon. Editor respectively, for the Session 1927-28.

Health Education of Local Authorities.—The Council approved and adopted the following report submitted by the Committee on Health Education work by Local Authorities :

1.—In accordance with the decisions of Council (Leamington Meeting, March 18th, 1927) your Committee have invited the following to accept election to the Society's Central Council for Health Education :—Dr. G. F. Buchan, Dr. J. Cates, Dr. W. A. Daley, Dr. J. Fenton, Dr. W. W. Jameson, Prof. H. R. Kenwood, Dr. R. A. Lyster, Dr. C. W. Paget Moffatt, Dr. C. Porter, Dr. F. H. Thomson, Dr. E. Ward, Dr. J. Wheatley.

2.—Your Committee have also invited the following bodies to nominate representatives on the Council :—

- (a) The County Councils' Association.
- (b) The Association of Municipal Corporations.
- (c) The Urban District Councils' Association.
- (d) The Non-County Boroughs' Association.
- (e) The Rural District Councils' Association.
- (f) The National Association of Insurance Committees.
- (g) The Association of Education Committees.

Owing to the Easter recess acceptances have so far been received only from (b) who nominated Sir Lewis Beard, Town Clerk of Blackburn, from (c) nominating their Vice-President, Mr. H. Bolton, Clerk to the Sutton (Surrey) U.D.C., and (f) who have nominated Lord Cozens-Hardy.

3.—Your Committee have pleasure in reporting that Prof. H. R. Kenwood has accepted their unanimous invitation to become first Chairman of the Council.

4.—An agreement has been reached securing for the New Council a supervisory editorial control of the monthly educational journal "Better Health" to be published by the proprietors of the "Medical Officer," as from October next for circulation through Local Health and Education Authorities. A royalty on the sales of this journal will be payable to the Central Council for Health Education for the furtherance of its work. The terms of the agreement will be duly stamped and available for inspection by members of the Society's Council.

5.—Your Committee having disposed of the matters referred to them, propose to consider themselves discharged unless further instructed by the Council of the Society.

(Signed) G. F. BUCHAN.

Chairman.

Ante-Natal Instruction in the Medical Schools.—A report on the Instruction of Medical Students in Ante-Natal Conditions and Infant Hygiene, submitted by the Maternity and Child Welfare Group was approved and adopted by the Council. It was agreed that the Group be thanked for a useful

piece of work, and that the Report be circulated to the Universities, Medical Schools and the professional journals, and that it be published in full in *Public Health*.

The Hospital Services and M. and C. W. Schemes.—On the recommendation of the Maternity and Child Welfare Group it was agreed that a Committee should be appointed to report on the co-ordination of M. and C. W. work with the Hospital Services, and that the M. and C. W. Group and other Groups interested be invited to nominate representatives on the Committee.

Training of Health Visitors.—Drs. Stella Churchill and J. Fenton reported on their conference with representatives of the College of Nursing in connection with the regulations of the Ministry of Health, M. and C. W. 101, February, 1925, and Circular 680, 1926. The Public Health Section of the College sought the support of the Society in making the following recommendations to the Minister of Health :—

For New Entrants.

(1). That the basic qualification for women entering the public health service should be the general training of a nurse which enabled her to register upon the general part of the State Register maintained by the General Nursing Council for England and Wales. Additional Certificates recommended were :—

- (1) Certificate of Central Midwives' Board.
- (2) Certificate in Public Health, recognised by the Ministry of Health regulations, February, 1925.

For Existing Health Visitors.

Evidence had been received by the College of Nursing that the regulations caused undue hardship upon :—

(a) The younger nurses who could not show the required evidence of 5 years' whole time service enabling them to qualify for the new Certificate (regulations of Ministry of Health, February, 1925).

(b) The older nurses who had obtained the Certificate of the Royal Sanitary Institute, which was not recognised by the Ministry of Health.

The Section, therefore, recommended that :—

(a) The evidence of 5 years' whole time satisfactory service now required by the Ministry of Health be reduced to three years' whole time satisfactory service.

(b) That in order to encourage the existing Health Visitors and School Nurses to obtain the new Certificate, and in view of the inadequate standard of remuneration paid to those officers, the Ministry of Health be asked to circularise the Local Authorities emphasising their present permissive powers to grant monies for the expenses of "Refresher" Courses (see M. and C. W. 101) and stating that the Minister is prepared to sanction such payments in connection with evening courses of lectures designed to prepare existing Health Visitors to obtain the recognised certificate in public health.

In reply to questions on the possible supply of candidates having a basic qualification of general hospital training it was stated that the nurses as a whole were anxious to

enter the Service as the work had many attractions. Factors operating against them entering were :—

(a) The expense of taking the six months' full time Course.

(b) The inadequate salary and uncertainty of pension for the qualified candidate.

The Committee recommended that :—

The Ministry of Health add to the present subsidy a maintenance grant of £60 per candidate, in accordance with the principle on which elementary teachers are trained.

It was stated that :—

The Service was getting better known and appreciated through the work of the Section in supplying lecturers on the work to the young probationers and through the press.

If the maintenance grant were given and the Nurses could be ensured of (a) an adequate salary, and (b) free migration within the Service without loss of seniority or pension; there would be no difficulty about the supply of entrants having the basic qualification of a general trained Nurse.

Administration of the M. and C. W. Acts.

A letter was considered from the Women Sanitary Inspectors' and Health Visitors Association asking for a conference with representatives of the Society in reference to matters connected with the administration of the M. and C. W., and other, Acts directly concerning the work of Health Visitors. Copies of the Memorandum issued by the Association in this connection in November, 1926, having previously been circulated to members of Council, general sympathy was expressed with the aims of the Association. It was agreed, however, that in view of the proposed negotiations between the Association and representatives of Local Authorities, support could best be given by members of the Society as individuals rather than by a preliminary conference of selected representatives.

Representation of the Society.—The following were nominated to represent the Society at (1) Annual Conference of the National Association for the Prevention of Tuberculosis, The President and Dr. E. Ward; (2) Third Imperial Social Hygiene Congress, Prof. A. Bostock Hill; (3) North of England Education Conference, 1928, Dr. S. Fox Linton; (4) Annual Conference of the Sanitary Inspectors' Association, Dr. A. T. Nankeville. The Council then adjourned.

THE MIDLAND BRANCH.

President : Dr. G. B. Dixon, Chief Tuberculosis Officer, Birmingham.

Hon. Secretary : Dr. R. H. H. Jolly, M.O.H., Wolverhampton.

A special meeting of this Branch was held at Leicester, on April 7th, 1927. In the absence of the President of the Branch, Dr.

E. H. Snell (President of the Society) took the Chair. Twenty-six members were present.

The report of the Salaries Committee (*Public Health*, March, 1927, p. 180) was submitted and adopted without amendment.

Letters were received from the Yorkshire Branch soliciting the support of the Midland Branch in the nomination of Dr. J. J. Buchan, M.O.H., Bradford, for the Presidency of the Society during the session 1927-28, and from the North-Western and Metropolitan Branches requesting support of the nomination of Dr. James Wheatley, County M.O.H., Shropshire. It was unanimously resolved to support Dr. Wheatley's nomination.

During the afternoon the members, accompanied by Councillors Hinks, Porbury, Johnson and Cort, visited the new abattoir and pork-factory of the Leicester Co-operative Society, and witnessed a demonstration of humane killing. The party then proceeded to inspect the municipal housing scheme on the Park Estate, where 1,000 concrete and 814 brick houses of the parlour and non-parlour type are being erected.

The visit concluded with tea kindly provided by the Leicester Corporation.

Dr. Snell, on behalf of the Branch, thanked the Corporation for their hospitality and for the very interesting and instructive demonstration which had been arranged.

Councillor Hinks, Chairman of the Leicester Public Health Committee, in reply, expressed pleasure at having had an opportunity of meeting so many public health officers in Leicester.

THE YORKSHIRE BRANCH.

President : Dr. S. Fox Linton, M.O.H., Scarborough.

Hon. Secretary : Dr. G. H. Pearce, M.O.H., Batley.

A meeting of the Council of this Branch was held on April 29th, 1927, at the Education Offices, Calverley Street, Leeds.

The President was in the Chair, and there were also present Drs. Buck, Belam, Gibson, Hill, Jervis, Pick, Pickup, Wear, Williams, and the Hon. Secretary. Apologies for absence were received from Drs. Banks, Buchan, Moore and Scatterty.

Various matters in connection with future meetings were considered.

An ordinary meeting of the Branch followed the Council Meeting and, in addition to the members above mentioned, there were present

Drs. Bates, Hebblethwaite, V. T. Thierens, Thornley, and Mr. D. S. Rabagliati. Apologies for absence were received from Drs. Daley, Frazer, M. M. Thierens, and Kaye.

The President referred to the recent death of Dr. H. P. Wiltshire, of Hemsworth, President of the Branch in 1919, and the Hon. Secretary was requested to convey the sympathy of the Branch to the relatives of the late Dr. Wiltshire, the members signifying their approval by rising in silence.

The proposed joint meeting at Scarborough between members of the Northern, North-Western and Yorkshire Branches was considered, when it was decided that owing to the small number of favourable replies which had been received from members of the Yorkshire Branch it would not be desirable to proceed further. The proposal was therefore dropped.

It was decided that the ordinary meeting in June should be replaced by an outing to Bolton Abbey on Midsummer Day, June 24th, and that ladies should be invited. The arrangements were left in the hands of the President, Drs. Bates, Vincent T. Thierens, and the Hon. Secretary, it being understood that, unless a reasonable number of members expressed their wish to take part, the function would not be held.

Consideration was given to a letter respecting cancer propaganda, received from Dr. Hillman, of Wakefield, Member of Council of the British Medical Association, and Chairman of the Propaganda Sub-Committee of the Medical and Scientific Committee of the Yorkshire Council, British Empire Cancer Campaign, in which the support and interest of local medical officers of health was sought. The feeling of the meeting was in favour of every assistance being rendered where possible. Attention was drawn to a previous letter from the Secretary of the Yorkshire Council, British Empire Cancer Campaign, which had been before the meeting on December 31st, when, at that date, it was decided that "it appeared to be a matter for each individual medical officer of health to take whatever course might appear to him to be most desirable." The Hon. Secretary was instructed to write Dr. Hillman accordingly.

Pursuant to notice given, Dr. F. A. Belam moved, and Dr. W. Bertram Hill seconded:

"That the representatives of the Yorkshire Branch on the Council of the Society, be instructed to re-open the question of the

administration of the Milk and Dairies Order, 1926, and request the Council to reconsider the recommendations of this Branch for presentation to the Ministry of Health."

The motion was carried.

The Hon. Secretary reported on a recent prosecution by the Heckmondwike Urban District Council of parents for exposing children whilst in an infective condition from scarlet fever. Further discussion was adjourned to the next meeting.

A paper on "Industrial Dermatitis" was read by Dr. A. Stewart Hebblethwaite, at present Assistant Medical Officer of Health at Leeds, and Medical Officer of Health designate to the County Borough of Sunderland. It is hoped the paper may appear in *Public Health* at some future date. Several members, including the President, took part in the discussion. Dr. Pearce in moving a vote of thanks to Dr. Hebblethwaite, expressed the regret of the members at losing so amiable a colleague, whilst at the same time heartily congratulating Dr. Hebblethwaite upon his appointment at Sunderland. The resolution was seconded by Dr. C. Leonard Williams, and carried with applause. Dr. Hebblethwaite suitably replied, particularly referring to his regret at being compelled to sever his relationship with the Yorkshire Branch.

THE WEST OF ENGLAND BRANCH.

President: Dr. C. E. Tangye, County M.O.H., Wiltshire.
Hon. Secretary: Dr. P. H. Stirk, M.O.H., Exeter.

A meeting of this Branch was held at Exeter on April 29th and 30th, 1927.

The minutes of the last meeting having been read and confirmed, a discussion took place on the Report of the Salaries Committee referred by the Council to the Branches. The Hon. Secretary was instructed to reply to the effect that the meeting approved of the Report and asked the Society to proceed, as early as possible, on the lines indicated therein.

The Hon. Secretary stated that he had informed the Council of the resolution passed by the Branch at their previous meeting regarding the records to be kept by midwives as laid down by the Central Midwives Board, and reported the action taken by the Council in the matter.

Subsequently, a Joint Meeting with the Royal Sanitary Institute was held in the

Guildhall, Exeter, attended by some 60 members. The Mayor of Exeter, Dr. Ransom Pickard, C.B., C.M.G., gave the meeting a civic welcome, and Professor H. R. Kenwood occupied the Chair. Interesting discussions took place on: (1) "Recent Legislation Affecting Maternity and Child Welfare Schemes," papers being read by (a) Dr. J. F. Blackett, as Medical Officer of Health of a County Borough; (b) Dr. G. Adkins, as a County Medical Officer of Health; and (c) Dr. T. Dunlop, as Medical Officer of Health of a Non-County District; and on (2) "The Housing (Rural Workers) Act," papers being read by (a) Dr. C. E. Tangye, as a County Medical Officer of Health; (b) Dr. H. B. Mapleton, as a District Medical Officer of Health; and (c) Mr. A. J. Redfern, as a Rural Sanitary Inspector.

On Saturday, April 30th, the experimental tank for the treatment of sewage was inspected, Mr. Ames, of the firm of Messrs. Ames, Crosta, Mills and Co., Ltd., attending and explaining the working of the plant, which possesses some novel features. The City Waterworks were also visited, and Mr. Stewart of Messrs. Bell Bros., Ltd., demonstrated the working of the new high pressure filters installed.

A successful meeting terminated with the usual votes of thanks.

It was decided to hold the next meeting of the Branch at Hawkmoor Sanatorium, on July 22nd, 1927.

THE HOME COUNTIES BRANCH.

President: Dr. Joseph Cates, County M.O.H., Surrey.
Hon. Secretary: Dr. H. J. Milligan, M.C. M.O.H., Reading.

The eighth meeting of the 1926-27 Session of this Branch was held at the House of the Society, on May 6th, 1927.

By invitation, members of the Metropolitan Branch and a representative of the Ministry of Health attended the meeting.

The minutes of the last meeting were read and approved.

A report of the visit of the Home Counties and Metropolitan Branches to the Nestlé and Anglo-Swiss Condensed Milk Company's factories at Chippenham was submitted and approved.

Apologies for absence were received from Drs. Muir, J. J. Paterson, and Menzies.

The Branch considered nominations for the Presidency of the Society, and it was agreed to support the nomination of Dr. James Wheatley.

A letter from Dr. A. E. Porter was read, in which he tendered his resignation of the office of Honorary Treasurer of the Branch.

The President then intimated that Dr. T. S. McIntosh (Medical Officer of Health of Hendon) had agreed to give a report of the outbreak of small-pox that had occurred in his district. Dr. McIntosh gave a detailed account of the cases of small-pox that had occurred and the measures taken to cope with them. The extreme difficulty that may occur in the diagnosis of the first case in an epidemic, and the likelihood of confusing such cases with chickenpox was emphasised. It also appeared that the cases were of unusual virulence with a very high degree of infectivity. Apart from cases infected directly from the first case, the only other group of cases occurred amongst the employees of a laundry to which infected clothing had been sent. There seemed to be no doubt that the infection had been conveyed through the medium of these infected articles. Another interesting feature of the epidemic was that the original source of infection could not be definitely traced. The measures taken to limit the spread of infection were described in detail.

Dr. McIntosh was heartily thanked for his paper, and a very interesting discussion followed, in which most of the points arising in a small-pox epidemic came under consideration.

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THE SOUTHERN BRANCH.

President: Dr. A. D. Edwards, M.O.H., Bournemouth.
Hon. Secretary: Dr. H. D. Kelf, Asst. M.O.H., Hants County Council.

A meeting of this Branch was held at the Town Hall, Bournemouth, on May 6th, 1927, the President in the Chair. In addition to the members present, several local medical men attended as visitors. Apologies for absence were received from Drs. Avent, Livingston, Lloyd, Moxey, Shed, Lockhart Stephens and Bruce Young.

After the correspondence was read, notes of a case by Dr. Bruce Young of "Sudden Death due to Acute Suffocative Pulmonary Œdema, with post-mortem Findings," were read by the Hon. Secretary. T.

Dr. F. W. Broderick read a paper entitled "At so Great a Price—the Burden of Civilisation," in which he dealt with the question of chronic disease in its relation to civilisation, and after discussing the virulence of infection versus resistance of the body, he indicated how the autonomic nervous system played an important part in the defences of the body. Inefficiency was shown to be due to an upset in the endocrine autonomic nervous system—primarily in the thyroid and suprarenal.

Several members and visitors joined in the discussion, and a hearty vote of thanks was accorded to Dr. Broderick for his most interesting and thoughtful paper, which it was hoped would be published in *Public Health* in due course.

After the meeting the President kindly entertained those present at tea.

THE NORTH-WESTERN BRANCH.

President: Dr. C. W. Paget Moffatt, M.O.H., Bolton.
Hon. Secretary: Dr. G. W. N. Joseph, M.O.H., Warrington.

A meeting of this Branch was held in the Town Hall, Wallasey, on May 13th, 1927, at which 17 members were present. In the absence of the President, Dr. J. Beard was voted to the Chair.

The minutes of last meeting were confirmed.

Owing to the absence in London of Dr. T. W. Naylor Barlow, O.B.E., in connection with the Wallasey Bill, the presentation of his portrait was deferred until the Annual Meeting of the Branch at Bolton, in June.

Dr. T. Hartley Martin explained the working of the orthopædic clinic in a very interesting address. The three chief points in the organisation of the work were:—(1) Ascertainment; (2) Treatment at Clinic; (3) Following up of cases discontinuing treatment.

He urged the importance of early ascertainment of crippling orthopædic defects so that treatment could be begun at once, as the possibility of obtaining good results diminished if the defect was not brought under treatment until it had existed for some years.

The head of the orthopædic clinic was the orthopædic surgeon, who confirmed the diagnosis, directed the treatment, and accepted responsibility for the general working of the

clinic. The success of his work depended however, on his staff, particularly the after-care sister, who was responsible for the daily treatment and exercise of the patient, the application of splints, and the supervision of the case in the intervals between the visits of the orthopædic surgeon. A good after-care sister was essential for the success of the clinic. The staff also included a masseuse.

Close following-up of the cases in the home was desirable, as otherwise some parents would fail to continue with the treatment until it was completed. It was also necessary that the after-care nurse should carefully instruct the parents in the application of splints, etc., at home.

Dr. Martin went on to contrast the working of voluntary clinics with those established by local authorities, and expressed the opinion that clinics established by local authorities were more efficient. They had the benefit of early ascertainment of crippling defects by the midwives and health visitors, at the infant welfare centres, and also by the school medical service. The supervision of the local authority was continuous, and the cases which were brought to the clinic early, when once enrolled, were continuously followed-up until treatment was completed. In this way the local authority's clinic became a centre for the prevention of crippling defects rather than a clinic for merely improving cases which had become fully established. The cases which came to the voluntary clinics usually were more advanced and the possibilities of a successful result were more remote, while there was no systematic recording and following-up of cases, and if the parents were apathetic the treatment was often incomplete. Again, the local authority usually took steps to see that the necessary appliances were obtained, and gave assistance to the parents where necessary.

A vote of thanks to Dr. Martin for his interesting address was proposed by Dr. Stallybrass. The motion was seconded by Dr. Morley Mathieson, who referred to Dr. Martin's work at the Birkenhead Orthopædic Clinic. Dr. Martin, in his reply, suggested that all orthopædic deformities should be notified to the local authority and the register of cases compiled as a result of notification should be the basis of the work of the orthopædic clinic, and that the local authority should be responsible for the treatment of all cases.

The members of the Branch afterwards visited the Leasowe Children's Hospital, where they were entertained at tea, and later were shown over the workshops attached to the hospital, where special splints and surgical boots are made for the patients of the hospital and associated clinics.

THE METROPOLITAN BRANCH.

President: Dr. G. Quin Lennane, M.O.H., Battersea.
Hon. Secretary: Dr. James Fenton, M.O.H., Kensington

The monthly meeting of the Council of this Branch was held at the House of the Society, on May 13th, 1927, the President occupying the Chair. Fifteen other members were present. Apologies for absence were received from Dr. F. N. Kay Menzies and Dr. W. A. Young. The members of the Council heard with regret that Dr. Menzies' absence was caused by the illness of his two sons, and resolved that an expression of their sympathy should be conveyed to him.

The minutes of the last meeting were read, confirmed and signed.

Dr. F. Leonard Keith, late Medical Officer of Health for Rowley Regis U.D., Staffs., who was recently appointed Medical Officer of Health for Bethnal Green, was elected to the Council of the Branch.

A letter was read from the Central Council for District Nursing in London, calling attention to the decision of the Metropolitan Asylums Board to limit, in times of pressure, the number of beds for scarlet fever cases in order to provide additional accommodation for the reception of measles cases, and inviting the views of medical officers of health on the home nursing by district nurses of those cases of scarlet fever which are not admitted to hospital. This communication gave rise to a full discussion after which the Council arrived at the following conclusions:—

The home nursing of such cases of scarlet fever as will be left at home under the new scheme of allocation of beds arranged by the Metropolitan Asylums Board can be undertaken with safety by district nurses provided that they adopt the precautions usually observed by well-trained nurses, which include the wearing of a gown during their presence in the sick room, and the provision of a special bag. It is important, however, that nurses who are in attendance upon cases of scarlet fever should not attend maternity cases.

Attention was given to a letter from Dr. A. F. Cameron, Medical Superintendent of Joyce Green Hospital, in regard to the question of the removal home of bodies of persons who have died in hospital from measles or whooping cough. It was pointed out that the "dangerous infectious diseases" referred to in Section 73 of the Public Health (London) Act, 1891, dealing with the prohibition of the removal of bodies from fever hospitals, were those enumerated in Section 55 (8) of that Act, and that measles and whooping cough are not included, but it was further mentioned that measles had been made a "dangerous infectious disease" under an Order made by the London County Council with the sanction of the Ministry of Health. The Council of the Branch expressed the opinion that medical superintendents should not give permission for the removal from their hospitals of the bodies of persons who have died of infectious disease, but should refer the relatives of the deceased persons to the medical officer of health of the district to which it is desired to remove the body. The Council resolved to ask the Metropolitan Asylums Board to arrange for the notification of all deaths occurring in the hospitals under their control to the medical officers of health of the boroughs from which the patients were admitted. It was further decided to communicate with the London County Council and the Metropolitan Boroughs' Standing Joint Committee pointing out that, in the opinion of the Council of the Branch, it is desirable that all notifiable infectious diseases should be regarded as "dangerous infectious diseases" within the meaning of the Public Health (London) Act, 1891.

At the request of the Public Health Section of the General Nursing Council, consideration was given to their view that the training of Women Health Officers (including School Nurses and Health Visitors) should commence with three years' general hospital training and that this training cannot be replaced satisfactorily by any other form of education. The Council of the Branch expressed agreement with this opinion, and decided that the parent Society should be informed accordingly.

The Public Health (Smoke Abatement) Act, 1926, was considered, and the Council resolved that the London County Council should be informed that they would be glad of the opportunity of considering the draft bye-laws to be made under the Statute.

In presenting the Nursing Homes (Registration) Bill, the Hon. Secretary drew attention to Clause 8 (1) which places the duties of registration and supervision upon county councils and county borough councils, and pointed out that no special mention is made in the Bill in regard to London. In these circumstances the local supervising authority under the Bill in the metropolitan area will be the London County Council.

The majority of the metropolitan boroughs are larger in population than the average county borough in the provinces, and from the administrative point of view are quite capable of undertaking the work of supervising nursing homes. Moreover, the Branch, after having considered the recent provisional proposals of the Minister of Health in regard to Poor Law reform, have laid down a policy in respect of the re-arrangement of the health services in London. This policy, which was determined so recently as March 5th, 1926, provides that the registration and supervision of all lying-in homes, etc., should be undertaken by metropolitan borough councils. The Council of the Branch re-affirmed that view, and resolved to send a communication to the Metropolitan Boroughs' Standing Joint Committee drawing attention to the desirability of an appropriate alteration in the Bill.

THE NAVAL, MILITARY AND ROYAL AIR FORCE HYGIENE GROUP.

President: Lieut.-Colonel J. Howard-Jones, T.D., R.A.M.C. (T.F.), M.O.H. Newport, Mon.
Hon. Secretary: Major G. S. Parkinson, D.S.O., R.A.M.C.

A well attended meeting of this Group was held at the House of the Society, on April 26th, 1927, the President in the Chair. Letters of regret for absence were read from Maj.-Genl. Sir Wm. Grant Macpherson, K.C.M.G., C.B., and Captain McMaster.

The minutes of the previous meeting were taken as read and approved.

The President stated that it had been hoped to put before the meeting some suggestions for the improvement of the standard of hygiene in crews' spaces on merchant ships, before forwarding them for the consideration of the Council of the Society, but as they had taken rather longer to get through than had been anticipated, the matter was still being discussed by the Council of the Group.

Dr. Andrew Balfour, C.B., C.M.G., opened a discussion on "Some Gaps in our Knowledge of Malaria," and, as might have been expected, those present listened to some most instructive and interesting remarks on this subject, which, while all too short, were sufficient to show the limited extent of our knowledge of this important disease. A good discussion followed, in which the Director General, Army Medical Services, General Barrow, Colonel Henderson, Dr. Thompson and Dr. Manson-Barr took part.

Dr. Balfour replied to various points raised, and at the conclusion was accorded a hearty vote of thanks for his valuable contribution.

The date of the next meeting of the Group was arranged for Tuesday, July 26th, 1927, at which Rear-Admiral Sir Percy William Basset-Smith, K.C.B., C.M.G., has kindly consented to open a discussion on "The Importance of Tropical Medicine Teaching in the Services."

SCHOOL MEDICAL SERVICE GROUP.

President: Dr. H. Ratcliffe Kidner, Div. M.O. London County Council.

Hon. Secretary: Dr. W. J. M. Slowan, Asst. M.O., London County Council.

The annual meeting of this Group was held at the House of the Society, on April 30th, 1927, when six members were present.

The following officers were elected for the session 1927-28:—

President and Representative on Council: Dr. Thos. P. Puddicombe, D.S.O., Asst. M.O.H., Essex County Council.

Hon. Treasurer:—Dr. Hutton Ashkenny.

Hon. Secretary: Dr. W. J. M. Slowan.

Dr. A. C. Williams, Divisional Medical Officer, London County Council, continued his remarks on "Combined Defect," the first part of which he had given at a previous meeting of the Group. A discussion followed in which all present took part, and at the conclusion a hearty vote of thanks was accorded to Dr. Williams for his most interesting address.

DR. A. WOTERSPOON has been appointed Medical Officer of Health for Stoke-on-Trent.

DR. KERR SIMPSON has resigned his appointment as medical officer of health for Barking.

Reviews.

POPULAR EDUCATION IN PUBLIC HEALTH. By W. Allen Daley, M.D., B.S., B.Sc., D.P.H., and Hester Viney, S.R.N. London: H. K. Lewis & Co., Ltd., 1927. pp. 210. Price 6s. net.

This is the first comprehensive book which has been published on the health education movement, and we can cordially recommend its study to those engaged in or contemplating propaganda work of the kind. The history of health education is carefully traced from early days, reference being made to the appointment of health visitors, the initiation of the school medical service, of child welfare and tuberculosis clinics. There is helpful advice to health visitors on the nature of their duties and how to go about them. Record keeping, ante-natal and school visiting are discussed from every angle and wise words are uttered on birth control; no sympathy is offered to those who wish to see Infant Welfare Centres used for teaching contraceptive methods. In the section on "Teaching the Adolescent," we are advised not to shirk hard facts in explaining the connection between immorality and disease. Many medical officers of health, already experienced in the conduct of health weeks and exhibitions, will profit by a perusal of Dr. Daley's experiences. The subject of films, type of lectures advisable, and the place in which they should be exhibited or given respectively are fully dealt with; even the Rotary Clubs and wireless are brought into use. In the appendices there are syllabuses for classes of school children of different ages on health subjects, together with leaflets such as are in common use at clinics and centres. Some of these leaflets for distribution are better than others. The authors have given us an admirable book, and many there are who will read and study it with pleasure and profit to themselves and the districts they represent.

THE AIR WE BREATHE. The Modern Health Books Series. By JAMES KERR, M.A., M.D., D.P.H. London: Faber and Gwyer, 1926. pp. 191. Price 3s. 6d. net. The Public Health official is, or should be, much interested in districts "where houses thick and sewers annoy the air," and this recent addition to the popular series of "Modern Health Books" presents to him a

concise but extensive review of the principles of the science of ventilation. As has not always been the case, in more formidable treatises particularly, the author attains considerable success in making his subjects attractive, interesting and stimulating.

To the layman interested in hygiene; to the student whose examination looms large ahead, and who is suffering from a surfeit of heavy reading; and to the Health Officer who would wish to refresh and to add to his knowledge of air and its relation to health, this little book can be most warmly recommended. Those health departments where the value of a "staff library" is realised and appreciated, cannot afford to omit it from their shelves.

OBSTETRICS. By JOHN S. FAIRBAIRN, M.A., B.M., B.Ch., F.R.C.P., F.R.C.S. Oxford University Press, 1926. pp. 221. Price 5s. net.

In Dr. Fairbairn's "Obstetrics" another useful volume has been added to the series of Oxford Medical Handbooks. The author, well-known as an enthusiast, dallies no longer than the first chapter in presenting his subject in the form in which a lengthy teaching and operative experience has eventually evolved it for him, i.e., as essentially an art and a science of Preventive Medicine. To the student dazed with textbook minutiae, and the practitioner tired with the energies of practice this conception will be at once stimulating and corrective and will supply an encouragement in the pursuit of what has long been the Cinderella of the sister branches of his profession. That the opening chapter has to be followed by a rather critical description of the "Maternity Service" as it exists at present only adds interest to the succeeding pages where the idea of prevention is applied to practical purposes of diagnosis and treatment. An admirable, if brief, summary is given of the whole subject with a discreet avoidance of optimism or commitment in those one or two places where the preventive idea is still rather labouring in the dark, e.g., in dealing with the toxæmias of pregnancy. The final chapter on maternal mortality sets the seal on the previous discourse by a few constructive suggestions for the co-ordination and development of the resources at present loosely collaborating in the service of maternity.

SCOURGES OF TO-DAY. The Modern Health Book Series. By E. T. BURKE, D.S.O., M.B. London: Faber and Gwyer, 1926. pp. 166. Price 3s. 6d. net.

This is one of the volumes issued under the general editorship of Professor D. Fraser Harris. It deals with venereal disease, cancer, tuberculosis and alcoholism in a rational and popular manner. Like others of the series to which it belongs, this book is written in order to further the education of the public in health matters. There is really little doubt that a better understanding of the problems of venereal disease would make for a healthier and better race, and general knowledge of the importance of seeking early treatment in cases of cancer would result in the cure of a very large number who now die from this disease. The problem of tuberculosis, however, is more intricate, and the healthy rules of living that Dr. Burke lays down in his book for the general public would go far to diminish the prevalence of this disease. On the whole, the section of the book dealing with alcoholism is sound, although we should be inclined to dissent from the view that the onset of pulmonary tuberculosis is in many instances due to an alcoholic debauch.

Medical Officers of Health who are taking an interest in public education in health would do well to get Dr. Burke's book. It is attractively written, and studded with facts of great importance to the public.

Indeed, all the books which have up till now been issued in the Modern Health Series should be in the library of every medical officer of health. All of them, too, and especially this work of Dr. Burke, can be recommended to the lay reader.

OUTLINES OF DENTAL SCIENCE. Vol. I. Dental Anæsthesia, by G. F. RAWDON SMITH, M.D. Vol. II. Dental Bacteriology, by RALPH A. BRODERICK, M.B., L.D.S. Vol. III. Dental Materia Medica, by PROSPER H. MARSDEN, M.Sc., Ph.C., F.C.S. Vol. IV. Dental Prosthetics, by J. DOUGLAS LOGAN, L.D.S. (Edin.). Vol. V. Dental Radiography, by CHARLES A. CLARK, L.D.S., R.C.S. Edinburgh: E. and S. Livingstone, 1926. Price 7s. 6d. net each volume.

These five volumes are the first of a series in which it is proposed to cover the whole field of dental science and art. Each is written by an expert in the particular subject under con-

sideration, and seeks to provide a compendium of up-to-date knowledge in a convenient and easily readable form.

In the volume on Anæsthesia, Dr. Rawdon Smith deals with a subject which must always interest the dental surgeon, and he will do well to peruse the chapter on "General Considerations in the Use of Anæsthetics." All the better-known anæsthetics are discussed, and the conclusions of the General Medical Council on the medico-legal aspects of anæsthetics are summarised. One is in agreement with the author that N_2O is the safest for the routine of his practice, and that there is no need to produce either extreme cyanosis or jactitation, a stage which does not help the operator. Reference is made to analgesia with N_2O for minor operations. Ethyl chloride is recommended and deserves a wider use in suitable cases. Ether and chloroform and mixtures are fully considered, ether being regarded as unsuitable in a dental surgery on account of its pungent odour if other patients are to be seen in the same room. The stuffed rubber pads shown are not much improvement on the pneumatic one, and should be done away with and replaced by metal as in the Trewby apparatus, so avoiding the objectionable odour of rubber, and affording ease of sterilisation.

The author of the volume on Bacteriology states that there is no such thing as Dental Bacteriology, which means that a wider knowledge of medicine possessed by the L.D.S. is necessary to deal with the problems of this science. The chapter on methods of examination of materials from the mouth sets out the precautions essential on the part of the dental surgeon if the bacteriologist is to obtain the infecting organisms in question. The work is comprehensive and well illustrated, and small as it is, may be regarded as providing a complete text-book for dental surgeons.

The volume on Materia Medica is essentially a Dental materia Medica, and is full of practical suggestions as to the uses of special drugs, that will prove useful and may be safely relied on by the student and practitioner. A warning is given that the dental surgeon is limited in his use of drugs, and that he should have the co-operation of his medical *confrères* when it is necessary. The chapter on Astringents and Hæmostatics contains much valuable information gained since the days when ferri. perchlor. was practically the only hæmostatic, and tannin the only astringent.

So many new drugs have been introduced that one needs such a book as this to keep up-to-date. Our old friends oil of cloves and creosote are given well-deserved praise.

The author of the volume on Dental Prosthetics shows how much success depends on meticulous care by explaining fully the mixing of plaster of Paris and the time for its setting, a remark that applies also to the flasking and packing of vulcanite. He perhaps undervalues some of the elaborate bite frames which have been invented, and details the method of making the simplest and cleanest of all bite blocks, viz., the composition slab. Objection may be raised, owing to their liability to act as food traps, to the recommendation of wire bands fitted to the necks of teeth. The technique of double lower bar dentures is explained, and the method of chasing the metal on the necks of the teeth, a procedure now obsolete in many practices where the Badcock method is adopted. Strengtheners for vulcanite are not recommended, and the method of making contour vulcanite plates is omitted, yet the strength of vulcanite depends on its uniformity of thickness. The chapter on Mounting Teeth is well worth reading though, as the work is intended for dental surgeons who control the dental mechanic, it might have been useful to say more about the design of dentures. There is always room for criticism on a subject such as this in regard to which every dental surgeon finds by experience methods best suited to his own use, but after all a work of this size cannot include everything.

Radiography is a new science and the monograph on the subject is written by one who has made it specially his own. To compress into such a small volume all of importance that might have been written must have been no easy task, yet the author succeeds in revealing the technique and methods by which success may be achieved. The chapter on Interpretation is well worth careful study and is the result of extensive experience and judgment. Without such knowledge radiographs are useless. Detailed advice as to the equipment necessary is given, and numerous illustrations are shown of the various dental units available.

Speaking generally, if succeeding volumes maintain the standard of the first five they should form a valuable addition to the library of every dental surgeon.

THE TEETH AND HEALTH. The Modern Health Books Series. By J. SIM WALLACE, D.Sc., M.D., L.D.S. London: Faber and Gwyer, 1926. pp. 214. Price 3s. 6d. net.

This is one of the "Modern Health Books" series, to be found on the shelves of that growing body of people who are taking a keen interest in communal and personal health. While the general impulse towards a healthier state of life is of immense value, nevertheless, the driving force must be directed. Practical aims must be based on scientific facts, but facts are distinct from theories, and notions are not easy to come by. This book is one of those tickets of admission for all and sundry to the marvellous laboratory where science is remaking the modern world. The writer holds our attention throughout the ten chapters which deal with the structure of the teeth, caries, pyorrhœa, etc. Hypoplasia or defective formation of the enamel, shown by depressions on the surface, is attributed to bacterial infection, to febrile disorders, measles, scarlet fever and to infantile indigestion. This is a change from the view that hypoplasia was due to teething powders containing mercury, or to deficiency in lime salts in the first year of life. There is sound teaching in the chapter on the prevention of caries; the author prescribes the diet for children of different ages, and quotes the leaflet of the Society of Medical Officers of Health on the "tooth-cleaning" foods which should be used to prevent decay in teeth. Vegetables and fresh fruits as tooth-cleaners we know of, but it appears that such substitutes as savouries or nuts should be used by those whose digestions cannot cope with them. This is an instructive and stimulating book which maintains the high standard of the series.

THE ARTIFICIAL LIGHT TREATMENT OF CHILDREN IN RICKETS, ANÆMIA AND MALNUTRITION. By KATHERINE M. L. GAMGEE, M.R.C.S., L.R.C.P., D.P.H. London: H. K. Lewis and Co., Ltd., 1927. pp. 172, illustrated. Price 10s 6d. net.

In this volume Dr. Gamgee has made an ambitious attempt to cover the scientific, social, clinical, therapeutic and administrative

aspects of light treatment at a municipal clinic, and in view of its comprehensive purpose we feel that the book is remarkably well done. There is much that is useful in the description of how such a clinic may be organised, how treatment and dosage may be determined, and how results may be checked and examined, and this part of the book may well prove of service to public health workers. The technical description of the nature of ultra-violet light and the chapters on the incidence and diagnosis of rickets we feel are out of place, as the medical worker desiring further information will not be likely to look for it here, and in spite of the author's enthusiasm we do not think that the series of case histories accompanied by photographs add a great deal to the story of her success in treatment. The charts are not given in nearly sufficient detail, the photographs of the results of treatment (apart from the X-ray photographs of which as such we should like to say a word in praise), are far from convincing, and we feel that a little more of the suggested early co-operation with the orthopaedic surgeon would have been of great advantage. Mugs of warm milk for the children are described as a routine part of the procedure at the treatment sessions: we cannot accordingly be sure that in any single case the effect of so-called "adjuvants" to light treatment can be excluded, although elsewhere in the book a suggestion is made that in a certain series of cases the ordinary centre grants of milk and cod liver oil were discontinued for the purposes of comparative observation. If milk is given even twice weekly to underfed children it cannot be stated with scientific accuracy that their coincident gain in weight is entirely due to ultra-violet rays; other observers, indeed, have seemed to lay far less stress on gain in weight as an index of improvement during the actual course of treatment. A valid opinion as to the results of ultra-violet therapy can be expressed only after a much more extensive and detailed investigation than is presented in this book, and we agree that few Public Health clinics will provide all the necessary facilities for such work. In spite of decided deficiencies on these lines, Dr. Gamgee's book shows signs of a careful effort to do justice to her subject. And it will no doubt be extensively used in clinics of the same type as her own.

THE HYGIENE OF INFANCY. By S. T. BEGGS, M.D., D.P.H. London: John Bale, Sons and Danielsson, Ltd., 1926. pp. 62. Price 1s. net.

This is the best, most comprehensive and correct little manual we have seen on the practical aspects of this subject. The text is arranged in the form of a questionnaire, and an immense amount of concentration and clear thinking must have gone in the compression of such complete and important information within the limits of so difficult and restricted a form. The answers are full, complete and practical in every case, and we recommend the manual unreservedly to the notice of medical officers of health for the use of their staffs.

THE DENTAL BOARD of the United Kingdom, whose work in connection with health education is so well-known, have recently published a series of posters dealing with dental health, including one entitled "Diet your Teeth," emphasising the value of proper feeding, and another called "The Twice-a-day Habit," urging the importance of the tooth brush. Particulars of these and other facilities offered by the Board may be obtained from Mr. Hugh S. Bompas, Secretary for Education, Dental Board of the United Kingdom, 44, Hallam Street, London, W.1.

DR. J. A. WATT, formerly deputy medical officer of health for Derbyshire, has been appointed medical officer of health for the Repton rural district.

DENTAL treatment under the National Health Insurance Act, in 1926, cost £1,146,700.

DR. OSWALD RYLE HORWOOD has been appointed an assistant school medical officer at Coventry.

MISS DILYS MENAI JONES, M.B., B.S., Lond., has been appointed a medical officer on the staff of the Welsh Board of Health in succession to the late Dr. Laura Pugh. Miss Jones was for some time assistant medical officer of health at Aberdare, and has lately served under the Metropolitan Asylums Board.

DR. JOHN D. CARROLL, M.C., has been appointed medical officer of health for the City of Cork.

PUBLIC HEALTH

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Editorial.

The Honours' List.

IT is gratifying to find that on this occasion at least the claims of the Public Health Service have not been overlooked. No less than two distinctions have been conferred, resulting in the enrichment of the Order of the British Empire by the addition of two new members in the persons of Miss Lowe, Chief Health Visitor in the County of Warwick, and of Mr. Kershaw, Chief Sanitary Inspector, Hampstead. That these honours are richly deserved there can be no question, and it is with great pleasure that congratulations are offered to the recipients. So far as is known, Miss Lowe is the first health visitor to receive recognition in this form, as

is Mr. Kershaw the first of sanitary inspectors to figure in the Honours' List. They may count themselves, therefore, as openers of the door through which others in their respective branches may pass to similar or higher honours. If past experience affords any guidance they need have no fear that they have opened the door too wide.

It is, or appears to be, only a very limited circle that is liable to be involved in the twice a year shower of honours, and practically the only services that anyone runs any risk of being recommended for are political. Scientific, literary, artistic or social services are so consistently and definitely successful in evading recommendation that it is only possible to conclude that they escape because there is no

one to recommend them, or if there is a recommender he either does not see the services or has set a standard of assessment that is excessively difficult, if not impossible, to reach.

Another explanation may be, of course, that individuals in the walks referred to are peculiarly of the class of the population of this country that accepts the doctrine that is so often and with so much originality of humour announced, that it is a greater distinction to be without an honour than to receive one. It is regarded as typically English to adopt this attitude and to affect to sneer at decorations and the decorated. There are, however, so many who sneer and so many who protest in this wise that the declaration begins to assume the character of a parrot cry. It is open to wonder who invented the cry and equally open to opine that it was suggested to one who was overlooked by an official recommender. Further, there is no reason why it may not be suggested now that as a cry it has served its turn, and that the time has arrived for a reconsideration of the situation and the discovery of a new mode of procedure by the official recommenders. The fact is that there is not sufficient recognition of service to the State and nation, and the individual who says that there is and who suggests that for his part he prefers to go without is only trying to be funny. At present the bounds of State and national recognition to service are definitely too restricted; so restricted, indeed, that myriad grades of service, most intensely valuable to the nation, and that should be acclaimed for the glory not only of the individual but of the nation that should be proud of him and glory in owning him, remain forever unknown.

The extent of the recognition awaiting a craftsman who has given devoted service and has contributed to national progress may be a paragraph in a local newspaper, and for one who performs a deed of heroism, no more than that, or if more, then a certificate or a medal from an entirely unofficial and philanthropic society. Why not a place in the National Honours List? Why should there not be a complete overhaul and reorganisation of the system of granting honours? Either it should be abolished entirely or it should be infinitely extended, and either we should follow the Americans, who say they give no honours, or certain of the continental races who give many or, as we say with that

superiority and superciliousness of ours that so endears us to them, give too many.

Undoubtedly if the giving of honours at all is to continue there must be extensions. If there were groups of honours and additional classes it would simplify matters for everybody, but more particularly for the recommenders who, except as regards political honours appear to be, in the main, heads of Government departments. The simplification to the recommenders would occur because such of their nominees as were put forward on account of scientific or such like services, even such as are of minor nature, like those rendered by members of the Public Health Service, need not compete with and for a certainty be overwhelmed by others who help the nation by contributing those infinitely more valuable "political services." It is absurd that there should be contest for a similar honour; that A, who serves the nation by helping the people to better health and greater comfort, should be placed in competition with B, whose claim is on the gratitude of a political chief or a political party, or with C or D, even K and L, and so up to Z, each one rendering service of the utmost importance in his own particular line. In an arrangement that permits such a contest there is neither sense nor logic, and somebody should be directed to investigate it. In doing so he might be advised to bear in mind the possibility that Sterne was right when he said there were some things they did better in France.

* * * * *

National Baby Week.

ALMOST coincidently with the appearance of this number, the celebrations in connection with National Baby Week will open in a majority of districts throughout the country. It is appropriate that PUBLIC HEALTH, the organ of the Society of Medical Officers of Health, should show a concern in and assist any scheme having relation to maternal and child welfare, the improvement of which is the main aim of all concerned with the initiation or instigation and the conduct of Baby Week celebrations. In various pages, therefore, appear articles or notes on subjects germane to this, one of the most important aspects of a health officer's work. Interesting and worthy of attention because of their source and otherwise, they will have added interest because of their *apropos*.

Housing and the Child.

THE question of housing has of late been brought very much before the public, and it is almost impossible at attack any public health problem without considering how it is affected by our present housing conditions. That these conditions are on the whole highly unsatisfactory can hardly be denied, and while the public health worker is aware that they are not always quite so impossible as they appear when described in print by pessimistic pens, and that some of the conditions are capable of remedy by the tenants, he realises that in many cases the housing conditions of many of the poorer people in our cities to-day are highly undesirable and often actually unhealthy. He knows that there are many families living in basement rooms which were intended only to be the kitchens and domestic offices of large houses; that many rooms which have no actual sanitary defect are still far from ideal dwelling places, and that many families who do not come within the technical definition of overcrowding are still living too close together, and without all the conveniences necessary for a comfortable, healthy life.

The problem is made more difficult by the fact that the provision of alternative accommodation, in itself a difficult matter, does not offer a solution. To many, a house on the outskirts of a city is useless, owing to their hours of work, or the expense of travelling to and fro. When one family is moved from a basement dwelling, another immediately takes its place, for accommodation is hard to find. And families increase, and the high rents may tempt the occupiers to take in relatives and lodgers for whom there is little room, so that the financial burden may be eased by their contributions. Extensive housing changes must of necessity come slowly, and it is useless to be blind to the fact that many of our undesirable homes are to be in occupation for many years to come.

It is obvious, therefore, that in considering problems such as those connected with maternity and child welfare, either in routine work or in the more intensive propaganda work of a Baby Week Campaign, care must be exercised that not only councils of perfection are offered but that the advice to mothers in poorer homes is such that it is possible for them to act upon it in the conditions under which they are forced to live.

Consideration may be given to the effect upon the mother in such a home when she tries to act upon the teaching she receives. What difficulties arise from the nature of the home itself, apart from others which are due to lack of means, or to the fact that it may be necessary for her to go out to work herself? The expectant mother must have, in addition to a suitable diet, sufficient fresh air and sunlight, and adequate rest and exercise, and she must attend to her personal hygiene. She can, if she wishes, get all these, only it must be remembered that it is much more difficult to get them if she lives, say, in two small basement rooms, and has a family of several young children to attend to. Any habitable room can be ventilated, but if there are several people sleeping in a damp and chilly room with no excess of bed clothes, there is a great tendency to place warmth before fresh air, and to sleep in an atmosphere which by morning is far from healthy. The mother cannot have a room to herself, or regulate the ventilation as she wishes. By day the rooms may be overheated, for she must cook in them. The lack of sunlight in many rooms is another difficulty, and when recent discoveries of the effect of sunlight on metabolism are considered, this becomes a very serious want. Sunlight and exercise may be had out of doors, but the tie of her house and her children may leave her little time for this, and little energy to make the journey through dull streets to the nearest park. The difficulties of resting in a small house with several young children need not be elaborated. Personal hygiene, too, has its difficulties. There is, of course, no bath, possibly no running water in her rooms, and though water can always be obtained, there is always a danger of neglect of such things as the care of the breasts, where there are few facilities and often no privacy.

The confinement itself only presents temporary difficulties. If necessary she can go to hospital, and in skilful hands a labour can be conducted in any home if arrangements are thought out in time.

The difficulties of the baby are largely those of the mother. It may live in a bad atmosphere, and she may not be able to take it out enough. In this case, too, probably the most serious difficulty is the lack of sunlight. If it is fortunate there may be some place where it can sleep out in its pram; otherwise it must depend on being taken out by the mother, and these

walks may be far too infrequent. Its feeding is not difficult if it is breast fed, and the preparation of artificial feeds from dried milk preparations can also be carried out in the smallest home, as the risks of uncleanness in the simple preparation are not great. The more elaborate methods of preparing humanised milk mixtures present greater difficulties in the crowded home. The constant close contact with others increases the nervous strain on the child, and may also make it difficult for it to get sufficient sleep. Its exposure to infection is greater, but its resistance to infection also becomes greater than in the case of the more sheltered.

It is not then impossible for the mother and child in a crowded home to have a satisfactory régime, but it is much more difficult—a matter that must not be overlooked. It must also be borne in mind that any improvement in housing conditions is going to make satisfactory child welfare work infinitely more practicable.

* * * * *

Acute Rheumatism in Children.

THE Medical Research Council, the British Medical Association, other public bodies and many medical men have given a considerable amount of time in recent years to a study of the damage done by rheumatic fever. Many excellent and valuable reports have been published, and it now remains for those who have the opportunity to apply the knowledge which has been accumulated.

In March of this year, the Council of the Metropolitan Borough of Paddington made acute rheumatism in children under the age of sixteen years a compulsorily notifiable disease. This action was taken in order that cases might be brought at an early date to the notice of Dr. Reginald Miller, of Paddington Green Children's Hospital, who has made a close study of acute rheumatism in children, and has established a Rheumatism Supervisory Clinic for the purpose of giving skilled supervision to rheumatic children during periods of apparent quiescence with a view to preventing the development of heart disease and other complications.

The Council of the Royal Borough of Kensington have now made an important advance in dealing with this problem. Not only have they agreed to make rheumatism in children a notifiable disease, but they have drawn up a comprehensive scheme for the

treatment and after-care of patients suffering from this condition. Their scheme, which is awaiting the approval of the Minister of Health, provides (a) That the following conditions shall be made notifiable in Kensington for an experimental period of three years from October 1st, 1927: Acute rheumatism, which includes rheumatic pains or arthritis, if accompanied by a rise in temperature, rheumatic chorea or rheumatic carditis in children under the age of sixteen years; (b) that a rheumatism supervisory centre shall be established in the borough for the following-up, after-care and treatment of cases notified, and that the public health committee be authorised to enter into arrangements with the board of management of the Princess Louise Kensington Hospital for Children for the establishment of such a centre at the hospital; (c) that the Council do appoint a skilled physician (part time) to be in charge of the rheumatism supervisory centre; (d) that the public health committee be authorised to arrange for the care and after-care of children suffering from acute rheumatism and its complications through the voluntary agencies existing in Kensington, or by such other voluntary means as may be found suitable; and (e) that the public health committee be authorised to spend money in assisting voluntary agencies to find bed accommodation for patients recommended by the physician in charge of the supervisory centre.

To a scheme so comprehensive it may be hoped that the Minister will be prepared to grant approval. The certainty that the scheme will be given a good trial and will be developed is a point that he no doubt will have in mind, and that may assist him in arriving at a decision favourable to the Kensington Borough Council.

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The Grancher System and Tuberculosis Prevention.

IT seems illogical to maintain and educate the children of tuberculous parents rather than secure adequate isolation in the home for an infectious patient. But the great difficulties of home isolation, the frequency with which poverty and unhygienic conditions accompany the danger of infection, have made the French prefer, from 1903 onward, the Grancher system under which children from 3-10 years

are removed from their parents and placed with country families of similar social station.

In several districts in Britain there are open-air schools for delicate children, and there are also some residential open-air schools or preventoria, to which children exposed to infection and showing signs of failing health are sent for varying periods, from 1 to 12 months, but not for the whole of their school days. The value of preventorium treatment is undoubted, children generally putting on weight and showing considerable improvement in the general condition. Lives have been saved and serious illness averted.

In Hastings and St. Leonards the Grancher System has been preferred, and an interesting account of this is now published by Dr. W. B. Tomson.*

The work comes under the care committee, and funds are obtained mainly from charitable sources.

It is claimed that the children are maintained at a cost of 11s. 3d. a week, compared with 26s. at a preventorium. But, it must be admitted, the experiment is on a very small scale—4 children in 1926, at a cost of £38, 6 arranged for this year, and that only in the summer months. The education, moreover, falls on the local schools, while in preventoria a special staff is necessary for the purpose.

Dr. Tomson naturally does not give any statistical results, but quotes figures from French sources. The incidence of tuberculosis among the children of tuberculous parents is considered to be 60—70 per cent, and of these 40 per cent die of acute disease, whereas out of 2,500 Parisian children boarded out and observed during 17 years, only 7 cases of tuberculosis were registered. It seems so likely that some fallacy exists in these figures, that critics cannot be blamed for withholding comment until further information is available. The same type of optimistic figures prejudices observers in other countries when evaluating the Calmette-Guerin vaccination against tuberculosis.

The Hastings experiment is encouraging, but it must be doubted if the Grancher system, removing children from their parents as it

* "The Grancher System for the Prophylaxis of Tuberculosis in Poor Delicate Children." By W. Bolton Tomson, M.D., Medical Superintendent, "Sea-View" Sanatorium, St. Leonards-on-Sea; Vice-Chairman, Tuberculosis Care Committee, Borough of Hastings. London: Baillière, Tindall and Cox, 1927. pp. 24. Price 1s. net.

does for an indefinite period, would be generally applicable in this country. It is often difficult to persuade parents to allow children to go to a preventorium for a few months only, and the longer period would certainly be impossible in many districts. Moreover, there are social reasons which make it preferable that a child should be reared in the main by its own parents, so that for this country the preventorium system seems more suitable.

In this, as in other respects, it is a hindrance to tuberculosis workers, that, owing to the original association of tuberculosis schemes with the National Insurance Act, Government grants cannot be given for preventive work, except indirectly through the semi-voluntary care committees; fortunately it can be undertaken by the education authorities in co-operation with the tuberculosis department.

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The Health of the Royal Air Force.

THE Report on the Health of the Royal Air Force for the year 1925 contains, like its predecessor, much interesting information in a small compass. To the uninitiated it is often a matter of wonder why the reports on the health of the fighting services are so tardy in making their appearance, but if it is remembered that the data they contain is gleaned from the four corners of the earth there is surely much to account for any delay in their compilation. The report under review is divided into the following four sub-headings: (i) The Health of the R.A.F. as a whole during 1925; (ii) The Health of the R.A.F. at home during 1925; (iii) The Health of the R.A.F. abroad during 1925, and (iv) Miscellaneous.

In his opening remarks, Air Vice Marshall David Munro, C.B., Director of the Medical Services, R.A.F., sounds a joyful note when he states that the incidence of sickness and the number of days sickness per head are the lowest that have been recorded since 1920, the year when the annual reports were instituted. Further, he states that the venereal disease incidence is the lowest on record, while the incidence of sandfly fever, the main cause of the high sickness figures in India and Iraq, has been reduced to what may be considered normal for these countries.

The average strength of the R.A.F. as a whole during 1925 was 33,028, and the case

incidence of sickness was 901.1 per 1,000, but if cases of less than 48 hours duration are excluded the case incidence becomes 447.2 per 1,000. The three principal causes of invaliding were neurasthenia, tuberculosis, and inflammation of the middle ear.

The highest disability incidence occurred among apprentices, the chief factor being a high disease incidence, while the highest injury incidence was found in the group comprising officers, cadets, and airmen pilots.

When dealing with flying accidents it is reassuring to hear that, considering the amount of flying carried out, the casualty risk in 1925 was lower than in previous years. The total number of casualties was 155, of which 55 were deaths. Eight of these deaths resulted from two collisions of aircraft in the air. Four deaths occurred from wounds received in action; two aircraft, one in Iraq and the other in India, were brought down by hostile gunfire whilst engaged in active operations.

When discussing the health of the R.A.F. at home it is interesting to note that under diseases calling for special mention there were two cases of primary benign tertian malaria contracted at Eastchurch. Neither of the patients had served abroad, and apparently the disease is not uncommon among the civil population of this district.

Among troops serving abroad, dysentery, malaria and sandfly fever accounted for 60 per cent of the total admissions for all diseases, and of these malaria, as in previous years, was the most prevalent. It is suggested, however, that the increase in the incidence of dysentery may be in part attributed to the very thorough examination made of all stools of possible carriers, which has been a feature of the bacteriological work in Iraq for the past few years.

The total number of examinations conducted by the Central Medical Board during 1925 amounted to 2,472, of which 1,211 were for the purpose of assessing physical fitness for air duties. The chief cause for rejection, as in previous years, was defective vision alone or in combination with other defects. Some interesting figures are given with regard to the medical examination of recruits. The total number examined during the year was 6,299, of whom 1,320 were rejected at the preliminary examination by civilian medical practitioners, and of the remaining 4,979, 2,885 were passed fit at recruiting depôts and 2,094 were rejected. It is difficult to understand how such a high

percentage of recruits were rejected after passing the civil medical practitioners, and it once again emphasises the fact that standards of fitness in civil life are not comparable with those required for the fighting services. The chief cause for rejection was "loss or decay of many teeth."

In the section dealing with food and cooking, an outbreak of food poisoning is reported as having occurred at Halton, in which 45 aircraft apprentices were admitted to hospital. The outbreak was attributed to tinned salmon, and as this was the third occasion in three years in which food poisoning has been caused by this article of diet it has been decided not to issue it in future.

This seems a reasonable decision, but at the same time a far-reaching one.

The number of pathological specimens examined in the R.A.F. laboratories was 27,898, an increase of 1,627 on the previous year.

The report contains numerous graphs and tables which have been most carefully prepared entailing a considerable amount of work, and those responsible for its compilation may well be congratulated in having produced a most readable and interesting brochure.

Hospital Isolation of Measles in the Metropolis.

AFTER consultation between the Metropolitan Asylums Board and representatives of the Ministry of Health, the London County Council, and the Metropolitan Branch of the Society of the Medical Officers of Health, it has been agreed, in view of the much higher mortality of measles, and its far greater destructive effect on child life to abandon the present practice of always admitting to hospital scarlet fever in preference in measles: that in lieu thereof there shall be a definite allocation of beds for the two diseases; that the allocation shall be revised periodically in relation to the requirements of the moment and that in times of measles prevalence the larger proportion of accommodation shall be allocated to measles.

In a special report on the subject it is pointed out that the effect of the decision will be that, when the incidence of infectious disease is such that the Board can admit all cases they are asked to receive, so far as scarlet fever is concerned, no alteration of the present arrangement will be necessary. Any medical

practitioner will be able, as at present, to secure the removal of a case by direct application to the Head office of the Board or the nearest ambulance station, and, in the case of measles, the revised arrangement will enable the medical practitioner to secure the removal of a patient to hospital with the same facility as in the case of scarlet fever. When, however, the number of beds available becomes short and, say, 75 per cent of the accommodation set apart for the two diseases is exhausted, any person desiring the admission of a case of either scarlet fever or measles will be referred to the medical officer of health with a view to his selecting those cases which, in his opinion, should be received into hospital having regard to all the circumstances. In making selection it has been decided that type of home rather than type of case should be taken into consideration by the medical officer of health, and though special forms are provided for his use, arrangements are to be made whereby the delays that may arise as a result of reliance upon the post may be overcome.

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Registration of Still-births.

THE circular (802a) of the Ministry of Health directing attention to the provisions in respect of this matter in the Births and Deaths Registration Act, 1926, which comes into operation on July 1st, 1927, is one of considerable importance.

The definition of still-birth in section 12 of the Act is as follows:—

" 'Still-born' and 'Still-birth' shall apply to any child which has issued forth from its mother after the twenty-eighth week of pregnancy and which did not at any time after being completely expelled from its mother, breathe or show any other signs of life."

For the purposes of the Births and Deaths Registration Acts a child which whatever the period of pregnancy, breathes or shows any other signs of life after complete expulsion from the mother, is a live-born child; and if it dies, even within a brief period only after birth, both the birth and the death must be registered by the Registrar of Births and Deaths.

A still-born child may not be buried in a burial ground until a certificate of the registration of the still-birth has been obtained

from the Registrar of Births and Deaths and delivered to the person having control over the burial ground. In certain circumstances a certificate (which will serve the same purpose) can be obtained from the Registrar that he has received notice of the still-birth.

Section 7 of the Act requires that when a still-birth is registered, the relatives giving information must either (i) deliver to the Registrar of Births and Deaths a written certificate that the child was not born alive, signed by a registered medical practitioner or certified midwife who was in attendance at the birth or who has examined the body of the child; or (ii) make a declaration in the prescribed form to the effect that no registered medical practitioner was present at the birth or has examined the body, or that his or her certificate cannot be obtained, and that the child was not born alive.

It will be seen that where neither a registered medical practitioner nor a certified midwife has been in attendance or present at the birth, or where his or her certificate cannot be obtained, a declaration must be made to this effect, and that the child was not born alive. If such a case is brought to the notice of the Local Authority by the Registrar, it is desirable that the medical officer of health should arrange for inquiries to be made, for example, by a Health Visitor, in order that he may be in a position to inform the Registrar whether he is satisfied that the child was really still-born, or whether there are any suspicious circumstances attaching to the case.

Local Authorities are asked to instruct their Medical Officer of Health to give all possible assistance to the Registrars in the manner indicated.

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The Royal Sanitary Institute Congress.

THIS Congress which opens at Hastings, Monday, July 11th, when the President, the Right Hon. Sir William Joynson-Hicks, Bart., P.C., M.P., will deliver his Inaugural Address, promises to be no less interesting and helpful than usual.

The business of the Congress is dealt with in 7 Sections and 6 Conferences: (a) Sanitary Science and Preventive Medicine; (b) Engineering and Architecture; (c) Maternity and Child Welfare, including School

Hygiene; (d) Personal and Domestic Hygiene; (e) Hygiene of Food; (f) Hygiene in Industry; (g) Veterinary Hygiene; (1) Representatives of Sanitary Authorities; (2) Authorities of Health Resorts; (3) Medical Officers of Health; (4) Engineers and Surveyors; (5) Sanitary Inspectors; (6) Health Visitors: presided over respectively by Sir John Robertson, C.M.G., O.B.E.; H. D. Searles-Wood, F.R.I.B.A.; Sir Alan Powell, C.B.E.; Major Isidore Salmon, C.B.E., D.L., M.P.; Professor J. Basil Buxton, M.A., F.R.C.V.S., D.V.H.; The Mayor of Hastings (Councillor T. S. Dymond, J.P.); E. H. Snell, M.D., B.Sc., D.P.H.; Lessel S. McKenzie, M.Inst.C.E., and W. G. Kershaw, M.B.E. The two meetings of more particular interest to lady members will be presided over by the Lady Islington and the Right. Hon. The Countess Brassey.

Amongst those delivering set lectures are Sir William Wilcox, who will deal with rheumatism, and Sir Henry Gauvain who will give an address and show a film concerning the treatment and training of crippled children.

A special feature of the meeting will be the conference dealing with Health Resorts, over which Docteur A. Rollier, of Leysin, will preside.

The list of subjects coming forward for discussion is a long one, and contains many that are certain to prove attractive, amongst them: The Notifiable Infectious Diseases of the Nervous System, Small-pox, the Insurance Medical Service, Health of the Seamen, Spa Treatment for Insured Persons, Seaside Health and Holiday Resorts, Industry and Disease, Inspection of Food, Health Education, The Care of the Aged Poor, Treatment and Disposal of Sewage, and Baths and their possible Development.

Receptions, garden parties, and visits to institutions dealing with various phases of child welfare work and municipal undertakings of professional interest to medical men, engineers and others, as well as excursions to centres of general interest such as Bodiam Castle, Rye, Winchelsea, Arundel, Canterbury, Battle Abbey, Tunbridge Wells, Bexhill, Eastbourne, etc., will provide relaxation and instruction for the delegates, of whom over 750 have been appointed by various Governments and Local Authorities.

The Health Exhibition will, as usual, be an important feature of the Congress.

The Study of Disease in Children.

THE Society for the Study of Disease in Children, founded in 1900, was incorporated in 1908 in the Royal Society of Medicine, which then consisted of thirteen sections, and in his Presidential Address to the Section, Dr. J. D. Rolleston, Medical Superintendent of the Western Hospital, Metropolitan Asylums Board, reviewed the work done in the eighteen years that have passed. At present, so far as numbers are concerned, the Section ranks sixth among the twenty-four sections of the Society, only the Surgical, Clinical, Medical, Obstetrical and Pathological, in the order named, claiming a higher membership. During the war the Children's Section, like all the others, was forced to diminish its activities. The number of meetings in the Section was reduced from 8 in 1913-14, to 5 in 1914-15, and 4 in 1915-16; no special discussions were held, the provincial meetings were suspended, and owing to the paper shortage the number of pages allotted to the sectional proceedings was considerably curtailed. England, however, appeared to be the only belligerent country in which pædiatric meetings were held regularly during the war, although less frequently than in normal times.

The work of the Section was considered in order of importance under the three headings of special discussions, some of which in recent years had been held in conjunction with other sections, the exhibition of cases and specimens, and short papers. The subjects for special discussion included infectious diseases, infant feeding, modern treatment of heart disease, etiology, prevention and non-operative treatment of adenoids, diagnosis and treatment of congenital syphilis, intussusception, enlargement of the spleen in children, treatment of tuberculous joint disease, birth injuries, pneumococcal peritonitis, and the diagnosis and treatment of infantile eczema.

As regards individual cases, although practically every department of clinical pædiatrics was represented, certain subjects had received much more attention than others, viz., diseases of the nervous system, congenital defects exclusive of congenital heart disease, alimentary disorders, diseases of the skin, congenital heart disease, ophthalmology and acute infections, in the order named.

The attention of British pædiatrists had first

been called to the following conditions by their exhibition at the Section: Renal infantilism, blue sclerotics and brittle bone, treatment of congenital syphilis by Salvarsan, Calvi's pseudo-coxalgia, mitral dwarfism, lipodystrophia progressiva, Köhler's disease, œsophagectasis, and the "pink disease."

Dr. Rolleston deplored the fact that so few pathological specimens had been shown at the ordinary meetings of the Section. This had been particularly noticeable since the war, as was proved by the fact that during the six years preceding it 45 specimens were exhibited as compared with only 35 in the subsequent twelve years, in several of which not a single specimen was shown. Specimens of congenital defect had been most frequently exhibited, and then in order of frequency—specimens of alimentary disorders, acute infections, congenital heart disease, diseases of the liver, kidney, spleen and suprarenals, acquired heart disease, and eye diseases.

The short papers read before the Section had embraced a great variety of subjects, including not only infant feeding, alimentary disorders, morbus cordis, congenital defects, eye diseases, tuberculosis, syphilis and rickets, but also school hygiene and the history of medicine.

In conclusion, Dr. Rolleston made the following suggestions: (1) That at least one meeting a session should be devoted to a special subject illustrated by clinical cases; (2) that surgical members should be urged to exhibit more cases; (3) that the exhibition of cases or specimens and communication of short papers relating to acute infectious diseases should be encouraged, and (4) that more pathological specimens should be brought before the Section.

Infant Welfare Work in Kuala Lumpur.

THERE is nothing so stimulating and nothing perhaps so humbling to those privileged to work in the easier conditions of the home country than an account of work carried on overseas where accessory advantages are at a minimum, and the quality of the work that is done depends so largely on the individuality, courage, imagination and devotion of the pioneer health officer and nurse. Last year we gave some account of the infant welfare work carried on at Kuala Lumpur, Federated Malay States, by Dr. Josephine Were and her staff, and we welcome

further news in her annual report for 1925. The strange reading in the report is not the difficulties peculiar to work in a far country and amongst a greatly mixed native population, but the inevitableness with which in the development of the work the same pressing problems turn up at Kuala Lumpur as in the heart of England—the problem of the comparatively neglected toddler, of the tendency for treatment to be demanded at centres, and the struggle to keep prevention and education in the forefront as their only true functions; the difficulties of transport and of running combined ante-natal and other sessions to suit the mother with a numerous family; the fixed unwillingness of mothers to go to special clinics at hospitals, etc., for venereal disease and other treatment; their complete refusal to consider measles and whooping cough as other than casual and insignificant, in spite of an alarming death-rate from these diseases and their complications. The only matter in which Dr. Were appears to have a grievance all her own (and in this may she not be uttering a timely warning to those who have aspirations in the direction of an energetic fathercraft?) is the somewhat embarrassing tendency of fathers in Kuala Lumpur to attend the centres in such numbers as almost to exclude the mothers, who, after all, are thought by their spouses to possess only a woman's intelligence from which too much cannot be expected. We desire to congratulate Dr. Were and Kuala Lumpur once again on what undoubtedly is an admirable piece of work.

Death of Dr. J. Mitchell Wilson.

WE record with great regret the death, at Beverley, on May 29th, 1927, at the age of 83, of Dr. James Mitchell Wilson, formerly Medical Officer of Health to the East Riding of Yorkshire County Council. Dr. Wilson was a native of Perth, educated at Dollar Academy, and Glasgow University where he graduated M.B., C.M., in 1867, proceeding M.D. in 1883. He obtained the Diploma in Public Health at Cambridge in 1877.

He first came to England as House Surgeon in Huntingdon County Hospital, later entering upon general practice at Chatteris, but eventually decided to devote himself to the Public Health Service. He became Medical Officer of Health for the Borough of Rochdale, followed by a similar position for the Borough of Doncaster, and what was then

known as the Doncaster combined District Councils. He was appointed Medical Officer of Health and School Medical Officer under the East Riding County Council in 1901, and retired in 1918, but continued to act for the authority in a consulting capacity. He was the author of various publications bearing on sanitation, and at the meeting at Leeds, in 1890, of the British Association for the Advancement of Science, he read a paper entitled "The Pollution of the Rivers Aire and Calder." He was a Past President of the Yorkshire Branch of the British Medical Association. His wife and three sons—one of whom is in the medical profession—survive him.

No man was held in greater esteem by his colleagues in the Public Health Service than Dr. Mitchell Wilson. He was the contemporary of such well-known men as H. Franklin Parsons, R. Bruce Low, Barry, Whitelegge, to mention only a few. His name first appears in the minutes of the Yorkshire Branch of the Society of Medical Officers of Health when he attended a joint meeting of the North-Western, Northern Counties, and Yorkshire Associations of Medical Officers of Health, held on July 25th, 1878, in the Council Chamber, Guildhall, York. He was then Medical Officer of Health at Rochdale. It shows the contrast between the present and fifty years ago when with a small membership these joint meetings were frequent. Members then travelled from far afield, whilst within the last few weeks an attempt to arrange a similar meeting had to be dropped owing to lack of support on the part of members. In 1878 Dr. Parsons was secretary of the Yorkshire Branch, but was that year promoted to the staff of the Local Government Board. Dr. F. W. Barry succeeded him in 1879 as secretary, being in turn followed by Dr. Wilson, who had by this time come to Doncaster. He was appointed Hon. Secretary of the Association at its annual meeting in Sheffield on October 16th, 1880. At a meeting of the Association (as it was then called), at York, on October 25th, 1883, the Hon. Secretary, Dr. J. Mitchell Wilson, "having stated to the meeting that he felt unable to give up sufficient time to the work of the Secretaryship and Treasurership," it was proposed and carried that Dr. R. Bruce Low, Medical Officer of Health, Helmsley, and later well known as a member of the Local Government Board staff, be appointed

Treasurer. Dr. Wilson retained the office of Secretary until December, 1888, when at the annual meeting at Leeds he was elected President of the Association of Yorkshire Medical Officers of Health for the year 1889, being succeeded as secretary by Dr. Mac-Lintock, Medical Officer of Health, Bradford.

During the whole of his life in Yorkshire, Dr. Wilson regularly attended at the Branch meetings. For a number of years he was a representative of the Branch on the Council of the Society, and had been nominated for the Presidency. On several occasions he had declined to stand as the Yorkshire Branch candidate although frequently pressed to do so by his colleagues.

The Society, about three years ago, recognised his worth by unanimously electing him an Honorary Fellow, a compliment he very greatly appreciated. Up to within a few weeks of his death he retained an active interest in the doings of the Branch. An apology for absence was received at the April meeting, the reason given being he "did not feel very well."

The funeral took place at St. Mary's Cemetery, Beverley, on June 2nd. The Society of Medical Officers of Health was represented by Dr. R. L. Thornley, Dr. Wilson's successor as Medical Officer of Health for the East Riding County Council, and Dr. W. Bertram Hill, Medical Officer of Health for the Selby Combined District, for which area, before it was reconstituted many years ago, Dr. Wilson acted as Medical Officer of health. The President of the Yorkshire Branch, Dr. S. Fox Linton, and the Hon. Secretary and Treasurer, Dr. G. H. Pearce, were both, to their great regret, prevented from being present to pay their last tribute to the memory of a much-esteemed veteran of the Public Health Service. The former was abroad, and the latter detained by professional duties which could not be postponed.

A POST-GRADUATE Course in the Treatment of Fevers will be given by Dr. T. H. Woodfield, at the Park Hospital, Hither Green, Lewisham, London, S.E.13, from July 13th to July 30th, 1927. The course, the fee for which is two guineas, will take place on Wednesdays at 2.30 p.m., and on Saturdays at 11 a.m. Full details may be obtained from the Secretary, Fellowship of Medicine, 1, Wimpole Street, London, W.1.

Pre-School Life and the Scholar.

By T. STEWART STIRLING, M.B., Ch.B., Glas., D.P.H., Camb., Assistant Medical Officer of Health, Bournemouth.

As indicated in the title, the object of the writer of this paper, which was read at a meeting of the Southern Branch on February 4th, 1927, is to provide evidence in support of the view that many of the conditions recognised in the school child had their origin in pre-school days.

IN his "Outline of the Practice of Preventive Medicine," Sir George Newman has given us a sound basis for public health work for at least the next twenty years. This Memorandum—though primarily written for the general public—is of special interest to all Medical Officers. It is an attempt to set out a more or less complete programme, and points out that the whole, and not merely one or more of the agencies which undermine health, must have our attention if the standard of national health is still to improve.

We believe that "an improved national health is designed to increase capacity, contentment, and happiness. Health may not be everything, but it is the primary thing necessary." Sir George Newman's policy might be well summarised as "A Health Decalogue"; the ten planks of the platform are these:—

Heredity and Race.

Maternity, and the care, protection and encouragement of the function of motherhood.

Infant welfare and the reduction of infant mortality.

The health and physique of the school child and adolescent.

Sanitation of the environment, the control of the food supply, and an improved personal and domestic life in the home.

Industrial hygiene, the health of the worker in the workshop.

The prevention and treatment of infectious disease.

The prevention and treatment of non-infectious disease.

The education of the people in hygiene.

Research, inquiry and investigation, and the extension of the boundaries of knowledge.

It will be noted that the above are placed in order of importance, and that the first four are most directly concerned with the subject of this address, namely, "Pre-School Life and the Scholar."

In "The Health of the School Child," Sir George Newman has made the following statement: "One significant fact in medical inspection is the serious degree of physical defect in the children on their first admission to school. I place this in the forefront of the medical problems of the elementary school. Each year as it passes and adds to our knowledge and experience of the physical and mental qualities—and indeed of the general character—of the school child deepens the conviction of the importance of the earliest years of life, and particularly the pre-school years."

Heredity and Inheritance.

The terms heredity and racial inheritance are to some extent synonymous. Heredity not only plays an important part in the development of mind and morals, but it also—and perhaps to a more marked degree—influences, for good or ill, the general physical condition of the child. The height, figure, colour of hair and eyes, and the features generally, are examples of heredity—often quite unmistakable in their source, again in many cases modified by environment.

Disease, we know, is very rarely inherited. Weismann's germ plasm theory of heredity has not yet been fully proved. It is accepted that the germ plasm is passed on from parent to offspring, but what influence do the body-cells have on the germ plasm? We *do* know that alcohol, when taken to excess by the mother, has a most injurious effect on the child, both before and after birth: we also know that certain other poisons—lead, for example—circulating in the maternal body, have an undoubted influence on the germ plasm, leading either to an abortion, or else to the birth of a marasmic infant. Speaking generally, one must admit that as far as the school child is concerned, the actual results of heredity are somewhat difficult to define; for in many cases, some physical conditions apparently due to it are in reality due to environment acting as a pre-natal influence.

This brings us to the so-called diathesis of the child, or its predisposition to disease. Are these terms really synonymous? It is certain that the diathetic state is *not* acquired; it might be defined as an inherited peculiarity of constitution which cannot be eradicated, though it *may* become quiescent; it is familial, rather than racial or national.

We speak of the exudative and the nervous diatheses; but what part do they actually play in the child's reaction to infection or disease? The exudative diathesis is admittedly an important factor in determining the reaction of children to disease and to faulty metabolism; not only are asthma, eczema, and hay fever the recognised signs of it, but croup, urticaria, and many gastric derangements in infancy and childhood may also be regarded as evidence of this diathetic influence. Of the other so-called specific diatheses, one—that of the hæmophilic—might be mentioned; this is, in the strictest sense of the term, an inherited disease. We also speak of the tubercular diathesis. That some children are regarded as being of this type we must admit; but is it not possible that many others who show the recognised tuberculous aspect may have developed this, not in virtue of any special diathesis, but as a direct result of infection, and of their struggle to overcome it?

Consider rheumatism. This infection occurs relatively much more frequently in the reddish-haired type, for a special liability to rheumatic fever undoubtedly seems to be found in such families. The general tendency these days is to over-estimate the effects of predisposition both to consumptive and to rheumatic conditions; but we do know that children of certain families show a sub-normal resistance to the micro-organism of the first-named condition, and also that they eventually fall with signs of active disease.

The exact boundary line is somewhat difficult to define. Take, for instance, a congenital condition, in which a child may be defective, either through an under-nourished mother, or through some injury or infection at birth; this is certainly congenital, but environment has also played a part.

Modern investigation tends to minimise the exaggerated importance previously accorded to heredity. Even the psycho-analysts tell us that traits of character, as well as nervous habits, are transmitted from the parent, not by way of inheritance, but by means of imitation or suggestion in early life.

The great practical point, then, which clearly emerges in any discussion on heredity is, that the wretched physical state of the so-called slum-child is due, not so much to this heredity factor, but to his environment and the conditions under which he lives. It is obvious that the prevention of such diseases mainly consists in more careful attention being paid to the environment of the individual, not only from the moment of birth, but throughout infancy and the whole of school life.

Pre-Natal Nurture.

Looking briefly at pre-natal nurture as a factor in pre-school life, we realise that much work and investigation have yet to be done before we can explain in what precise way the nutrition of the mother affects that of the child. It is accepted without question that the physique of the child is largely determined by the ante-natal nutrition; that the condition at birth depends on the treatment before birth.

The essential need of vitamins in our diet has been much stressed of late years, and with good reason, for there is no doubt that these accessory food factors are of vital importance to the healthy growing child. It has been sufficiently proved that the absence of "fat-soluble A" is the major factor in the causation of rickets and the rachitic state; while a deficiency may be a largely contributing factor in cases of malnutrition, and in many of the anæmias and general debilities of childhood.

Much good work in this direction is being done at the Baby Centres. Mention need only be made of the typical flabby and anæmic toddler so often met with there; one who has been fed on a starchy diet since weaning, and as a result is showing obvious signs of early rickets. The improvement that here follows on changing to the diet recommended—with the addition of "fat-soluble A" in the form of a little cod liver oil—is rapidly apparent. As we know, it is by no means unusual—if our advice has been followed—for a child of eighteen months who has never walked, to be able to do so in less than a month.

There is little doubt that vitamin deficiency plays an important part in the causation of dental caries and enlarged tonsils and adenoids. In the catarrhal type of child, where there is a marked tendency to catarrhs and bronchitis, is it not probable that an inadequate supply of vitamins, so necessary for the body metabolism, has led to a diminished resistance against the bacterial infection?

Infant Nurture.

The environment of the infant is its mother; what it fails to get from her can never be made up in later years. Nearly three thousand mothers die in childbirth every year, while many more are left with health impaired or permanently damaged. On the other hand, although the infant mortality rate has shewn a most impressive decline throughout the last fifteen or twenty years, the time is now long overdue, when a more determined effort should be made to reduce not only the death-rates of pre-school years, but the high incidence of preventable illness and crippling disease.

It is claimed that education of all classes in matters of general health and child welfare, during the last twenty years, has given New Zealand the lowest infant death-rate in the world—thirty-eight per thousand births.

Our medical inspections of "entrants" furnish some illuminating figures; nearly 35 per cent are found to be suffering from defects which might have been prevented or cured, while 30 per cent have eye troubles, and 80 per cent have dental defects.

Of twenty-two million children in the elementary schools of the United States, statistics show that nineteen million are physically defective in some respect. Of these, fifteen million are defective for preventable reasons, and the defects most numerous present develop between the ages of two and six years. The Children's Bureau in the Federal Department of Labour further points out that most parents are inclined not to give especial care to their children after they pass the age of two or three, particularly if another baby has arrived in the interval. Not until the child reaches school does the medical examination reveal defects that could have been prevented or cured long before. Chief among these defects are diseased tonsils, adenoids, under-nourishment (which as often as not means too much of the wrong food), bad teeth, and deformities definitely resulting from poor food or bad hygiene. The Bureau, therefore, urged last year that every child be overhauled by a competent physician four times during its second year, three times in its third year, and at least twice a year thereafter.

What are we doing in this respect? A promising start has been made by many of our most progressive Health Authorities; some Baby Centres devote certain days entirely to the toddler, and the results are most grati-

fying. The scheme for the pre-school child as recommended by Dr. C. J. Thomas, one of the Medical Officers to the London County Council is a sound one:—

(a) Attempt is made to keep the child at the Maternity and Child Welfare Centre from early infancy until it reaches school age.

(b) The children at the Centre who require treatment are sent to the school clinic to receive it, by arrangement between the bodies concerned with infant welfare and school hygiene.

(c) The medical record of the children at the Centre is available for the school medical service when the child is five.

(d) At five the child passes from the supervision of the Centre to the supervision of the School Medical Service.

As an alternative, much could be done by trained and competent Health Visitors. As Dame Janet Campbell said at the child welfare conference last year, "efficient health visiting would do more than almost anything else to raise the standard of health among pre-school children." The first and most important preventive measure in dealing with this problem is undoubtedly the better education of the mother in *maternal efficiency*; but whatever scheme be adopted, it is essential that all forms of treatment made available for school children at the School Clinic or otherwise, should be made available for children under five years of age.

Environmental Factors.

It has been clearly shown that many of the diseases of childhood—and more especially those of the pre-school years—are either indirectly caused or aggravated by certain soils. We recognise that the influence of a soil, for good or ill, on the healthiness of houses is an indisputable factor in modern preventive medicine. Phthisis, we know, has a definite relation to damp and retentive soils, while many of the infections of infancy and childhood are due, in large measure, to the influence of the soil.

Infantile diarrhoea, diphtheria, and rheumatism are perhaps the most important; and these have all been more or less correlated with the temperature, or the impurity, or the specific contamination, or the moisture of the soil. Modern sanitation has accomplished much in our fight against these infections. The incidence of infantile diarrhoea in this

country has dropped very considerably. The fall in numbers has indeed been a startling one, for the total deaths from this disease for the first year of life have dropped from 25 per 1,000 births in 1900, to no more than 7 in 1925. It is also interesting to note that a comparatively high incidence of 36 in 1911 was followed by a spectacular drop to 8 in 1912. This downward trend is due in no small part to a general advancement in the science of infant feeding, to improvements in the milk supply, and to better home management; but we should not forget that our cleaner streets, together with a much-diminished horse traffic and a subsequent reduction of potential fly-breeding areas, have also helped.

Diphtheria.

The evidence is conclusive that diphtheria shews its heaviest incidence on children between the age of two and five years, and that it constitutes a risk to about seventy per cent of pre-school age. In this disease, the local conditions, such as dampness, soil contamination, and defective drainage—though merely contributing factors—still exert an appreciable influence, in that they lower the child's natural resistance.

The special Report on Diphtheria issued two years ago by the Medical Research Council concludes: "that it is obviously desirable that facilities should be afforded for the fullest investigation of the Schick test, and of the system of immunisation by means of toxin-antitoxin inoculations, with a view especially to deciding on the advantages which might result from its adoption in this country for the protection of school children and other 'community' populations, as also of nurses working in the diphtheria wards of an infectious diseases hospital."

In Birmingham, one of our most progressive cities in Public Health matters, the work of Schick testing and, when necessary, of immunisation, has now been in operation for several years. Convincing proof has been given there of the value of the Schick test and immunisation for the protection of their hospital staffs against diphtheria; and they have recently inaugurated a similar scheme for children under five years of age, to be carried out in their Maternity and Child Welfare Centres.

Sporadic cases of diphtheria we can hardly prevent, and the part played by the "carrier" has still to be defined; but with the methods of

immunising that are now available, it must be soon realised that, in a well-regulated community, endemic diphtheria should be a thing of the past. We have still much to learn.

Rheumatism.

From statistics we learn that rheumatism, or rheumatic infection, is not a *primâ facie* disease of the pre-school years. This may be so, but there is no doubt that many cases of acute rheumatism and chorea occurring in early school life have followed as a direct result of certain pre-school influences. To sum this up—the central problem of child rheumatism is the pre-rheumatic stage. It is in the debilitated toxic child that rheumatism arises, for in the large majority of cases before the first real attack there is a period of months or even years of impaired health, usually characterised by recurrent "growing pains" of varying intensity.

But this state of toxic debility is not merely a "run-down" state of health; it is something much more intimately related to the disease. It may have been caused by two main factors: first, a reduction of the tone and resistance of the individual, as a result of a long-continued dietetic defect, and secondly, by a chronic absorption of toxins through the mucous surfaces into the system directly consequent upon this loss of tone and resistance. The dietetic factor here is an important one, and perhaps not estimated at its true value, but we may yet find that the eradication of rheumatism in childhood may follow a closer study of the infant and the pre-school child by the provision of a diet containing a much less relative quantity of starch and sugar, and a larger quantity of animal fat and animal protein.

What then are the factors which go to make up this rheumatic complex of childhood? Heredity, the physical make-up of the individual, and environment all contribute in varying measure; but we still have much to learn about the bacteriology of the disease.

It is, however, the general consensus of medical opinion that heredity and a damp house are perhaps the most important predisposing factors; a damp house can be remedied, but the influence of heredity must be met by raising the resistance of the individual to the infection.

The Health of the Scholar.

Having very briefly considered the most important factors of pre-school life, how can we help to safe-guard the health of the scholar?

It is now generally recognised that the physical health of the child lies at the root of education, or should do so. A healthy child is a happy child, for we must remind ourselves that "the true object of education, like that of every other moral process, is the generation of happiness." The development of a sound character, an active intelligence, and a healthy physique are to a great degree mutually dependent; there should be a direct relation between the three factors of nutrition, general health, and physical training.

Health education, in its true and practical sense, is not yet taught in our elementary schools, and the teaching of the simple rules of health and personal hygiene either takes a subsidiary place in the curriculum, or is entirely omitted.

When speaking of the care of the cardiac child, Dr. Kerr, in his recently published book, "The Fundamentals of School Health," lays strong emphasis on this need. "The co-operation of the home is required," he says, "but until school hygiene becomes educational, and is part of the school instead of an extraneous affair conducted by an assistant medical officer of health, in this, as in many

other matters, there is little prospect of material advance for another generation."

The Consultative Committee of the Board of Education have this year recommended a new advance in the general scope of our national system of education. The scheme proposed is both interesting and far-reaching. If it be adopted, School Medical Officials should insist that the teaching of physical education be given the serious attention it so rightly deserves, and that the time has come when it should be regarded, in the junior classes at least, as a subject second to none in the school curriculum.

In the words of Sir George Newman, and it would be impossible to find a more fitting conclusion to this paper: "There is a health duty of the School Medical Service to *all* children, and the school doctor should periodically cross-examine himself as to whether he is rendering his proper service to the normal child, by far the larger proportion of school children. Food, air, exercise, rest, and the practice of hygiene—these essentials of health demand his continued attention if 'the wisdom of the body' is to grow and extend in England."

THE REGISTRAR-GENERAL'S STATISTICAL REVIEW.

THE Registrar-General's Statistical Review 1925, Text (Price 5s. net) is now on sale at H.M. Stationery Office. This is the final of the three annual volumes constituting the Statistical Review and contains the Official analysis of the vital statistics contained in Parts I (Medical) and II (Civil) issued last year. The birth, death, and marriage rates for the year are shown as follows:—

	1925	1924
Marriage-rate per 1,000 population	15·2	15·3
Birth-rate per 1,000 population	18·3	18·8
Death-rate per 1,000 population	12·2	12·2
Deaths of infants under one year per 1,000 births	75	75
Deaths of mothers from childbirth per 1,000 births	4·08	3·90

Separate sections of the Review are devoted to Estimates of population, Marriages; Births; Deaths; Vital Statistics of the United Kingdom; Parliamentary and Local Government Electors; and Meteorology.

Special features include the following:—*Seasonal Distribution of Mortality.*—The present volume completes the first quinquennium of the new series of the Statistical

Review, and affords an opportunity of summarising the yearly figures relating to the monthly incidence of deaths from various causes in England and Wales, which were first tabulated in 1921. The results for the most important causes are discussed in the text and reproduced in diagrammatic form, to facilitate the study of the figures. *Accidental Burns.*—A table of death-rates by age and sex for the past 20 years has been constructed to show the changes in the mortality from this cause. The reductions at ages 2 to 15 years are noticeable. *Diabetes.*—In view of the public interest in this disease since the discovery of insulin, tables have been constructed which show the changes in the sex and age incidence of the mortality from this cause in each year 1911-25. These rates show the effect of the food restrictions during the war, and the decrease in the mortality at the younger adult ages since the introduction of insulin. Formerly the mortality from this disease was greater among males than females, but in recent years the position has been reversed owing mainly to the increasing mortality among females at the higher ages.

Ut Ita Dicam.

(Being Comments, apropos and otherwise, on Sundry Matters.)

Hints on Retiring.

You, no more than I, let me tell you, are on the eve of your retirement; but, like me, you will have to retire one day, and you will have to consider what you are going to do with yourself when you have given up the work that for all these years has provided you with all the fun you want. Possibly you have decided that you will devote more time to golf and the getting rid of certain of the defects that you have a feeling rather mar the excellence of your game; or you may have arrived with satisfaction at the conclusion that perhaps now you may manage to find time to finish writing that book, or—dreadful thought—reading through Scott's novels. If you have formed any such idea let me beg of you to abandon it and instead turn your thoughts to the devising of a scheme whereby, on the first morning following the handing over of the reins of office, you may step aboard a liner that will circle the world with you.

Dr. Cooper Pattin en Voyage.

That is what I contemplate doing, and if you want to know who put the idea into my head I will tell you. It was Dr. Cooper Pattin, late of Norwich, who, before setting off upon his voyage of retirement to Australasia, made arrangements that I should receive a copy of an extremely interesting series of articles written *en route*, and descriptive of the wonders he saw and heard. Knowing Cooper Pattin and the kindness of his nature, I am convinced that he had no intent other than my delight, but I think he should be told at once that other feelings were aroused. Conspicuous there was a sensation of envy and a wonder if, when my time came, I should be able to do as he has done, and to make of my retirement such a joyous adventure.

The Green-Eyed Monster.

How is it possible to avoid envying him? Before he begins, the sensation appears, but when he goes on to talk in that blyth and cheery way of his about the reasons that induced him to make for Australia via the Panama Canal rather than by Honolulu and Samoa, it becomes so intense that there is a longing to bite someone. And when casually he mentions that "thirteen times round the

hurricane deck equalled a mile," then it became almost insupportable. What appears to make this journeying of Dr. Cooper Pattin's all the more delightful is that, though it was probably *au fond* in the nature of a pleasure excursion, there was not a complete absence of business, since he had as an objective the Congress at Dunedin. At this he acted as delegate of the British Medical Association, as well as of our own Society, a fact of which he no doubt frequently reminded himself when testing the totalisator at a race meeting at Sydney, or coming away a winner, a rôle he frequently played at a bridge party, or visiting the Blue Mountains and Janolan Caves, or making speeches at banquets and lunches given in his honour by Rotarians.

The Dunedin Congress.

Of the excellence of the Congress, Dr. Cooper Pattin has much to say, describing it as the best managed of any he had attended. That he did attend, and that regularly is evident from the notes he gives of the various subjects discussed. This the Society should find gratifying, and we should congratulate ourselves on our wisdom in choosing so excellent and dutiful a representative. Among the subjects discussed were many old friends: goitre, which is prevalent in parts of New Zealand; tuberculosis, common amongst the Maoris; cancer, the gastric and intestinal forms being "relatively prevalent" in Australasia; and of course, since the meeting was in New Zealand, infant welfare and the work of Truby King. Whether or not it is the intention of Dr. Cooper Pattin to submit a formal report as to his stewardship and the work done in his high office of delegate of the Society, I am unaware. If he does, and writes it in so racy and colourful a style as the series of articles that have come through to me, there is no doubt that it will receive the compliment, stated to be but rarely paid to reports, of being read. Being read it will have upon its readers the effect I have described it to have had on me; it will fill them with envy and longing, and will convince them of the correctness of the view expressed that the best way to spend a retirement is to go journeying. As it helps the journeying to be a delegate of the Society to a congress, I can

imagine that there will be quite a competition from time to time for the honour of appointment to any and every congress held oversea.

Welcome Home.

Sir George Newman did not delay long over taking up his duties again after the very strenuous time he had during his stay in the United States. Arriving on the Friday, he was at it again on the Monday following, as full of vigour and enthusiasm as usual. He had busy days and nights on the other side and, as might have been expected, did not escape with the delivery of the lectures at Yale, which was the primary reason for his visit. Amongst cities visited and in which he lectured were New York, Syracuse—the headquarters of the New York State Health Department, and Dr. Nicoll, the State Commissioner of Health—Washington, Philadelphia, and heaps more. That Sir George received a very warm welcome wherever he went is certain, and that he created a tremendously favourable impression not only

so far as he personally is concerned, but also as regards the whole of our Service here, there is equally no doubt. The value of such visits is inestimable, and the more distinguished and influential the persons who make them the more effective they are.

An Embarras de Choix.

I was tremendously impressed by the names that appeared in the first selected list for the appointment at Lambeth, and felt that the committee appointed to interview the candidates were going to have a difficult task in choosing from the ten invited to appear, the man to be recommended. Largely it must have been a case of how happy I could be with any were the others not there. That, so far as I can gather, proved to be the case, since the committee, having seen all and having discussed them at length, eventually sent a message imploring the candidates to go away and to leave the members a few more days to consider their decision. P.

JOINT TUBERCULOSIS COUNCIL.

A meeting of the Joint Tuberculosis Council was held at 1, Upper Montague Street, Russell Square, London, W.C.1, on May 21st, 1927.

Present: Sir Henry Gauvain (in the Chair), Drs. James Watt, L. T. S., Burrell, E. Ward, F. C. Blackmore, H. Gordon Smith, J. C. Gilchrist, D. T. Williamson, Jane Walker, Arnold Lyndon, A. Neville Cox, Esther Carling, S. Vere Pearson, George Jessel, D. P. Sutherland, Lissant Cox, J. B. McDougall, H. Vallow, R. Gloyne, A. Sandison, and H. A. Ellis.

1.—The Secretary announced that the Medical Research Council were prepared to meet the expenses of the scheme of work of the Council up to a further amount of £20.

2.—It was decided that the Council do offer evidence to the Royal Commission Committee. The Committee's memorandum was discussed in detail and passed with some minor amendments. Sir Henry Gauvain, Dr. Lissant Cox and the Secretary were asked to attend and give the evidence if the Commission so desired.

3.—The Memo. Committee's report was considered in detail and approved. The Council expressed grateful appreciation of the

work done, and the Secretary was asked to forward a copy to the Ministry of Health.

4.—A letter from Dr. Brand was read, outlining further post-graduate courses this year. Nine men attended the Copenhagen course, sailing on May 7th. A course at Alton was to be held in June; one on Pathology and Bacteriology under Dr. Gloyne in September, and a London course, including the interpretation of skiagrams, also in September. Owing to illness, Dr. Brand was unable to be present personally. The Secretary was asked to convey to him their thanks for the work done, their sympathy in his illness, and best wishes for a speedy recovery.

CORRECTION.—In the report of the Metropolitan Branch, published on p. 303 of the June number of the journal, reference was made, in error, to the Public Health Section of the General Nursing Council. The Public Health Section to which it was intended to refer was, of course, that of the College of Nursing.

DR. R. DE LA POER BERESFORD has resigned his appointment as medical officer of health for the Oswestry rural district after 54 years' service. Dr. Beresford is aged 85, and is one of the oldest Fellows of the Society of Medical Officers of Health—if not the oldest

The Development and Future of Maternity and Child Welfare.

By A. F. G. SPINKS, M.D., Maternity and Child Welfare Medical Officer,
Newcastle-upon-Tyne.

In this, one of a series of clever and helpful papers, read at the Provincial Meeting of the Maternity and Child Welfare Group, held in Newcastle-upon-Tyne, in February, 1927, Dr. Spinks gives a useful summary of the history of the development of this work, and shows himself most optimistic as regards its future.

THE development of Maternity and Child Welfare is probably the most convincing of the many signs of an awakening public interest in public health.

Almost unheard of, and with possibilities unsuspected 25 years ago, and established with all the financial and other disabilities inseparable from voluntary activities, it nevertheless gripped the imagination from the outset, and made for itself a safe and permanent abiding place in national affairs.

To-day, nearly every district—both urban and rural—has its Maternity and Child Welfare Scheme, and in England alone there are more than 2,000 Centres, from most of which come reports of rapidly increasing attendances.

At our Newcastle Centres the attendances increased from 4,000 odd in 1918 to 50,000 odd in 1926.

While it is difficult to be precise on the point, the available evidence suggests that the first Infant Welfare Centre was established in Ghent (Belgium) in 1901.

Five years later (1906) a Centre was started in the Borough of St. Marylebone, London, by Dr. Eric Pritchard, to whom Maternity and Child Welfare owes so much.

In the meantime, France—for many years face to face with the perils of a falling birth rate and a comparatively high infantile mortality rate—developed the system on a large scale.

In England we notice three epochs in the history of Maternity and Child Welfare.

First, that dating from about 1900 to 1914, chiefly marked by the activities of voluntary agencies, and made noteworthy by the passing of the adoptive Notification of Births Act of 1907.

Second that between the years 1914 and 1918, when the compulsory Notification of Births Act, 1915 was passed, and when the

Government—probably alarmed by the wastage of War—roused Local Authorities to an increased interest in their citizens; and

Third from 1918 onwards, when we see the passing of the Maternity and Child Welfare Act (1918) with its attendant State aid and control.

In the year 1924-5 the Government grant for Maternity and Child Welfare amounted to £772,684. This sum, being 50 per cent of the approved net expenditure by Local Authorities and Voluntary Societies, gives a total annual cost of about one and a half million pounds, which is less than a halfpenny a pound in a national Budget, amounting—as ours does—to over eight hundred million pounds.

Not a large sum to spend on so important an object. Preventable ill health costs the nation many times that amount annually.

Although the simple epigram "Prevention is better than cure" must have been recognised as a truism from the beginning of time, it was left for war and a falling birth rate, at the close of the nineteenth century, to point out the practical national application by seeking in the infant for the seeds of many of the serious physical conditions which, when left alone, either result in premature death, or serious crippling in adolescent and adult life. Sir Berkeley Moynihan, of Leeds, recently said "that the permanent disabilities and incurable maladies of later life were often the curable ailments of the children grown to adult stature. The greatest care should be given to the little children of rich and poor alike, in their earliest and tenderest years."

Maternity and Child Welfare has been developed to give that "greatest care" to the little children of rich and poor alike, and it has two main objects in view; first, to maintain in good health those who are already healthy, and, practically speaking, every

child is healthy at birth, and second, to improve and increase national efficiency.

Thus in principle it is essentially preventive, and, since it deals with the health of the public at the outset of life, it must be the basis of Public Health.

Experience has proved that a great deal of the suffering prevalent among young children is due, not so much to want of money as to want of knowledge, and unfortunately in numerous instances this want of knowledge prevails on a vitally important subject from the child's point of view, that is its proper food.

At the present time the bottle feeding of infants is rampant, and is in danger of becoming a craze. Unless this craze is checked, it must inevitably result in England becoming a bottle fed nation, and there is nothing but Maternity and Child Welfare to save us from such a calamity.

Again, in the first 5½ years of life we are face to face with the perils of premature birth, marasmus, deformities, congenital syphilis and heart disease, purulent ophthalmia, the cause of a great deal of blindness, bronchial, and other catarrhs, pneumonia, otitis media, summer diarrhoea, ruptures of every kind, birth injuries, infantile paralysis, rickets, tuberculosis, infectious diseases, and many other conditions which either kill or permanently maim, for every one of which Maternity and Child Welfare offers the surest means of either avoidance or relief or cure.

To promote national efficiency, Maternity and Child Welfare claims, that in the period of children's lives with which it deals, viz., nine months before and five years after birth, there lie not only the safety and welfare of maternity, but also the foundations of healthy men and healthy women, and it avers that a healthy superstructure cannot be built on an unhealthy foundation; that a healthy man cannot be built upon a rickety baby.

As to the future of Maternity and Child Welfare, that is assured, for it is inconceivable that we should ever be allowed to slip back to those "halcyon days" when infants and young children were allowed to be the victims of undisturbed indifference or mismanagement, and needlessly sacrificed by the thousand.

Rather do I see it being widely expanded, till it embraces within its benign fold every expectant mother and every child born in this country, irrespective of class. I think I see

the day coming when we shall have Health Visitors with higher qualifications, and, perhaps, some day with medical degrees.

The health and welfare of our mothers and children are national assets, and as such, should not be left to the uncertain caprices of voluntary efforts, which—praiseworthy though they be—must always be handicapped by want of money, and by their necessarily charitable nature, which makes them offensive to a large section of the community.

If, and when, my vision materialises, great changes will take place. Every local authority without exception will have its Maternity and Child Welfare scheme. Maternity Homes will abound throughout the country, and much of the midwifery will be done in them. The midwifery service both among doctors and midwives will inevitably improve, with a resultant saving of many valuable lives, and avoidance of much suffering. Pregnancy and childbirth are both physiological processes; nevertheless, they cost 2,744 women their lives in this country in 1925.

At present ante-natal service is given at only 675 of the 2,000 odd existing centres. This service will be available everywhere, not only because it is in the interests of the mother—and it is to the interest of every expectant mother to receive expert guidance during her pregnancy—but also because it is a valuable means of checking the enormous life wastage which now takes place either just before, at, or just after birth, and which makes up nearly 50 per cent of the present infantile mortality.

Infants' Hospitals—few in number at present—will be numerous, and many of those in industrial areas will have their own country or seaside convalescent homes. The wide extension of open-air and natural and artificial sunlight treatment is inevitable, and—it is to be hoped—unnecessary artificial feeding will be rigidly checked or abolished altogether.

Children of toddling age will come more and more under control, and will receive such attention as will obviate the great amount of deterioration in health now noticed among them, and such feeding will be taught and given, as will spare us the now too common sight, of the 2 or 3 year old child, many pounds below its normal weight, and with decayed teeth.

Very few people know anything about babies, and everyone has a lot to learn.

Why do more boys than girls always die during the first year of life?

Why does every baby sleep with the tip of its tongue curled up to the roof of its mouth?

Why does every baby so forcibly object to you looking into its mouth?

Why do the mouths of some apparently normal infants prevent them from taking their natural food in a natural way, and allow them to take unnatural food given in an unnatural manner?

These are a few of the many mysteries of infancy which remain to be solved.

Finally, a halt must not be called till we have prevented every preventable calamity which befalls women and children.

When that day comes there will only be one thing more for Maternity and Child Welfare to do, and that is to pass on the preventive principles upon which it is founded, to the general public, so that in place of having an army of doctors curing disease as we have now, we shall have an army of doctors preventing it.

The Treatment of Tuberculosis.

By PERCY MOXEY, M.B., Ch.B., D.P.H., Chief Clinical Tuberculosis Officer and Assistant Medical Officer of Health, Southampton.

Read by Dr. Moxey to the Southern Branch, on April 1st, 1927, this paper is more or less clinical in character, having special reference to treatment of tuberculosis by injections of antimony. Interest was added to the occasion by the fact that certain patients who had undergone treatment were shown at the meeting. This is rather a feature of the meetings of the Southern Branch, and one that is greatly appreciated by the members.

IN leading up to the treatment for tuberculosis and para-tuberculosis, one must first of all make some attempt to lay down a definite ruling as to the signs and symptoms leading to the diagnosis.

Pulmonary tuberculosis is often extremely difficult to diagnose in the early stages, the tubercle bacillus being found in the sputum for the most part as a more or less late manifestation of the disease, and if the disease is to be dealt with satisfactorily, it is of the utmost importance that the diagnosis of tuberculosis be made at as early a stage as possible and treatment commenced forthwith.

Lassitude is probably the earliest symptom, accompanied by some loss of weight, and if in addition there are some slight physical signs on examination, such as an increased harshness of the breath sounds, increased vocal fremitus and resonance, sinking in above and below one clavicle, shoulder-drop, or some wasting of the shoulder girdle muscles on one side, then even in the absence of cough, one should strongly suspect the presence of tuberculosis and initiate treatment at once.

In early cases such as these, and all cases must have this stage, skiagraphy is probably of little value, my own experience being that it is rare to see anything on the screen or film which cannot be detected during a careful examination.

In auscultation I have found the phonendoscope of more value than the stethoscope, as with the latter one hears too much of the normal, and with the former only adventitious sounds are noted. This is, of course, a matter for individual taste.

Para-tuberculosis (or non-pulmonary) is also most difficult to diagnose early. There are many cases of slight pain in the spine, hip joint, knee and so forth that it is almost impossible to label, and in all cases of doubt it is as well to place the blame on the tubercle bacillus and commence your attack.

Only a few cases of para-tuberculosis, mostly glandular, have come to the clinic, and I will, therefore, say little about this class of case, only that the treatment with injections of collosol antimonium (Crooke's) has been of distinct value, discharging sinuses often quickly drying up and the general condition of the patient improving. I have certainly had better results with this preparation than when using tuberculin.

The treatment adopted for pulmonary tuberculosis, and which I now use in all cases, is as follows:—

Asparagin or althein is given in one grain doses in water before breakfast.

Asparagin has diuretic properties, and it also loosens the tenacious sputum which is often so troublesome to the patient.

This latter property is not noted in the British Pharmaceutical Codex, but it exists, and is certainly of value.

Asparagin has a solubility of one in fifty, and it can be given in doses up to ten grains, or it can be given as the decoctum altheæ B.P.C., which is a demulcent, and is of much use in irritation and inflammation of the mucous membranes.

A mixture of ten minims vinum antimoniale and one drachm oxymel scillae in water is given thrice daily.

At night a two minum dose of liquid extract sanguinaria canadensis in water is given.

This is a stimulating expectorant, sometimes used in chronic bronchitis, which also has most useful narcotic properties resulting in the patient having a good night's rest, the value of which cannot be over estimated.

In small doses it is also a circulatory stimulant. Amongst other substances it contains sanguinarine and protopine, both of which belong to the opium group of alkaloids.

It is also prepared as a tinctura sanguinaria given in ten to fifteen minum doses.

In larger doses than those noted an emetic effect is produced, and if sickness should result its administration should either be discontinued or the dose cut down. In the *British Medical Journal*, February 26th, 1927, I stated that it was advisable to omit this drug if there was hæmoptysis, but with further experience I do not think this to be necessary.

An intramuscular injection of 1c.c. collosol antimonium (Crooke's) is given twice weekly, the site of injection selected being the fleshy part of the flexor muscles of the forearm for the sake of convenience and rapidity. The site of injection is painted with iodine, the needle inserted about half an inch, and the fluid slowly injected. In withdrawing the needle the index finger is placed firmly over the site of puncture and as a result of the pressure no bleeding takes place, and no dressing is needed.

In some 10,000 injections I have had no unpleasant results, although it is well to warn the patient in the event of pain to foment the arm with hot water.

Injections of antimony have been used with success in many parasitic diseases. Trypanosomiasis, Filariasis, Leishmaniasis, Bilharzia, Kala-azar and leprosy are instances of diseases in which it has been used with benefit.

Antimony in small doses is diaphoretic and expectorant, and it reduces fever and tempera-

tures. This is in part due to its direct action in the tissues and also to the phagocytosis which it excites. In its colloidal form it has a marked bactericidal action *in vivo*.

When broken down in the tissues this preparation yields antimony in ionic form, which is much more slowly excreted than if exhibited as a salt, and its action is therefore more continuously exerted.

Colloidal antimony produces at first an increase in the moist sounds, cough is increased, but is easier as the sputum becomes greater in quantity and more fluid. After a few injections both the cough and sputum decrease, and the lungs become much dryer.

Temperature falls to normal very early, often with the first injection, and the patient's colour and general condition rapidly improve.

Pleuritic pain may be considerably relieved by the use of a simple liniment of turpentine, compound camphor liniment and alcohol, in olive oil. And if there is much laryngeal irritation nigroids (Ferris and Co.) are most soothing.

This treatment has now been tried in some 300 cases, and the results are far more satisfactory than those I obtained when using tuberculin.

Very few cases are utterly hopeless, and many late Group 3 cases have improved considerably. Unfortunately, so much pulmonary tissue has already been damaged that even with arrest of the disease, the prospect is far from bright for most of them.

In many early cases it has been possible to treat them and restore them to health without residence in a sanatorium, and even with the patient remaining at work, although rest would naturally produce better and quicker results.

It is, of course, preferable to admit all new cases to the sanatorium with a view to observation, treatment and education, and this is done whenever possible.

The patient is then put on the above routine and in nearly all cases the temperature quickly becomes afebrile or nearly so. As soon as the evening temperature is down to 99, the patient is allowed up daily in increasing amount, the increase not being continued if the temperature rises. As soon as he is able to remain up all day with the evening temperature no higher than 99, he is discharged to continue treatment at the clinic. Many difficulties have to be faced as the patient often returns to insufficient food or an overcrowded dwelling, but I do hope that the time is not far distant when

social legislation will do away with these disabilities. Until the housing question is tackled more seriously, and until relief for those in ill-health is on a more generous scale, there is little hope of saving many of these people, whose plight is often truly desperate.

As a result of this routine, I have been able to cut down the time of residence in sanatorium considerably, and this is a distinct advantage as so many more cases can be passed through in a given time, and obtain the necessary education which is so important.

Every authority is faced with the difficulty of providing enough beds for their cases, and there are far too few beds available if each patient is to have six months' sanatorium treatment, the time most authorities consider necessary to produce good results.

With a shorter period of residence this difficulty will automatically disappear, and the economic aspect of our work will become less serious.

During the sixteen months previous to my appointment here, 184 cases were passed through with 30 deaths, each patient being in on the average for 18 weeks. In the following ten months, 215 cases were treated with 16 deaths, an average in-patient residence of under ten weeks. Incidentally, the number of deaths was smaller than expected, as many cases were admitted of a rather more severe type than usual, as I wished to treat types at all stages, and the result has to a great extent justified the experiment.

Another good effect produced has been that at one time there was a long waiting list, and cases frequently had to wait some time before admission; now a patient can always be admitted within a week and with far happier results.

Most chest cases require warm air and warmth, and an absence of cold and draughts. To me it is distressing to see a thin, sickly, phthisical patient, blue with cold, and perhaps in our zeal for fresh air we are inclined to overdo this.

With patients suffering from malnutrition, the question of diet becomes of first class importance, and with the present restricted purchasing power it is necessary to look for the best value, and we must therefore consider which foods contain the best supply of vitamins A, B, and C. Vitamin A is contained in cod liver oil, butter, egg-yolk, and green vegetables; vitamin B in yeast, marmite and wholemeal cereal products; vitamin C in

fresh fruits, tomatoes, and raw green vegetables, and the necessary protein can be obtained from meat, fish, milk, cheese and egg.

Plimmer and Rosedale have shown how important it is for good nutrition, to have all the vitamins as well as protein in the dietary, and also how readily vitamins A and C are destroyed by heat and oxidation, so that the careful preparation of foodstuffs must also be considered.

Dr. Hindhede, of Copenhagen, carrying out food researches during the war, when Denmark was cut down to about one-third of its normal food supply, found that a diet consisting of dairy produce and vegetables was the most healthy, besides being by far the cheapest.

Wholemeal bread with milk and cheese forms an excellent diet.

Wholemeal flour or crushed wheat has a higher vitamin content, weight for weight, than oatmeal, and costs much less. Made into porridge with milk and a few sultanas, it is a most satisfying and cheap meal. With a few facts like these it is not difficult to advise our poorest patients how to get the most nourishment for their money, and a better knowledge of dietetics may prevent many people from becoming patients.

After discharge from sanatorium the patient returns to his home once more to live under the conditions in which he contracted the disease, and this is where the real struggle commences. He attends the clinic regularly, and if he has taken to heart the lessons he learned in sanatorium he will continue to improve. Often alcohol or smoking, both most harmful, are responsible for some setbacks, and it is imperative to get him back to work and occupation as soon as possible, when he will be happier, and his finances in a better condition.

He should keep a record of his evening temperatures, and a return to a febrile condition must be met by rest and further treatment.

The statistics of the cases treated, taking all those placed on this treatment up to the end of October, 1926, and the present position of these is as follows:—

Cases treated	...	...	...	167
Quiescent	...	...	...	37
Improved	...	...	...	97
Not so well (signs increasing)	...	...	...	19
Deaths	...	...	...	14

All the above cases had definite pulmonary lesions but did not all have a positive sputum.

Taking only those in which the sputum was positive, the figures were as follows:—

Number of cases	...	...	...	83
(59 of these were Group 3.)				
Quiescent	...	...	...	12
(6 returned to work.)				
Improved	...	...	...	49
Not so well	...	...	...	8
Deaths	...	...	...	14

It is only fair to add that all cases, however bad, were placed on this treatment; if only cases had been treated in which there was a moderate chance of recovery, the results would have appeared far more satisfactory.

The following cases, amongst others present here for your inspection, will illustrate the efficiency of this method of treatment.

Case I.—Mrs. C. Sputum + Group 3. Was under treatment at Brompton for four years, having artificial pneumothorax treatment. This was discontinued in July, 1925. Although greatly improved at the time, she rapidly lost ground from this date, and was admitted to sanatorium in July, 1926, when there were signs of marked activity in both lungs. General condition bad, cough troublesome, sputum scanty, some staining. Treatment with antimony was commenced, and 10 weeks later patient was well enough to return home, since when treatment has been continuous. She has gained 8½ lbs. in weight, has now no cough or sputum, and physical signs in the lungs are limited to dullness over the right upper lobe. Patient has returned to work.

Case II.—J. O. January 14th, 1927. Sputum + and profuse. Group 3. Weight 9 stone. General condition very bad. Moist râles all over both lungs. Evening temperature 99°. Admitted to sanatorium January 17th, 1927, and was discharged five weeks later. Increased 1 stone in weight. Cough and sputum nil. At present an occasional râle can be heard over the right apex. Weight is steadily increasing, and is at present 10 stone 11 pounds. Temperatures never above normal.

Case III.—Mrs. M. L. Sputum + Group 3. On October 8th, 1926 weight 6 stone 5¼ pounds. Cough constant and sputum "a great deal." Always tired. General condition very poor. Fine râles all over left lung and at right apex. Refused sanatorium, and was treated at the clinic only. During the whole time she has carried on her household work, including looking after four children.

Her weight increased to 6 stone 13 pounds, but she has dropped to 6 stone 9½ pounds, as she has been working harder of late, and has also been having dental treatment. Cough is now very little, and the sputum is scanty. Never feels tired. Works from 6 a.m. till night, and temperatures are always normal. There are still some râles at both apices, but her improvement is very marked.

Case IV.—W. S. Sputum + Group 3. Was discharged from sanatorium last May, when his weight had increased considerably, but there was little improvement in his pulmonary condition. In August was running evening temperatures up to 102°, and it was decided to commence antimonial treatment. There was a rapid fall of temperature to normal and his condition commenced to improve. At present he has very little cough or sputum; his general condition is much better, and there are very few physical signs in the lungs. He has lost some weight since leaving sanatorium, but as he is much better and more active, this is not of great moment. Present weight 10 stone 9 pounds.

Case V.—E. S. Sputum + Group 2. On January 24th, 1927 weight was 8 stone 8½ pounds. Cough was troublesome, sputum ii.—iii. ounces daily. Temperatures—100° evenings. Râles right upper lobe and dullness left apex. Treated at clinic only. Present weight 8 stone 9¾ pounds; cough slight, sputum decreasing, now one ounce daily. Temperatures always normal, and he is taking long walks. Moist sounds in the lungs have disappeared.

Case VI.—J. C. P. Sputum + Group 3. In November last was running evening temperatures of 102 and 103. Treatment commenced and he was admitted to sanatorium for 6 weeks. His cough and sputum have disappeared, weight has increased 8½ pounds, and there are no moist sounds in the lungs. Temperatures now always normal.

A NATIONAL Conference on Maternity and Infant Welfare will be held, under the Presidency of the Right Hon. Neville Chamberlain, M.P., Minister of Health, in the Great Hall, British Medical Association House, Tavistock Square, London, W.C.1, on July 5th, 6th, 7th, and 8th, 1927. Full particulars of the programme may be obtained from the Hon. Secretary, National Association for the Prevention of Infant Mortality, Carnegie House, 117, Piccadilly, London, W.1.

The Society.

Reports, Proceedings and Announcements.

NOTICES.

During the month of June a third notice has been sent to all Members of the Society whose subscriptions are overdue. The Hon. Treasurer hopes these reminders will not be overlooked, as the Auditor has drawn attention to the delay in collection.

The Hon. Secretaries of Branches and Groups are reminded that the Executive Secretary should be notified not later than August 7th, of Officers and Representatives elected for the Session 1927-28.

The following candidates, having been duly nominated, will come up for election at the next Ordinary Meeting of the Society: Dr. George McCoull, M.O.H., Prudhoe U.D.; Dr. Carrie Sims, M.O. (M. and C.W.), Southwark; Dr. A. H. Macdonald, C.M.O., Dr. Barnado's Homes; Dr. H. Hunter Woods, M.O.H., Milton (Hants.) U.D.; Squadron-Leader E. N. Hillman Gray, R.A.F.M.S., O.C., R.A.F. School of Hygiene, Uxbridge; Mr. R. Hood Forrest, L.D.S., School D.O., Plymouth Education Committee.

As reported in the June number of the Journal, the *Maternity and Child Welfare Group* is taking an official part in the National Conference on Maternity and Infant Welfare to be held at British Medical Association House, Tavistock Square, London, W.C.1, on July 5th, 6th, 7th, and 8th, 1927, and has made the following arrangements:—

Tuesday, July 5th.—Dinner at Florence Restaurant, Rupert Street, London, W.1, at 7.30 for 8 p.m., followed by an informal discussion on Immunisation against Diphtheria. Dr. W. Ashley Lethem, M.C., Ministry of Health, and Dr. J. Graham Forbes, London County Council, have promised to speak. All medical practitioners attending the conference are invited to be present, and names should be communicated without delay to the Hon. Secretary of the Group, Dr. Margaret Emslie, 22, Wimpole Street, London, W.1. (Telephone: Kensington 8163.) The price of the dinner is 5s. 6d., exclusive of wine.

Thursday, July 7th.—10.30—1 p.m. Chairman: Dr. Mabel Brodie (President of

the Group, 1926-27). Discussion on the Workings of the Maternity and Child Welfare Act, 1918, and some Indications for its further Development. (a) A general survey by Col. F. E. Fremantle, O.B.E., M.P. Papers: (b) The Provision of Observation Wards and Hospital Beds for Infants and Children under School Age, by Dr. James A. Stephen (Aberdeen); (c) The Provision of Further Beds for Maternity Cases, by Mr. Harvey Evers, F.R.C.S. (Newcastle-upon-Tyne). 2.30—4.30 p.m. Chairman: Dr. E. H. T. Nash (President of the Group, 1927-28). Discussion: Respiratory Disease as a Factor in the Infantile Mortality, and measures necessary for its Nursing and Treatment. Speakers: Dr. A. S. M. McGregor (Glasgow); Dr. Kerr Simpson (Barking); Dr. H. H. Chodak Gregory (Royal Free Hospital, London), etc.

THE METROPOLITAN BRANCH.

President: Dr. G. Quin Lennane, M.O.H., Battersea.
Hon. Secretary: Dr. James Fenton, M.O.H., Kensington.

The annual meetings of the Council of the Branch and of the Branch itself were held at the House of the Society, on June 10th, 1927, the President occupying the Chair. Fifteen other members were present at the Council meeting, and 24 at the meeting of the Branch. An apology for absence from the Branch meeting was received from Dr. E. A. Barton.

After the minutes had been read and signed, the President extended on behalf of the Branch a warm welcome to Dr. C. T. Maitland, late Assistant Medical Officer of Health for Willesden Urban District Council, who was recently appointed Medical Officer of Health for Stoke Newington.

The Annual Report of the Council was submitted by the Hon. Secretary and adopted, instructions being given for it to be circularised to the members of the Branch.

The following nominations in regard to the election of the President and other Officers of the Branch for the Session 1927-28, were decided upon by the Council:—

President.—Dr. F. E. Scrase, M.O.H., Hampstead.

Vice-Presidents.—Dr. Charles Porter, M.O.H., St. Marylebone; Dr. G. Quin Lennane, M.O.H., Battersea.

Hon. Treasurer.—Dr. C. S. Thomson, M.O.H., Deptford.

Hon. Secretary.—Dr. James Fenton, M.O.H., Kensington.

Representatives of the Branch on the Council of the Society.—Dr. James Fenton, M.O.H., Kensington; Dr. E. G. Annis, M.O.H., Greenwich.

Consideration was given to a letter from Messrs. J. Lyons and Company, Limited, in which the opinion of the Branch was requested as to the legality of the use of (a) a substitute for cocoa butter in the manufacture of chocolate, and (b) a preparation, obtained by mixing and homogenising butter, powdered separated milk and water, in the place of cream. During the discussion of this matter it was pointed out that there is no legal standard in respect of the composition of chocolate, neither is there any statute which prescribes the kind of cream to be used in the manufacture of cream buns, etc. In view of these circumstances it was decided to inform Messrs. Lyons that they should apply to the Ministry of Health for guidance in respect of the matters referred to in their letter.

A very full discussion took place upon a letter which had been addressed by the Secretary of the Public Medical Service for London to each Metropolitan Borough Medical Officer of Health suggesting that the advantages of the Service should be brought to the notice of the public through the medium of Health Week propaganda. It was thought that this was a matter which should be dealt with by each Medical Officer of Health according to the needs of his own district, and in these circumstances it was resolved that the Branch should express no views.

The Branch adopted the nominations submitted by the Council respecting the election of President and other Officers. Upon his appointment, Dr. Scrase took the Presidential Chair at the invitation of Dr. Lennane. A vote of thanks to Dr. Lennane for the very able manner in which he had presided over the Branch during the past session was proposed by Dr. Annis, seconded by Dr. Clark Trotter, and unanimously accorded by the Branch.

It was resolved to accept an invitation from Messrs. Parke, Davis and Company, to visit their laboratories at Hounslow on Friday, September 30th, 1927, and the Hon. Secretary

was requested to make the necessary arrangements for the visit.

Dr. Stanley White gave a very interesting address on the subject of "Some Recent Aspects of Biological Therapy," a number of photographic slides being used to illustrate the lecture. After a discussion of certain points raised by the lecturer, in which the President and several members of the Branch took part, a hearty vote of thanks to Dr. White was moved from the Chair, seconded by Dr. Lennane, and carried unanimously.

THE YORKSHIRE BRANCH.

President: Dr. S. Fox Linton, M.O.H., Scarborough.
Hon. Secretary: Dr. G. H. Pearce, M.O.H., Batley.

A meeting of the Council of this Branch was held on May 27th, 1927, at the Education Offices, Calverley Street, Leeds.

The President was in the Chair, supported by Drs. Banks, Belam, Gibson, Hill, Jervis, Pick, Pickup, Wear, Williams, and the Hon. Secretary. Apologies for absence were received from Drs. Buck, Buchan, Scatterty and Thornley.

It was decided to recommend to the Ordinary Meeting, to be held on June 24th, the election of the following officers for the session 1927-28:—

President.—Dr. W. Bertram Hill, Medical Officer of Health, Selby Public Health Combined Districts.

President Elect.—Dr. Cyril Banks, Medical Officer of Health, Halifax.

Vice-Presidents.—Drs. Linton, Thornley, Banks, Mair and Wear. (The order of seniority commences with Dr. Wear and ends with Dr. Linton, the Vice-Presidents retiring in such order, viz., seniors first, as is provided by the bye-laws.)

Council.—In addition to the President and Vice-Presidents, Drs. Bates, Belam, Buck, Buchan, Gibson, Jervis, Pick, Pickup, Scatterty, Moore, Williams, and the Hon. Secretary.

It was resolved that only formal business be taken at the next Ordinary Meeting, and that an excursion be made to Ilkley, Bolton Abbey and Grassington.

An Ordinary Meeting of the Branch followed the Council Meeting, and, in addition to the members above mentioned, there were present Drs. Bates, Frew, Hillman, Mair,

Sutherland, V. T. Thierens, Dunne, Unthank and also Prof. Stewart and Mr. C. J. Haworth. The President extended a hearty welcome to Dr. Hillman, Member of Council, British Medical Association, a former Medical Officer of Health, and now a representative of the Yorkshire Branch of the British Medical Association to the Yorkshire Branch of the Society. Apologies for absence were received from Drs. Kaye, Pearson and M. M. Thierens.

The Hon. Secretary reported that he had written to Mrs. Wiltshire, widow of the late Dr. H. P. Wiltshire, a former President of the Branch, expressing the sympathy of the members with her and her family in their recent bereavement, and submitted a reply to his letter.

A discussion on "Pneumonia as a Cause of Sudden Death, from the Medico-Legal Aspect," was opened by Mr. C. J. Haworth, B.A., LL.B., one of H.M. Coroners for the West Riding of Yorkshire, followed by Prof. Stewart, Leeds University, who dealt with the subject from the pathological standpoint. His contribution was of considerable value from the scientific aspect as distinct from the legal and practical view taken by Mr. Haworth. Prof. Stewart also contributed a short paper which has been sent to the Hon. Editor of PUBLIC HEALTH with a request for publication. An interesting discussion followed, those taking part being Drs. Banks, Bates, Gibson, Hill, Hillman and Sutherland (Pathologist to the West Riding County Council). The President summed up, and at the conclusion expressed to Mr. Haworth and Prof. Stewart the thanks of the meeting for their excellent contributions. Both gentlemen briefly responded.

THE HOME COUNTIES BRANCH.

President: Dr. H. J. Milligan, M.C., M.O.H., Reading.
Hon. Secretary: Dr. W. A. Muir, M.O.H., Gillingham.

The Annual Meeting of this Branch was held at the House of the Society, on June 3rd, 1927.

The minutes of the previous meeting were read and approved.

Apologies for absence were received from Drs. F. E. Fremantle, G. F. Buchan, A. Greenwood, C. Sanders, A. B. McMaster, W. A. Muir, K. E. Tapper, and G. A. C. Gordon.

The report of the representatives on the Council was presented.

The meeting proceeded to the election of the officers of the Branch for the session 1927-28, when the following were elected:—

President.—Dr. H. J. Milligan, Medical Officer of Health, Reading.

Hon. Secretary.—Dr. W. A. Muir, Medical Officer of Health, Gillingham.

Hon. Treasurer.—Dr. A. E. Porter, Medical Officer of Health, Reigate.

In view of the probable absence of the Treasurer during the greater part of next session, the meeting resolved to appoint Dr. T. Ruddock-West, Deputy Medical Officer of Health, Surrey, Deputy Treasurer *ad interim*.

The President, Hon. Secretary, and Dr. W. W. Jameson, Medical Officer of Health, Hornsey, were elected Branch representatives on the Council.

A previous resolution by which the Executive Committee of the Branch should be constituted of the Officers and the Branch representatives on the Council, was confirmed.

Dr. Joseph Cates submitted a paper on "The Relationship between Chicken-pox and Herpes." After defining the term herpes zoster and the original description of this condition, Dr. Cates gave an exhaustive *résumé* of series of cases of chicken-pox following on a case of herpes zoster where no other source of infection appeared to be discernable. He summed the evidence as follows:—

1.—Chicken-pox in one individual may follow herpes zoster in another person within the ordinary incubation period of chicken-pox, i.e., in about 17 days.

2.—That in these cases, no other source of infection except the herpes zoster is discovered.

3.—That herpes zoster in one person may follow chicken-pox in another person.

4.—That chicken-pox and herpes zoster may exist in the same individual at the same time.

A discussion followed in which many members of the Branch described their experiences. That the two diseases were associated appeared to be certain, but the explanation of their association must await discovery.

Dr. Cates was thanked for his very interesting paper.

THE will of the late Dr. William Collingridge, formerly Medical Officer of Health for the City of London and the Port of London, has been proved at £16,675.

THE MATERNITY AND CHILD WELFARE GROUP.

President: Dr. Mabel Brodie, Asst. Welfare M.O., Durham County.

Hon. Secretary: Dr. Margaret Emslie, 22, Wimpole Street, W.1.

A meeting of this Group was held in the Carnegie Model Welfare Centre, Shoreditch, on May 18th, 1927, by kind invitation of the Shoreditch Borough Council Maternity and Child Welfare Sub-Committee. Twenty-five members and visitors were entertained to tea, following which they were shown a number of interesting cases by the Centre Medical Staff. The building was then inspected, and the spacious centre premises, with large waiting-room, doctors' rooms, ultra-violet light treatment room, and electrically fitted kitchen for preparing mothers' dinners—all on the ground floor were much admired. On the first floor were seen the wards for infants, milk room, linen room, sun balcony, and staff quarters. Dr. Maitland Radford followed this visit of inspection with a most interesting account of Maternity and Child Welfare organisation in Shoreditch, work which constitutes perhaps one-half of the work of the Borough Public Health Department. Special points were the provision of daily dinners in this centre and in another, for about 70 expectant and nursing mothers, the early need for extension of the number of infant cots upstairs (10) on account of the increasing demand for this accommodation, the provision to mothers and children of no less than 1,200 pints of milk daily (even that a figure greatly exceeded some years ago), and the inauguration of a Municipal Dental Hospital where centre cases, amongst others, received treatment. Expenditure by the Council amounted at £5.7 per birth during 1925-26, this, Dr. Radford considered being the fairest way of gauging the comparative cost and value of the work. Matters in which the local organisation was less complete, e.g., facilities for convalescent treatment, the supervision of toddlers in clinics and at home, and the provision of voluntary help at centres, were put forward by Dr. Radford as subjects for suggestion and discussion; and a number of members contributed their experiences in arranging for these. The President proposed votes of thanks to the Maternity and

Child Welfare Sub-Committee, the Centre Medical Staff, and the Matron for their kind hospitality, and to Dr. Radford for his most interesting paper, all of which were heartily accorded.

A vote of condolence with Dr. Glen Davison of Newcastle-upon-Tyne, who had been prevented by bereavement from coming to deliver his lecture on Infant Feeding, was passed, the meeting standing in silence.

The annual business meeting of the Group was held at the House of the Society, on June 9th, 1927, the President in the Chair. Eight members were present.

The minutes of last meeting were read, confirmed and signed. Apologies for absence were received from Dr. Stephen, Aberdeen, and Dr. Harold Waller, Poplar.

The Annual Report, the various items of which have been published from time to time in the journal, was presented and adopted. The average attendance at meetings (excluding the Provincial Meeting) throughout the session was 30.

The Honorary Officers for 1927-28 were elected as follows:—

President of the Group.—Dr. Elwin H. T. Nash, M.O.H., Heston and Isleworth.

Vice-President.—Dr. H. H. Chodak Gregory. (Professor Louise McIlroy and Dr. Harold Waller still have two years and one year of office as Vice-Presidents respectively.)

Hon. Treasurer.—Dr. Stella Churchill.

Hon. Secretary.—Dr. Margaret Emslie.

Group Representative on the Council of the Society.—Dr. Stella Churchill.

Executive Committee.—Dr. Margaret Alden (Stratford), Dr. Ethel Cassie (Birmingham), Dr. W. J. Cox (Watford), Dr. H. H. Chodak Gregory (Royal Free Hospital), Dr. Lila Greig (Northants. C.C.), Dr. Louise McIlroy (Royal Free Hospital), Dr. Margaret Mackillop (Manchester), Dr. A. F. G. Spinks (Newcastle-on-Tyne), Dr. J. A. Stephen (Aberdeen), Dr. Barbara Sutherland (Glasgow), and Dr. Harold Waller (Poplar).

The Hon. Treasurer reported that typing, stationery and postage expenses amounted to £30 9s. 7d. up to June 9th, and were paid for out of the Society's funds. Special secretarial expenses to the amount of £4 10s. were paid out of the Group funds, leaving a balance of £4 11s. 2d.

The Literature of Preventive Medicine.

ULTRA-VIOLET RAYS IN GENERAL PRACTICE. By W. ANNANDALE TROUP, M.C., M.B., Ch.B. London: H. K. Lewis and Co., Ltd., 1926. pp. 59, illustrated. Price 4s. 6d. net.

To the busy general practitioner who desires a concise and not too elaborate insight into Ultra-Violet Light Treatment this book, which can be read in a few hours, will be found decidedly useful.

It deals principally with cases of varied disease which have benefitted from Ultra-Violet Light Treatment given by the author while conducting general practice.

A chapter on technique and numerous types of lamps will assist the practitioner who may desire to add a new and efficacious therapeutic agent to his dispensary.

A brief description of the biological action of light is included together with the detailed results of the author's experience of the therapeutic application of Ultra Violet Light.

WHY TUBERCULOSIS EXISTS. How it can be and has been cured and prevented. By R. GOULBURN LOVELL. London: John Bale, Sons and Danielsson, Ltd., 1926. pp. 211. Price 6s. net.

This avowedly forms part of a well-organised campaign to secure the recognition of Spahlinger's claim to cure tuberculosis, and to procure for him further financial support. A letter which accompanies the book announces that it "will shortly command considerable attention in Parliament, in the Approved Societies, and among the Medical and General Public." There are also some notes for reviewers. A number of newspaper articles are reproduced, series of cured cases are given, and the difficulties which Spahlinger has met are vividly narrated. The unsatisfactory results at St. George's Hospital are not mentioned.

Every tuberculosis remedy provides us with series of cured patients, and, before being convinced, one awaits scientific trial with proper controls. After all the hubbub which has arisen about the Spahlinger treatment it is certainly desirable that the remedy should be once and for all tested, and approved or rejected.

COLLECTED ADDRESSES AND LABORATORY STUDIES—LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE. Vol. II., 1925-26. Compiled by Professor R. T. LEIPER, F.R.S.

This volume, the second of the series, contains reprints of papers published by the staff of the School during the period October 1st, 1925—July 31st, 1926, and includes Addresses by the Director (Dr. Andrew Balfour) on "Why Hygiene Pays"; "Some Landmarks in Tropical Medicine"; and "Some British and American Pioneers in Tropical Medicine and Hygiene" (Presidential Address to the Royal Society of Tropical Medicine and Hygiene.)

DISEASES OF ANIMALS. By T. W. M. CAMERON, M.A., B.Sc., M.R.C.V.S. London: Faber and Gwyer, 1926. pp. 222. Price 3s. 6d. net.

This very excellent little book, one of the popular series of Modern Health Books, is written with the object of instructing the public in matters relating to the diseases of lower animals so far as they affect the health of man, whether through his food or by direct infection. A good account is given of the various types of tuberculosis occurring among lower animals, and of the importance of the several types in human infection. There are just two small points for criticism in the generally well-informed and judicial chapters on this subject. Referring to tuberculosis in cattle, there is a statement, on page 33, that "only less than 5 per cent have lesions on the udder"; on the next page we read "similar hard lumps may be felt in the udder if it is attacked—and it usually is, sooner or later." Also there appears to be an omission when dealing with tuberculosis and the law: the working of the Tuberculosis Orders, 1925, is explained, but there is not any reference to the concomitant Milk and Dairies (Consolidation) Act, 1915. Adequate descriptions are given of anthrax, glanders, rabies, and other infective diseases common to man and lower animals, and given in such a way as to be plainly understandable by the non-technical reader. The relationship of cow-pox and small-pox is discussed, and the theory that cow-pox is an attenuated form of

the human disease is approved. Under Venereal Diseases in Animals, the syphilis-like infection amongst South American llamas is described; a reference to dourine amongst horses might have been added. Writing on foot-and-mouth disease in cattle, the policy of the Ministry of Agriculture in limiting the spread of infection by wholesale slaughtering of contacts, rather than by attempting isolation, is discussed and approved as being, in the end, the more economical. A short, but very useful, chapter on Meat and Meat-Poisoning concludes a well-written manual which cannot fail to interest the multitude who nowadays are concerned in all that affects the public health, and one which should be at the hand of every stock-breeder.

MANUAL OF MODERN COOKERY. By JESSIE LINDSAY, Head of the Household Arts Department, King's College, and V. H. MOTTRA, M.A., Professor of Physiology, University of London. University of London Press, Ltd., 1927. pp. 316. Price 4s. 6d. net.

A physiologist and a cookery expert, it is conceivable, may have collaborated before in the production of a manual of cookery; never, however, it may be imagined, more happily than is the case here. Professor Mottram has the knack of dealing with aspects of physiology for the general reader takingly and lightly, and in the portions of this book for which it may be supposed he was mainly responsible he is at his best. The introduction to the volume, in which the principles of diet and cookery are discussed, is most pleasantly written, in addition to containing most useful information with regard to dietetics and dietaries. So far as the recipes that constitute the bulk of the contents of the book are concerned, it may be said that they read simply, giving the impression that if the directions are followed, dishes attractive, appetising, and pleasant to consume will be produced. The number of recipes given appears to be enormous, and suggests that there is no particular need for the sameness in diet that is so characteristic of all menus whether of the home or the restaurant, in this and other countries. The book may be strongly recommended not only to students of domestic science and cookery, but to members of the medical profession, even those in the

public health service. To nurses and health visitors, particularly those working in welfare centres, it should prove very useful.

NUTRITION WORK WITH CHILDREN. By LYDIA J. ROBERTS, Assistant Professor of Home Economics, University of Chicago. Cambridge University Press, 1927. pp. 394. Price 17s. 6d. net.

This volume, one of the University of Chicago Home Economics Series, contains an account by a teacher for teachers of a type of work more familiar and of greater appeal perhaps to the American intelligence than to ours. The causes and effects of malnutrition, the various methods of judging of it and their fallacies, and measures aimed at its prevention are gone into at length, and a full description is given of the way in which, by intensive practice and precept at school, the interest and co-operation of children may be secured for a concentrated effort at combating this threat to their existence. Figures are quoted to suggest that less than 20 per cent of school children examined in various town and country districts were found to be of normal nutrition, and that over 30 per cent were markedly under-nourished, this figure having doubled itself in the last decade, but we find difficulty in accepting these critical standards or the natural inference of what, in this less prosperous country of our own, the condition of our young population, judged in a similar light, must be.

FOURTH ENGLISH-SPEAKING CONFERENCE ON MATERNITY AND CHILD WELFARE. Report of Proceedings. London: National League for Health, Maternity and Child Welfare, 117, Piccadilly, W.1, 1926. pp. 210. Price 2s. 6d.

We have already published a short account of the above conference held in July last. The official report is now to hand, and permits a fuller acquaintance with some of the papers and addresses that does them more justice than the distractions of a conference session ever seem to allow. Professor de Buyr's description of the organisation of an "inside" and "outside" Child Welfare Service and an Infant Centre run on intensive lines in Tulane, New Orleans, U.S.A., will interest those who are endeavouring with minor resources to carry

out schemes of the same nature in this country. The three papers by representatives of the midwife, the district nurse, and the health visitor respectively, contributed to the discussion on "Midwifery in the Homes of the People" were full of practical points that added value to the oft-repeated consideration of a difficult subject. Miss Margaret Beavan, in her two addresses on "Unity of Effort in the Child Welfare Service," and "Hospital After Care," gave an excellent exposition of the functions and scope of voluntary effort in providing for the care of children, and detailed to some modest extent her own pioneer work in creating and developing a hospital social service for children in Liverpool, which, under the title of the Liverpool Child Welfare Association, tackles so efficiently and so comprehensively in that area the external problems on which the success or failure of hospital treatment to a large extent depends. Those who are interested in the Report on Training for Hospital Social Work, noticed elsewhere in this issue, should not fail to read Miss Beavan's two papers. The session of the National Council for the Unmarried Mother and her Child, in which representatives of various religious bodies took part, we have already to some extent described, but we were glad to encounter a second time in the Report the address of the Rev. A. Herbert Gray, D.D., on "Parents—Present and Potential," which was one of the most moving and inspiring events of the Conference, and which redounds in gentleness, simplicity, and good sense. Another paper which will specially interest certain readers is that on Ultra-Violet Therapy, by Dr. H. Stanley Banks, of the Carnegie Centre, Motherwell, who gave a careful and critical survey of some investigations as to the incidence of rickets in that district—one of those suffering acutely from housing difficulties, and from prolonged industrial depression—and of the effect in treatment of carbon arc and mercury vapour lamps.

THE GIRL'S BOOK OF GENERAL KNOWLEDGE. The Kingsway Series. London: Evans Bros., Ltd., 1926. pp. 288. Price 4s. 6d. net.

This volume supplies information on lines differing somewhat from the conundrums of the ordinary "General Knowledge" paper.

Its scope apparently is intended to be inclusive in subjects of interest to girls, ranging from "Why you would keep mice as pets," and "Are plays by amateur writers considered by managers?" to "What are the opportunities for social intercourse in business houses," and "What public appointments are there in tuberculosis work." Whether a market exists for this sort of collective information at any or all ages of "girlhood" is a question we cannot pretend to answer. The book contains simple advice of a general character on diet, home nursing and personal hygiene, alongside a host of assorted observations in which the two separate chapters on Public Health Administration provide perhaps a fuller survey and stimulate livelier hopes than the actual circumstances and opportunities of service would have seemed to demand.

TO MOTHERS AND FATHERS. How to keep yourself and your children well and strong. London: National League for Health, Maternity and Child Welfare, 117, Piccadilly, W.1., 1926. Eighth Edition; 440th thousand. pp. 80. Price sixpence, post free.

The latest issue of the familiar pamphlet "To Wives and Mothers," appears under the guise of a new title, and, in addition to a general re-editing, is augmented by a special chapter on "The Father's Duty," which we feel sure will be of practical assistance to many conscientious centre mothers as well as to aspiring parents of the opposite sex. The book is even better than it was before, and we commend it heartily for general use.

TRAINING FOR HOSPITAL SOCIAL WORK. A Report by the Joint University Council for Social Studies. London: P. S. King and Son, Ltd., 1926. pp. 20. Price 6d.

This is a report which is full of interest for those who desire to promote the efficiency of our medical services, and who appreciate the rôle played in them by the hospital almoner and her kindred workers on whose energy, insight and experience so much of the ultimate success or failure of medical treatment depends. The report embodies a history of

the gradual development of medical social work in this country during the last 30 years, a summary of the present very limited facilities for training, and a scheme for a course of organised instruction which ought to place the profession on a footing of its own, and permit its extension and development throughout the social fabric of the country. This scheme includes a preliminary diploma course of university study throughout a period of three years, modifiable in certain circumstances, to be followed by eleven months' practical experience of the work of a hospital department, and while the recommendations for instruction are quite general in character, no doubt the training will develop along various specialised lines, as is already the case in America, as soon as the present tentative scheme has proved its usefulness and impor-

DR. C. W. HUTT, medical officer of health for Holborn, has been appointed an examiner for Part II of the D.P.H. by the Royal College of Surgeons.

DR. J. W. McKEGGIE, assistant medical officer of health at West Hartlepool, has been appointed medical officer of health at Bilston, Staffs., in succession to the late Dr. T. Ridley Bailey.

DR. ANDREW ISAAC MESSER has been appointed medical officer of health to Newburn Urban District Council. The new medical officer of health is a son of Dr. A. Messer, Lemington.

BURTON-ON-TRENT town council have appointed Dr. James Grant, of Paisley Burgh Fever Hospital, as assistant medical officer of health, assistant school medical officer, and assistant tuberculosis officer at a salary of £600 per annum.

DR. W. H. BLACKBURN, deputy medical officer of health for St. Helens, has been appointed medical officer of health for Lowestoft.

DR. THOMAS FORSYTH has been appointed medical officer of health for the Ashby-de-la-Zouch urban district.

Correspondence.

The Editor does not accept responsibility for the opinions of correspondents.

THE HISTORY OF THE DISCOVERY OF THE HOUSE FLY AS A CARRIER OF DISEASE.

To the Editor of PUBLIC HEALTH.

SIR,—In the report of the proceedings of the North-Western Branch of the Society, published in the May issue of PUBLIC HEALTH (p. 256) Dr. James Wheatley referred to the fact that Dr. Martin of Middleton, was the first to draw attention to the common house fly being the carrier of disease. As I am the person referred to, may I correct a mistake as to the locality? For twenty-three years I was Medical Officer of Health of Gorton (a suburb of Manchester), not Middleton.

Thirty years ago summer diarrhoea was the cause of an annual average of twenty thousand deaths of infants in England and Wales, varying with the dryness or wetness of the summer. The epidemic generally started in July, and ended with the first frosty nights of October, which is always a few nights before or after October 15th.

The infantile mortality from this disease in Gorton was very high, as it was also from typhoid fever. The whole of the district, a working class one, was supplied with privy middens, and narrow passages ran between the backs of the rows of houses. The walls of many of the middens bulged and leaked, and the floors drained into the sewers, which were untrapped. On a hot summer day the stench arising from these places was appalling. For years I had been searching for the link between privy middens and the annual epidemic of summer diarrhoea, and the increase of typhoid fever. There seemed to be a close connection between this filth and milk and the heat of summer.

In the year 1898, I was attending a child who was suffering from summer diarrhoea on a very hot day in August. The kitchen window was wide open and its view was down one of the narrow back entries; the walls of the middens were bulging, and the liquid sewage was slowly flowing down the passage. Swarms of house flies were sucking up this

sewage and, as I watched, some of them flew through the open kitchen window and settled on the food, milk and sugar, on the table, and on to the dummy teat of the sick child. Instantly I grasped the situation, that flies were the link between privy middens and summer diarrhoea. All through that summer and the next year I kept careful observations of the state of the weather and flies, privy middens, manure heaps, and the two diseases mentioned.

In the autumn of 1899, I had an interview with Professor Delepine of Owen's College, Manchester, on the matter, but he gave no encouragement to the suggestion, and said it was most improbable. He promised to write to me after considering it, and I still have his letter in which he offers to examine five batches of flies for a fee of ten guineas.

I approached the Gorton Council to take the matter up and arrange for batches of flies to be caught from privy middens serving for cases of typhoid fever and examined for typhoid bacilli. The Council refused to have anything to do with "such nonsense."

In my annual report for 1899, I drew special attention to flies and privy middens, and at the same time brought on my head the anathemas of the property owners of the district.

Previous to the fly incident I had attacked the midden system as the cause of the high zymotic rate of the district, and strongly advocated the water closet system. The Local Government Board sent one of its chief inspectors, Dr. Fletcher, to examine the sanitary arrangements of Gorton in 1897. He reported that the water closet system was not suitable for the district, and recommended that the middens should be made shallower, and the centre drain trapped. The property owners greatly rejoiced, and at the next Council meeting one of the members said that I was not fit to be a medical officer of health, a remark which was duly reported in the Press.

Dr. Wheatley adds that it was many years before the suggestion was generally accepted by the medical profession. Instead of being accepted it was for some years derided as an insult to the harmless and innocent fly. On attending meetings I was frequently greeted with the song of "Come into my parlour, said the spider to the fly," or "Be careful, he carries flies about with him."

It was not till five years afterwards—in 1903—that Dr. Niven, the late medical officer of health of Manchester, mentions in his

annual report the possibility of flies being the carriers of disease. He says "It has been very confidently asserted that house flies are the means of transmission. So far not a shadow of evidence has been adduced, yet the proposition is not one that we can positively reject; warm weather brings flies and warm weather brings diarrhoea about the same time. It is certain that flies can, and do, carry infective matters, and the large numbers of flies which settle on food in poor households might therefore quite well act as carriers. In cold summers when there is very little diarrhoea there are few or no flies. These may be mere coincidences, but they may not, and for the prevention of diarrhoea it is most important to settle the question. So far as observations go they are in accord with the hypothesis of transmission by flies."

Sir Shirley Murphy, of the London County Council, in 1911 (13 years after my suggestion) states in his report, that a "critical attitude must still be maintained to the fly hypothesis."

In the meantime the "fly hypothesis" spread in spite of opposition, both in this country and in other parts, till now it is world wide, and the terrible annual scourge which carried off tens of thousands of infants yearly has become an almost extinct disease.

At the close of one's life work there is a feeling of "something attempted, something done."

I am, Sir, Yours faithfully,
A. W. MARTIN.

Borth Bridge,
Kindir, Hayfield,
Derbyshire.

June 4th, 1927.

THE University of Montreal have conferred the degree of LL.D. on Sir George Newman, chief medical officer of the Ministry of Health.

THE Imperial Social Hygiene Congress will be held at Caxton Hall, Westminster, London, S.W.1, from October 3rd to 7th, 1927, when the venereal disease problem will be discussed from various standpoints. Full information is obtainable from the Secretary General, The British Social Hygiene Council (Incorporated), Carteret House, Carteret Street, London, S.W.1.

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Editorial.

Chronic Rheumatism in Industry.

AT intervals during the last two or three years the Society and its Branches have had the subject of acute rheumatism, more particularly as affecting children, under consideration, and on each occasion the interest of the Service and the sincere desire it entertains to further any efforts designed to reduce the suffering, disability and mortality traceable to this condition and its sequelæ have been clearly demonstrated. As a result of this interest it may be claimed that some effect has been produced, most markedly perhaps in the direction of making the situation clearer and inducing health authorities to consider the necessity of providing or assisting in the provision of treatment for the prevention and

mitigation of the cardiac affections so liable to follow an attack of this disease.

Concerned and active in the case of acute rheumatism in children, medical officers of health at the moment appear to have had less to say in regard to the chronic forms and their effect on adults and more particularly those engaged in industry. Conceivably it was with the object of arousing interest in this aspect of the matter and of securing the assistance of the Public Health Service in connection both with prevention and treatment that Sir William Willcox chose "Chronic Rheumatism in its relation to Industry" as the subject of his lecture to the Royal Sanitary Institute Congress at Hastings. At considerable length, in the course of this lecture, Sir William discussed

the question of classification of rheumatism, and gave in detail the views and findings of a number of investigators and authorities, both here and elsewhere, in regard to causation, prevention and treatment. In what was said there was left little room for doubt that there was a great mass of preventable suffering from this cause, and that from its prevention would come not only benefit to a great part of the artisan population, but advantage to industry. It was clear, too, from the lines of prevention laid down by the speaker, that they were of a kind along which none could more easily or effectively move than medical officers of health and the authorities for whom they work. That both the officers and the authorities would gladly follow the lines is undoubted.

Unfortunately, however, since their access is barred by their exclusion from participation in operations having relation to industrial hygiene and medicine, it is difficult to see how they can help very much or take any particular share in the campaign against rheumatic disease which Sir William Willcox declared to be worthy of the fullest national support. Hampered at present from sharing in this campaign, the local health services appear to be likely to be more effectively prevented from acting in the future. Judging from what is said with regard to the proposed legislation and from the attitude of those in charge—the Home Secretary and others—the exclusion of health authorities and officers will be permanent. In these circumstances not only will Sir William Willcox be unable, as he complained, to find in text-books of public health anything of any value so far as chronic rheumatism amongst the industrial population is concerned, but the individuals in this population will be deprived of a vast body of workers infinitely capable and willing to help them. For the prevention of chronic rheumatism, dental care is necessary, and healthy conditions of housing and working. Who is in a better position to ensure the provision of these needs than the local health authorities?

Annually, of insured persons alone, 370,000 seek advice and treatment, and the total accommodation of the spa hospitals will only permit of the admission of 8,500 cases. Additional institutions are urgently needed, and who better than the health authorities can provide them? The desire to exclude these authorities and their officers from all share in the work for the health and well-being of the industrial population is incomprehensible. It

is beyond understanding and beyond belief that there could be anywhere a body of statesmen capable of devising a health scheme in which the only real health organisation has not a place. In essence, however, that is what it is; a proposal to play Hamlet without the Prince of Denmark. Because of these proposals and because of the exclusion of the local health organisations, the worker must all the longer continue to run the risks of chronic rheumatism, all the longer continue without adequate preventive and institutional treatment. It seems a pity and unnecessary that he should suffer.

* * * * *

The Maternity and Child Welfare Conference.

THE National Conference on Maternity and Child Welfare, held on July 5th, 6th, 7th and 8th, during what begins to proclaim itself with increasing assurance as "Baby Week," attracted between 600 and 700 delegates to the Great Hall of the British Medical Association House in Tavistock Square, London, a gathering which did justice to the distinguished occasion and place, and the fact that the Minister of Health attended to open the proceedings in person. Mr. Chamberlain, in his address, testified to an interest and experience in the doings of maternity and child welfare workers which, as promise of further practical encouragement, struck an excellent note and stimulated an immediate ardour for discussion. The inaugural debate, on what perhaps looked at first sight a difficult and desultory subject, so derived an enthusiasm which persuaded innumerable medical and sundry delegates to vouch for a real faith and a happy experience in the possibilities of wet nursing, which seemed to promise well for interest and co-operation in the scheme recently initiated in London. "The Problem of the Unmarried Mother," stale by comparison, or merely perhaps by unfruitful repetition, suffered in contrast from a lethargy of the afternoon-time, and evoked little more than pious opinions and intentions—pious but much less fervent and persuasive than the speeches of the heads of the churches last year—in respect of a matter of undiminished, if limited, national urgency, which calls out for practical measures of relief. Following this, the debate on "The Practical Teaching of Mothercraft"

seemed perhaps a little unreal, in spite of Dr. Mabel Brodie's able paper. The dinner and discussion of the Maternity and Child Welfare Group of the Society on the same evening was, however, the occasion for a keen and informative consideration of the practicability of immunisation against diphtheria in infant centre work.

On Wednesday morning an admirable series of papers, to which Dr. Moore (Huddersfield) gave the brief fatherly blessing of a pioneer, introduced the various problems involved in "The Provision of Efficient Sick Nursing in the Homes for Children under School Age," and the prolonged discussion which followed showed that they had struck home to the conscience and intelligence of the delegates. "The Results of Artificial Light Treatment" were critically considered in the evening, with the assistance of several experienced clinicians, and "The Blessings of Sunlight" itself were logically not overlooked in the arrangement for another debate.

On the third day of the Conference the Maternity and Child Welfare Group was, for the first time, honoured by being made responsible for the day's deliberations, and chose as a subject a review of the present position of maternity and child welfare under the 1918 Act, and of the future developments to be sought and expected, a programme which attracted a full house. Col. Fremantle's brilliant introductory address was enthusiastically received, and a full debate took place on this and the other papers which followed during the morning. The equally important part of the discussion relating to respiratory disease, arranged for the afternoon, and fortified also with some arresting and extremely interesting papers, was unfortunately curtailed owing to an entertainment for which many of the delegates had to leave early, but if the Group takes part in the Conference next year there will still doubtless be ample indication for renewing its attack on this serious causative factor of infantile mortality and morbidity.

Space does not permit of a complete report of the Conference, and special reference to certain other lectures and papers of equal interest, must be omitted, but a very high standard was general throughout, and delegates congratulated themselves on a most interesting and instructive week. It might perhaps be worth while to mention a danger of being too "medical" on these occasions: our

own profession forgets sometimes, or overlooks the fact, that it is addressing an audience liable to be tired and confused by technical details and the effort of both speaker and listener is to some extent lost. The opportunity, on the other hand, of putting the professional point of view is an invaluable one to all who are ultimately in the hands of committees, and should be used to the fullest purpose.

A series of tours to infant centres, day nurseries, etc., including a medical tour of three of the well-known children's hospitals, occupied the final day of this successful Conference.

* * * * *

Mosquitoes as a Public Health Nuisance.

A DECISION of considerable interest to local authorities in England and Wales, as well as in Scotland, was given recently in the Sheriff Court at Paisley.

Action was taken at the instance of the County of Renfrew Health Authorities, who alleged that the ditches on certain land contiguous to a residential locality on the outskirts of Glasgow had been allowed to become choked and overgrown, with the result that the ditches and the fields adjoining, on which water overflowed, had become a breeding place for mosquitoes to such an extent that the ditches were a nuisance within the meaning of section 16 (2) of the Public Health (Scotland) Act, 1897.

The Court found in favour of the complainants, and the proprietor of the land was ordered to clear the ditches of the silt and vegetation with which they were encumbered, and thereafter to maintain them clear of silt and vegetable growth.

Section 16 (2) of the Public Health (Scotland) Act, 1897, provides that for the purposes of the Act "any street, pool, ditch, gutter, watercourse, sink, cistern, water-closet, earth-closet, privy, urinal, cesspool, drain, dungpit, or ashpit so foul or in such a state or so situated as to be a nuisance or injurious or dangerous to health" shall be deemed to be a nuisance liable to be dealt with summarily in manner provided by the Act.

The corresponding words in section 91 (2) of the Public Health Act, 1875, which is in force in England and Wales, are "any pool, ditch, gutter, water-course, privy, urinal, cesspool, drain or ashpit so foul or in such a state as to be a nuisance or injurious to health."

"Splitting" Bottles of Sterilised Milk.

A CASE which may be of interest to medical officers administering the Acts and Orders relating to Milk and Dairies was heard before the Birmingham magistrates on July 1st, 1927.

A purveyor of milk was charged with an offence against the Milk and Dairies Order, 1926, Section 31, Sub-section (2), which reads as follows:—

Where a person delivers milk in bottles he shall cause every such bottle to be filled and closed on registered premises; and no person shall remove or tamper with the disc or other device used for closing the bottle at any time after it has left such premises and before it is delivered to the consumer.

In the present case Mr. A.B. was registered as a purveyor of milk in Birmingham, and kept a milk-shop, which was usually in charge of his wife, and from which sterilised bottled milk only was being sold at the time when the offence was committed. On a routine visit to the milk-shop an inspector noticed on the counter, together with a milk measure, two open bottles of sterilised milk, of which one was nearly empty and the other half full. The inspector had informed Mrs. A.B. on a previous visit that all bottled milk must be sold in unopened bottles. A summons was taken out against Mr. A.B. for an offence against the sub-section above mentioned, and Mrs. A.B. appeared in Court on his behalf. She pleaded not guilty, and, in the absence of legal defence, stated that the milk on the counter was intended for household use. In answer to this the prosecuting solicitor quoted the Milk and Dairies (Consolidation) Act, 1915, Section 19, Sub-section (3), which reads as follows:—

Where milk is kept in any dairy, or in the custody or possession of any dairyman, it shall be presumed to be kept for purposes of sale, or manufacture for sale, unless the contrary is proved.

The magistrates convicted and imposed a fine of 10s.

In commenting upon this case, it may be said that in Birmingham and some other large towns, a considerable proportion of the total milk supply is sterilised at large depôts, and sold in stoppered bottles, which usually contain a pint. This milk finds a ready sale, especially in the poorer areas. The practice on the part of retailers of "splitting" these

bottles and selling pennyworths or halfpennyworths of milk may be suspected, but it is not always easy to prove. This practice is bad, because it introduces an additional possibility of contamination of the milk. The legal decision given above shows that a conviction may be expected when the fact is proved.

The Tuberculosis Conference.

DESPITE the manifold activities of the official Tuberculosis Service, which, indeed, owes its origin mainly to the Association, the National Association for the Prevention of Tuberculosis continues to be a very virile body, as shown by the recent successful conference held at the House of the British Medical Association in Tavistock Square, London, and attended by 330 delegates representing 225 local authorities and other organisations. The Hon. Sir Arthur Stanley took the chair, and Dr. Longstreet Taylor, President of the National Tuberculosis Association of America, was also present. The Society of Medical Officers of Health was represented by the President (Dr. E. H. Snell) and Dr. E. Ward. It is a great asset to preventive medicine that such a body as the National Association for the Prevention of Tuberculosis exists, providing, as it does, common ground on which laymen and medical experts can meet to discuss common problems from different points of view.

On Thursday, June 30th, the Conference was opened by the Minister of Health with an address which showed a masterly grasp of an intricate subject. Sir John Robertson followed with an address on "Present Lines of Attack on Tuberculosis; their Relative Values." He dwelt on the complexity of the subject, and mentioned the lure of treatment as compared with prevention, emphasising that the reduction in the number of new cases was more important than the discovery of any panacea to cure the disease. Statistical charts were shown illustrating the fall in tuberculosis mortality, with comments thereon. The influence of general education and the importance of healthy living were also stressed.

On Thursday afternoon, a paper by Professor Kenwood was read by Dr. A. M. Hewat, of the London County Council. Sir William Younger next spoke, and then Mr. A. T. Pike, Secretary of the Garden Cities and Town Planning Association, read a paper prepared by Captain R. L. Reiss.

At the annual general meeting the collection of £28,000 for an intensive anti-tuberculosis campaign was announced.

On the morning of Friday, July 1st, Professor Collis read what was probably the best and most stimulating of many thoughtful papers contributed to the Conference. His address was illustrated by a wealth of statistical material and a number of charts. The fall in mortality from tuberculosis, he considered, had been steady and unaffected by any efforts to accelerate the pace. The fall, moreover, had in no wise been affected by housing conditions, but was coincident with a rise in the value of real wages; unhygienic environment appeared to be far less important than malnutrition. Control of an infectious disease, he pointed out, could only be acquired by controlling exposure to infection. The fall in the phthisis death rate since 1860 had been most pronounced in infancy, when infection was the only factor at work. The mortality in the age group 25—60 years in certain occupations had not followed the course shown in the general population, and in them it could be shown that the influence at work was infection. The best means of attack was control of infection. Tubercle carriers must be recognised like typhoid carriers and the infected eliminated from factories and placed in industrial colonies. When the incidence of the disease had fallen sufficiently to allow of all remaining cases being treated in sanatoria, strict segregation should be adopted.

Following Professor Collis, Sir Thomas Oliver gave a paper dealing especially with the conditions prevailing in Durham and Northumberland.

On Friday afternoon visits were arranged to the Hammersmith Housing Schemes and to Preston Hall; on Saturday morning Welwyn and Letchworth garden cities and Burrow Hill Colony were visited.

An important feature of the Conference, and especially of the reception on Thursday evening, was an exhibition of propaganda methods, posters and photographs.

The efforts of the Association will be mainly directed in the near future to propaganda, which, indeed, is to-day the most important anti-tuberculosis work. Now that local authorities and so many different societies undertake propaganda, some sort of co-ordination seems essential if gaps and overlapping are to be avoided. The formation, at the instance of the Society, of a Central Council

for Health Education, aiming to discharge this function, is very welcome news.

Recent Legislation.

CERTAIN legislation that recently came into operation, though more important from aspects other than the hygienic, is of sufficient interest to call for mention. The Merchandise Marks Act, 1926, the date of operation of which was July 1st, 1927, contains provisions relative to the marking of imported goods with an indication of origin. This requirement applies definitely, and perhaps most importantly, to goods bearing the name or trade mark of a British manufacturer or trader. Foodstuffs are included, and in relation to these it may be noted that local authorities authorised to appoint a public analyst under the Sale of Food and Drugs Acts may execute certain provisions of the Act, and more particularly may authorise an officer to enter premises and obtain samples of imported foodstuffs for analysis. The Sale of Food (Weights and Measures) Act, 1926, also came into operation on July 1st, 1927. Its provisions relate to the method of sale of various articles, requiring in the main that this shall be by weight or measure. Special provisions are applicable to the case of meat and milk. The administration of this Act will be mainly in the hands of the inspectors of weights and measures, and will not greatly, if at all, concern officers of health departments.

Royal Air Force Medicine.

THE Manual for Medical Officers of the Royal Air Force* is "issued for the information and guidance of all concerned," and covers so wide a field that there is little doubt but that it will fulfil all that is desired.

The volume is divided into two parts and, in addition to chapters dealing with more or less medical subjects, contains several of interest and importance in regard to hygiene. These discuss a number of useful topics, including industrial poisonings—a question not usually associated with the Services, but necessary here, since work in the "dope" shops of the Royal Air Force comes strictly

* MANUAL FOR MEDICAL OFFICERS OF THE ROYAL AIR FORCE. Air Publication 1,269, 1st Edition, January, 1927. H.M. Stationery Office. pp. 241. Price 3s. 6d. net.

under this heading. So alive are the authorities to the dangers involved in this work that a series of precautions have been drawn up, and these if observed, must reduce all risk to a minimum.

Very concise instructions also are given to X-ray operatives regarding the dangers which may be apprehended in X-ray departments, and these are followed by a list of preventive measures which include differential blood counts made at monthly intervals, of which records are kept.

Hygiene and Pathology are given a long chapter, which contains much very excellent material, although there is a tendency to unnecessary repetition and some errors have crept in as well as controversial matter which might have been omitted from a work of this nature.

In the instructions issued for gaseous disinfection with sulphur dioxide and formalin, no reference is made to the necessity of generating these gases—particularly the former—well above floor level, and of maintaining a temperature of about 70° Fahrenheit, and a fairly high relative humidity. The alternative method of using bleaching powder instead of permanganate in generating formalin might have been mentioned, as it has advantages, and is now used almost exclusively in the Royal Navy.

When dealing with the protection of man from anthrax, the treatment of all wounds and abrasions with iodine is rightly recommended, but to claim that malaria, amongst many other diseases, may be prevented in this way is surely over-estimating the potency of this valuable household panacea.

Very complete instructions are given for the inspection of all personnel engaged in handling food, which should go a long way towards eliminating the "carrier" danger in diseases of the intestinal group. The statement that food poisoning is caused by the ingestion and internal action of "metallic poisons derived from the tin container, and those added as preservatives, or even for malice," hardly, perhaps, conveys the meaning intended. Further, when speaking of "carriers," the bacillus enteritidis of Gaertner is referred to as a "group" of organisms, though it is itself a member of the Salmonella group, which is not mentioned.

In general, the instructions with regard to infectious diseases are sound, though it is doubtful if it is necessary to recommend that

children in contact with cases of mumps should be excluded from school for three weeks; in any case it is not the usual practice.

There are several points raised in the suggested method of procedure when a case of small-pox has occurred which are worthy of comment. Under the heading of "Prevention of Infection" it is stated that all personnel should be confined to camp. This appears to be an unnecessary precaution provided re-vaccination has been performed where necessary, and medical inspection is carried out for fourteen days. It may be wondered, too, what is implied in the recommendation that "all personnel should be vaccinated or re-vaccinated at five-yearly periods, and, in times of epidemics, every two years." The suggestion that assistance in diagnosis may be obtained as a result of pathological investigation of material from vesicles in doubtful cases is also offered.

When dealing with tuberculosis it is advised that human "carriers" and early cases of tuberculosis should be sought "without arousing the suspicion of the individual concerned," but even allowing for the dread with which this disease is regarded, the idea, while sound in principle, is hardly practicable.

This section of the Manual has been dealt with in some detail, not from the point of view of mere carping criticism, but rather because it is so sound in conception as to merit more than passing comment.

Part II of the volume which deals primarily with the medical selection and care of flying personnel, is a valuable contribution to the literature on this subject, and should be read not only by the medical officers, but also by the executive branches of the Royal Air Force. Throughout, a clarity of style is displayed in handling this most important section which makes it most readable. If accidents occur in flying—which almost inevitably they must—it is certainly not due to any want of care in the selection of suitable pilots. Apparently it has now been proved that the most common cause of errors in judgment in bringing aircraft to the landing ground is lack of true ocular muscle balance, and consequently the tests applied are most searching. But the writer goes on to show that the true athlete, with all the attributes that this term comprises, makes the best flier, adding that "generally speaking, the man who coddles himself, who likes to live luxuriously, too warmly clad, who shirks a cold dip in the

mornings, is not the man who will stand the strain of exposure, or fly well on long-distance flights." What a high standard of perfection is summed up in these few words!

A most interesting chapter is that dealing with the effect of flying at high altitudes, and the reasons for the administration of oxygen.

Very striking is the human vein running throughout this and other parts of the Manual. Thus, medical officers are advised to make themselves familiar with the various conditions associated with the daily life of the flying personnel, and to gain practical experience of the different forms of aerobatics that pilots are called upon to carry out during the course of their training, and to be always in sympathy with all their difficulties.

The last two chapters deal with the treatment of "head and eye cases," and the routine pathological examination in respect of flying efficiency.

Without hesitation it may be said that the standard attained by the Manual is very high, and that it will form an excellent *vade mecum* for the medical officers of the Royal Air Force.

* * * * *

The International Society of Public Health Medical Officers.

DURING the meeting of the Royal Sanitary Institute Congress at Hastings last month, the opportunity was taken of holding a meeting of the British Group of the International Society of Public Health Medical Officers. At this meeting the joint honorary secretaries, Dr. R. J. Maule Horne and Mr. G. S. Elliston, submitted a report of the activities during the year 1926-27.

From this it appeared that our own Group is by far the largest of the eighteen already formed, the only others approaching it being those of Brazil and Czecho-Slovakia. Of the Group itself the President is Sir G. S. Buchanan, who was re-elected at the meeting, the chairman of the executive committee being Dr. Charles Porter.

Groups are still in process of formation in a number of other countries, and until these are complete it seems that very little in the nature of widespread activity can occur. The British Group took the opportunity of expressing the hope that during the course of the ensuing year the General Bureau at Headquarters may be able to report the completion of a number of the Groups still outstanding, and the near approach of a meeting of the General Council.

The objects of this Society are so well known that it is unnecessary to repeat them here. That the aim of bringing together and keeping in permanent touch all individuals in any country who have taken part in the interchanges or their arrangement is eminently desirable no one will deny. It would be a real misfortune if, after the great amount of enthusiasm that has been displayed here and in a certain number of other countries in connection with the formation of Groups, the scheme should fail to reach fruition, and the hope that was expressed at the meeting at Hastings, it is trusted, will be fully realised.

DR. R. W. C. PIERCE is resigning his appointment as medical officer of health for Guildford after 22 years' service.

DR. C. H. C. TOUSSAINT has been appointed assistant tuberculosis officer by the Bermondsey borough council.

DR. HENRY ROGER has been appointed medical officer of health for the Towcester rural district, in succession to Dr. Charles Simpson, resigned.

DR. E. W. RICHARDS, who was recently appointed county medical officer for Montgomeryshire, has withdrawn his acceptance of the post, and will remain at Port Talbot.

DR. F. G. E. HILL, D.S.O., of the Surrey County Council Health Department, has been appointed Medical Officer of Health for the borough of Morley.

DR. CECIL LEONARD WILLIAMS has been appointed medical officer of health and school medical officer for Barking. During the last few years he has been medical officer of health for the municipal borough of Todmorden, Manchester.

IN the last number of the journal we recorded that Dr. R. de la Poer Beresford had resigned his appointment as medical officer of health for the Oswestry rural district. Dr. Beresford, who is aged 85 and who has been twice mayor of Oswestry, has now resigned his post as medical officer for the borough after 59 years' service in that position. The Oswestry town council accepted the resignation with regret, and unanimously passed a resolution to confer the honorary freedom of the borough upon Dr. Beresford.

The Case for Diphtheria Immunisation.

By J. A. H. BRINCKER, B.A., M.B., D.P.H., a Senior Medical Officer to the London County Council.

Dr. Brincker read this paper before the Metropolitan Branch on March 11th, 1927, and as it contains much new and interesting information on the subject with which it deals, it is sure to be as greatly appreciated by those who read it as by those who heard it read.

IN a paper on this subject it is a little difficult to avoid covering the same ground as several of the Speakers—Dr. O'Brien and Dr. Robertson, for example—to whom we have recently listened. What I propose to do, however, is to try to show why diphtheria immunisation has become a necessity for the public health, dealing first with the historical aspect of the disease, then with some points in regard to treatment, followed by a discussion on the etiological and epidemiological factors, and some remarks on immunisation.

Historical.

We owe to Bretonneau, as long ago as 1821, the recognition of diphtheria as a specific entity, as distinguished, for instance, from the throat affections seen in scarlet fever. The cause of diphtheria, namely, the bacillus, was first described by Klebs and Loeffler in 1884.

Diphtheria was made notifiable as long ago as 1889, and notification became effective in the year 1891. In the wake of notification followed removal to hospital, disinfection, and the control of contacts.

As a cure, anti-toxin came into use in 1892, having been discovered in 1890, and it certainly came into general practice in the Metropolitan Asylums Board hospitals in 1895.

These were important stepping stones, not only in the care and cure of the sick person, but also in the control and prevention of the spread of the disease, the ultimate object, of course, being entirely to eradicate diphtheria from our midst. I may here remark that, as medical officers of health, we are well aware that the results obtained from this knowledge of diphtheria are not in accordance with the energy expended in our attempts to eradicate the disease. For example, in 1921, in London, there were actually 16,332 notified cases, and 1,150 deaths from diphtheria alone, and most of these were children under the age of 7 years.

Etiological and Epidemiological factors in Diphtheria.

A fairly recent text book of public health discussing diphtheria says:—

“Our knowledge of diphtheria is most satisfactory in that we know the cause of the disease and its mode of transmission; we are able to check its spread, and possess a specific preventive and curative agent of great potency.”

Further:—

“Diphtheria spreads slowly from person to person and community to community. It is never completely absent in any large community.”

Which is why, I may add, immunity, as we now understand it, is so high among older children and adults.

“The cause of epidemics is not clear. They may be due to a fortuitous combination of such circumstances as the appearance of a new crop of susceptible children, a particularly virulent strain of the bacillus, and other factors favouring the spread of infection.” In this connection, the researches of Topley (*Lancet*, March 6th, 13th, 27th, 1926) are of very great value, for he has shown that an immunised herd is materially and reflexly affected every time fresh non-immunised members join the herd. The text book further proceeds to state that “it is more than likely that outbursts of disease are due to a combination of the three participating factors, i.e. (1) man; (2) the bacillus, and (3) the environment.”

Diphtheria is more a continental than an insular disease, but the suggestion previously made by Sir George Buchanan that the disease was more common in rural than in urban communities appears to have been reversed, though it is still subject to seasonal prevalences in the autumn months. One of the greatest features in the treatment of diphtheria within recent years is the reduction in

mortality. Before 1894, the mortality of all cases treated in the Metropolitan Asylums Board hospitals was 30·4 per cent. It is now well below 8 per cent. This may be ascribed to a variety of causes; for example, the use of anti-toxin as a curative agent in the treatment of the disease, and there is no doubt also that the refinements of diagnosis have had a distinct bearing upon the mortality figures, as nowadays many cases are notified which would in pre-bacteriological days, or at any rate, before the importance of bacteriology was sufficiently recognised, have been omitted from the statistical records. In other words, many mild cases are now included among the notifications, in addition to what are known as purely carrier cases, who are actually individuals immune to the disease.

There appears to be evidence to show that diphtheria persists in damp neighbourhoods and in newly built houses, due, no doubt, to the fact that such an unhealthy environment might produce an unhealthy condition of the mucous membranes of the throat and nose, such as would favour the localisation of the bacillus; and in this way dampness is a predisposing cause. Sore throat, foreign bodies, unhealthy tonsils may all act as predisposing factors in the production of diphtheria. It is also well known that children are more especially prone to contract diphtheria after an attack of scarlet fever, measles, mumps and probably other infectious diseases also.

Defective drains and sewer gas were at one time regarded as important agents in the causation of diphtheria. While this hypothesis was at one time considered as almost an axiom, it is now regarded as a fetish. Old beliefs die hard in the minds of the general public, and diphtheria is still associated in many quarters with defective drains. Similarly, disinfection of classrooms is erroneously looked upon by many as the great panacea for the elimination of infection from schools.

Experience teaches that diphtheria is spread entirely by active cases, or, in other words, by human factories suitable for the propagation of virulent bacilli in bulk, and this would include recent convalescents. Mild and missed cases are probably the most fruitful sources of infection as also is the active carrier of virulent bacilli who is capable of distributing the disease.

The diphtheria bacillus does not long persist outside the human body, nor even in cultures,

nor on a healthy mucous membrane. The healthy mucous membrane may be proverbially referred to as “stony ground” unsuitable for the germination of the diphtheria seed, but the bacillus does thrive in pockets, folds, crypts of the tonsils, fissures of adenoids, lacunæ about the turbinates, and irritated, inflamed or ulcerated portions of the mucous membrane or skin. The removal of enlarged tonsils, polypi, ulcers, foreign bodies and other sources of irritation or inflammation is thus more likely to result in the cure of diphtheria carriers. It is of first importance, therefore, that the inflamed surfaces of the diseased mucous membrane should be so treated as to bring them into a normal condition.

Disappearance of the bacillus from the throat and nose cannot be effected by the usual injection of anti-toxin. If it is subcutaneously injected it protects the individual against the effects of the toxin, but does no harm to the bacillus.

Vaccines have also been employed in the treatment of the carrier, but their efficacy is doubtful, at any rate as far as present experience with stock vaccines goes. Autogenous vaccines are now being tested in the case of chronic carriers.

The problem of the bacillus distributor is of the greatest importance in preventive medicine, and its solution will be hailed with relief by the medical and lay public alike. Distributors of infection are themselves immune to the disease, and it frequently happens that such cases are notified and removed to hospital, no doubt with the object of preventing them from doing harm at home, and of eliminating the infection before they return home. It is, however, doubtful if hospitals intended for clinical cases are the right place for them, because in most instances they are perfectly well except that they broadcast their infection and will continue to do so until they have received surgical treatment. The wards of an infectious diseases hospital scarcely seem the right place for such treatment or for persons recovering from a surgical operation.

There is also the question of the passive carrier. In such cases, if the individual is developing the disease, removal to the fever hospital is no doubt the right course to adopt. On the other hand, if the person is already immune and only harbours a certain number

of bacilli whilst in contact with the distributor and because of such contact, notification and removal of the patient to hospital seem the best method of converting a passive into an active or chronic carrier. Such cases are better segregated at home under mild anti-septic treatment, where they certainly will do no harm. In fact, by the removal of such a case from the community, the individual in question is unable to exercise his rôle as a "salter" and thus render other persons with whom he comes into contact immune. For reasons of time and space, I am unable to enlarge on this interesting topic, but I would like to refer you to Professor Topley's work (Milroy Lectures—*Lancet*, March 6th, 13th, 27th, 1926), and also to two very valuable contributions by Surgeon-Commander Dudley, R.N. :—

(1) "The Schick Test: Diphtheria and Scarlet Fever."

(2) "The Spread of Droplet Infection in Semi-isolated Communities."

All three will help us a good deal to understand the cause of the endemicity and epidemicity of this and other diseases.

In June, 1926, Guy's Hospital arranged for the treatment of chronic diphtheria carriers. A clinic was arranged for Wednesday afternoons for suitable cases selected from the Council's schools in the neighbourhood of the hospital. The clinic is under the direct supervision of Mr. Layton, the throat specialist, and Professor Eyre, the bacteriologist of the hospital. Each child is carefully examined by them and the seat of infection located. The child is tested for immunity and the bacillus for virulence, after which the necessary treatment is carried out. By December, 1926, about 50 cases had already received treatment, and the majority of them discharged ready for school. The results obtained have been so hopeful that the clinic is being continued, and negotiations are being carried out with a view to similar experiments being arranged for at St. Thomas's Hospital for children in the south-west, the London Hospital for the north and east, and St. Mary's Hospital for the north-west and west.

From the foregoing remarks, it may be inferred that considerable strides have already been made by public health authorities towards the reduction both of incidence and mortality of diphtheria in London. On the other hand, it may be concluded that the

methods which have been in use up to the present have not been productive of the results which were hoped for. For example, the five years 1921-25 have provided for London a total of 65,000 notified cases of diphtheria, and close on 4,000 deaths. Of this total, 82.5 per cent of notified cases and 97 per cent of the deaths occurred in children under 15 years of age. Interpreting the figures in another way, for the years in question 11.2 children out of every 1,000 were notified as cases of diphtheria and one out of every 1,000 children died from the disease.

Taking the last quarter of a century, the heaviest incidence in London of Diphtheria occurred in the year 1921. There were then 16,332 notified cases in London, and of these 1,150 died.

Of these 18.5 per cent were in the age period 2—5 years; 74 per cent were in the age period 2—15 years.

The case mortality was :—

11.2 per cent in the age period of 2—5 years.

5.4 per cent in the age period of 6—15 years.

32 per cent of the deaths were in the age groups of 2—5 years.

75.8 per cent of the deaths were in the age groups of 2—15 years.

Taking the average incidence of diphtheria for the last 15 years (1911-1925), London stands highest of all the large towns in Great Britain with an average incidence of 28.9 per 10,000 living.

As regards mortality, London ranks third of all European capitals, with Edinburgh first with 16.8 per 1,000 cases. Rome next with 12.9, and London third with 12.3.

Diphtheria, therefore, is a London disease; it is endemic here, and has been so for generations past.

The number of cases notified and the deaths recorded are as follows :—

		Cases notified.		Deaths recorded.
1923	...	10,301	...	616
1924	...	10,684	...	565
1925	...	12,472	...	493
1926	...	13,574	...	538

It is also of interest to know that the distribution of diphtheria in London is very unequal, being highest in those boroughs where there is overcrowding and those conditions, which may be summarised as the "amenities," which tend to produce a lower standard of life; for instance, overcrowding in relation to the number of persons per room, in relation to the number of persons per acre

and also in relation to the amount of open space available.

Southwark, for example, with the highest population per acre of land (163), with the highest population per acre of open space (13,172), high (though not highest) in percentage overcrowding (32), lowest (next to the City) in open space (1.2), stands second to Deptford in its diphtheria figures.

For 1925 they are as follows :—

	Incidence.	Death rate per 10,000
London	... 27.2 per 10,000	1.1
Deptford	... 50.3 " "	2.0
Southwark	... 48.0 " "	1.6
Bermondsey	... 43.6 " "	2.4
Greenwich	... 42.3 " "	1.4
Bethnal Green	... 41.6 " "	1.4
Shoreditch	... 41.1 " "	1.4
Camberwell	... 33.6 " "	1.5
Finsbury	... 32.7 " "	0.8
St. Pancras	... 32.6 " "	1.5
Hackney	... 29.0 " "	1.3

and the under-mentioned boroughs lowest with :

	Incidence.	Death rate per 10,000
Lewisham	... 73.2 " "	0.9
St. Marylebone	... 12.5 " "	0.7

Diphtheria is essentially a disease of young children. The incidence is most marked in the early years, and the mortality even more so. When diphtheria occurs in a mixed community, it would obviously be reflected in the children attending the infants' department of an elementary school, where are congregated all the susceptible material, though not necessarily the infecting material. It is no wonder, therefore, that the unthinking public assume that the school is a hot-bed of infection, and that school closure is the only measure for preventing the spread of the disease. It should, however, be borne in mind that children are only in school for five hours out of the twenty-four, and whilst there they are under discipline (see Dudley on this subject). For this and other reasons it is difficult to follow the line of argument that schools, if well-disciplined, act as sources of infection. In my opinion, school closure is illogical and a confession of failure on the part of the public health authorities, and may be described as altogether an "ostrich" policy.

Susceptibility and Immunity.

Why is it that the child between 2 and 7 years is so susceptible to diphtheria; and what produces immunity in later years? It

is universally recognised that immunity to diphtheria is anti-toxin immunity; in other words, the immune person must have sufficient anti-toxin circulating in his tissue fluids to neutralise the diphtheria toxins that enter his system from the vitality of diphtheria micro-organisms present in his naso-pharynx. A person, therefore, with sufficient anti-toxin in his blood is armed with all the defences necessary to repel an attack of diphtheria. Whence does this limitless fountain of anti-toxin spring? It is manufactured freely by the tissue cells, and these cells have learned to manufacture this material as a result of contact with, and experience of, the diphtheria bacillus and its toxin. Some persons may have learned that lesson as the result of bitter experience, namely, through an attack of diphtheria. Others have had the happier experience of learning their lesson more economically by coming into contact with smaller doses of infection, such, for instance, as would be provided by the passive carrier already referred to. Nature left to herself takes some considerable time to establish this immunity, and there are obviously many serious risks associated with this chance-method of obtaining the desired protection. A child develops immunity by "nature's method" sometime after the age of 7 years, although, of course, the period varies in individual cases, and the endemicity of the disease, and that is why diphtheria does not usually occur, except sporadically, in the senior departments of the Council's elementary schools.

A new-born infant, in spite of its undeveloped body cells and absence of experience, is immune, but its immunity is apparently a birthright obtained from its parent. It may also be partly a question of soil, for it is known that the lactic acid producing *B. lactis aerogenes* is antagonistic to the growth of the diphtheria bacillus. This immunity, however, is only temporary, and disappears at the end of the first year. Thus there is a period between one and seven years in which the child has no resistance, and has not yet learned to manufacture its own anti-toxin. Is it possible to immunise the individual scientifically by imitating the methods employed by nature? Also, is it possible artificially to stimulate the tissue cells of a child between the ages of one and seven so that he may manufacture his own supply of anti-toxin? The works of Von Behring,

Schick, Park, Zingher and others enable us to reply to this unquestionably in the affirmative.

In 1903, Park used toxin anti-toxin for the immunisation of horses for the production of better anti-toxin.

In 1913, Von Behring made the first attempt to immunise human beings, and Schick gave to us the immunity test which was called after him the "Schick" test.

In 1919, Park and Zingher started artificial immunisation of children in New York, and their lead has now been followed extensively in various countries.

Thus we have a new method of producing immunisation. Instead of leaving the child to a chance attack of virulent diphtheria bacilli and so to be afflicted by disease, or to become immunised, we introduce a measured quantity of toxin partially neutralised with anti-toxin into the system. This dose is repeated until the tissue cells have learned their lesson and will, in future, continue to manufacture anti-toxin in sufficient quantity to maintain the equilibrium between the infecting agent and the body defences. The Schick test gives an indication of the sufficiency of circulating anti-toxin in the tissue fluids.

I am aware that more refined methods, such as the use of toxoids and the spacing of doses, have been introduced, but I must pass over them.

The discovery of anti-toxin as a means of treatment and cure of diphtheria was a *revelation*, but this protection treatment as a means of prevention is a *revolution*. We ought all of us to be in agreement that we have in protective immunisation a very valuable public health measure whereby we can control the occurrence of diphtheria in the community, and more especially in the young child from one to seven years. By preventing the occurrence of diphtheria, deaths from this cause will disappear, and with it many of the serious after-effects that follow in the wake of the disease. Immunisation must, therefore, take a prominent place in the health programme of all public health authorities.

The point is, how can this be best effected.

I presume that the child of the more favoured classes is sufficiently well catered for, and our attempts should, therefore, be mainly directed upon the children in the less favoured strata of society which includes those in the elementary schools.

Can immunisation be carried out as part of the procedure of medical inspection and treatment of school children? This has been done in New York, Boston and Chicago in America and many places in Great Britain, notably in Scotland, in Edinburgh and Aberdeen and such other towns where immunisation is now in full swing. In London, it has so far, only been carried out in a few selected groups of children, such as in the Lambeth schools, and certainly in one residential school in Westminster.

Owing to the fact that individual treatment in London elementary schools is divorced from medical inspection, and that such treatment is carried out in hospitals, local clinics, etc., special arrangements would have to be made for immunisation apart from the statutory medical inspection. And if it is offered to any one group, it must be made available for all. At a rough estimate, it would cost the London County Council about £70,000 a year. This would include the "Schicking" of every child and the immunisation of all the susceptibles, as well as re-Schicking where necessary to see if immunity has been completed. This estimate, however, would not include the pre-school child, that is, before the age of five years, and this, we are all agreed, is the class of children most in need of immunisation.

The most satisfactory solution at the present time appears to be to introduce this form of protective treatment in the child welfare centres, as has already been done for some years past in Holborn, and more recently authorised in Westminster, Camberwell, Deptford and Battersea.

There is a good deal to be said in favour of procedure on these lines.

First, before carrying out the immunisation, it is important to explain the operation to the parents in simple language, and to leave it to them to decide whether such protection is desired. This can best be done by simple talks, popular lectures, and the presentation of the subject by means of film displays. In this way, much of the venom of the "antis" would lose its potency.

Secondly, by dealing with the infants of one to two years, who we may assume are all susceptible, the immunisation may be performed without the preliminary Schick test, thus reducing the number of visits of the child to the clinic.

Thirdly, owing to the fact that some of the older children and adults do become sensitised to foreign proteins, reactions may occur in a certain proportion of cases of older individuals, and this may detract in the earlier stages of treatment from the popularity of the prophylactic measure.

Fourthly, if a mother has had her baby immunised successfully, she is more likely to desire a similar measure of protection for her older children.

Fifthly, by commencing with the younger children, we shall gradually be accumulating a population of immunised children, and thus proportionably decrease the incidence and mortality of the disease as the years go by.

Sixthly, immunisation can be most cheaply carried out in this way.

I wish to make it quite clear that whilst the object of immunisation is to eliminate altogether the incidence of diphtheria and the mortality accruing therefrom, it will not eradicate the presence of carriers of the disease from the community. In fact, it is possible that there may be more carriers in an immunised community, many of them actually distributors of virulent bacilli. What course of action will the general medical practitioner take with regard to these carriers? Will he notify them as sufferers from the disease and send them to hospital? If he does so, his claims for immunisation will, in the eyes of the general public, have failed, for he has already assured the parents that immunisation would save the child from contracting diphtheria. The lay public could not be expected to distinguish between a clinical case of diphtheria and one that is notified as a case owing to the presence of diphtheria bacilli in the throat or nose.

In order to meet all possible criticisms it will, therefore, be necessary to keep careful records of the children immunised. Every child immunised will require a history card on which would be recorded the following details:—

- (1) The date of immunisation.
- (2) The age at which the child was immunised, and whether the immunisation was preceded by the Schick test or not.
- (3) The number of immunising injections given.
- (4) The date and result of "re-Schicking."
- (5) If still a re-actor, the date and number of subsequent injections.
- (6) The results of final "Schicking."

Further, if a case has been Schick negative, and is subsequently notified as diphtheria, immediate inquiries will have to be made into the child's history for an explanation will be required. Inquiries must be made about sore throat, tonsillitis, presence of membrane and whether virulent Klebs-Loeffler bacilli have been isolated. Sore throats or tonsillitis may, of course, be due to other causes than the diphtheria bacillus. In earlier days, we were wont to hear a good deal about post-scarlatinal diphtheria. The fear of this sequela disappeared when anti-toxin came into general use. It is now well-known that scarlet fever, and possibly such other diseases as measles and mumps re-act upon the individual in such a way as to make for less immunity against, and more susceptibility to diphtheria. The subsequent history of cases of clinical diphtheria among immunised children must, therefore, be examined in relation to those diseases.

The technique of toxin anti-toxin immunisation is so simple that there is no reason why the medical practitioner should not carry it out in the course of his practice. It would be wise to invite doctors to attend the welfare centres in order to encourage them to understand the rationale and technique of the operation. They can then see for themselves how the operation is carried out, and make observations with regard to reading and interpret the subsequent "Schick" test: the latter is by far the most important factor to acquire.

Moreover, the fruitful suggestion made by our versatile editor in the March number of *PUBLIC HEALTH*, namely, the provision and training of Public Immunisers in place of Public Vaccinators, and the training of medical students in the art and practice of Immunology, is worthy of our serious consideration and support.

General hospitals may appropriately broaden their outlook on disease and its prevention by providing Immunising Clinics. As a matter of fact, this has already been done in some cases, and is being carried out as a side issue in the diphtheria carrier clinic at Guy's Hospital.

BERMONDSEY borough council have increased the salary of Dr. R. King Brown, M.O.H., to £1,300 per annum. The salary of Dr. D. M. Connan, deputy medical officer of health, has also been increased from £750 to £850 per annum.

Ut Ita Dicam.

(Being Comments, apropos and otherwise, on Sundry Matters.)

Ex Cathedra.

There is probably a multitude of reasons why presidential addresses, which must not be discussed or questioned, are the only things at congresses that most people long to discuss; and the greatest of these is cussedness. For my own part, my notetaking is never more copious, nor my debating spirit more lively than on occasions when we are being told and not argued with. At a congress of the Royal Sanitary Institute, how many presidents there may be I do not at the moment recall, but on the occasion of the meeting recently held at Hastings I am convinced they were at full strength. Or perhaps there may have been a few extra because the meeting aimed at being a particularly successful one, since it was the first of the series in the second half-century of the Institute. That it was noteworthy and highly successful and enjoyable, most of the many hundreds who attended will readily admit, but that many will be prepared to attribute the success and the enjoyableness to the fact that there were as many, if not more, presidents than usual, I, of course, cannot tell. So far as I personally am concerned, I am ready to declare that the addresses, or some of them, that I heard were, if anything, more provocative of those feelings to which I have referred than normal. At least I imagine they were; so provocative, indeed, that something must be done about it—something on the lines that follow.

A Presidential Address or Two.

Amongst addresses that appeared to me to contain points that require further elucidation as a result of discussion and judicious questions were those of Sir Alan Powell, Sir John Robertson, and Dr. Snell. That of the President of the Congress, Sir William Joynson-Hicks, as did the lecture of Sir William Willcox, gave me that Oliver Twist feeling and made me to want the something more that only comes with the exchange of ideas at the moment. Sir Alan Powell—who, by the way, seemed to me to be one of the outstanding successes of the meeting—dealt with an aspect of the food question that is, but should not be, almost foreign to us and in respect of which no one is more capable of providing us with information. Now that our leaders and betters, both in the United States

and here, have forbidden us to display even the faintest interest in sanitation, we are practically compelled to take up food hygiene and to seek to learn all that we can of food from every point of view. As vice-chairman of the Food Council, as well as clerk to the Metropolitan Asylums Board, Sir Alan Powell has had unique opportunities of gaining knowledge of some of the most interesting and important of these aspects—distribution, marketing, cost and so on. No one better able to give us information on these points could possibly be imagined, and my regret that, on account of the high position he occupied at Hastings, we were prevented from taking the opportunity of cross-questioning him and seeking further enlightenment is very sincere.

More Congresses—.

Dr. Snell, in his address, gave me the impression that he was a president *malgré lui* and that, so far as congresses were concerned, having attended vast numbers and entertaining the intention of attending as many more, he really did not like them. Perhaps, even probably, this impression was wrong, and I was misled by the sub-acidity of the flavouring he so commonly imparts to his utterances. On this occasion what he desired to convey to us seemed to be that what was wanted was more congresses and fewer of them, and a greater amount of propaganda and less talk about it. Both of these sentiments, judging from the applause, met with a considerable amount of approval, from the more serious minded especially. I, not being of this type, wanted to hear both these themes developed, the first at any rate, as, in spite of the fact that it was stated in the course of a presidential address, I am not convinced that discussions on tuberculosis, maternity and child welfare and such like, should take place exclusively at the Preventive Medicine Section at the annual meeting of the British Medical Association, and that all other subjects—social hygiene, food hygiene and so on—should be reserved for the congresses of the Royal Sanitary Institute, or the Royal Institute of Public Health “with its penchant for foreign travel.” More than that, I do not believe Dr. Snell really thinks so either; otherwise when animadverting on public education in health,

of which, as he says, “we hear a lot to-day,” he would not have stated so definitely that next in importance to the education of the profession was the education of members of local authorities with, last, the education of the public themselves.

—And Fewer of Them.

To my mind it would be a disaster, so far as regards the education of local authorities in the purely preventive medical aspects of their work, if the congresses limited themselves to discussions on matters other than “the more professional or technical subjects” which should be dealt with at British Medical Association meetings alone. One of the effects would be that medical officers of health would not—in effect, could not—seek to attend the congresses, and if they did not attend, representatives of local authorities would not attend either. Nor would they or could they, attend the British Medical Association meetings, and thus there would be lost the real value that the congresses offer for the coming together of officials and councillors and all that such a coming together means in the way of co-operation for the benefit of the public health. As an alternative to a congress, an annual meeting of the British Medical Association seems to me entirely devoid of advantages. The preventive medicine section was established, I believe, many years ago, and yet I understand at the present meeting at Edinburgh the advisability of protesting against the provision of laboratories by local authorities and of diagnostic facilities by these bodies was seriously discussed. Obviously, the proper place to which representatives of local authorities as well as members of the medical profession should go for education in health matters is the British Medical Association annual meeting.

Views on Health Education.

Dr. Snell's was not the only presidential address in which reference was made to the important subject of health education. Sir John Robertson, in his address to the Preventive Medicine Section, also alluded to the question. Whereas, however, Dr. Snell held that this was no new thing, and that in the past very much had been done with a view to impressing upon the individual the necessity of caring for his own body, and on the public as a whole the importance of their part in safeguarding the communal health, Sir John Robertson, on the other hand, declared him-

self to be of opinion that now, as always, far too much attention is given to hygiene of the communal type and far too little to individual hygiene: that people are much more anxious to study, and instructors much more desirous of teaching, subjects “which have for their object the better knowledge in subjects to assist in earning a livelihood” than those others having reference to the care of the body and the recognition of the early signs of disease. It interested me greatly to hear these two views communicated, and I should have liked to hear them discussed. I remember quite distinctly that at “my prep. school,” so long ago, though nobody ever advised me to choose the higher walks of grocery, rather than public health, as a means of earning a living, quite a number of people used to talk about the wonders of the human body and the importance of looking after it. Also I have in mind that in spite of this, at intervals during my career I have made my moan about the awfulness of the thought that at the dawning of public health it was, and ever since it has been the water supply, the sanitation, the housing and the surroundings of the individual rather than the individual that received the bulk of the attention. It was a useful card to use in support of a plea for the establishment of any sort of medical scheme, and I have no doubt I shall use it again and again, just as I have no doubt many of the great medical officers of health of an earlier generation than ours used it. Generations of officers yet unborn will almost certainly make play with it also, uttering it with the solemnity befitting the announcement of a startling discovery, and waiting for the applause that always follows the revelation of a great truth.

And Finally.

I have had so much to say on and apropos presidential addresses that I have left no space to refer to the member of council who objects to sending delegates to congresses; the member of Parliament who thinks there are too many officials, and the most recent pronouncements on wholemeal bread. I do not suppose it matters very much, however, as everybody knows all about these things. P.

DR. H. M. AYRES, assistant medical officer to the Monmouthshire County Council, has been appointed medical officer of health and school medical officer to the Rowley Regis Urban District Council.

The Co-ordination of Maternity and Child Welfare Work with the Hospital Services.

By J. S. FAIRBAIRN, M.A., B.M., B.Ch., F.R.C.P., F.R.C.S., Obstetric Physician, St. Thomas's Hospital, London.

The object aimed at by Dr. Fairbairn in this paper, with which he opened a discussion at a meeting of the Maternity and Child Welfare Group on March 11th, 1927, was to emphasise the importance of a close co-ordination of maternity and infant clinics, whether public or voluntary, with doctors and midwives in independent practice on the one hand, and with the hospitals and public health services on the other. In order to illustrate his views he gave a description of what has been done at St. Thomas's Hospital, from which medical officers of health and others interested may learn much that is of importance. The general discussion is reported fully on pp. 229-231 of the April number of the journal.

AS it may be of interest, and serves well as an opening to a discussion on this subject, I propose to give a short description of the arrangements made at St. Thomas's Hospital with a view to ensuring co-operation.

In 1910, a ward of twenty-one beds in the hospital was opened for maternity patients, and a year later an infant clinic was started for the babies born there, and for those born in the outdoor maternity district. In a short time these clinics were extended to keep the children under observation up to school age. Similarly, the ante-natal clinic grew out of a booking clinic on two days a week with a house officer in charge, into one of four days a week under a member of the staff.

The hospital was in a very good position to undertake the work of a maternity and child welfare clinic because of its large staff of hospital almoners and the school for trainees connected therewith, so that home-visiting formed no problem. The work was sufficiently far advanced to have attention called to it by the Chief Medical Officer to the Local Government Board, in his Report for 1913-4 (43rd Annual Report of the Local Government Board, page xxxi.).

Since then it has greatly expanded, and there are several infant welfare centres, crèches and other organisations under independent voluntary committees that are staffed from the hospital and worked in close connection with it.

For this reason, St. Thomas's Hospital has had more experience than perhaps any other hospital in the country of working as a consultative centre both for other centres in loose

association with it, and for outdoor agencies generally, and I may, therefore, be able to draw some conclusions from the results of several years' working.

I would urge from my experience in serving both a large general hospital with a small maternity ward, and a special lying-in hospital that the former is much more efficient as a consultative centre, both for maternity patients and for babies, because of the larger personnel and material it has at its command.

The ante-natal centre at a general hospital is, in a way, a clearing house. The patients are seen by the obstetric staff, and all with disturbances that do not fall strictly into the realm of obstetrics are referred elsewhere. Venereal disease cases go to the V.D. clinic, the tuberculous cases to the T.B. clinic, the medical cases to the physician, and so on. The machinery is all at hand, and an opinion and treatment can be obtained at once. If special investigation—bacteriological, biochemical, X-ray, or such like—is required, it can be carried out by the officer in charge merely writing a note to a colleague in the requisite department. Also the officers-in-charge of the ante-natal clinic in a general hospital have always a larger proportion of medical and other conditions in pregnancy referred to them from the other departments, and thus have a wider experience of this type of case than is obtained in a hospital for maternity cases alone. Cases of serious disorder of pregnancy, or in which difficulty in labour is expected, are admitted for further observation and treatment. If admission is not considered necessary, advice and the opinion of the

officer are sent to the clinic from which the patient has come.

The same is true of the infant clinics. If the opinion of the medical officer only is required, that is sent, but if the help of the orthopaedic or ophthalmic or other special department is required, it is readily obtainable, and if the child is ill and treatment or observation in the hospital is necessary, that can be arranged.

A matter calling for attention is that of arranging for the return to the clinics from which they came, of mothers and babies delivered in hospital, or sent up for an opinion. The duty of arranging transference or return to outside clinics is undertaken by the lady almoner's (social service) department. Also women delivered in the hospital or on the district are transferred to clinics linked to the hospital, certain streets being allocated to them. In this way the hospital clinics do not become overloaded, and are more able to undertake consultative and special work.

When a mother leaves the maternity ward our Sister Mothercraft and her nurses visit her once on discharge, or more often if there is difficulty in the feeding of the baby. Each mother is given a date to attend the clinic for our own maternity patients, but after this preliminary visit, unless there are urgent medical reasons, she is referred back to her local centre. A report is sent by the Social Service department to the medical officer of health, or to the welfare centre direct. Sometimes the medical officer of health prefers reports sent to him, and not to the centre.

The greatest cause of misunderstanding is regarding infants sent for an opinion, the outside clinics often complaining that the mothers are encouraged to continue attendance at the hospital. This appears to arise largely from a lack of appreciation of the impossibility of giving a definite opinion from a single visit. I know my colleague in charge of the infant clinic insists on seeing difficult cases referred to him more than once, as he rarely is prepared to give an opinion offhand. He maintains that his method is the only one that allows him to be of any real use as a consultant.

Great trouble is taken to pass on mothers and infants who come from other clinics, and to maintain close touch with all agencies outside the hospital. When the child is a year old a card is sent to the medical officer of

health asking that it may be returned filled in for the hospital statistics.

Having started with the general hospital as a unit, I would now look at the problem from the other end, and, having recently analysed the statistics of the midwifery service of the Queen Victoria's Jubilee Institute, I propose making use of the points I made in that paper. (*Brit. Med. Journal*, January 8th, 1927.)

The Queen Victoria's Jubilee Institute covers practically the whole of England and Wales, except for about three counties, and, through the county nursing associations, attends between 50,000 and 60,000 confinements a year, with a mortality less than half that of the country as a whole. The one thing that comes clearly out of a detailed study of the excellent results obtained is that there is as yet no effective machinery for co-operation between the midwives, the medical practitioners and the hospitals. The cases left in the hands of the midwives are often not suitable cases for midwives, and little or no attempt is made to divide cases between midwives and practitioners in accordance with the results of previous ante-natal investigation so as to make the more skilled professional attendance available for those with possible obstetrical difficulties. The division between midwives and doctors is left almost solely to the patients themselves, and decided more on economic grounds than the medical or obstetrical necessities of the case.

Here, it seems to me, is an example of work that might profitably be begun by the administrative medical service. What is required are ante-natal centres that will co-operate with the midwife on the one hand, and the doctor on the other, so as to advise how the cases should be allocated from among that class of the population that cannot pay either for adequate ante-natal supervision by a medical practitioner, or for his attendance during labour. Their duty would be, in the first instance, that of eliminating from the practice of the midwife, so far as can be, many serious cases that increase her maternal mortality, and always require the calling in of a doctor, often in emergency, and sometimes the transference of the patient to hospital. It is impossible to give details from that paper, but at its conclusion the results obtained in a self-contained unit—the East End Mothers' Lying-In Home—worked in a similar manner, are compared with those of the Queen Victoria's Jubilee Institute, and being still better, are

taken as an indication of what might be done by co-ordination.

In the Oxford Medical Handbook on Obstetrics, I have discussed the question of the linking up of outlying areas with convenient centres supplying additional facilities, such as hospitals, clinics, and expert medical help. The problem involves both maternity and child welfare work, but the former is the more necessary and more difficult because of the greater urgency of the cases when they arise. Unfortunately, the matter is greatly complicated by questions of local government, rating and such like, for the best and obvious centre for an area might be a county borough which could serve two or three or more counties or portions of them, and all of them under different rating authorities.

Though I have stressed the advantages to be gained by closely associating the maternity and child welfare consultative centre with the general hospital so as to obtain easy access to its personnel and resources for investigation and treatment, there is another point that must not be lost sight of, particularly in regard to rural areas, and that is, that the position of the consultative centre must also be the most accessible traffic point, to which converges by road and rail the widest area of the surrounding country. I would like to hear the views of administrative officers as to the possibility, when there is no general hospital available and able to undertake the work, of the formation of maternity hospitals that could serve wide areas under different rating authorities. Road transport to the remotest village is now so much simpler than it used to be, and the range of the ambulance so greatly increased, that the serving of a much wider area of country is now possible. I would also like to picture the immense advantages the foundation of such hospitals would be to the maternity service, by emphasising not only their value to the patients who pass through them, but also to the general population of the whole area. In the first place, a skilled obstetric service becomes possible from the experience obtained by those practitioners serving them, and is available to all mothers in the area, whether of the hospital class or of a better social status. They also form a centre for training midwives and providing maternity nurses for all classes. Further, they offer what is specially lacking in our midwifery service, and that is the provision of refresher courses for the midwives in

practice. Every few years each midwife in the area might go into the hospital and have her methods rubbed up, and go back to her duties more efficient and inspired with a new enthusiasm for her work.

The result of the Maternity and Child Welfare Act, as far as midwifery is concerned, has been disappointing. If I am not starting too political a question, I would say that the Act is too parochial and would have done much better had it followed the Midwives Act and made the county councils and county borough councils the administrative bodies instead of the lesser authorities.

The results in London may be taken as an instance. There were established numbers of maternity homes of a small type, insufficient to give experience to medical practitioners and midwives, and, though useful, are poor things at the best. Suppose instead, the London County Council had been the responsible authority, instead of the various boroughs, what might have been done? Instead of these little nursing-home hospitals for each borough, the central authority could have reviewed the state of affairs in the county of London, noting where maternity provision was lacking, and where would be a convenient traffic centre that would serve three or four boroughs and put down there a real maternity hospital with ante- and post-natal services at little extra expense in maintenance, though, undoubtedly, the original expenditure would have been much greater. Already some of these small hospitals have been scrapped or amalgamated with other local institutions, poor law or voluntary, and it is certainly open to doubt whether the public have got value for the money expended. What is true of London is equally true of the country generally, and though I would not decry the place of the maternity homes that have been dotted all over the place under the provisions of the Maternity and Child Welfare Act, they are fitted only for a small part of the services required. Our Maternity Service will never be complete till there is provision by public or voluntary effort for a larger type of hospital, serving a wide area or large population.

A final point I would raise for discussion is whether the plan of putting a whole-time officer in charge of the clinical work of hospitals and clinics tends to make easy or difficult their co-ordination with other agencies. On general grounds I feel that the

more the local medical profession can be enlisted and made use of, the more generally is the experience so gained made available for the population as a whole. Ante-natal supervision was scarcely taught when those now in practice were trained, but many practitioners would become interested and learn the work quickly if their services could be used. If that experience is obtained by a whole-time officer it is thereby reserved for but a section of the community, and further, a good administrative officer is not necessarily a good clinician; indeed the chances are against

both faculties being highly developed in one individual.

What holds good for maternity clinics is also true of infant clinics, for the management of infant feeding and the hygiene of infancy have never been properly taught in the medical schools, hence the small part played by the doctor in the prevention of infantile disorders. These advantages may, however, be outweighed by the trade union feeling among local practitioners and the fear that the selected of them will obtain advantages over the others, and thus may result in difficulties in co-operation.

Death-Rates by Age Periods between 1881 and 1923.

By A. A. TURNER, M.C., M.D., Ch.B., Aberd., D.P.H., Medical Officer of Health, Finchley.

The opportunity of publishing a paper on a statistical subject rarely offers, and this by Dr. Turner, which must have involved an enormous amount of work, contains information that will be found suggestive by many.

THIS review has been undertaken in an endeavour to discover:

1.—To what extent the death-rates at the various age periods have participated in the fall in the general death-rate.

2.—To what extent the general death-rate and the death-rates within the age groups have been affected by the death-rates from the various diseases.

With this end in view, a detailed analysis has been made of the death-rates for the County Borough of Croydon from 1881 onwards:—

(a) According to age groups.

(b) According to the cause of death.

For the purpose of the analysis the following age groups and diseases have been selected:

1.—*Age groups.* All ages, 0—1 year, 1—5 years, 5—15 years, 15—25 years, 25—65 years and over 65 years.

2.—*Diseases.*—Enteric Fever, Measles, Scarlet Fever, Whooping Cough, Diphtheria, Influenza, Cancer, Nephritis, Tuberculosis (Respiratory), Tuberculosis (other forms), Pneumonia, Bronchitis, Other Respiratory Diseases, Diarrhoea, and the group Congenital Debility, Malformation and Premature Birth.

The records of deaths from 1911 onwards are taken from the annual reports of the

Registrar-General and prior to 1911 they are taken from successive annual reports of the Medical Officers of Health for Croydon.

Evidence has been found in the figures that there has been some slight variation in the method of allocating deaths to the various headings; this applies, for example, to the item Congenital Debility, Malformation and Premature Birth to which, prior to 1911, more deaths were attributed locally than appears to have been the practice of the Registrar-General since that year.

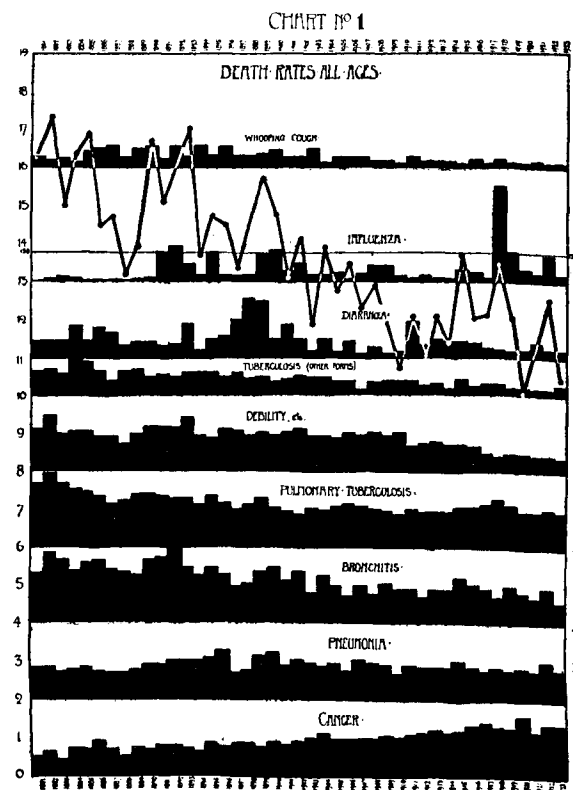
The age groups in which the deaths have been classified varied somewhat in the earlier years, e.g., from 1881—1897 the two highest groups are given as 25—60 and over 60, and from 1898 onwards they are 25—65 and over 65. In the early eighties some of the groups varied from year to year, and this accounts for the gaps that appear in some of the charts.

The populations at the various age periods have been calculated by assuming an arithmetic progression between the successive census populations of 1881, 1891, 1901, 1911 and 1921. This method, of course, is not strictly accurate, but is sufficiently so for the present purpose.

During the war years and immediately after, the populations at the ages from 15—65 are not trustworthy, so that the death-rates for

these years should not be regarded as being strictly accurate; the death-rates in infancy and in children from 1—5 years will similarly be somewhat irregular during these years through fluctuations in the birth-rate not indicated by the method of calculation from the censuses of 1911 and 1921.

Owing to the populations at the various age periods being relatively small, the graphs show relatively large swings from year to year, and it is recognised that a fair amount of uncertainty must be attached to any deductions drawn from these.



Death-Rates in the Various Age Groups.

1.—General Death-Rate. Chart No. 1.

The mean death-rate for the whole period is 13·8 per 1,000.

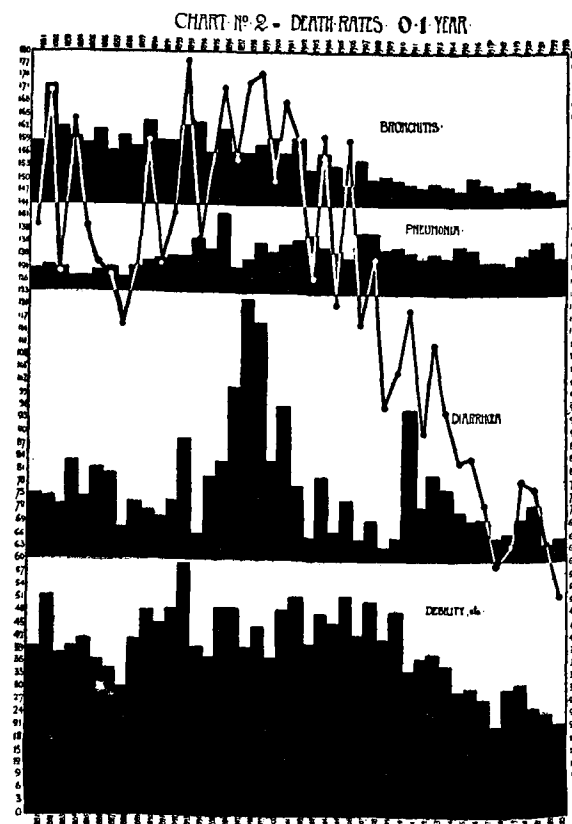
The general death-rate dropped considerably up to 1888, but rose again up to 1893, and thereafter it dropped fairly rapidly and evenly till the war years, when it rose considerably, to fall again immediately after the war.

Of the diseases under survey, the following have contributed to the fall in the death-rate: Enteric Fever, Measles, Scarlet Fever, Diphtheria, and Nephritis (not shown on the chart), and Bronchitis, Pulmonary Tuberculosis, Diarrhoea, Whooping Cough, and Debility, Malformation and Premature Birth.

It will be observed that prior to 1890, the mortality from influenza was very low, with no epidemics, but since that year the death-rate has always been appreciable.

The death-rate from pneumonia has shown no tendency to fall, being as high in 1923 as in 1881.

The mortality from cancer has increased steadily, although in recent years the rise has been less marked.



2.—Death-rate 0—1 year. Chart No. 2.

The mean death-rate is 125 per 1,000.

The death-rate within the first 12 months of life dropped during the first decade, maintained a higher level up to 1902, fell irregularly during the next four years, and thereafter declined rapidly and fairly evenly.

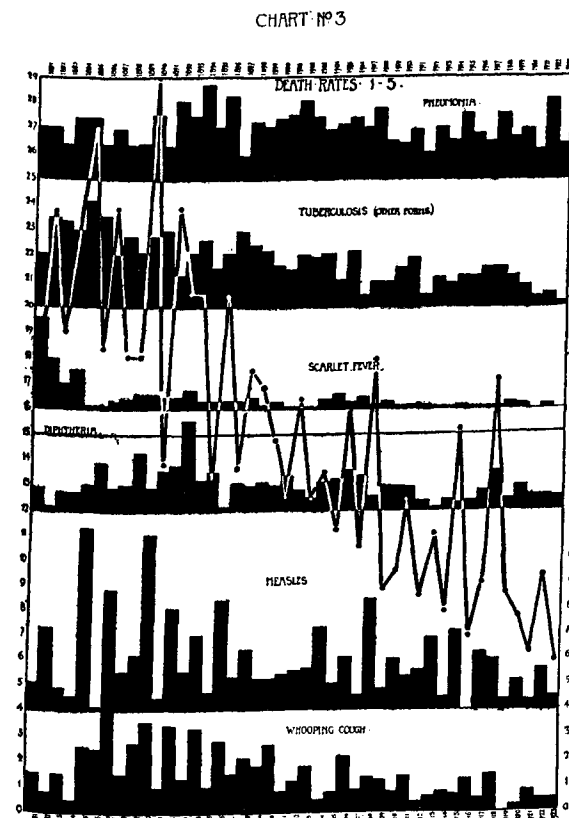
The most fatal diseases at this age are Congenital Debility, etc., Diarrhoea, Pneumonia, Bronchitis and, to a lesser degree, Whooping Cough, Tuberculosis (other forms) and Measles.

The group Congenital Debility, etc., shows no decrease before 1910; the sudden drop in 1911 is partly accounted for by the switch over to the figures of the Registrar-General, but in the following years there has been an even and decided drop.

The death-rate from Diarrhoea has shown an irregular course with a very high peak in the late nineties; a sudden rise in 1911, and thereafter a gradual decline.

Bronchitis was more fatal than Pneumonia up to about 1902, but since then the mortality from Bronchitis has dropped rapidly, while that from Pneumonia has shown no improvement.

The death-rates from Measles, Whooping Cough, and Tuberculosis (other forms) have dropped throughout the whole period.



3.—Death-rate 1—5 years. Chart No. 3.

The mean death-rate is 15 per 1,000.

The death-rate at this age period showed no very definite decline up to 1895, but thereafter it fell fairly rapidly and evenly; the rises that occur corresponding fairly closely with epidemics of Measles and Whooping Cough.

The important diseases at these ages are Pneumonia, Tuberculosis (other forms), Measles, Whooping Cough, and Diphtheria.

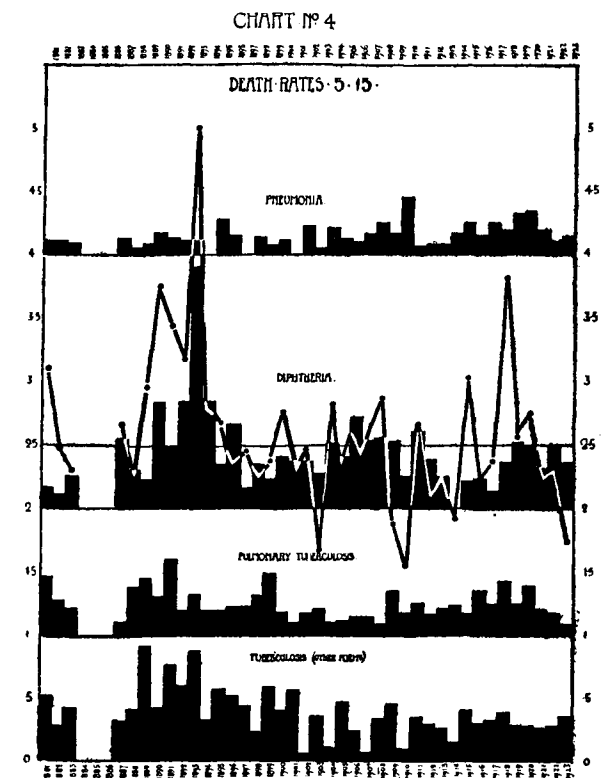
The mortality from Pneumonia showed a tendency to increase up to 1894, and since then it has shown a slight decrease.

Tuberculosis (other forms) has shown a fairly even drop from 1885 to 1923, when the death-rate was almost trifling, namely, ·2 per 1,000, compared with an average of 3 in the eighties.

The mortality from Measles has shown a drop in two waves, and the mortality from Whooping Cough shows a steady decline from about 1887 onwards.

Diphtheria showed an increasing mortality up to 1893, and since then there has been a fairly steady decline.

The death-rate from Scarlet Fever was very high in the early years, but has gradually declined until it has become almost trifling.



4.—Death-rate 5—15 years. Chart No. 4.

The mean death-rate is 2·5 per 1,000.

The death-rate at this age period, which has always been low, shows little change throughout the period. The scale used is a large one, and hence the large oscillations.

The most fatal diseases are Diphtheria, Tuberculosis (other forms), Respiratory Tuberculosis and Pneumonia.

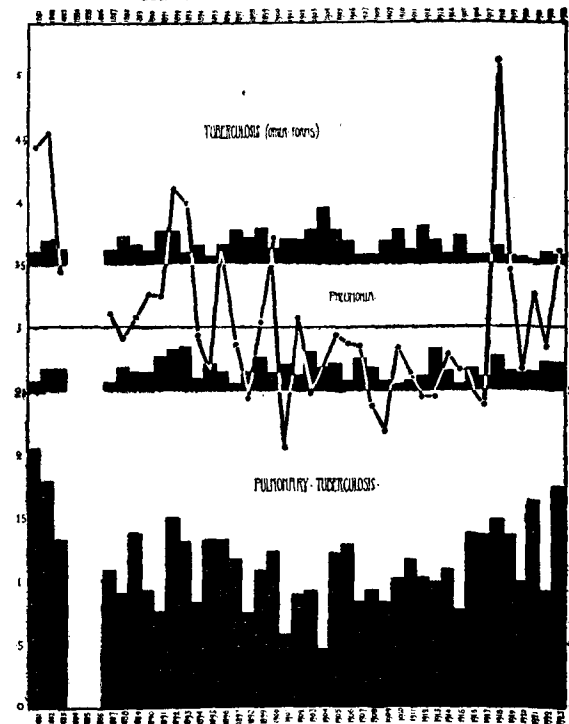
The death-rate from Diphtheria rose considerably from 1881 to 1893, when there was a severe epidemic, and from that year the decrease has not been a very marked one.

The death-rate from Respiratory Tuberculosis dropped fairly evenly from 1891 to 1908, then it assumed a higher level which was increased during the war, and dropped considerably during the last three years.

The death-rate from other forms of tuberculosis tended to increase up to 1893, dropped irregularly up to 1914, but from 1915 it has maintained a slightly higher level.

Pneumonia once more shows no definite evidence of a declining mortality.

CHART No. 5 - DEATH-RATES 15-25.



5.—Death-rate 15—25 years. Chart No. 5. The mean death-rate is 3 per 1,000.

The death-rate at these ages dropped up to 1888, rose up to 1893, and fell slightly up to 1917, but since that year it has risen very definitely. It will be noticed that the death-rate follows very closely the death-rate from Respiratory Tuberculosis which is responsible for about one-half of the deaths at these ages.

The death-rate from Pulmonary Tuberculosis dropped fairly evenly up to 1904, rose in 1905, and remained fairly level to 1915, rose abruptly in 1916, and has shown a tendency to increase since that year; the rate in 1923 being the highest since 1882.

This is the only age group in which one finds an increase in the death-rate from Pulmonary Tuberculosis, and on reference to the reports of the Registrar-General, one finds that this has been the experience all over the country.

When one analyses the death-rates for the two sexes from 1911 onwards, one finds that the sudden increase in 1916 is due very largely to the increased female mortality.

In his report for 1918, Dr. Stevenson states:

"In each decade from 1850--1890, the heaviest mortality among females occurred at

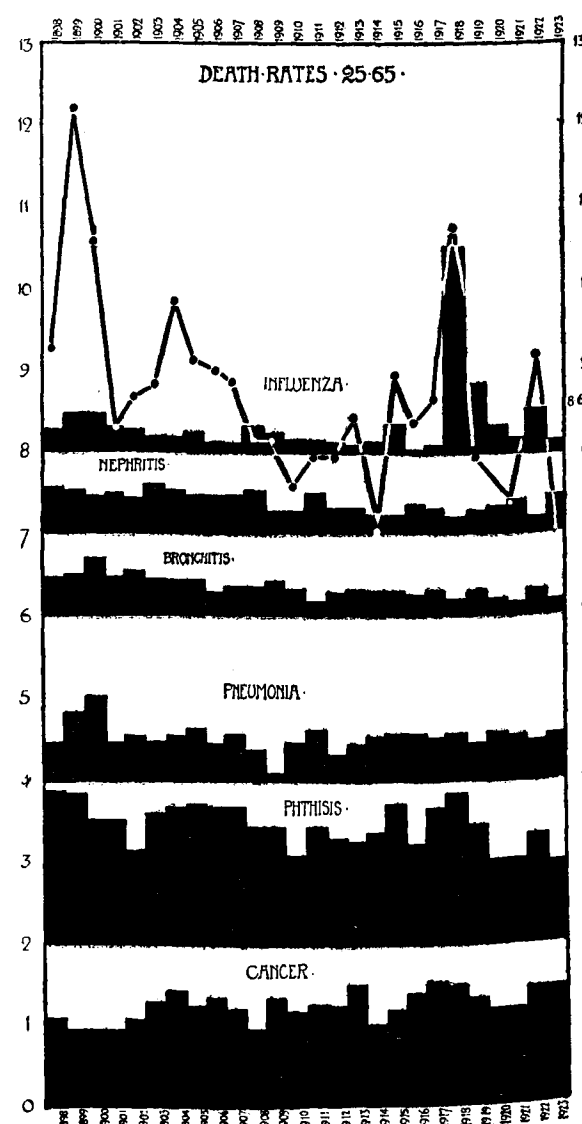
25—35 years, from 1891—1900 and 1901—1910 at 35—45 years, but now the age of maximum mortality is 20—25 years."

In his report for 1920, he states:

"The reduction in the mortality from phthisis is almost universal, the only exception of any importance applying to females aged 15—25. It is not impossible, of course, that the death-rate of these young women during 1920 may be swollen by infection contracted under war conditions, but the transfer of the maximum mortality of women from 35—45 as in the previous quarter century, to 20—25 years or even earlier (15—20) in 1916 has now been maintained for 5 years, and the excess at 20—25 is so definite that it seems likely to continue for a considerable time longer."

It has undoubtedly continued up to 1923.

CHART No. 6



The reason for this sudden change in the age of maximum female mortality from Pulmonary Tuberculosis appears to me to be very obscure, and I have not yet seen a satisfactory explanation of it.

The death-rate from other forms of Tuberculosis remained fairly level up to 1904, and thereafter declined fairly rapidly.

Once again Pneumonia shows little tendency to decline.

6.—Death-rate 25—65. Chart No. 6.

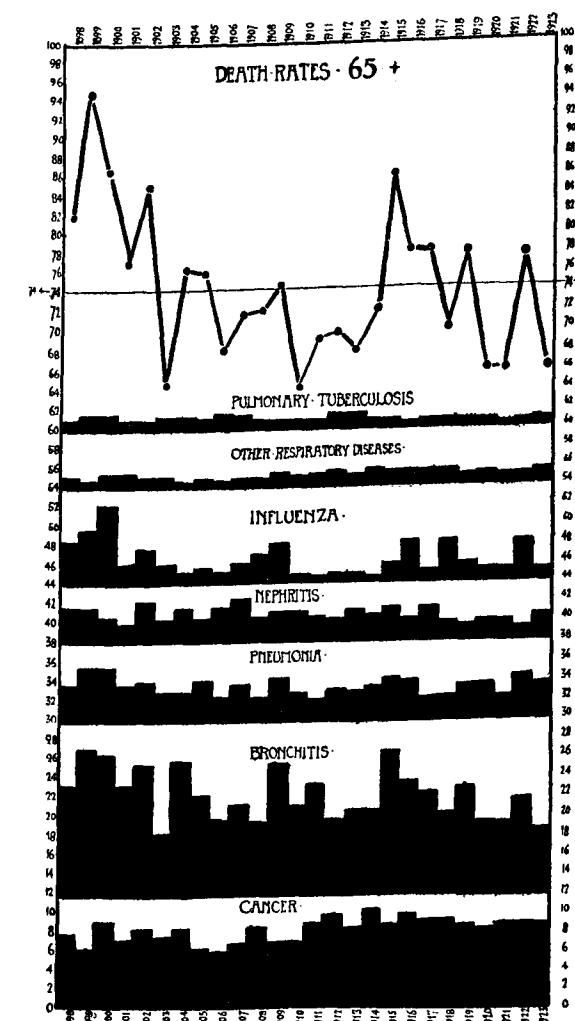
The mean death-rate is 8.6 per 1,000.

From 1899 to 1914 the death-rate at this age period shows a tendency to fall; there is a rise during the war years, but a lower level is again reached after the peak of 1918.

The diseases causing most deaths at these ages are: Cancer, Pulmonary Tuberculosis, Pneumonia, Nephritis, Bronchitis, and Influenza.

The Cancer death-rate shows a tendency to

CHART No. 7



rise up to about 1917, but from that time it has remained fairly level.

The death-rate from Pulmonary Tuberculosis dropped slightly and irregularly up to 1916; was high during the next three years, but since then there has been a marked drop.

The death-rate from Pneumonia has remained practically level throughout, while the death-rate from Bronchitis has dropped evenly throughout the whole period.

The death-rate from Nephritis has shown a small decrease.

The mortality from Influenza showed a decline up to 1917, but since then it has been relatively high.

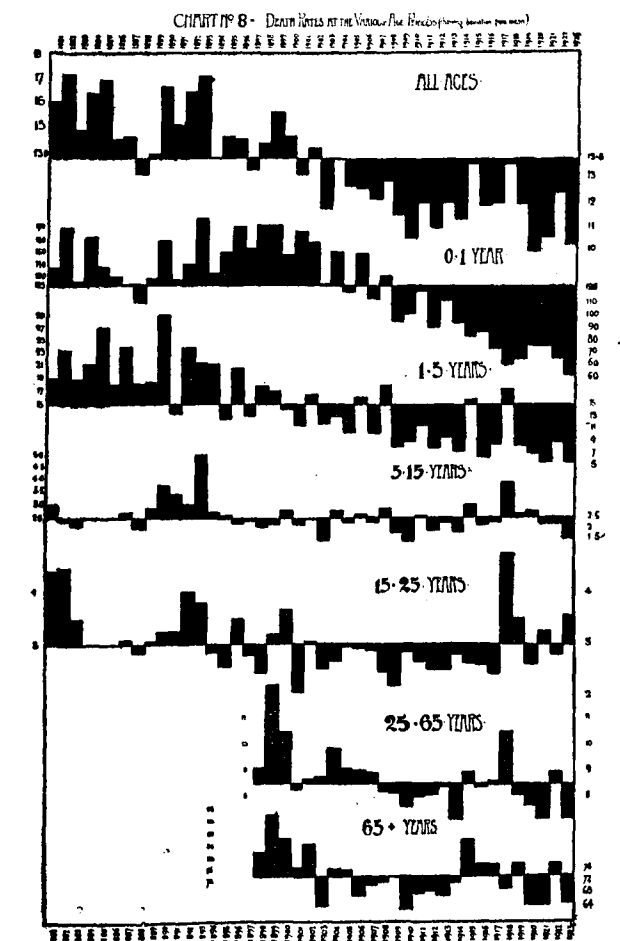
7.—Death-rate 65+ years. Chart No. 7.

The mean death-rate is 74.4 per 1,000.

The death-rate at this age period fell sharply between 1899 and 1903, rose in 1904, fell again in 1910, rose once more throughout the war years, and fell slightly after the war.

The chief causes of death are Cancer, Bronchitis, Pneumonia, Nephritis, Influenza, other Respiratory Diseases, and Pulmonary Tuberculosis.

The death-rate from Cancer has shown a



tendency to climb up to about 1914, but since then it has been more or less stationary.

The death-rate from Bronchitis has fallen pretty evenly throughout the whole period, as has also that from Nephritis.

The death-rate from Pneumonia has shown little change as have those from other respiratory diseases and pulmonary tuberculosis, both of which have always been comparatively low.

The death-rate from Influenza was high in the early years, being higher in 1900 than in 1918. Apart from epidemic years the mortality has remained fairly level.

From a careful consideration of the foregoing figures there seems to be sufficient justification for making the following conclusions:

Chart No. 8.

1.—That the fall in the General Death-Rate is due to:—

(a) A marked decrease in the death-rate for children under one year of age from 1903 onwards.

(b) A substantial decrease in the death-rate for children from 1—5 years of age from 1895 onwards.

(c) A considerable decrease in the death-rate for the age period 25—65 years from 1899 to 1914.

(d) A considerable decrease in the death-rate for the age period 65+ years from 1899 to about 1910.

(e) A slight fall in the death-rate for the 15—25 age group up to 1917.

2.—That the death-rate for the 5—15 age group has shown practically no decrease.

3.—That any drop that has taken place in the general death-rate during the past 10 years is largely due to a decline in the death-rate for children under 5 years of age.

4.—That all the diseases under survey have contributed in varying degrees to the fall in the general death-rate with the following exceptions:—

(a) Cancer, which has increased at all ages, although the increase has been less marked in the last decade.

(b) Pneumonia, which has remained more or less stationary at all ages.

(c) Influenza, which has shown a tendency to increase in recent years.

(d) Pulmonary Tuberculosis at the age period 15—25 years, which has shown a definite increase in recent years, especially in the case of females.

The Society.

Reports, Proceedings and Announcements.

NOTICES.

The following candidates, having been duly nominated, will come up for election at the next Ordinary Meeting of the Society: Dr. James S. Bradshaw, M.O.H., Witham U.D.; Dr. Marjorie Broadbent; Dr. F. G. E. Hill, D.S.O., Asst. M.O., Surrey C.C.; Dr. T. W. Hill, Asst. M.O.H., Willesden; Dr. Andrew Messer, M.O.H., Newburn U.D.; Major H. S. Milne, M.C., R.A.M.C.; Dr. Ernest E. Murray, M.O.H., Kingston, Jamaica; Major H. Neville Stafford, M.C., R.A.M.C., and Dr. H. M. Turner, Asst. M.O., Worcestershire C.C.

A special general meeting of the *Maternity and Child Welfare Group* will be held in September, 1927, as decided at the annual meeting in June, to reconsider the constitution of the Group, and make proposals for its modification, if necessary. The existing

constitution will be circulated to members for their consideration a month before the September meeting. Members of the Society who are desirous of joining the Group are requested to communicate without delay with the Hon. Secretary, Dr. Margaret Emslie, 22, Wimpole Street, London, W.1.

THE NORTHERN BRANCH.

President: Dr. Roderick Macleod, M.O.H., Hetton, Durham.

Hon. Secretary: Prof. Harold Kerr, O.B.E., M.O.H., Newcastle-upon-Tyne.

The Annual Summer Meeting of this Branch was held at the Tyneside Golf Club House, Ryton-on-Tyne, on June 17th, 1927. The President occupied the chair, and there were also present: The Vice-President (Dr. J. Bannerman), Drs. A. Bryans, G. A. Dawson,

W. H. Dickinson, H. G. Donald, A. S. Hebblethwaite, F. J. Henry, H. Kerr, J. M. MacLachlan, D. F. Macrae, T. N. V. Potts, A. Smith, James W. Smith, A. F. G. Spinks, S. V. Tinsley, and the following guests: Drs. J. W. Hunter, S. Robson, and F. Tredre.

The President extended a hearty welcome to Dr. A. S. Hebblethwaite, the recently appointed Medical Officer of Health of Sunderland.

Apologies for absence were received from: The President of the Society (Dr. E. H. Snell) and Drs. Mabel Campbell, T. Eustace Hill, James A. Hislop, J. O. Murray, G. Lilico, G. C. M. M'Gonigle, W. E. Peacock, and J. A. Stirling.

The Minutes of the meeting held on April 8th, 1927, having been printed in the May number of PUBLIC HEALTH, were taken as read.

President and Vice-President of the Branch.

—Dr. James W. Smith raised the question as to whether or not the usual arrangement in the Northern Branch should be continued, namely, that the election of President and Vice-President should hold good for two years, or whether since the membership of the Branch had grown considerably it should in future be for one year only.

After some discussion it was decided to continue the present arrangement this year, and that the matter should come up for reconsideration at the next Summer Meeting at the close of the term of office of Dr. Roderick MacLeod (President) and Dr. James Bannerman (Vice-President), who were accordingly re-elected unanimously for the Session 1927-1928.

Honorary Secretary and Treasurer.—Dr. H. Kerr was unanimously re-elected Hon. Secretary and Treasurer, and was re-appointed the Representative of the Branch on the Council of the Society.

B.M.A. Representatives.—Dr. G. A. Dawson and Dr. H. G. Donald were elected direct public health service representatives on the Council of the North of England Branch of the British Medical Association, and Drs. Mary E. Howie and A. F. G. Spinks were re-elected direct public health service representatives on the Executive Committee of the Newcastle-upon-Tyne Division of the British Medical Association.

It was agreed to re-invite the North of England Branch of the British Medical Association to elect a general practitioner representative on the Council of the Northern Branch of the

Society, and the Hon. Secretary was instructed in sending this invitation to convey to the North of England Branch of the Association the very warm appreciation of the Society of the services of Dr. James Hudson as the present representative of the British Medical Association.

In accordance with the invitation of the North of England Branch of the British Medical Association, five members of the Council of the Northern Branch of the Society, viz., the President (Dr. R. MacLeod), the Hon. Secretary (Dr. H. Kerr), and Drs. T. Eustace Hill, W. F. J. Whitley and James Hislop, were appointed to serve with a similar number of members of the North of England Branch of the British Medical Association as a Liaison Committee for dealing with matters of common interest.

Presentation of a Second Chair to Council.

—The Hon. Secretary announced that there was a small bank balance on the year's working, and it was unanimously resolved that £3 be forwarded to the Hon. Treasurer of the Society to pay for a second chair in the Council room at 1, Upper Montague Street.

Members then adjourned to the dining-room, where they were the guests at luncheon of Dr. James W. Smith.

The President, having proposed the Loyal Toast, offered to Dr. James W. Smith the thanks of the company and hearty appreciation of his hospitality, and referred most appropriately to the sincere affection and almost veneration in which he is held by members of the Northern Branch in common with those of every other Medical Society in the North of England. He referred to Dr. Smith's wonderful record of efficiency as an ex-part-time medical officer of health as in every other line of medicine which it is possible for a general practitioner to take up.

Dr. MacLeod also referred to Dr. Smith's brother, the late Dr. Andrew Smith, who was an enthusiastic member of the Society for very many years, and to the position of unrivalled regard and esteem which they had always held in the north country.

Dr. James W. Smith replied with characteristic kindness and geniality. He referred to his own advanced age, and said that in spite of this his interest in all things medical was unabated, and that he had just completed a post-graduate course, to his great enjoyment, at St. Andrew's. It was one of his greatest

pleasures, he stated, to meet his fellows at every opportunity, and particularly on such an occasion as the present one.

Dr. Bannerman then proposed the toast of "The President," coupling with it the name of the Hon. Secretary.

Golf.—After lunch 16 members participated in a bogey competition, the winner being Dr. T. N. V. Potts, who was two down on bogey. After tea foursomes were played.

With charming weather, in most beautiful surroundings, and a first-class course in excellent condition, the meeting was well up to the high standard of its predecessors.

THE NORTH-WESTERN BRANCH.

President: Dr. C. W. Paget Moffatt, M.O.H., Bolton.
Hon. Secretary: Dr. G. W. N. Joseph, M.O.H., Warrington.

The annual meeting of this Branch was held at Bolton on June 17th, 1927, the President occupying the chair. Fifteen members were present.

A cordial welcome was extended to the Branch by Sir Thomas Flitcroft (Mayor of Bolton) and Mr. Councillor Percy Knott (Vice-Chairman of the Public Health Committee), who also apologised for the unavoidable absence of the Chairman of the Committee. The President returned thanks to the Mayor and Corporation for the reception accorded to the members.

The President then asked Dr. T. W. Naylor Barlow, O.B.E., to accept from the Branch a framed portrait of himself as a small token of appreciation of his services to the Branch, to the Society and to the Public Health Service in general. The President referred to the countless services Dr. Barlow had rendered to the Society and the part he had played in its development during the 27 years of his membership. Dr. Barlow had acted as Hon. Secretary of the North-Western Branch for seven years and of the Society for four years. He had been a member of the Council continuously for 20 years, and President of the Society during the session 1923-24. He had also been a member of the various committees and deputations of the Society, and had consistently and strongly advocated the institution of a satisfactory scale of remuneration of members of the Public Health Service. It was largely due to his efforts that the present scale of remuneration had been accepted by representatives of Local Authorities and the British Medical Association.

Dr. Barlow, in accepting the presentation, expressed his appreciation of the honour the Branch had accorded him, and stated that he appreciated it more as he considered the North-Western Branch the most important of the Society, and one whose decisions must carry weight with the Council. He was proud of the Branch, and had done his best for it and for the rights of the younger men in the service.

The Hon. Treasurer presented his annual statement and accounts, which showed a balance of £48 4s. 9d., subject to the payment of some small accounts. The statement and accounts were adopted, and it was resolved that the question of utilisation of the balance be referred to the Committee.

Owing to the absence of the Hon. Secretary, his report was deferred.

On the motion of Dr. Barlow, seconded by Dr. Butterworth, it was resolved unanimously that the following officers be elected for the ensuing year:—

President.—Dr. W. St. Clair McClure.
Hon. Treasurer.—Dr. H. H. I. Hitchon.
Hon. Secretary.—Dr. G. W. N. Joseph.
Council Representatives.—Drs. T. W. N. Barlow, O.B.E., C. W. Paget Moffatt, and the Hon. Secretary.
Committee.—Drs. Ferguson, Spence, F. T. H. Wood, Stallybrass, together with the Vice-Presidents and Officers.

Under the guidance of the President, the members then visited the Public Baths and Wash-houses, the Corporation Maternity Home, and the Isolation Hospital, where they were entertained to tea by the kindness of the President.

At the conclusion of the meeting, the President-elect, Dr. W. St. Clair McClure, proposed a hearty vote of thanks to the President for his kindness in arranging the interesting series of visits and the hospitality, which had been greatly appreciated. This was enthusiastically accorded.

THE YORKSHIRE BRANCH.

President: Dr. S. Fox Linton, M.O.H., Scarborough.
Hon. Secretary: Dr. G. H. Pearce, M.O.H., Batley.

The annual meeting of this Branch was held at Ilkley on June 24th, 1927.

A large attendance, including ladies, lunched at the Midland Hotel with the President (Dr. S. Fox Linton) in the Chair.

The health of the visitors was proposed by Dr. R. L. Thornley, and acknowledged by Dr. R. Lee Bolton. Alderman Dr. D. Walker, Deputy Lord Mayor of Bradford, gave the toast of the Society, speaking in high terms of the work of the public health service as witnessed by him during his long connection with local government administration. In response the Executive Secretary conveyed a message of greeting from the President of the Society (Dr. E. H. Snell) who much regretted that he could not be present to meet the members of the Branch.

Dr. Thomas Johnstone, a former medical officer of health for Ilkley, also replied. Qualifying in 1874, he came to Ilkley in that year to be associated with Dr. Scott, whose name appears in the minutes of the Branch as medical officer of health for Ilkley, and was present at the meeting in York on September 17th, 1875, when the Yorkshire Association of Medical Officers of Health—now the Yorkshire Branch of the Society, was formed. Dr. Johnstone was elected a member of the Branch at a meeting in Bradford on January 7th, 1892, and occupied its Presidential Chair in 1901.

The last toast, in honour of the Branch President, was proposed by Dr. W. Bertram Hill, and acknowledged by Dr. S. Fox Linton.

Before leaving Ilkley a short business meeting was held. Apologies for absence were received from Drs. Frazer, Gibson, Kaye, McNaught, Scatterty and Wear, and from Mr. C. J. Haworth, Mr. McGregor, Prof. Seton and Prof. Stewart.

Officers for the session 1927-28 were elected, as nominated by the Council of the Branch (see PUBLIC HEALTH, July 1927, p. 333).

In addition, the following appointments were made:—

Representatives on Council of the Society: Drs. Banks and Pearce.

Hon. Secretary and Treasurer:—Dr. G. H. Pearce, Medical Officer of Health, Batley and Heckmondwike.

Afterwards the party proceeded by motor cars to the Bradford City Sanatorium at Grassington, passing through the beautiful Wharfedale country, and visiting Bolton Abbey on the way. An inspection of the sanatorium was followed by tea, and votes of thanks to Alderman Walker and Dr. J. J. Buchan, Medical Officer of Health, for the hospitality of the Bradford Corporation, closed a very enjoyable meeting.

THE MIDLAND BRANCH.

President: Dr. G. B. Dixon, Chief Tuberculosis Officer, Birmingham.
Hon. Secretary: Dr. R. H. H. Jolly, M.O.H., Wolverhampton.

The annual meeting of this Branch was held at the Salters Hall, Droitwich, on July 2nd, 1927. The President and twenty-one members were present.

The minutes of the last annual meeting, which had been published in PUBLIC HEALTH, were confirmed and signed.

Apologies for absence were intimated from twenty-four members.

Election of Officers and Council.—The following were elected for the session 1927-28:

President.—Dr. W. L. M. Goldie, O.B.E.
President-Elect.—Dr. R. H. H. Jolly.
Vice-Presidents.—Dr. G. B. Dixon, Dr. A. Bostock Hill, Sir J. Robertson, and Dr. E. H. Snell.

Members of Council.—Dr. A. Auden, Dr. J. M. Cowie, Dr. C. Killick Millard, Dr. Rose Molloy, Dr. Bertram Smith, Dr. Gibbons Ward, and Dr. Hamilton Wood.

Hon. Treasurer.—Dr. E. H. Snell.
Hon. Secretary.—Dr. R. H. H. Jolly.
Branch Correspondent.—Dr. W. H. Davison.

Representatives on Council of the Society.—Dr. H. Gibbons Ward and Dr. R. H. H. Jolly.

Hon. Auditor.—Dr. W. H. Clendinnen.
The Hon. Secretary called the attention of members to some coloured posters containing various health maxims which were being published by a well-known advertising firm.

A discussion took place with reference to the last two paragraphs of Ministry of Health Circular 802A, and it was resolved that the representatives of the Branch should ascertain the views of the Council on the points raised.

The meeting then adjourned, and members and their friends proceeded to the Worcestershire Brine Baths Hotel where tea was kindly provided by the President and Mrs. Dixon. At the conclusion of the repast a vote of thanks to Dr. Dixon was proposed by Dr. D'Arcy Ellis, who congratulated the President on the place chosen for the annual meeting, and the interesting demonstrations to follow, as well as for his hospitality. Dr. E. H. Snell seconded the proposal, which was carried enthusiastically. After Dr. Dixon had replied, the meeting divided into four sections and were conducted over the Droitwich Baths

by local members of the medical profession, who explained the value of the various forms of baths and the treatments provided.

Although the members came away much impressed by what they had seen and heard, and fully convinced of the efficacy of the brine baths for certain types of diseases, it was noted that no one could be persuaded to stop behind to take a dip in the buoyant and invigorating waters.

THE TUBERCULOSIS GROUP.

President: Dr. H. Gordon-Smith, T.O., Worcestershire.
Hon. Secretary: Dr. Ernest Ward, T.O., South Devon.

A meeting of the Tuberculosis Group Committee was held at the House of the Society on May 20th, 1927.

Dr. Blackmore occupied the Chair, and there were also present Drs. Swan, E. Ward, Lorraine, Charlotte Brown, Vallow, Jessel, Gordon-Smith, and Heffernan.

1.—The minutes of the last meeting were read and approved.

2.—The Council Representative reported: (a) A "Central Council for Health Education" had been formed, on which would sit twelve public health members, with representatives of the associations of local authorities. Our representative had been nominated for election on this Council. A journal, *Better Health*, was to be published, to which local authorities who decided to distribute it would fit their own cover with local announcements. The cost to the authorities could be met by advertisements. The contents would include a lecture on hygiene, which might be delivered to their pupils by teachers; articles on the work of public health departments, the Medical Research Committee, and the Ministry of Health, and other popular articles of health interest. A publisher was taking the financial risks, and after a certain number of copies had been sold, a percentage of profits would come to the Council to be used as they thought fit.

(b) The Joint Tuberculosis Council Memo. Committee had collected criticisms and suggested amendments on Memo. 37T.

(c) Dr. E. Ward had been nominated one of the official Public Health Candidates for the Annual Representative Meeting of the British Medical Association.

(d) The commencing salary for district tuberculosis officers in Cheshire had been

raised to £750, but the post had not been re-advertised, and candidates had been appointed who had previously applied for the black-listed appointment. The Secretary was directed to draw the Society's attention to this point.

(e) A medical officer of health had found a difficulty in arranging for the disinfection of rooms occupied by tuberculous persons in hotels and boarding houses. A visit from the health visitor, which was necessary if the medical officer of health were to ascertain the date of departure of the patient, might jeopardise the patient's livelihood. The Secretary was asked to submit this point to the Joint Tuberculosis Council.

3.—The amended salaries scale prepared by the Society was discussed. A closer definition of senior medical officers in charge of departments was thought desirable, and the representative was requested to take steps to this end.

4.—The "Prevention of Tuberculosis" was discussed. It was decided to place this subject on the agenda of the annual general meeting for discussion on a restricted basis.

5.—The constitution of the Group Committee was debated; and a letter read from Dr. Elliott. It was decided to take no action at present.

6.—Dr. Vallow was nominated as President of the Group for the session 1927-28, and Dr. E. Ward as Hon. Secretary and Council Representative.

7.—The meeting considered that the President should act as Chairman of Committee.

8.—It was decided that committee meetings during the next session would take place at 10.45 a.m. on the day of the Council meeting.

9.—Friday, July 1st, 1927, at 4 p.m., was fixed as the date and hour of the annual general meeting. The Secretary was asked to provide some account of the advantages accruing to the tuberculosis service from the activities of the Society.

The annual general meeting of the Group was held at the House of the Society on July 1st, 1927.

1.—The minutes of the last annual general meeting were read and confirmed.

2.—The Council Representative gave his views of what the tuberculosis service owed to the activities of the Society. He also described certain activities of the Group and of the

Society during the preceding year. [Dr. Ward's Address will be published in the September number of the journal.]

3.—The meeting asked their representative to convey to the Council of the Society their gratitude and appreciation for work done on behalf of the tuberculosis service.

4.—Dr. Vallow was elected President, and Dr. E. Ward, Hon. Secretary and Council Representative for the ensuing year.

5.—An interesting discussion followed on "The Prevention of Tuberculosis in Childhood." Diverse views were expressed, and some interesting facts came to light. Regret was expressed that, owing to the original dependency of anti-tuberculosis measures on the National Health Insurance Act, funds were available for treatment but not for prevention. It was hoped that a way out would be found through moneys used for propaganda, and with the help of the education authorities. Mention was made of the Wallasey malnutrition clinic, where ill-nourished children are supervised and their improvement estimated by Dreyer's methods. This was proving useful in warding off tuberculosis. The question was raised as to how many debilitated children, suitable for preventorium treatment, develop tuberculosis later, and one speaker gave his opinion that very few of them became tuberculous. It was felt, however, that a more extensive statistical study was necessary before reaching a decided opinion. The Secretary was directed to draw up a memorandum on the subject of "Prevention in Childhood," as a basis for discussion at the next committee meeting of the Group, so that something might be prepared and put before the Council of the Society.

6.—It was decided that further clinical and scientific activities by the Group would be redundant in view of other bodies so engaged. Regular committee meetings and an annual general meeting would suffice. At the annual meeting the retiring President would give an address.

7.—In future it was felt desirable that an individual notice announcing the annual meeting should be sent to all the 170 members of the Society mainly engaged in tuberculosis work.

8.—The President and Secretary were asked to ascertain for purposes of reference the salaries paid to members of the tuberculosis service.

9.—Friday, October 21st, 1927, at 10.45 a.m. was fixed as the date and time of the next Committee meeting.

THE MATERNITY AND CHILD WELFARE GROUP.

President: Dr. Mabel Brodie, Asst. Welfare M.O., Durham County.

Hon. Secretary: Dr. Margaret Emslie, 22, Wimpole Street, W.1.

In connection with the national conference on Maternity and Infant Welfare, the Group held a dinner, open to medical delegates, at the Florence Restaurant, Rupert Street, London, W.1, on July 5th. Forty members and guests attended, the President for 1926-27 (Dr. Mabel Brodie) being in the Chair.

Following dinner the toast of "The President," proposed by Dr. Stella Churchill, was very heartily received, and Dr. Brodie responded in a few words, expressing her satisfaction at the present improvement in membership and activity of the Group.

Dr. W. Ashley Lethem (Ministry of Health) opened a discussion on Diphtheria Immunisation by propounding the statement that the time had now come when it was the duty of medical officers of health to inform the public that diphtheria could be prevented. He described an incident in a large city where the parent of a child who had died of diphtheria accused the medical officer of health of having failed in his duty in not acquainting anyone that preventive inoculation was possible. Dr. Lethem suggested that the child welfare centre was the best place at which to offer protective inoculation, either at the ordinary sessions, or, if the number of applicants was too large, at a special session held for the purpose. He suggested that the health visitors should tell the mothers about it on their ordinary visits, that the welfare medical officer should give an occasional talk on the subject, and that if the premises were suitable a poster should regularly be displayed at the centre. He showed from experience how the inoculation was welcomed by mothers when diphtheria was prevalent in a district, especially if there had been deaths. The clinic would be in no danger of losing its popularity as, of course, there should be no suggestion of compulsion. Anti-vaccination was almost a political

question; the propaganda in that connection was supported by men chiefly, and referred to a disease which few people had ever seen. The dangers of diphtheria, on the other hand, were known to every mother, and the women of England had too much commonsense to let theoretical questions interfere with the health or safety of their children. The Ministry of Health had studied the question very carefully, and was convinced that the method was safe and almost painless; it rarely caused any reaction in children, although this did occur in adults, and it was very effective; it was, in fact, the best way of preventing diphtheria. Most young children were susceptible, and as the Schick test felt like a sharp pinch, and was apt to make babies cry, it was not a necessary preliminary in welfare centre work; but it should be explained to the mothers that their children would not be fully immune for about 3 months after inoculation, and that they could not be certain that immunity was fully established unless a subsequent Schick test were carried out.

He suggested that child welfare medical officers, after obtaining the permission of their chiefs, should start the work in a small way in their present centres; when there was a greater demand for it—as there undoubtedly would be if it was properly advertised—then there was good reason to increase the staff or accommodation. The great thing, however, was to make a start.

Dr. Graham Forbes (London County Council) followed Dr. Lethem, and said that he was firmly convinced that diphtheria immunisation was a preventive measure greatly needed for the saving of child life, especially in London. In the United States it had been fairly generally adopted, and in New York the attack rate in 1926 had fallen to one-half, and the mortality rate to one-third. The work was going ahead well in Scotland, less noticeably in England, but its use for children of pre-school and school age was becoming year by year more pressing. In the last 2 years nearly 5,500 deaths of children under 15 had occurred from diphtheria in England and Wales—1,000 in London alone. In 1921, the London death-rate under the age of 15 was 1 per 1,000. Diphtheria immunisation was one of the many preventive measures for which the welfare centre at present afforded a unique opportunity. The attendances at centres in London where the work had been started had been most encouraging; in some instances as

many as 30 to 40 per session. The response bore a definite relation to the amount of propaganda that preceded it. A word of warning was desirable as to the importance of experience in the technique, and of an appreciation by medical officers and parents of the fact that protection was not established until a period of 6 months had elapsed after inoculation. An extension of the work was also called for with regard to children in schools.

Drs. Finlay, Cassie, Churchill, Nicoll, and Nash took part in the discussion, to which both introductory speakers kindly replied.

Col. Fremantle, M.P., in proposing votes of thanks, concluded with an admirable summary of the position of this measure alongside other factors of importance in the improvement of the health of the pre-school and school child.

THE SOUTHERN BRANCH.

President: Dr. A. D. Edwards, M.O.H., Bournemouth.
Hon. Secretary: Dr. H. D. Kelf, Asst. M.O.H., Hants County Council.

The annual meeting of this Branch was held on July 3rd, 1927, at Southampton, Dr. W. J. Hart occupying the Chair. Eleven members were present.

Apologies for absence were received from six members.

After the minutes had been read and signed, correspondence was submitted, including a reply from Dr. Lockhart Stephens, to whom the Hon. Secretary had written a letter of sympathy on behalf of the Branch on the recent death of Mrs. Lockhart Stephens.

The election of officers for the session 1927-28 was as follows:

President.—Dr. R. A. Lyster.
Representative on Council.—Dr. R. H. Wilshaw.
Treasurer.—Dr. R. A. Lyster.
Hon. Secretary.—Dr. H. D. Kelf.
Executive Committee.—Dr. W. J. Hart, Dr. Lockhart Livingston, and Dr. Bruce Young.

Notes on clinical cases were given by Dr. W. J. Hart and other members, and a useful discussion followed.

After the meeting the members visited the "Aquitania," by kind invitation of the Cunard Steamship Company Limited and had tea on board.

The Literature of Preventive Medicine.

THE ACTIVATED SLUDGE PROCESS. By ARTHUR J. MARTIN, M.Inst.C.E., M.Inst. Water Engrs., M.Cons.E., F.G.S., F.R.San. Inst., Past President of the Institution of Sanitary Engineers and of the Association of Managers of Sewage Disposal Works. London: Macdonald and Evans, 1927. pp. 415, illustrated. Price 30s. net.

Mr. Martin has earned the gratitude of all interested in sewage disposal problems, not only because he has undertaken the task of surveying the development and present position of the activated sludge process of sewage treatment, but also because he has accomplished the self-imposed task so excellently. His fitness for the work has been amply demonstrated by his earlier contributions to the literature of sewage disposal, and especially in a paper on "Bio-aeration of Sewage" which he read before the Institution of Civil Engineers some three years ago, a contribution which evoked a sustained and valuable discussion.

The present book is divided into twenty-eight chapters, and commences with a description of the dim beginnings of the process in the early experiments on the aeration of sewage dating as far back as 1882. These experiments did not result in a practicable method of treating sewage under actual working conditions, but they paved the way for the pioneer work of Fowler, Arden and Lockett at Manchester. This work and its application to larger scale experiments are adequately described. Descriptions and illustrations are also given of a large number of activated sludge installations in this country and in America, using both the diffused air and the mechanical agitation processes. A perusal of these chapters must inevitably convince the reader that the view so commonly expressed a few years ago that the process is only in the experimental stage is no longer tenable, especially if such expressions are intended to convey the impression that the process is a toy incapable of extended application. If they are intended to convey the impression that knowledge of the process is incomplete, then all will agree with the author that the process is in an experimental stage, and that practical applications have outrun the theory.

Two chapters, embracing some hundred and fifty pages, are devoted to the theory of the process and to the requirements which must be fulfilled in order to ensure successful operation. These are perhaps the most suggestive and inspiring chapters in the book. Other chapters deal with diffusers, the design of aeration and settling tanks, air compression, loss of pressure in air mains, and power required for agitation. A very interesting description is given of a plant at Essen-Rellinghausen, Germany, in which a combination of aeration by means of diffusers and mechanical agitation is used. Submerged contact aerators, in which contact material is submerged and aerated in the settlement portion of Imhoff, Emscher, or two-storey tanks, have found favour in Germany and conjure up dreams of a resuscitation of the contact beds of twenty or more years ago in a somewhat modified form.

The pros and cons of several questions upon which expert opinions differ are very fairly stated, especially upon such points as the advantages and disadvantages of preliminary treatment of the sewage by sedimentation, and the relative merits of diffused air and mechanical agitation. The value of the book is enhanced by the fact that the author quotes in many places the actual words of those who have contributed to our knowledge of the process, but it is perhaps to be regretted that in giving the views of others he does not favour the reader more often with a few pithy paragraphs summarising these views or expressing his own. It is no doubt true that in connection with a process which is in such an active state of development as the activated sludge process the views of to-day may well be modified to-morrow, but that is no reason why the views of to-day should not be expressed.

In dealing with the problem of sludge disposal, Mr. Martin deals with one of the chief obstacles to the more extended adoption of the activated sludge process, an obstacle which he well says would be removed if it is practicable to dispose of wet sludge by direct application to land.

Three chapters, covering forty-four pages, are given to cost data, and it is gathered from these chapters that considerable attention is being devoted to the possibility of reducing

the power consumption, which is stated to be usually the largest cost item in the working expenses of the process. In these chapters the experimental work carried out at Birmingham on the partial purification (bio-flocculation) of sewage is well described as a possible method of reducing the cost of applying the process preliminary to purification on percolating filters.

The title of the book does not in any way limit the application of the process to sewage, and references are found throughout the book to cases in which the process has been more or less successfully applied in the treatment of trade refuse, but the impression is created that this aspect of the problem deserves much more investigation than it has hitherto received.

Last, but not least, the binding and printing of the book are good, and the illustrations excellent and well selected. The book can be thoroughly recommended as a book-shelf *vade mecum* not only for the expert but also for the student who wishes to gain an insight into the intricacies of the activated sludge process.

PULMONARY TUBERCULOSIS. By G. T. HEBERT, M.A., M.D. (Oxon.) M.R.C.P. (Lond.). London: Edward Arnold and Co., 1927. pp. 212, illustrated. Price 7s. 6d. net.

Not without misgiving the reviewer opens yet another work on tuberculosis. But Dr. Hebert, who has care of the Tuberculosis Dispensary at St. Thomas's Hospital, and teaches students and post-graduates, has a ripe experience of what should be taught, and has produced a readable, brief, not too dogmatic, and thoroughly sound book, containing all that it is essential to know, and remarkably free from fads.

Diagnosis and the methods of reaching it are first dealt with, and very just emphasis is laid on the difficulty in percussion of knowing what is the normal note. The piano tuner has his standard middle C, but the percusser must rely on his experience of what should be regarded as normal for the particular type of chest percussed.

In future editions more attention might be given to possible sources of errors—in estimating expansion, for instance. It is doubtful if the diaphragmatic venous network is always due to intrathoracic pressure; it certainly occurs apart from this condition and

is to be found in some individuals who appear normal in every way.

The author advises against the danger of too readily labelling a patient tuberculous without full investigation, an error to which the expert is especially prone, and he rightly says that a diagnosis should rarely be based on X-ray examination alone. Night sweats are perhaps regarded too simply. There seems a special tendency to hyperidrosis in tuberculous persons as seen by the droplets which trickle from the axilla during examinations even on a cold day, as well as by the typical night sweats.

Parasternal dullness, Eustace Smith's sign and Dr. Espine's sign are not highly valued; but it is doubtful if the suggested importance should be attached to two or three negative sputum examinations. And Spahlinger receives, perhaps, more attention than he deserves. Cold again may benefit those who support it well and react favourably thereto, but a large number of tuberculous patients stand cold badly, and are harmed by exposure. East winds, too, seem more harmful to the majority of patients, especially bronchitics, than the mild rain-bearing winds.

It is very doubtful also if general support is forthcoming for the view that auto-inoculation is the chief value of graduated exercise, though its use as a mental tonic and metabolic stimulant is undeniable.

The author is to be congratulated on producing such a sane study of an intricate subject.

A SPECIAL Course in Infants' Diseases, for Medical Officers of Welfare Centres and others, will be given at the Infants' Hospital, Vincent Square, Westminster, London, S.W.1, from August 8th to 21st, 1927. Full particulars of the course, the fee for which is three guineas, may be obtained from the Secretary, Fellowship of Medicine, 1, Wimpole Street, London, W.1. Provisional arrangements have been made for further courses to be given at the Infants' Hospital as follows: December 5th to 17th, 1927; May 7th to 19th, 1928; and August 13th to 25th, 1928.

DR. E. I. L. ABBOTT, medical officer to the Kensington Children's Hospital, has been appointed part-time assistant medical officer for infant welfare centre work in the borough of Ilford.

PUBLIC HEALTH

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Editorial.

Acute Rheumatism.

THOUGH it contains a quantity of original material, the result of research and investigations—bacteriological and other—definitely undertaken by members of the Ministry or Board of Education staff, this report on Acute Rheumatism in Children in its relation to Heart Disease* is probably most important because it provides a summary and examination of the results of a number of enquiries conducted by outside bodies and observers, expresses the official view on a subject of outstanding importance, indicates

* ACUTE RHEUMATISM IN CHILDREN IN ITS RELATION TO HEART DISEASE. Ministry of Health Reports on Public Health and Medical Subjects, No. 44. H.M. Stationery Office, 1927. pp. 99. Price 1s. 6d. net.

various lines that may be followed in dealing with it, and offers encouragement to follow those lines. The report is admirably planned, and Dr. Glover and those who worked with him—Mrs. Forest Smith, who made a special study of rheumatic infection in children treated as out-patients at St. Thomas's Hospital; Dr. Eastwood, who supplies a summary of the present position of the bacteriology of acute rheumatism, and Dr. Underwood of the Board of Education, who provides a section dealing with treatment in special residential schools and other institutions—are all to be congratulated on the way the work has been done. Outstanding in the report is the note of sincerity: the problem is viewed as one of extreme gravity, and all are concerned to

impress its seriousness and the need for action. In his introduction to the report, Sir George Newman also insists that a serious view should be taken. Heart disease has a pre-eminence amongst "the captains of the men of Death": its relative, if not its real, mortality is steadily increasing; half of its weight may fall upon aged, worn out and degenerated hearts, but there remains the other half which falls upon childhood, on youth, on the young adult and those in early middle age whose hearts have been attacked as a result of an infective process, more particularly that of acute rheumatic fever, to which probably not less than 40 per cent of all deaths from heart disease may be ascribed. That the process is an infective one the report accepts, though it is admitted that there is as yet nothing definite in the shape of proof. Without knowledge with regard to the actual causative factor it has been found possible to take preventive action, and with some success, in other diseases by levelling an attack against the conditions predisposing to infection. In acute rheumatism the same course should be open even though, as it unfortunately happens, many if not most of the factors appear to be social rather than what may be called sanitary. Unfortunate, because evils and defects in relation to surroundings are matters easily dealt with in comparison with malnutrition and maternal neglect. For the remedy or removal of the causes of bad housing conditions, of dampness even, if other measures fail, compulsion is available. Not so, however, in regard to the removal of tonsils, an operation for which, it is interesting to note, the report claims high prophylactic value, provided it is performed sufficiently early. Given education it might be found easier to ensure a more effective attack upon the predisposing causes, and education is set down in several places as one of the chief preventive weapons for use, not only against the infection but against the heart sequelæ and the effects they may produce if neglected. The burden of the song of prevention is ever—begin with the beginnings. And if the beginnings were easy to find and the beginning easily made, the results in cases in which they have been possible show how hopeful the position might be. The difficulty lies in the puzzle of symptoms that the acute rheumatic processes and the cardiac infections present. Definitely members of the group of "silent sicknesses," even the skilled diagnostician may fail to

detect them, save on the most searching investigation. And only too seldom is it upon the skilled diagnostician that reliance for a decision is placed. More usually it is to the mother, ignorant of necessity, and often, as has been shown, neglectful, that the victim and those who might help him must look for the signal. The difficulties associated to some extent may be met by talking and warning and by warning and talking again and again, and by advising repeated and periodic medical examinations. In these days in this country, up till the end of the school days at any rate, this is not too difficult to arrange, and what the report says in this regard is for the school medical officer and others to note. He and they will note also what is said as to the necessities for the infected, and the results that have been obtained from rest with medical and nursing care and supervision. They will note that the provision for affording this treatment to all that require it is inadequate, and will lose no opportunity of bringing home to those who can make good the deficiency what the investigation at St. Thomas's Hospital has shown: that "for every child fortunate enough to be admitted as an in-patient, there are two, three or even four children who need in-patient treatment and who do not get it." What is true of St. Thomas's is true of the country as a whole: the proof that it is true is here in this report, that provides also proof that there is need for action, and that the time for action is now.

Acute Rheumatism in Children—The Bristol Scheme.

AMONGST the areas in which active steps have been taken in the direction of dealing with the problem of acute rheumatism and its sequelæ in children must now be included Bristol. Here there has been placed on a firm basis what for several years past has been an informal understanding between the school medical officer and certain members of the voluntary hospital staffs in the city, by which elementary school children with cardiac disease have been submitted to the latter for expert examination and report.

The Bristol Education Committee have secured from the Bristol General Hospital permission to send children with actual or potential cardiac disease to a clinic to be held weekly under the direction of one of the honorary physicians to the hospital. Moreover, in the neighbouring counties of

Gloucestershire, Somersetshire and Wiltshire, a similar plan is to be inaugurated. Physicians of experience in cardiac disease have agreed to undertake visits to centres at which groups of children will be assembled for examination and report. Arrangements have also been made whereby reports on cases of rheumatic heart disease in childhood discovered in the practices of private doctors, as well as in school clinics, may be collected and the conditions under which the disease arose investigated by the county medical officers in collaboration with the University of Bristol Institute of Cardiac Research, which is housed at the Bristol General Hospital.

Finally, as an inevitable development of this assembling and scrutiny of cardio-rheumatic children, the new hospital school about to be built at Winford, on the outskirts of Bristol, and facing the Mendip Hills, is to include provision for the treatment of rheumatic heart disease in those children who need prolonged courses of institutional care.

The scheme for the entire area has received the sanction of the Board of Education, and is believed to be the most extensive of its type in England at the present time.

Health in the Factory.

AT intervals during the last four or five, or it may be more years, the country has been shaken by the tidings that presently there would be passed into law a Factory Act that, by excluding local health authorities and their officers from factories and workshops, would ensure that these places were palaces of health and fit to labour in. No later than the beginning of July of this year, the Home Secretary, in the course of his Presidential Address at the Congress of the Royal Sanitary Institute, after a number of neat compliments to sanitary inspectors and medical officers of health—in that order—and a description of the manicure rooms and other wonderful things he had seen in certain establishments, declared his intention to delay no further, but to place on the Statute Book a piece of factory legislation that he himself felt to be long overdue.

Now there has just been issued the annual report of the Chief Inspector of Factories and Workshops for the year 1926, which gives rise to no feeling but one of wonder that it should have been necessary for anyone to talk so much of the need for a new measure, to arouse alarm in the minds of all factory

owners, and to fill every local authority in the country with resentment and a determination to oppose to the utmost any Factory Bill that sought to deprive them of any share in the work of ensuring satisfactory health conditions for a great part of the population in the community they are elected to represent. By anyone accustomed to the study of health reports, this of the Chief Inspector of Factories and Workshops breathes a hopefulness altogether new and strange. The only really sad note is that struck in reference to the resignation of Sir Thomas Legge, that sounded in respect of the general strike and the coal strike being modified to show that, disastrous as these events may have appeared, the effects of the former particularly were short lived, and as a result of the latter, certain industries benefited. Also there has been considerable industrial development in a number of areas.

In regard to industrial hygiene, diseases and accidents, there were improvements too, an increase in the number of casualties in the South-Eastern area of England arousing feelings of satisfaction as indicating increasing development in that neighbourhood. The total number of industrial accidents reported throughout the country was just under 140,000, some 20,000 less than in 1925. The number of individuals amongst whom these casualties occurred is not given, but the works or departments under special inspection total over 166,000, so that the proportion of casualties would not appear to be high. Of the accidents, 806 were fatal. From the report it is gathered that in certain industries increased interest in prevention is being taken, both by employers and employees, and particular pressure is being brought to bear with a view to the protection of young and inexperienced workers.

An extremely valuable section of the report, dealing with the young person in industry, is contributed by Miss Martindale, a Deputy Chief Inspector, who discusses such questions as the selection of young workers, the effect of industry on the health of young persons, as well as its influence on the mind, most interestingly and helpfully. So far as hygiene is concerned, evidence of considerable advance in most branches and areas is given, although under the head of "Sanitary Accommodation" it is surprising to read of a food factory in which cases containing partly manufactured food were discovered stored on

the floor of the men's sanitary conveniences. It may be taken that if the health staffs of local authorities were not practically only admitted to factories on the invitation of the factory inspector, such happenings as this would be unknown. In regard to welfare work, considerable developments are noted, special mention being made of voluntary efforts in this connection.

In discussing medical inspection, Dr. Bridge, the Senior Medical Inspector, provides a number of reasons in support of the belief that so far as industrial diseases are concerned a very good grip has been obtained. First aid, particularly in the cotton trade, is exceedingly well organised; the practice of periodic medical examination of workers is spreading, even in factories where it is not required under regulations; information of great value in regard to cancer, not only amongst mule spinners, but also in the general population, has been obtained; silicosis and dermatitis, their causation and prevention, are receiving great attention; and lead poisoning cases continue to decline, the total number reported—242—being about half that for 1924. Of anthrax there were 38 cases, of arsenical poisoning 5, and chronic ulceration 55. Cases of gassing were somewhat fewer, and golfers will no doubt be relieved to learn that, in spite of statements to the contrary, enquiry showed that there was no definite specific health risk to women employed in the painting of golf balls. As always, this section of the Factory Inspector's Report provides most fascinating reading, and serves to renew the regret always felt at the continuance of an arrangement that excludes the local health officer from operating in a field in which his training and experience in hygiene and disease investigation and control, as well as his local knowledge and influence, would prove of undoubted value.

Another cause of regret is found in Table 13 of the report, where it is shown that in 1925 nearly 200 medical officers of health, by neglecting to send in the returns called for in section 132 of the Act, failed to exercise what is practically the only privilege they are given in relation to factory work. Apart from arousing these regrets, however, this report definitely serves to confirm the belief that, so far as official health work in factories is concerned, there is no country so advanced, and showing also that that advance continues strongly there appears in it little ground for

the view that need for further legislation has arisen.

* * * * *

Obituary.

WE record with great regret the death, on July 18th, at the early age of forty-seven years, of Dr. Albert Davies Edwards, for seventeen years Medical Officer of Health and School Medical Officer of the County Borough of Bournemouth. Dr. Edwards underwent a serious operation for an internal trouble some twelve years ago, complete recovery from which could never be quite assured. His last illness was recognised as serious, but the sudden termination was very unexpected.

Dr. Edwards, at the time of his death, was President of the Southern Branch of the Society, and his fascinating presidential address, published in PUBLIC HEALTH (December, 1926), under the title of "Man, the Biped," gave great pleasure. He had also held office as President of the Bournemouth Medical Society (1925), and Chairman of the Bournemouth Division of the British Medical Association (1926). He was one of the Secretaries of the Dorset and West Hampshire Branch of the British Medical Association; a member of the Council of the Bournemouth Rotary Club, and of the Council of Social Service.

Dr. Edwards, who held the degrees of M.B., B.S. (Lond.), B.Sc., Wales, D.P.H., was Consulting Medical Officer to the Royal Victoria and West Hampshire Hospital, Bournemouth, and Medical Superintendent to the Bournemouth Isolation Hospital. He also acted as Administrative Tuberculosis Officer to the Bournemouth Corporation.

He was author of a long list of books and magazine articles. His "Children of the Poor" was favourably reviewed in professional and other journals.

Among the members of his profession Dr. Edwards was held in great esteem, not only because of his charming personality, but by reason of his knowledge and skill as a medical man. He was well read, having a fine taste for literature, and whenever he spoke at any gathering he proved himself an arresting speaker, for he possessed the gift of a charming delivery, a cultured style, and an easy flow of language, to which it was a real delight to listen. His many literary works, too, revealed his ability as a writer. He loved poetry, and

music also made a special appeal to him. He was a fine amateur photographer, and took especial interest in colour photography.

The esteem with which Dr. Edwards was regarded was indicated by the large gathering of the general public at the funeral. The service in the Chapel was attended by the Deputy Mayor, Aldermen, Councillors, officials, and representatives of the medical profession and various societies with which he was associated.

The many floral tributes which came from children of the Bournemouth schools were as eloquent a testimony to the work of Dr. Edwards as were the wreaths which were laid on the grave by the municipality, organisations, and friends in Bournemouth.

We are indebted to Dr. Walter Asten, Vice-Chairman of the Bournemouth Division of the British Medical Association, for the following appreciation of Dr. Edwards:—

The County Borough of Bournemouth has suffered a very grievous loss in the death of its most efficient, erudite, and popular Medical Officer of Health.

Dr. Edwards was indeed a remarkable man of considerable versatility, and possessed of a wide diversity of gifts, all of which he placed unsparingly in the public service.

His professional attainments were of a high order, and he was thoroughly practical, whether at the bedside, in the operating theatre, in the laboratory, or in the office.

The position of medical officer of health in a large county borough is no sinecure, and, amongst other attributes, demands almost superlative gifts of tact and discretion in effective administration, in order to prevent friction with medical colleagues and the public. These qualities Dr. Edwards not only exhibited in a marked degree, but it may be truly said he possessed the entire confidence and esteem of his professional brethren throughout the locality.

During the years of the war he was known to be working at high pressure night and day, and this proved a severe drain upon one who was unable to boast of a strong physique, or powerful reserves, but a love for his work, a keen and lofty sense of duty, a deep conscientiousness, and undaunted courage—these were constantly demonstrated to the full, and commanded the profound admiration of his colleagues, and those with whom he was immediately associated.

His personal charms were many, but it was among the little patients at the Hospital where these were uncommonly manifest; he was an enthusiastic student of child life, and loved children with a real and touching fervour which was always revealed in his pleasing countenance and gleaming eyes in their presence. Hundreds of children in Bournemouth will never forget him and how he loved to fix them up with gifts and toys, indicating especial pride and satisfaction towards those recovering from extreme and anxious conditions.

Dr. Edwards could never hide his Celtic temperament; he was an expansive reader, and some of his interests dwelt in the ancient classics and history, anthropology, evolution, psychology, and theology, in all of which subjects he delighted to converse. He was out-

spoken in his views, though not always considered quite orthodox, and had an utter contempt for anything in the nature of cant or shams, but he was always courteous, and of a kindly and sympathetic nature.

It is sad to think his work is done; he will be sorely missed, but happily remembered for loyalty to duty, untiring, unselfish and sacrificial devotion to his work—a man of geniality, sound intellectual qualities, and of a high souled and unimpeachable moral character.

It is also our sad duty to chronicle the death, under particularly tragic circumstances, of Dr. O. Polhill Turner, Deputy Medical Officer of Health, School Medical Officer and Superintendent of School Clinics, County Borough of Hastings. Dr. Turner, who was 57 years of age, had only been up for a few days, after confinement to his room for several weeks, when he heard of the attempts to resuscitate a girl bather and Brigadier-General Jenkins, who were drowned at St. Leonards on August 19th. Dr. Turner proceeded to the scene of the tragedy, and assisted in the work of artificial respiration. He was overcome by weakness, however, and forced to return home. A little later he succumbed to an attack of angina pectoris.

Dr. Turner, who was M.R.C.S., L.R.C.P., Lond., 1892, D.P.H., Oxon. 1910, was a native of London, and, prior to his 19 years' service at Hastings, held the post of Senior Medical Officer at the Peckham Lunatic Asylum. During the war he was a Surgeon in the Royal Air Force, and a Medical Officer at the Croydon War Hospital.

A popular figure in Hastings, and an ardent public health worker, especially where the welfare of children was concerned, Dr. Turner served on the local Voluntary Association for the Blind, and on the Juvenile Advisory Committee. He was a regular churchgoer, and for some time acted as churchwarden at St. Saviour's, Hastings. Dr. Turner leaves a widow and two young sons to mourn his loss.

In some maternity institutions it is the practice to dispose of the remains of still-born children by incineration on the premises. Having regard, however, to the fact that the expression "human remains" in Article 3 of the Cremation Regulations includes the remains of a still-born child, this is illegal, and local supervising authorities are requested to inform the authorities of maternity homes accordingly.

The Amalgamation of Child Welfare and School Medical Work.

By R. VEITCH CLARK, M.A., M.B., Ch.B., B.Sc., Edin., D.P.H., Medical Officer of Health, Manchester; and ETHEL CASSIE, M.D., Ch.B., D.P.H., Assistant Medical Officer of Health and Chief Medical Officer for Maternity and Child Welfare, Birmingham.

Read at the Leamington meeting of the Society, on March 18th, 1927, these two papers led to animated discussion on a topic of practical importance and, incidentally, contributed greatly to the success of the second provincial meeting of the session.

DR. R. VEITCH CLARK.

The Point of View of the Medical Officer of Health.

THE subject of which I have been asked to open the discussion is far from being a new one to this Society. Both in its Branch meetings and in the meetings of the parent Society it has frequently been the subject of consideration, and the general opinion of the Society is pretty well established. It has not, however, been possible up to date to point to even one instance in the country where complete amalgamation of these services has been effected, and the absence of any practical result is a justification, if any were needed, for the subject again occupying the main part of the programme of this meeting. I have been personally actively interested during the past four years in an effort to formulate a scheme for such complete amalgamation, and that may perhaps be taken as my reason for having accepted the invitation to contribute the opening remarks to-day.

It is, of course, essential that the law as it stands should permit such an amalgamation. It is of fundamental importance to our case, therefore, to observe that a very experienced legal opinion has been obtained to the effect that it is competent for a local authority under existing legislation to conduct the school medical service as a part of the duties specifically referred to the public health committee instead of to the education committee.

What has always been looked upon as a legal barrier is section 4, sub-section (2) (a) of the Education Act of 1921, which states:—

(a) "All matters relating to the exercise by the council of their powers under this Act, or of any powers connected with education conferred by or under any other Act, scheme, or order on the council expressly

as a local education authority or as a council having powers under this Act except the power of raising a rate or borrowing money, shall stand referred to the education committee, and the council before exercising any such powers, shall, unless in their opinion the matter is urgent, receive and consider the report of the education committee with respect to the matter in question."

The legal authority who was consulted on this matter gave it as his opinion that under this sub-section the local authority had the power, if they wished, to delegate the school medical services to the public health committee, after reference of the question to the education committee. It is, of course, certain in the light of our present knowledge that this would mean a decision of the council adverse to the opinion which would almost certainly be expressed by the education committee, but it is of interest to note that such a power is vested in the council.

Having, therefore, indicated that there is a *modus operandi* whereby complete amalgamation of the two services is technically possible, I would like to stress one aspect of the question which is liable otherwise to misconstruction—that aspect is that no body of people capable of coming to an intelligently formed opinion is likely to excel this Society in its appreciation of the work which the school medical service of the country has carried out. Tributes have been paid over the whole country to the increased healthiness, vigour, physical and mental development and cleanliness of the school children which has followed upon the introduction and practice of school medical inspection and treatment. Further, the school medical service has unquestionably been the most potent factor in improvements in school

architecture in so far as these have been directed towards the interests of the children. It has also been the real mainspring of activity in the establishment of open-air schools, and in a great proportion of instances the establishment of additional accommodation for and better classification of the definitely defective child of school age. It is desirable that we should, on an occasion such as this, pay the most open-handed tribute to the manifold success which has attended this branch of public medical work and, in pressing again for the amalgamation of the school medical and maternity and child welfare work into one service, make it as clear as possible that the sole object is the improvement of the personnel and the administrative machinery and so of the ultimate physical and mental benefit of the rising generation. As the systems are now established it will, I think, be admitted by all of us that the only periods of life in children under fourteen or sixteen years of age when he or she is adequately surveyed by a public health authority are in infancy (up to the age of twelve months) and at the three compulsory periods of medical examination during school life. The gap between the ages of two and five years, even in the most carefully administered districts, unquestionably exists. Theoretically these children are visited in their homes and watched at the child welfare centres, but the mere bulk of the work which infancy and maternity involves inevitably has the effect of leaving the toddler out in the cold. Effective amalgamation of the two services would, in the densely populated districts at least, enable a much closer supervision to be kept over the child between infancy and school age without much, if any, increase of staff. The supreme importance of this period of life from the preventive point of view can scarcely be exaggerated. The proof that such a development of public medical work is urgently necessary is to be found in the number of children who at school age are found to be suffering from one or other type of defect. In his annual report for the year 1922, the Chief Medical Officer of the Board of Education states "that 35 to 40 per cent of those who are admitted to school at five years of age bear with them physical defects which could have been prevented or cured. . . ." "Here we have the most serious and wasteful defect in our national health service." We shall return again to the consideration of this gap in our preventive line of defence.

As opposed to amalgamation of the services there is the blessed word "co-operation," and there are not many of us who do not know what this word implies. In cold print it is suggestive of all that could be desired; in actual fact—however genuinely and carefully co-operation is devised and carried out—it causes a totally unnecessary degree of complexity in administration, and a result which is inevitably much below the level which can be obtained by a properly organised single service. It is almost a truism to say that every additional administrative difficulty in any public work tends to lessen efficiency; any administrative scheme which is not homogeneous must always increase the margin of error, either of omission or commission. Every business man will readily acknowledge that the more direct an action is the more likely is the ultimate aim to be reached. It is the innate conservatism of our race, and the unfortunately developed vested interests of both central and local education authorities which impede progress in this direction.

What may be regarded as the standard illustration of the inefficiency of co-operation is to be found in the control of infectious diseases when the two services are separate entities. The daily bulk of correspondence, the amount of personal consultation involved, the actual delay in effective action brings administrative action at times perilously near to ridicule. If it were not for the friendly relations which practically always exist amongst the two medical staffs, there is no doubt that serious results would be entailed.

An important practical issue arising from the separation of the two services is the waste involved in the establishment of maternity and child welfare centres of whatever type and of school clinics as separate and distinct establishments. This is a condition of affairs existing in many areas. It is not only wasteful of public money, but it involves a duplication in one area of the same type of staff for the control and management of such institutions. Further, it entails a very serious burden upon many mothers who can ill afford the time from domestic duties to take their children to different centres, often on different days, and certainly at different times of the day. This is a practical argument which appeals very strongly to people interested in these matters and should not be lost sight of. There is, again, duplication of institutional provision by the public health committee on the one

hand, and the education committee on the other, for the treatment of similar defects in children; thus residential open-air schools would unquestionably be better run if they formed part of a general institutional provision for tubercular, pre-tubercular and other delicate children. Such accommodation would also result in the reduction of the overhead charges incurred in this work.

I would return for a short time to the age period of two to five years, and do so with special reference to research or investigation into those conditions occurring in early life which produce many of the physical defects found at the age of entrance into school. I would, in the first place, reiterate the view that without an effectively amalgamated child welfare service lasting up to adolescence it is very unlikely that we shall attain a proper knowledge of and control over the circumstances adversely affecting the welfare of the child of pre-school age. That this age period is a vital one in preventive medicine is certain. At present it is largely a "no-man's land," investigated fitfully, and as a rule, under circumstances of real difficulty. A striking illustration of the efficiency of the control of child life in its early years is the remarkable diminution of blindness, either complete or partial, arising from ophthalmia neonatorum. In Manchester the records show that blindness from this cause has to all intents and purposes ceased to exist. Only a few weeks ago the school medical officer in Manchester quite voluntarily stated to me that organic disease of the eyeball in school children—formerly frequently seen—is now exceedingly rare. The diminution in serious malformations due to rickets is another evidence of the value of preventive work in early life. There is, however, one very large group of conditions, often spoken of comprehensively as the "catarrhal child" which undoubtedly develops in the first instance within the first three years of life. It is a set of pathological conditions, of rather vaguely defined boundaries, associated with rickets and the incidence of measles and whooping-cough, but also attacking many infants who, so far as we know, have never shown signs of any definite disease. It is unquestionably a group of affections tending towards general ill-health and interfering with normal development in school and adult life, and yet no active steps have been taken—nor has it been practically possible to take them—to satisfy ourselves as to the nature of these

conditions, much less the origin of their development. In the statistical sense, practically all the broncho-pneumonias, excepting those of old age, occur during this early period of life. There is probably no period of life which, in the preventive sense, would repay more fully thorough investigation and control than this neglected interval between infancy and school age.

The completion of the supervision of child life in public medicine is the most pressing demand of our time.

Returning to another aspect of the general question, amalgamation of these services would widen very greatly the interests of the medical officers engaged in school work on the one hand, and child welfare on the other. It would enable zealous officers to carry out investigations of their own, by facilitating continuous observation and record, either of individual children or of individual pathological conditions. The value of such an increased interest to the public, as well as to the officer concerned, is obvious. Keeness in work always improves quality of work, and not only will the medical officer enjoy the work more, but the public will be better served.

From the financial point of view also, a unification of these services is desirable. The school medical service is essentially in its nature a public health service. Amalgamation would increase its preventive value whilst encouraging its curative activities. The backbone of any service is financial supply. At present school medical service figures as educational expenditure. Not only is this quite wrong in principle, but in practice it is known to lead to preferential treatment being given to purely educational work when financial stringency arises. This is essentially wrong, as the first necessity for a vigorous nation is that its sole real asset, that of health, should be conserved to the utmost possible degree. If the school medical service were transferred to the public health committees it would receive its proper orientation in the health services of the country. It would be looked upon as a primary health service, and would in no sense be in danger of relegation to a place of secondary importance.

Many more detailed instances of the advantages which would accrue to amalgamation could be given, and doubtless will arise in discussion. I would like, however, to add one point of general interest, viz., that there is in the transfer of the poor law and the

suggested transference of the National Health Insurance services to the local health authorities a great wave now approaching in local government affairs for a unification of public medical work. These changes will inevitably mean a reconstruction of health authorities and health committees, and it may be that then will be a favourable time for the absorption of the school medical service into its proper place in the public medical services of the country.

DR. ETHEL CASSIE.

The Point of View of the Medical Officer for Maternity and Child Welfare.

The maternity and child welfare department, in my opinion, is the one which may suffer from co-ordination schemes unless careful consideration is given to all points of difference, and I want to take our difficulties first from the point of view of the nurse, and secondly from the point of view of the medical officer.

I think it will be very generally conceded that the school nurse's duties, important as they are, can be carried out satisfactorily by a fully trained nurse. A certain amount of training in the routine of the department is certainly required, and if it is possible to secure some knowledge of the fevers, it is undoubtedly an advantage. The school nurse's essential work is to see that the medical officer's instructions are carried out. She is not asked to go beyond this.

The infant visitor is in an entirely different position. I am definitely distinguishing here between the infant visitor working in the maternity and child welfare department, and the health visitor, who may be visiting infants, but is at the same time dealing with certain infectious diseases, and doing some work in general sanitation, such as house inspection.

The primary work of the infant visitor is that of a teacher. Her subject is child care and child management, including to some extent the sick child, but much more definitely the normal child, and with this must be included the care of the expectant and nursing mother.

You will agree, I think, that these are very wide subjects; they include difficult considerations in infant feeding, food values, infant management, and the even more difficult problem of the management of the toddler. A knowledge of clothing and cooking is

essential, and, in addition, a capacity for imparting knowledge, and a training in the more effective methods of doing this are required.

We desire our infant visitors, who are also superintendents of child welfare centres, to show initiative and organising ability. In any case they must act independently. They must advise and direct, depending chiefly on their own knowledge, and only to a very limited extent are they concerned with seeing that the doctor's orders are carried out; for, of course, in the vast majority of cases the doctor has either not seen the child, or has seen it weeks before. In all the large cities, and in many rural areas, the rush of mothers to the centres has completely swamped the possibility of systematic medical examination and advice, and the infant visitors must deal with the bulk of the cases unaided, the medical officer seeing a third or less of those attending the centres; while those who do not come to the centres are necessarily the entire responsibility of the infant visitor.

I have tried to show that we do expect in an efficient infant visitor knowledge and training quite outside the scope of the ordinary general hospital training, including that for the Central Midwives Board certificate. I contend that infant visitors are specialists among nurses, and that they should be trained and paid on that basis. Considered in this light, combining their work with that of the school nurse is obvious waste of material.

I am well aware that no satisfactory training for infant visitors has yet been evolved, and they remain largely self-taught. Creditable as this may be, it necessarily implies much wasted time and effort.

The second consideration which renders the combination of maternity and child welfare nursing with other public health nursing a mistake, is just this fact—that in order to give successful instruction to the mothers in child care, the instruction must be given systematically as the child passes from phase to phase of its growth and development. This necessarily implies systematic and uninterrupted home visiting. Combine the work with school nursing, and constant interruptions occur—epidemics of infectious disease, periodic school medical inspections, rounding up distant children for special conditions, and so forth. Every type of interruption of systematic work is doubled and trebled, and with this goes all hope of really successful child welfare work.

In addition, we have a third factor at work—the actual preference of the worker. The women who are really keen and enthusiastic workers in maternity and child welfare work are not anxious to do combined work. Their interest lies with the young child; that is their particular field, and similarly the successful school nurse is not interested in the more independent and detached work of the infant visitor. I believe that a concentration of interest makes for efficiency in both directions.

The question as it affects medical officers may be divided into two sections, the administrative and the clinical.

On the administrative side there are two essential difficulties. The first is that the same nurses, working under the administrative control of different medical officers, always work badly. There is a diffusion of effort, a tendency to slackness, and to play one medical officer off against the other. Human no doubt, but hardly effective from the point of good work. The difficulty might be overcome by the sub-division of administrative areas, and the employment of medical officers doing combined work. This is, however, an age of specialisation, and I cannot help feeling that while this plan may be necessary sometimes, it tends to lead to a diffusion of enthusiasm which may almost amount to evaporation.

The second difficulty then is just this question of specialised or unspecialised administration. If it is unspecialised, it appears certain that the clinical side must be completely separated from the administrative, otherwise a tendency to one-sidedness will undoubtedly develop. This may be a good solution for large areas. Personally, I prefer a specialist as the administrator with a specialised nursing staff. I consider this will lead to a more enthusiastic forward movement in both departments, and a greater possibility of research and enquiry.

On the clinical side the position is rather different, and there appear to be some points in favour of co-ordinating the work of the assistant school medical officer and the assistant child welfare medical officer. These points may be summarised as follows: (1) A greater variety of work; (2) school work can be done in the morning when child welfare clinics are not so well attended; (3) in county areas a saving of time and travelling expenses can be obtained by careful organisation.

Still, such combined work is not too popular, and it must be remembered that both school work and child welfare work, when efficiently organised, do offer a sufficient variety of interests for any keen medical officer, especially when combined with independent or team enquiry, and research work.

There is also the question of combination in regard to *treatment clinics*. At first sight it seems a simple, wise and economic procedure; but it must be remembered that the problems of the toddler are essentially different from those of the school child, and while between the fourth and seventh year young children can be dealt with as a group, those under four years of age require very different handling and nursing. This necessarily affects the organisation of the treatment clinics for these groups, and eventually it involves separate clinics, if not separate premises and staff. One sees this in relation to tonsil and adenoid clinics, ultra-violet light clinics, eye clinics, etc. School medical officers who are dealing very efficiently with refractive errors in school children might well find a difficulty with the child of two and three years, and the combination of a dental clinic for the expectant mother and the older children is not always viewed favourably. While, therefore, co-ordination is valuable, fusion is impossible, and in every case individual consideration is required.

A point in favour of co-ordination is the possibility of obtaining a continuity of records. Identical cards are, of course, out of the question. The child welfare card is adapted to systematic home visiting by nurses, information obtained from the doctor's notes at infant consultations being simply added when required. The school medical inspection card records a series of more or less complete physical examinations. The infant visitor's card should, however, include a summary at five years giving the salient facts relating to the child's health, and the school to be attended, and this card being passed to the school medical department could well be attached to the medical inspection card. The chief value in ordinary cases lies in obtaining information as to infectious conditions, otorrhoeas, squints, etc. Cards relating to abnormal children should be specially dealt with, however.

I make no pretence of having dealt with all aspects of a large subject. My wish has been to deal only with points of immediate practical importance.

Ut Ita Dicam.

(Being Comments, apropos and otherwise, on Sundry Matters.)

On Statistical Addresses.

I do not know why it is, but I always have held the belief that persons who indulge in statistical exercises are incapable of delivering addresses or lectures that are interesting all the way through; that do not at some stage, generally fairly early, lead one into a bog of complicated calculations or a mire of sneers at the stupidity of some particular statistician or the population as a whole. To be perfectly frank, I go in fear of these statisticians, and would as soon think of declaring in their hearing that five beans make five as of enlarging upon the beauties of the calculus or the most modern method of conducting operations in simple proportion. As a matter of fact, largely as a result of the efforts of those whose joy it was to devise catches of the herring-and-a-half-costing-three-ha'pence type for me in my youth, I am not at all sure even to this day how many beans do make five; any more than I am convinced that two and two always do make four, or that figures cannot lie. On the contrary, so far as the two last statements are concerned, I am sure it is only persons who work continuously and exclusively amongst figures who believe in their absolute integrity or accept that all that can be said and done has been said and done when two has been added to two and four has been produced.

Statistics Without Jeers.

My own view is that there is much more in this two and two business than meets the eye, and much more could be written about it. At the moment, however, it is not my bird (August 12th—Grouse shooting begins) and what really I am trying to do is to direct attention to a paper that appeared in the January issue of the *American Journal of Public Health*, written by Professor Irving Fisher, of Yale University, and entitled "Lengthening of Human Life in Retrospect and Prospect." At first glance this paper, which was delivered at the 1926 meeting of the American Public Health Association, since it contained the usual number of curves and tables and rows of deep black columns, appeared likely to reveal itself of the type to which I have already referred. I began it, therefore, with a certain amount of misgiving. Very soon, however, this feeling gave place

to one of extreme pleasure when I found that though Professor Fisher had nothing actually to do with health work (his chair is that of Economics) he had thought of it, and thought highly of it, and of those who were engaged upon it, and that when he found it necessary to criticise the statistical views and findings of others he did it, not contemptuously, but with some geniality and with a tolerance entirely devoid of sting.

Life Extension.

An example from the point of view of kindness, this paper is also a model of optimism. In the retrospect that it contains it provides practically all that is needed in the way of proof that the works, the adoption of which the servants of public health have urged and in which they have been concerned, have been good and have been justified by the results obtained. Always a believer, Fisher in 1909 ventured on certain prophecies with regard to life extension and the effect to be produced on a number of diseases by the operation of preventive measures. Practically without exception all these prophecies have been fulfilled, some of them more than fulfilled, and the number of years (15) that he calculated in 1909 would be added to the human lease of life have, in fact, been attained in the space of seventeen years. This result he shows clearly to have been due to the operation not only of the older measures, but the introduction of newer methods, and in spite of the appearance of risks not contemplated or anticipated at the time the forecast was made. It is because of the success obtained and because of the evident vitality of all concerned in preventive work that Fisher looks forward so hopefully and ventures on prophecies of further extensions. And it is in discussing what the length of the extension shall be and what is to be taken as the absolute limit to which the life of the human may extend that Professor Fisher proves most fascinating.

The Accident of Death.

Unwilling to go all the way with the American authority who declared categorically that by the year 2000 the average duration of human life will be 100 years, and that many babies will then be born destined to live to be 200, Fisher, nevertheless, is prepared to accept as reasonable the view that life is not a cycle that includes death, but rather a cycle that ends

in maturity; that death is not inevitable, but accidental, and the result, as Metchnikoff held, of an invasion by something or other, a germ, or a poison, a bomb, or a motor-bus. Apart from civilisation, which has introduced and continues to introduce, in the guise of artifices for making life easier, pleasanter and more comfortable, what are really weapons designed to destroy life—drainage bye-laws, for example, and window glass, manufactured articles of diet, foods artificially maintained in a state of freshness, and spring cleaning; apart from these the only obstacle to a life indefinite in extent is the highly differentiated structure of the human body. Both of these may be met, however, and the hygienist and the public health worker have or should have the power to help people to meet them, for it is by applying hygiene that they will be met. Of hygiene, in the view of Professor Fisher, there are three sorts—Public, Semi-public (through institutions other than governmental) and Individual. In all of these three the health worker should be intensely concerned, and if he works and is allowed to work; if he is consulted, listened to and followed, longer life at least can be guaranteed. The activities involved in these various types of hygiene are, naturally, vast, and include periodic medical examinations and eugenics, the teaching of personal hygiene, and the regulation of birth control.

Life Extension and Birth Control.

And talking of birth control, it is remarkable how little reference Fisher's paper contains on this subject, the only statement with regard to it being to the effect that though some day it may operate eugenically, at present it is operating dysgenically. Clearly, however, it will have to be made to operate eugenically if everybody's life is going to be prolonged to 100 years or more or even indefinitely. Surely it would come about that there would be no room for young people because there were too many of the old, and no young person would be able to find a job because they were all filled up by the parents and grandparents. The situation would be remarkable and disconcerting. There simply would have to be a reduction in the number of births and probably years in which no births whatever would be allowed to occur. Professor Fisher does not enter into the question; which is rather a pity since I am certain he would have done it most fascinatingly, the

paper as it stands being one of the most attractive, stimulating and suggestive that I have read for a very long time. American scientists have rather the knack of writing in this kind of way, one notices. Probably it is because they have more of the spirit of youth. Being older, determined to be scientific and nothing else, we tend to produce material that is more solid in nature, that rolls along with a certain heaviness. How heavy some of it can be it is not necessary for me to tell.

P.P.C.

This is to say *au revoir* to Sir Arthur Newsholme who, I learn, will leave for the States in a few weeks. The ultimate destination is Southern California, where the winter will be spent in a climate more genial than is to be found here, and which, it is hoped, may prove beneficial to the health of Lady Newsholme, who finds the English winter trying. Sir Arthur himself proposes to take work with him, but as he is very well known in the States and highly esteemed as a lecturer, and in other respects, it is not improbable that work will be found for him. California itself boasts a number of universities, and I make no doubt that efforts will be made to induce Sir Arthur to take a part in some of the courses of instruction. They are a very friendly and kindly people in the States; and it is certain that the visit will prove a most enjoyable one. The hope that the health of Lady Newsholme may benefit as a result of the change will be endorsed by all of us. P.

THE Birmingham Corporation have approved the equipment of a suitable room and the provision of an electro-cardiograph at the Little Bromwich Hospital. Dr. K. Douglas Wilkinson, O.B.E., Physician to the General Hospital, Birmingham, has been appointed Cardiologist. The object of the scheme is research on the heart in diphtheria and scarlet fever by modern cardiological methods, and this innovation in a fever hospital will doubtless enable important lines of investigation to be opened up.

DR. CLEMENT DUNSCOMBE, formerly of the Wiltshire County Council Health Department, and at present Deputy Medical Officer of Health for Doncaster, has been appointed Assistant Medical Officer of Health for the County Borough of Croydon.

The Midwives and Maternity Homes Act, 1926.

By VINCENT THOMAS THIERENS, M.B. Ch.B., D.P.H., Assistant Medical Officer of Health, Bradford; R. L. THORNLEY, M.D., D.P.H., Medical Officer of Health, East Riding, Yorkshire County Council; and H. T. BATES, O.B.E., B.A., M.B., B.Ch., D.P.H., Medical Officer of Health, Ilkley.

The practice of discussing new legislation at the earliest possible moment after its enactment is one commonly adopted by the Yorkshire Branch, and the three papers following, which led up to a consideration of the Midwives and Maternity Homes Act, 1926, on January 28th, 1927, provide a useful analysis of the principal provisions contained in that measure.

Dr. V. T. Thierens.

LEGISLATION for the control of midwives and maternity homes in this country has been slow in development, little or no systematic effort in this direction having been made prior to 1902. Although this Act and that of 1918 which amended it in certain particulars, have done much to prevent the irregular practice of midwifery and to protect the public from the well-intentioned, but often septic, ministrations of Sarah Gamp, they contained no provisions for the regulation of maternity homes.

This gap in public health administration has at long last been made good by those clauses of the Midwives and Maternity Homes Act, 1926, which relate to the registration and general supervision of maternity homes.

Part I of this Act consists of amendments of the Midwives Acts, 1902 and 1918, Section 1 providing further safeguards for the public against the practice of midwifery by unqualified persons.

Section 2 (1) so amends the 1918 Act as to entitle a midwife suspended from practice in order to prevent the spread of infection, if she was not herself in default, to recover from the local supervising authority such amount by way of compensation for loss of practice as is reasonable in the circumstances of the case.

In the ordinary course of events the question of suspension from duty and subsequent compensation of any midwife attending a septic case need arise but rarely, as a midwife in attendance on an infected case must obey Rule E. 6. of the Central Midwives Board, 1927, which states that "Whenever a midwife has been in attendance, whether as a midwife or as a nurse, upon a patient, or in contact with a person suffering from puerperal fevers or from any other condition supposed to be infectious, she must at once notify the Local

Supervising Authority of the fact, must (unless the Authority relieve her from that obligation) disinfect herself and all her instruments and other appliances, and have her clothing thoroughly disinfected to the satisfaction of the Local Authority before going to any other maternity patient."

To the busy and booked-up midwife this cleansing and disinfection is a very tedious business for which she can ill afford the time.

Her only way of escape is to resign the infected case, a course which many midwives adopt. What then is going to happen to the patient? There are three courses open to her: (a) Treatment may be continued by a private or district nurse; (b) the case may be removed to hospital, or (c) treatment may be continued by a special midwife engaged by the Local Authority whose duty it is to attend septic cases in their homes. The first of these alternatives does not concern the Local Authority, the two latter do. In Bradford, beds are available at the Municipal General Hospital for the treatment of puerperal disorders and for the reception of mother and infant when the latter is suffering from ophthalmia.

As regards the third alternative, care of all septic cases is taken over in Bradford by a nurse on the Maternity and Child Welfare Staff, the midwife who has previously been in attendance being thus released.

In addition, whilst the midwife is performing the necessary disinfection, this nurse carries on with any other cases for which the midwife may be engaged.

Section 2 (2) is of interest chiefly to the general practitioner, who, having been called to the assistance of a midwife in a case of emergency, is required to submit his claim to the Local Authority within a period of two months from the date on which he was called in.

Practitioners in the district were notified of this amendment in a circular letter sent out in September last, since when, claims have been forwarded much more regularly and promptly. As regards Section 2 (3), nothing has as yet been done in Bradford, although the Local Authority has a somewhat similar arrangement with certain benefit societies whereby the wives of beneficiaries are received into the Municipal Hospital for confinement, the costs incurred being paid by the Benefit Society with which the husband is insured. According to Circular 724 an arrangement on the lines laid down in Section 2 (3) is being operated by two local supervising authorities, but which authorities they are and how the arrangements work, I have been unable to ascertain. This section is intended to benefit a class of patient which, I fear, would take but little advantage of its provisions. Fortunately or unfortunately, the majority of lower class women regard childbirth as being an unpleasant but perfectly normal business, and one which should require no assistance other than that rendered by a midwife. Is it then likely that many would insure themselves against, what seems to them, a very remote possibility? In addition, they are well aware that a midwife is bound to call in a practitioner in every case of emergency, and know that the amount recovered by the Local Authority is based on the patient's ability to pay. Safe in the knowledge that medical assistance is available if necessary, "wait and see" would be the policy of choice.

With reference to Section 3, it may be noted that although there are approximately 60,000 midwives on the roll, less than 15,000 have notified their intention to practise.

Part II of the Act is especially useful, dealing as it does with registration, inspection, and bye-laws in respect of maternity homes. In Bradford a point of some interest arose regarding the administration of this part of the Act. The Bradford Corporation Act, 1925, contains certain provisions for the registration and regulation of maternity homes, similar in the main, to the provisions of Part II of the 1926 Act. In Circular 724 of the Ministry of Health, dated August 16th, 1926, paragraph 17 states "Section 14 (3) (of the 1926 Act) provides that nothing in the Act shall affect the provisions of any Local Act, and the provisions of Part II will not, therefore, apply in any area in which a local Act is in force requiring the registration of maternity

homes by the Local Supervising Authority." Section 14 (3) of the 1926 Act merely lays down, however, that "nothing in this Act shall affect the provisions of any Local Act"; a wording which would not appear to justify the opinion expressed in the Circular. The Town Clerk accordingly communicated with the Ministry and requested further observations respecting paragraph 17 of the Circular. In reply, the Ministry stated (I quote from the Ministry's letter) "whilst the Minister has no power to determine the question raised, he is advised that it was not the intention of the legislature to superimpose the system of registration of maternity homes provided under Part II of the Midwives and Maternity Homes Act, 1926, on the system provided under any existing Local Act." From these non-committal observations, it was assumed that the Minister agreed that Section 14 (3) of the Act did not have the effect attributed to it in Circular 724.

Part II of the Act was accordingly deemed to be operative in the City, notwithstanding the opinion expressed in the circular, and it was, therefore, decided to work the Local Act and the 1926 Act together, with respect to maternity homes.

Section 5 (3) (a) gives the Local Authority the right to refuse registration of any applicant "by reason of age or otherwise." No age limits are mentioned in Circular 724. By virtue of the Local Act, the Bradford Authority has power to refuse registration in the case of applicants under the age of 21 years, but no maximum limit is mentioned. All cases, I take it, would have to be decided on their individual merits. In this Section how is "otherwise," as grounds for refusal to register, to be interpreted? Naturally, registration would be refused if the applicant were known to be of bad moral character, but could it be refused if the applicant were suffering from any severe and obvious physical defect? It would naturally be desirable for nurses, or midwives, to pass a medical examination prior to taking up duty at any home. As physical fitness is insisted upon in the case of nurses accepted for duty at a hospital or sanatorium, surely a similar standard of health, if only for the sake of patients, should be demanded of those employed in maternity homes.

As regards Sec. 5 (3) (b), what reasons connected with situation, construction, accommodation, staffing or equipment, would render

premises unfit for use as a maternity home? Obviously, it should be insisted that the premises be of the "through" type and be provided with sound sanitary conveniences. A *sine qua non* for registration of homes where there are two, or more, beds in one ward, should be the provision or availability, of a separate room for the observation and temporary isolation of doubtful cases. There are approximately 30 maternity homes in Bradford, in all of which the sanitary arrangements are for the most part satisfactory. None of them, however, are perfect; they all have their defects. In the smaller homes, one of the main defects noted is the excess of furniture, hangings and pictures. The midwives, however, are being educated to appreciate the undesirability of useless fittings in rooms intended for the reception of the pregnant woman. The removal of all unnecessary furniture, the substitution of washable paint for wallpaper, and of linoleum for carpet is, therefore, being urged. In this type of home, the bathing facilities and general accommodation have been found adequate and sufficient for the needs of the one, or two, patients received, and for the members of the household; but generally speaking, the same cannot be said of the larger and more expensive homes, though it is only fair to say that in those cases where there is some shortage of accommodation the staff suffers, not the patient. In this connection, it has been gratifying to note that in cases where any alterations in structure, accommodation, or organisation have been suggested, the keepers of homes have been not only willing but genuinely anxious to carry them out.

Section 8 authorises Local Authorities to make Bye-laws with respect to records to be kept of patients received into, and children born in, the maternity homes. By taking advantage of the provisions of the 1926 Act and of the Bradford Corporation Act, 1925, it was hoped to get a series of satisfactory Bye-laws which were accordingly drafted under both Acts. Bye-law 1 of the Ministry's model has been so extended in the Bradford draft as to include in the definition "patient" any persons received for the treatment of conditions associated with pregnancy and lying-in.

The definition of infectious disease in the Model Bye-laws is not a satisfactory one, as it does not include ophthalmia neonatorum and puerperal pyrexia. These two conditions are

not notifiable under the Infectious Disease Notification Acts, 1889 and 1899, but they are notifiable under Regulations made under Section 130 of the Public Health Act, 1875, as amended by the Public Health Act, 1896. This definition has accordingly been extended in our draft bye-laws to include diseases so notifiable.

In the Bradford draft, a clause is included to compel a maternity home keeper to keep a record of infectious disease occurring, not only amongst patients in the home, but also among all persons resident in the home, whether concerned in the management, treatment of patients, the maintenance of the home, or otherwise. This is probably *ultra vires* under the 1926 Act, but it might be construed as coming within the powers of the local Act of 1925, whereby the Local Authority is empowered to make Bye-laws prescribing the records to be kept with respect to patients received, the children born, and the business carried on at a maternity home.

The most important addition to the Model Bye-laws, contained in the draft, is that relating to the notification of births by the keeper of a maternity home. This reads as follows:—

"The keeper of a Maternity Home shall, whenever he has occasion to give notice in writing to the Medical Officer of Health, under the Notification of Births Acts, 1907 and 1915, of the birth of a child or children in the Home, state in such notice:—

"(a) The address at which the birth has occurred.

"(b) The address from which the patient was received into the Home."

Under the Notification of Births Acts, 1907 and 1915, it does not appear to be necessary for the person notifying a birth to state where the birth has occurred; all that seems necessary is to send an unaddressed postcard in the following fashion: "My wife gave birth to a female child at 2 p.m. on the 12th instant, John Jones."

On account of this weakness in the Notification of Births Acts, the above-quoted Bye-law has been included in the draft, somewhat tentatively it is true, as it is probably *ultra vires*.

Although we have had no lengthy experience of this Act, it does not present many obvious administrative difficulties and is undoubtedly a great advance on any previous Maternity Legislation. Local Authorities are

at last armed with provisions for the improvement of maternity homes, and although it will be long before perfection is attained, steady progress should now be made which will, let us hope, be reflected in the reduction of puerperal mortality and morbidity rates.

Dr. R. L. Thornley.

On my first perusal of Part II, for it is this part of the Act, which relates to the registration of maternity homes, about which I intend to offer a few remarks, I imagined that there would not be any applications from the Administrative County because I could not call to mind any nursing homes which catered solely or more especially for confinement cases. In this thought, however, I had overlooked the definition of maternity home in the Act, which is very comprehensive, and means any premises used or intended to be used for the reception of pregnant women or of women immediately after childbirth. In consequence of this it seemed that if a qualified midwife took only one pregnant woman at a time into her house for confinement, she would come under the Act, and would have to be registered.

So far I have only received three applications for registration, but I know there will be others. The granting of the applications depends upon Section 5, Sub-Section 3 (a) and (b) of the Act.

The requirements of (a), that the applicant or any person employed by the applicant is a fit person, whether by reason of age or otherwise, to carry on or to be employed at a maternity home, does not call for much comment, because one usually has personal knowledge of the applicants in connection with one's duty as Medical Officer of the Local Supervising Authority. It is necessary, however, to ask what should be expected under (b) with regard to the situation, construction, accommodation, staffing or equipment of the home or any premises used in connection therewith. I have been compelled to be as lenient as possible with this section, knowing full well that until in the country districts there is, instead of a dearth of such women, competition between certified midwives, it is to our advantage to support the few in practice in an endeavour to squeeze out the handy-woman. If, therefore, the midwife's house is clean, sanitary, has a bathroom, etc., registration is granted. I have not taken any action about

bye-laws because of the very small number of births in question in the homes mentioned.

There is another type of home, which can hardly claim to be exempt by Section 11, Sub-Section (1) (b). I have in mind a nursing home in which accommodation is provided for the staff. They do not do any house-to-house nursing, but spend most of their time as resident nurses in the patients' homes, and are only provided with accommodation when disengaged. At these times they nurse the few patients for whom accommodation is also provided in the home. This accommodation is for either maternity cases or cases of sickness not of an infectious nature, but the beds are not specifically allocated. There is no resident midwife, but the confinement cases are under the care of the practitioner concerned. Should such a home be registered or can it claim to be exempted?

Dr. H. T. Bates.

It is quite beyond the scope of this paper to give an analytical report of the midwifery of the general practitioner from the passing of the Midwives Act of 1902 to the present date, nor do I intend to consider the present Act clause by clause. I must content myself with presenting to you the general opinion of practitioners with whom I have come in contact, and of those whose articles on this subject have appeared in print. Concerning these latter, some worthy members of our profession had far better have held their peace. An article appeared recently in a weekly medical journal which seemed to me ill-advised, and merely a repetition of the old dispute between the hand weaver and the introducers of the power loom. It is true that we resent anything we may call "interference" with our work, and also true that there is disagreement between the general practitioner and those who advocate a national medical service and whole-time appointments; but we are all working for the same end, namely, ideal conditions for the expectant and parturient mother.

To my mind, there is the same difference between conducting a case of labour with the help of a skilled and experienced midwife instead of the old-time handy-woman, as there is between the rough and ready roadside surgery of a bad smash in filthy surroundings and the beautiful technique of a modern operating theatre. The handy-woman was an

invaluable help if only she did as she was told, and went no further. Her day is over in our opinion. The general practitioner and his public now prefer the certified midwife.

General practitioners shouldered the responsibility, and I have the greatest admiration both for the work and the results of the preceding generation. They worked strenuously, even slaved, undertook tasks of which the present generation has no conception, and often faced difficulties which many eminent consultants, in these days of rapid and easy transport, never meet in all their career. This is no reason for standing in the way of progress, but I have often thought that all aspiring medical officers of health should be required, as part of their training, to do one year's assistantship in a busy general practice. They would then realise better the conditions under which we work. Conversely, if all young qualified medicos did a year in a health office we should be more tolerant of the different points of view.

In the country, I think more than in the town, the loss of a woman in childbirth has always been looked upon as a terrible tragedy, and has been an occasion for much introspection. I shall quote only one example, a case where one fatal case and one other case of puerperal sepsis which miraculously recovered were undoubtedly due to the misguided efforts of an untrained handywoman. These cases are definitely disappearing, and for the reduction credit is due to the Midwives Acts. I am one of those who would prefer to undertake no case of labour except with the help of a fully trained nurse; and not merely so as to be in the position to make the time-honoured request, "only send when the head is on the perinæum."

One criticism many practitioners had against the early scheme of training these midwives was in respect of its inadequacy. You were not instructing women whose minds had been taught to reason logically, and with whom the art of obstetrics was only a part of their medical curriculum. This fault has in part been corrected, and the later regulations ensure that the period of instruction is reasonable. Many midwives are drawn from a social circle which can hardly be called an educated one. They may not, and often do not realise the weight of their responsibilities. The fact is not driven into them that we really begin to learn only when thrown on to the world, and

that we go on learning all our lives. I would strenuously oppose placing in their hands the power of administration of drugs in any form whatsoever. This has been suggested recently and to my mind is iniquitous.

An effect of the Act and its forerunners has been to reduce the number of cases of midwifery attended by the general practitioner amongst the poorer classes. I consider that the greater proportion of these mothers are now better provided for. You must remember, however, the existence of the ante-natal clinic, and the education of the expectant mother under the Maternity and Child Welfare Act of 1918, and also the provision of more hospital accommodation. You cannot separate these various Acts, nor the Puerperal Fever and Puerperal Pyrexia Regulations of 1926; they are inseparably bound together in the greater title, "Maternity and Child Welfare."

There is a side issue to this Act which may be seen in Dame Janet Campbell's report on "Maternal Mortality Associated with Child-bearing," although I am not apparently in agreement with her views. Many maternal deaths are due neither to lack of judgment nor to faulty technique on the part of the obstetrician, but to an entire disregard of the laws of nature and eugenics. Part of the duties of a Health Authority should be the weeding out and treatment of those absolutely unsuited for motherhood. It is criminal to allow some women to become pregnant. One of the operations of surgery which I have performed with the greatest delight, and from which all concerned, usually derive the greatest satisfaction is that of Cesarean Section. This is not because of its dramatic culmination, but because it has been a means of reducing maternal mortality, and of giving to many women the blessing of motherhood.

This is the case for the hospital. Of maternity homes I have no experience, and must refer you to the report of the Select Committee who considered the matter. It is most necessary to attain a very high standard of efficiency by all who undertake this work. It does not appear to me that the part of the Act dealing with maternity homes affects the general practitioner to any great extent. Possibly it relieves him of a little responsibility, and personally I should like to see more subsidised maternity homes come into existence.

Training the Health Visitor.

By F. A. SHARPE, M.D., B.S., D.P.H., Medical Officer of Health, Preston.

Since health visitors are the channels through which information is received and instruction given on maternity and child welfare, the question of training is one of supreme importance to public health administrators. In this paper, read at a meeting of the North-Western Branch on April 8th, 1927, Dr. Sharpe directs attention to a number of points of interest in that connection.

I DO not propose here to trace the gradually increasing need for direct preventive work in the various spheres of public health work—maternity and child welfare, school medical inspection, tuberculosis, and so forth—which called health visitors into being, nor the gradual change in orientation of our work which has made their duties of rapidly increasing relative importance. My intention is to deal with the training and the qualifications deemed necessary, the subjects included in the curriculum, and to discuss the adequacy of the various tests. The main question is—are local authorities getting the kind of officer they require for the work, and are there any modifications of training and examination desirable?

Probably most authorities combine the work in connection with maternity and child welfare with that of the school medical service. It is difficult to find reasons for separating the home visiting in connection with these two services. There are, however, good reasons for having a separate staff for tuberculosis work, in that the work of a tuberculosis department is specialised, and is in the hands of an officer who is responsible to the medical officer of health for its administration only, and who works rather in a consultative capacity with the two departments mentioned, rather than in co-operation with them. Further, the nature of the tuberculosis health visitor's work demands a rather specialised training, including sanatorium work, which is undertaken only by those women who intend to take up that kind of post. There are other women officials who undertake specialised duties, such as school clinic nurses, orthopaedic nurses, nurses in charge of X-ray clinics, eye, ear and throat clinics, artificial sunlight clinics, and work in connection with mental deficiency and blind persons. These

women are either employed by virtue of special training in the one particular speciality they practise, or have graduated thereto by seniority or special adaptability from the ranks of the ordinary health visitors. With the first we are not concerned, and the second are naturally included in the main group.

I should like now briefly to examine the standards set by the two Government Departments which have had the question of the training of health visitors in their charge. The number and variety of statutory rules and orders, circulars and explanatory memoranda is, I find, very confusing, but we can always take comfort in the fact that the last paper holds the field until a new one is issued.

These orders, as far as I have been able to collect them, are as follows:—

1.—*Ministry of Health Circular 4. M. & C.W. 10. July 14th, 1919.*

2.—*Board of Education (Health Visitors' Training) Regulations, 1919.*

In these Regulations the Board made provision for:—

(a) A course of two years for candidates without previous training.

(b) A course of one year in the case of

(1) Fully-trained nurses.

(2) Women with experience in health visiting.

(3) Those possessing a university degree or its academic equivalent.

(Assuming in each case that the individual possesses sufficient general knowledge or experience to profit by such a course.)

These Regulations held the field for three years and were superseded by—

3.—*Board of Education Circular 1267. 1922.*

4.—*Ministry of Health Memo. 65 M.C.W., July, 1922.*

The original arrangements are now modified in order to facilitate the training of nurses as health visitors, i.e., the group (b) in the original regulations. The Board are now prepared to approve whole or part-time courses of less than a year's duration at recognised institutions for trained nurses who have had a three-years' course of general hospital training or a full course of training at a children's hospital. The course was also thrown open to health visitors of three years' standing, willing to take a short refresher course. The Ministry of Health circular here lays down the conditions to be fulfilled for grant earning purposes, new appointments to be of women having—

(1) The certificate prescribed in the Board of Education Regulations, 1919, or

(2) Three years' general hospital training or full training at a children's hospital, together with one of the following qualifications:—

(a) Certificate of the Central Midwives Board.

(b) Certificate of a sanitary inspector.

(c) Certificate for health visitors approved by the Local Government Board under the Health Visitors (London) Order, 1909, i.e., the Certificate of the Royal Sanitary Institute, the Royal Institute of Public Health, the National Health Society, or the Battersea Polytechnic.

This circular also makes the suggestion that the duties of a health visitor might be combined with those of a school nurse and a mental defective visitor, and also that visits to expectant mothers and to infants during the first ten days of life should be left to the midwife—a retrograde step, as visits at this time are most informative, and have their highest preventive value.

Three years later the control of the training was again modified by the issue of—

5.—*Ministry of Health Circular 557. February, 1925.*

6.—*Ministry of Health Memo. 101 M.C.W. February, 1925.*

This memorandum deals with the grants to be made by the Ministry of Health, instead of the Board of Education, towards the cost of training health visitors. The change over was legalised by Rule dated July 1st, 1925 (S.R. & O., 634), and revises the courses of training as prescribed in the Board of Education Regulations, 1919. The original course

of one year's training specified for trained nurses, which had been watered down in the 1922 circular and memo. to an approved course of less than one year's training, is now definitely fixed as a whole-time course of training in public health work, lasting for a minimum period of six months, and normally covering two academic terms. Further grants are only to be payable in respect of trained nurses who have obtained, or have declared their intention to obtain, the certificate of the Central Midwives Board.

With regard to those students who are not trained nurses, the conditions of grant include, in addition to the two years' course of training in public health already recognised by the Board of Education Regulations, 1919, the holding or the declared intention of obtaining six months' training in a hospital (general or children's) and the certificate of the Central Midwives Board.

These two additional conditions (Central Midwives Board or hospital) do not apply to candidates who began their training before April 1st, 1925.

Each student, whether a "trained nurse" or otherwise, will be required to sit for an examination, and a Health Visitor's Certificate may be issued by the examining body. The grants were fixed at £15 per student (trained nurses) and £20 per annum per student for other students.

It will be remembered that in the previous memorandum and circular (1922) the course of training and certificate were thrown open to health visitors of three years' standing. In these, the 1925 Memo. and Circular, the health visitor of five years' approved service may sit for the examination and certificate without any additional training.

All health visitors appointed on and after April 1st, 1928, must possess this certificate before the sanction to her appointment can be obtained from the Ministry of Health. It will be seen, therefore, that this certificate will be obtainable by a woman desiring employment as a health visitor who passes the examination referred to and

(1) Is a "trained nurse."

(2) Holds the Certificate of the Central Midwives Board.

(3) Has completed a six months' course of public health training, or

(a) Has undergone the requisite two years' training.

(b) Has had six months' training in hospital.

(c) Holds the Certificate of the Central Midwives Board.

The last circular dealing with this subject was issued in 1926:—

7.—*Ministry of Health Circular 680. Training and Appointment of Health Visitors. March 22nd, 1926.*

This Circular approves the Royal Sanitary Institute as the Central Examining Body to conduct examinations and to issue Health Visitors' Certificates, and makes provision for the endorsement of diplomas, issued to students who began a course of training under the Board of Education Training Regulations, 1919, before April 1st, 1925, to the effect that the holder of the diploma has satisfied the conditions required by the Ministry of Health as stated in Memo. 101, M.C.W.

The circular defines the short course of six months for trained nurses, and states that the theoretical instructions must include—

- (1) Elementary physiology.
- (2) Personal and domestic hygiene.
- (3) Infectious and communicable diseases, including tuberculosis and venereal diseases.
- (4) Maternity and child welfare.
- (5) School medical service.
- (6) Sanitary law, elementary economics and social problems.
- (7) Principal legal enactments and regulations connected with the above.

	Duration of Courses.	Remarks.
The Principal, Battersea Polytechnic, London, S.W.11.	(1) 6 mths. (2) 2 years.	(1) For trained nurses only.
The Principal, Bedford College for Women, Regent's Park, London, N.W.1.	(1) 12 mths. (2) 2 years.	(1) For trained nurses only.
College of Nursing, 7, Henrietta Street, London, W.1.	6 mths.	For trained nurses only.
The Secretary, County of Durham Board for the Training of Health Visitors, 48, Old Elvet, Durham.	6 mths.	For trained nurses only.
National Health Society, 90, Buckingham Palace Road, London, S.W.1.	(1) 6 mths. (2) 2 years.	(1) For trained nurses only.
University of Leeds.	6 mths.	For trained nurses only.
King's College for Women, Campden Hill Road, London, W.8.	15 mths.	For trained nurses only.
University Settlement, Barton Hill, Bristol.	6 mths.	For trained nurses only.

Provision for practical training is to be given by the public health department of the area in which the course is held.

The syllabus of the Royal Sanitary Institute shows the same subjects expanded under various sub-heads for both categories of students.

The schools approved by the Ministry are set out in the accompanying table.

The Liverpool School of Hygiene was approved under the Board of Education Regulations, and continued to receive approval under the Ministry of Health until recently, when recognition was withdrawn.

We have therefore, as a minimum course of training:—

(a) *Trained Nurses.*

4 years { 3 years' general training.
6 months Central Midwives Board.
6 months' course of public health training.

(b) *Other Students.*

3½ years { 2 years' course of public health.
1 year Central Midwives Board.
6 months' hospital work.

Candidates who are nurses will be earning during their probationary period their board and washing, and a nominal salary of £20-£35 per annum.

During her training for the Central Midwives Board she will have to pay the cost of her training and maintenance, mitigated by the grant made by the Ministry, i.e., £20, and during her public health training she must again pay herself the whole charges less the grant of £15.

Candidates other than nurses pay the whole costs and charges less an annual grant of £20 during their public health training, the costs as already mentioned for the Central Midwives Board less a grant of £35 to the institution holding the course, and it is not likely that they would receive anything but a token salary during their hospital training.

What are we offering these women—women who have taken up nursing seriously and have specialised?

In a memorandum issued by the Women Sanitary Inspectors and Health Visitors' Association in November, 1926, the commonest salaries are shewn to range between £150 and £179. My own authority pay £144, rising to £193. Councils paying the lower range of salaries can only hope to retain the women they have by trading on their economic

disabilities, i.e., that their nurses are able to live with their parents or relatives in the town of employment or in adjacent towns where the cost of a contract or a workman's ticket is favourable compared with the very high cost of decent furnished apartments and board.

The uncertificated teacher is drafted into the service of an educational authority from a secondary school, and without any further training receives £99, rising after 2 years' service by £6 per year to £153, and if appointed prior to April, 1914, would rise to £174.

The certificated teacher who receives two years' college training, very largely at the expense of the State, begins at £162, rising after two years' satisfactory service by £9 to £288.

Non-college trained but certificated teachers begin at £153 and rise to £288.

What are the duties of a health visitor?

- (1) The inspection of the person and clothing of school children.
- (2) Following up defects found at the medical inspection of school children.
- (3) The home visiting of infants with regard to feeding, clothing, and minor ailments.
- (4) Attendance at infant welfare clinics with similar duties as in (3).
- (5) Visiting expectant mothers. Teaching ante-natal hygiene.
- (6) Work in connection with the supervision of midwives.
- (7) The reporting of sanitary defects.

There are, in addition to these, specialised forms of work, such as tuberculosis health visiting, school clinic nursing, ante-natal clinic nursing, and so forth, which hardly affect the issue. For the carrying out of these duties I consider the two essential qualifications are general nursing and the certificate of the Central Midwives Board. I think the training for the latter is thorough and practical, and satisfactorily equips women for midwifery work.

General nursing, on the other hand, requires, in my opinion, a thorough revision. There is an immense amount of domestic drudgery and repetition of simple tasks to the detriment of the nurse requiring a sympathetic understanding of the patient's bodily, mental and spiritual needs. There are unnecessarily long hours of work, and above all there is an irksome personal supervision and direction by the hospital management during the whole time, in-

cluding off-duty hours that the nurse is in hospital. Few probationers are taught the rationale of dieting, wound dressing and medical treatment, while the comfort of the patients is sacrificed to the exigencies of the two-shift system and hospital finance. I would, in particular, mention the morning washing at unearthly hours (6 a.m.).

Many a nurse, with but the slightest knowledge of the secrets of good nursing, leaves her training school with the exquisite technique of the nice conduct of an operating theatre at her finger ends. She may during her early probationership be drafted off to some other side line equally devastating to her nursing sense—X-rays, sunlight treatment, massage, electro-therapeutics, or other speciality. It is quite true that at all decent hospitals, courses of lectures and examinations of proficiency are held, and that competent nurses are turned out, but it is in spite of the system and not because of it.

The two years' course for women other than trained nurses is comprehensive enough, and provides a great deal of knowledge which will be of use, but the six months' hospital training is not sufficient for the purpose. Even supposing a hospital authority obliging enough to allow the six months candidates to divide their time evenly between the surgical, medical, gynaecological and children's wards, can one accept the short time in each department thus available as long enough to gain any insight into the methods of dealing with sickness? The same arguments apply to the short course in public health provided for candidates who are nurses. The choice of syllabus is excellent, and the theoretical and practical training appears to be nicely adjusted, but it can be no more than an introduction.

Twenty per cent of the candidates for the new Health Visitors' Certificate are students other than trained nurses.

It is of interest to compare our system of training health visitors with that in vogue in the United States of America. The shortage of skilled public health nurses, as they are called, is very great by reason of the rapid development of public health in those parts of the country, remote from large towns, which have only just begun to organise public health measures, and also because of the easy absorption of such women into welfare units attached to progressive industrial plants. Further, up to the present, there are not many institutions

offering a sound training and qualifications. At one prominent Northern College a one-year course in "General Public Health Nursing" is given for graduate nurses (two years). This course includes field work, basic teaching in the fundamentals of public health nursing with emphasis upon family health through social, educational and preventive work. (J. G. Townsend, Public Health Reports, U.S.A., April 9th, 1926.) Or intending nurses may matriculate for a five-year course, the first two of which represent general college work, the third and fourth in a school for nursing, and the last in special preparation for public health nursing. This course would enable the graduate to combine with it work leading to the B.Sc. There are also summer schools for graduate nurses given at a few colleges and assisted by the United States Public Health Service. Both instruction and field-work include school nursing, infant welfare nursing, and public health instruction in communicable diseases. "Above all, the nurse must be able to teach," and Americans lay particular emphasis on this ability. "If public health nurses are to make good the claim that is being made for them, that they are the best agents for popular education in health matters, their teaching as well as their nursing must have a sound technique." (Committee on Education of the National Organisation for Public Health Nursing.)

The salary averages 140 dollars per month, which is equivalent to nearly £350 per annum. The duties are practically the same as they are here, but they practise as a routine, measures which we should regard as "stunts," such as Little Mother Clubs for children from 8-14 years, with all the paraphernalia of appointing secretaries, reading minutes, and so forth. The nurse also undertakes vaccination against small-pox, enteric and diphtheria, and the distribution of iodine (chocolate wafers) in goitrous districts. One large insurance company spent 1,412,596 dollars on visiting nursing, and estimates that it saved the company 4,734,180 dollars in lessened claims.

Personally, I feel that the greatest improvement that can be made in the health visitors' standard will be achieved by raising their salary to a level which will attract educated women in large numbers. I think that the course of training should be one of not more than three years, and that it should be undertaken at a hospital where the defects in train-

ing, already mentioned, have been eliminated. During her course, which should allow ample time for study and recreation, the candidate should be taught all the essentials of nursing the sick. She should have opportunities of learning the work in each department—surgery, midwifery, medicine, children and special subjects, and her instruction in the theory and practice of public health methods might very well begin after the first year's work in the wards and physiological laboratories. The candidate should be especially well-grounded in infant feeding; the weakness in this subject on the part of health visitors and maternity and child welfare medical officers in charge of the work is responsible for the immense amount of artificial feeding going on to-day. We shall only be able to speak with a firm voice on this essential subject when every officer, doctor and nurse is not only thoroughly trained in it, but has learnt how to impart the information.

It is apparent that this scheme could not be applied to all nurses in training. The present methods are too deeply rooted, and a change would have far-reaching financial effects, but there is no reason why such a specialised training might not be tried alongside existing methods. It exists in those hospitals providing the short six months' course for candidates who are not nurses, and might be further extended.

THE Society of Somerset Folk in Bournemouth, on a recent excursion, were conducted by their President, Dr. Lionel Weatherly, to the Winsley Sanatorium. To do him honour a number of influential people connected with the institution were present, including the Lord Mayor of Bristol and the Mayor of Bath. A short speech made by Dr. Weatherly was of particular interest. To him more than to any one man is due the existence of the Sanatorium which was founded in 1904, and was therefore one of the earliest institutions of the kind to be built in this country. It was strange to hear of the difficulties which had to be overcome in days which even now are not so very far away. Official help there was none, and without private philanthropy, often bordering on sacrifice, little or nothing would have been possible. How the boundless energy and enthusiasm of Dr. Weatherly, who then lived in Somerset, triumphed over every obstacle is known to all familiar with the history of the sanatorium.

The Milk and Dairies Order, 1926.

By F. A. BELAM, M.D., Ch.B., D.P.H., Medical Officer of Health, Brighouse.

Dr. Belam, who opened the discussion on this subject at a meeting of the Yorkshire Branch on November 24th, 1926, in addition to being Medical Officer of Health of the Borough of Brighouse, has charge of an urban and a rural district. He is therefore well qualified to form an opinion as to the value and effect of the new Order, and directs attention to a number of anomalies and difficulties likely to interfere with its administration.

AS everyone present has almost certainly devoted a considerable amount of study to this Order, it will probably be sufficient if I direct attention to certain clauses which appear of significance, and thus attempt to indicate the lines upon which, in my opinion, a useful discussion may take place.

The first clause of note is paragraph 1 of Part I. This provides that any notice now served upon a farmer calling him to provide additional lighting or ventilation (Art. 12 [1]), and water supply (Art. 13 [1]), or a suitable floor to his cowshed, and satisfactory drainage (Art. 25), must not be enforced for 18 months. Also, if such notice is served at any time the farmer may have 18 months' grace before he need comply with it. During that time he may stuff up all his ventilators, or install none; he may whitewash and screw up all his windows, or leave his cowsheds in the darkness of the tomb. When this was pointed out to the Ministry they replied that they required to be supplied with particulars of actual difficulties of this nature to see if they arose to any serious extent.

The farmer need have no water supply to cleanse the floor, and the said floor may be of earth or boards, and the drainage may flow all over it. His inside gullies may all remain in position; in fact, he need have no drainage at all. For let it be remembered that all regulations in force were cancelled on October 1st, 1926, and therefore for every requirement above mentioned you must look for legal powers to the Milk and Dairies Order, 1926. This is the position, briefly put, in which we are placed by the first clause of the first part of the Order. It is indeed a good start.

Various definitions follow. These are useful in a way, but it will be noted that a dairyman is not defined at all, and apparently excluded from the definition of dairy are those shops which are at present selling bottled milk

(whatever that may be). This is very unfortunate, as the commodity in question is quite undefined, and the very smallest shops stock it in small quantities, and should certainly be under some sort of supervision. The milk not having to comply with any legal standard of cleanliness, the condition of the premises in which it is sold is of importance; also their addresses might easily be useful in tracing any milk-borne epidemic.

It is made quite clear in part II. that all Regulations in force are now cancelled, which order, besides having the effect already mentioned, also removed all legal standards of air space, lighting area, and ventilation area per cow, which many authorities had carefully prescribed. It provides no standards in their place. In addition, useful regulations such as rendering a wall of a cowshed impermeable up to a certain point behind the cattle, and the right of inspection by Medical Officers of Health of large towns, of farms supplying them with milk which may be in other areas, are all cancelled. The utility of the latter provision of course, is questionable. Co-operation between Medical Officers of Health should amply suffice for the purpose. A recent answer in the House of Commons makes it clear that there is no present intention of again conferring these powers of inspection in other areas.

Part III. is useful as requiring registration of premises and farmer, instead of farmer alone, as heretofore, but its utility is entirely nullified by the amazing omission of any right to refuse registration on the grounds of total unsuitability of premises, etc. Every application for registration must be acceded to, whatever the condition of the premises, and some of them are indeed appalling. Then, of course, you can serve your 18 months' notice to rectify any defects.

It is true that under Section 2 of the Milk

and Dairies Amendment Act, 1922, registration may be refused to a *retailer* on the grounds that the Public Health is, or is likely, to be endangered by any act or default of the applicant. But can it be proved satisfactorily in a court of law, that insufficient light and ventilation are likely to be a danger to the Public Health? Indirectly, we know that they are, but proof to a Bench of Justices would, I think, not be easy. In any case, only retailers are affected, and any producer who is not also a retailer is exempt from this saving clause.

Part IV., relating to the health and veterinary inspection of cattle can, I think, be allowed to pass without challenge. It appears to be both useful and straightforward.

Part V., however, is very loosely worded, and liable to ambiguous interpretation. What does Art. 12 (1) mean? Does it mean that if windows which open are provided, then no other ventilation can be insisted upon? It says "Every cowshed and every building used for keeping milk, other than a cold store, shall be provided with a sufficient number of windows or other openings suitably placed, and communicating directly with the external air." It is the alternative which causes the ambiguity. Then nothing whatever is said about the importance of outlet and inlet ventilators. Even if the latter part of this section can be made to indicate that ventilators as well as windows must be installed, yet this point is not mentioned. Art. 14 carefully details the places where milk may not be kept, but gives no description of a place where it may be kept, nor does it give any authority to demand that a dairy be provided in farms.

The clause relative to the cleanliness of milkers is very useful, but extremely difficult to enforce. What district has enough inspectors to ensure one being present at each farm during milking sufficiently often to see that the milkers' hands are washed?

Is twenty-four hours long enough to stop a milk-borne epidemic, and ensure that after that period the milk will not cause disease? Yet it must be done in that time, if possible, though it is true the period is renewable on fresh application being made. (Art. 18.)

Art. 19 is again very useful, if it can be really enforced. It should prevent a tubercular milker, or one suffering from infectious disease from spreading such infection by milk, but it really relies upon the integrity of the person concerned for its adequate enforcement.

Section 3 of Art. 22 is not nearly strict enough, and in place of requiring removal of manure from a cowshed once per day, which practically all farmers already do, insistence should have been placed upon thorough cleansing of floors previous to each milking. This would not have been too difficult of attainment, and should be asked for in the memorandum which I suggest this Branch should submit to the Council of the Society for transmission to the Ministry.

Art. 23, relative to the proper washing of udders, flanks, etc., will be difficult to carry out, owing to the great prejudice of many farmers to this procedure. I only hope that this requirement will be strictly enforced. It is most necessary, and constant supervision and many unlooked for inspections at all times will be needed for its enforcement.

With reference to milking stools, it should be stated that these must not be kept on the floor of the cowshed, but hung up or placed on a window or other ledge.

As is usual, Art. 24 has too many safeguards to make its enforcement easy of attainment. There is really no reason why each farmer should not have a cooler, and all milk, whether sent direct to a distributor, or retailed twice a day would be very much better cooled down immediately after milking, for obvious reasons into which I need not enter.

Art. 25 is very useful, except for the 18 months' notice required to be given for its enforcement. It should state definitely, however, that all floors should be made either of concrete, or joints rendered in cement if made of stone or brick. This would considerably simplify matters.

With reference to the remainder of the Order, there is no special point which immediately occurs to me to be worthy of comment.

As stated at first, this is not meant to be an exhaustive paper upon milk supervision in general, but rather a few notes upon the Milk and Dairies Order, 1926, which are intended to be of a critical nature, and which I hope will be provocative of discussion.

I should just like to conclude, however, by outlining what, to my mind, is required to be issued by the Ministry of Health as an amending order, or in some other way to attempt to straighten out the confusion consequent upon the new order. I will state these points briefly, of course, leaving them open for correction or modification, but I hope that this Branch will see fit to ask the Society to

make a representation to the Ministry on the lines indicated.

(1) It should be specified clearly to what sanitary requirements the 18 months' notice applies, and made clear that this notice is only needed when requirements justify it.

(2) The particulars of registration should be clarified as to who must register, etc., and should define dairy to include milk shops; also dairyman should be defined. All farmers producing milk for sale should be registered, and no loop-hole of escape given.

Local authorities should be empowered to refuse registration for unsuitable premises, and if refused, sale of milk should be prohibited until registration is granted.

(3) Model regulations specifying in detail as to air space, lighting and ventilation, drainage channels, flooring (impervious), walls, (impervious covering), etc., should be immediately drafted so that farmers in all areas would have exactly the same requirements to carry out. It should be clearly stated that inlet and outlet ventilators to the open air were needed,

and clear definitions of all sanitary desiderata should be included. This would remove the justifiable complaint of different standards in different areas, and would materially assist enforcement of regulations in courts of law by eliminating phrases such as "adequate lighting" or "suitably ventilated" which have no real meaning at all.

Included in these should also be insistence on removal of manure before each milking; the hanging up of milking stools should be demanded, and cooling of all milk at the farm. The provision of a dairy should also be insisted upon.

(4) In the case of farms not owned by the farmer, both tenant and landlord should be served with any notice. At present it is only legal to call upon the tenant farmer to carry out alterations, which is very hard upon those with yearly leases, or whose landlord invariably refuses to co-operate. Dual service of notice would make the landlord also liable in law, and then an agreement between him and his tenant farmer could be arrived at.

The Society.

Reports, Proceedings and Announcements.

NOTICES.

A special general meeting of the *Maternity and Child Welfare Group* will be held at 1, Upper Montague Street, W.C.1, on Thursday, September 29th, 1927, at 6 p.m., to consider proposals for alteration of the constitution of the Group. A full attendance is specially requested.

A meeting of the Executive Committee of the Group will be held on Thursday, September 22nd, 1927, at 6 p.m. Agenda: (1) Constitution of Group; (2) Programme for winter session; (3) Co-operation between maternity and infant centres and hospitals—appointment of sub-committee.

THE WEST OF ENGLAND BRANCH.

President: Dr. C. E. Tangye, County M.O.H., Wiltshire.
Hon. Secretary: Dr. P. H. Stirk, M.O.H., Exeter.

A meeting of this Branch was held at the Devon County Sanatorium, Hawkmoor, near

Bovey Tracey, on July 22nd, 1927, at the kind invitation of Dr. J. C. Smyth.

There were present: The President, Drs. Swan, Ward, Crossley, Lowe, McMillan, G. Adkins, W. Horton Date, Smyth, M. O'Farrell, Mr. Waterfall, and the Hon. Secretary.

The minutes of the last meeting were read and confirmed.

Apologies for absence were received from Drs. C. F. Pedley, J. F. Blackett, J. R. Bulman, J. Middleton Martin, and A. T. Nankivell.

The following officers were elected for the session 1927-28:—

President.—Dr. J. Allen (Taunton).
Vice-President.—Dr. J. F. Blackett (Bath).
Hon. Secretary.—Dr. P. H. Stirk (Exeter).
Assistant Secretary.—Dr. B. A. Peters (Bristol).

Treasurer.—Dr. J. F. Blackett.
Journal Correspondents.—Drs. Blackett and Stirk.

Representative on Council.—Dr. P. H. Stirk.

It was decided to hold the next meeting of the Branch at Weston-super-Mare, on some date between October 1st and 16th, 1927.

Dr. Smyth then conducted the members over the Sanatorium, and the patients were seen at various occupations, which is one of the features of the institution. The method of record keeping was explained by Dr. Smyth, who also demonstrated the X-ray installation and subsequently entertained the members to tea.

A hearty vote of thanks was accorded to Dr. Smyth for a very interesting visit, and to the Matron of the institution for providing tea.

THE NAVAL, MILITARY AND ROYAL AIR FORCE HYGIENE GROUP.

President: Lieut.-Colonel J. Howard-Jones, T.D., R.A.M.C. (T.F.), M.O.H. Newport, Mon.

Hon. Secretary: Major G. S. Parkinson, D.S.O., R.A.M.C.

A meeting of this Group was held at the House of the Society, on July 27th, 1927, the President in the Chair.

Letters of regret for absence were read from Professor H. R. Kenwood and Captain McMasters.

The minutes of the last meeting, which had appeared in PUBLIC HEALTH, were taken as read and confirmed.

The President stated that the following nominations of officers for the coming session had been approved by the Council:—

President.—Major-General H. P. W. Barrow, C.M.G., D.S.O., O.B.E., A.M.S.

Hon. Secretary.—Major G. S. Parkinson, D.S.O., R.A.M.C.

In putting forward the name of Major-General Barrow, the President said that his distinguished record in the Army was too well known among members of the Group to need any further comments. The nomination was received with acclamation.

The recommendations for the improvement of Marine Hygiene, which had been drawn up by the President and passed by the Council, were read to the meeting and, on being approved, the Hon. Secretary was instructed to forward them to the Executive Secretary with a request that they should be put before the Council of the Society for such action as might be considered necessary.

Rear-Admiral Sir Percy William Basset-Smith, K.C.B., C.M.G., read a short but most interesting paper on "The Importance of Tropical Medicine Teaching in the Services." A good discussion followed, in which the following took part: Major-General Barrow, Dr. Andrew Balfour, Bt.-Colonel P. H. Henderson, and Surgeon-Captain T. B. Shaw. Sir Percy Basset-Smith replied.

The President, after congratulating Sir Percy Basset-Smith on having so ably dealt with this important subject, obtained permission for the publication of the paper.

The meeting ended with a cordial vote of thanks to the speaker.

THE SOCIETY AND THE TUBERCULOSIS SERVICE.

Being an Address by DR. ERNEST WARD, *Group Representative on the Council of the Society, delivered at the Annual General Meeting of the Tuberculosis Group.*

A request has been made to me to furnish some account of the activities of the Group and of the Society, and especially to say what the Tuberculosis Service owes to the Society of Medical Officers of Health.

Apart from clinical and scientific matters, we owe to it practically everything. Before the war the remuneration of assistant tuberculosis officers was £250-£350, and that of senior members of the service was standardised at £500; even then some localities—Nottingham, for example—paid only £400. Now assistants receive an initial minimum of £600 and senior men from £750 upwards. At Leeds recently a commencing salary of £1,000 was paid, and other instances might be quoted. Sanatorium and institutional officers have similarly benefited. It cannot be said that we yet have our due, and doubtless many post-war increases would have been given without the assistance of the Society, depending on the initiative and popularity of local officers; but the rise would have been in no sense universal, and it is doubtful if it would have been even permanent, in view of the retrenchments which have subsequently been made, first in one department, then another. But now we have a salary scale accepted by the British Medical Association and the Ministry of Health, and still further improvements, concerning existing salaries, increments and initial salaries, seem almost probable.

The Society provides the only organisation for medico-political purposes possessed by tuberculosis workers, and local authorities now recognise that we are combined; they may not always welcome the fact, but they recognise it. Medical officers of health also recognise our loyalty.

Members have suggested to me that the proposed revision of the scale is merely a gesture, and likely forthwith to be shelved. But this is not so, for when it was decided at a meeting of certain members of the Society and of the British Medical Association, with Scottish Representatives, that we should try to evolve a revised and improved scale satisfactory to both countries, it was also decided that the same joint body should include in their discussions the suggested revision.

In these salary negotiations we have been at all times ably and eloquently championed by Dr. George Buchan.

During the last year 180 attempts to obtain public health officers at a figure below the scale have been made, and in 151 cases the proper salary was subsequently offered, thanks to the efforts of the Society and the British Medical Association. Three gains to the Tuberculosis Service may be cited:—

(1) Cheshire County offered £600 for district tuberculosis officers, regarding them as assistants. We disputed the matter; a local deputation was arranged, and ultimately men were appointed at £750.

(2) At Birmingham, as the result of a deputation, the pay of the Tuberculosis Service was raised up to or beyond the scale. (Incidentally, it may be mentioned that Dr. Dixon, an old member of the Tuberculosis Group, was elected President of the Midland Branch for the session 1926-27.)

(3) The salary of the medical superintendent at Winsley Sanatorium has been raised to £750, indirectly and directly as a result of the Society's spadework.

There are 2,000 members of the Society, of whom 170 are chiefly engaged in tuberculosis work. We get the advantage of scientific meetings in various centres, a monthly journal, and of consultation with Mr. Elliston, the Society's secretary, when difficulties arise. Mr. Elliston's wide experience and legal training, to say nothing of his consummate tact, make him an indispensable ally. There is also

a semi-official agency for obtaining *locums* and other appointments.

The new propaganda journal, *Better Health*, governed by the Central Council for Health Education, and which will be circulated with a local cover by local authorities, presents a useful opportunity for tuberculosis propaganda. In it a monthly tuberculosis propaganda article might well appear, which perhaps the National Association for the Prevention of Tuberculosis would provide.

Though something substantial has been achieved, we cannot rest on our oars or in any sense regard the fight as finally won. As J. S. Mill said, "The price of liberty is constant watchfulness," and we must continue to be as loyal and as watchful in the future as in the past.

It is hoped that the watchfulness will be individual as well as general, and that every worker will at once acquaint the secretary of the Group of any lapse from the salary scale, even if this is only a possible lapse which his knowledge of local circumstances enables him to foresee.

There is nothing derogatory or professionally undignified in safeguarding our interests. After all, our aim is to defeat tuberculosis, and this requires the highest possible standard of service, which is best obtained by adequate remuneration and a reasonably independent status.

DR. NICHOLAS D. DUNSCOMBE, Assistant County Medical Officer for the Bath area of Somerset, and late Acting Medical Superintendent, Royal Earlswood Institution, Redhill, Surrey, has been appointed Assistant Medical Officer of Health and School Medical Officer for the County Borough of Southampton.

THE Metropolitan Asylums Board, in the interests of D.P.H. students, have arranged a three months' course of lectures and demonstrations on clinical practice and hospital administration to be given by Dr. F. H. Thomson at the North-Eastern Fever Hospital, Tottenham, London, N.15, commencing October 3rd, 1927. Full particulars may be obtained from the Clerk to the Board, Victoria Embankment, E.C.4.

MR. DONALD DAVIDSON, M.D. Lond. (State medicine), D.P.H., has been appointed assistant port medical officer in the Plymouth health department.

The Literature of Preventive Medicine.

HELIO THERAPY. By A. ROLLIER, M.D.
Translated by G. de Swietochowski,
M.D., M.R.C.S. Humphrey Milford,
Oxford University Press, 1927. Second
Edition. pp. 318, illustrated. Price 20s.
net.

Dr. Rollier needs no introduction to English readers. It is also safe to say that most of the medical men in Great Britain who are immediately interested in the light treatment of tuberculosis have paid a visit to Leysin, the "mecca for those suffering from surgical tuberculosis" as Bernhard calls it. A second edition of this work is therefore to be welcomed.

While the contents are similar to those of the first edition published in 1923, the general plan and arrangement have been much altered and improved by following, as the author in his preface says, the German edition of his work. In fact, it is a complete translation of this edition which is itself a second edition of the original work written in French. The translation follows the original very closely, and those who know the difficulties of rendering German into idiomatic English will be prepared to congratulate Dr. G. de Swietochowski on the way he has performed his task. There are occasional words, such as "substrate" for soil, and a few phrases which may not sound quite familiar to English ears, but these small blemishes do not detract from the general merit of the translation.

The first three chapters are devoted to the historical outline, the scientific and experimental basis of heliotherapy, and climatology respectively. As they only take up some 33 pages out of a total of 315 they must be rather looked upon as a short summary of present views on the historical and scientific aspect of the subject necessary to complete or round it off.

The chapter on "experimental contributions" to heliotherapy, which takes the place of that written by Rosselet in the first edition, is a good summary of the principal work done on the Continent and gives some account of experiments carried on by the author in conjunction with Rosselet. It is rather an omission that no mention is made of the valuable work on the scientific side by Leonard Hill and others in England.

After these preliminaries the most important

part of the book comes, chapter IV being devoted to dosage, technique and clinical results. The remaining chapters cover practically every aspect of the subject. The chapter on prophylaxis will appeal specially to medical officers of health, and chapter XI—Heliotherapy of non-tubercular diseases—to the general surgeon. Radiologists will also find a very interesting chapter on radiological control, which has the final decision as to when a bone or joint is considered cured without danger of relapse.

The cream of the book is and will remain the natural sun treatment of surgical tuberculosis in the high Alps. Here Rollier is in his element. Here he can produce excellent results from the enormous material and experience at his disposal, and it is he who has proved once and for all that, given time and patience, sun, air and suitable régime can produce cures in surgical tuberculosis which in point of permanency and the minimum amount of deformity are unequalled by any other form of treatment. Whether artificial light will show equal results remains to be seen, but Rollier himself does not claim that the whole good is accomplished by sunlight (as such) but that air and regimen which includes such matters as food, exercise, etc., contribute a not inconsiderable quota.

The great advantage of the high Alps is, of course, that the content of the sun's light in ultra-violet rays is very high all the year round, and in mid-winter when the sun in the plains shows scarcely any ultra-violet rays the Alps can still produce almost as much sunburn as the British Isles in the height of summer, and herein lies in a large measure the secret of the high Alps. The only weak point about the Leysin cures is the length of time required, and it is just a question whether a little more surgical intervention would not sometimes be advisable so as to shorten the stay there for patients who cannot afford to wait till diseased glands and bony sequestræ are thrown off by Nature so much more slowly, and not more effectively, than by the knife. Dr. Rollier is a "non-interventionist," but it is impossible to consider surgical tuberculosis apart from the economic point of view, so the probable result in the long run will be a compromise. In certain cases, of course, there is some risk

of spreading the disease by surgical interference, but most heliotherapists know when this risk may be taken.

To a visitor the most obvious effect of the sun treatment is that pain soon disappears, and this applies to deformities if the disease was not too far advanced when the patient started the treatment. The return of mobility in joints is also excellent, and often perfect. All these aspects are fully dealt with, and those interested in statistics will find ample data to reward their curiosity.

We can, therefore, with every confidence recommend this as a standard work on this subject.

SEWAGE TREATMENT AND DISPOSAL. By G. M. FLOOD, B.Sc., Lecturer in Municipal and Sanitary Engineering, Manchester College of Technology and the University of Manchester. London: Blackie and Son, Ltd., 1926. Price 10s. net.

The scheme of this book is an ambitious one. It claims to describe "fully" the most modern methods of sewage treatment and disposal in their physical, chemical, biological and financial aspects. The subject is far too vast to be dealt with adequately in the short space of 163 pages. To those, however, who are not concerned with the details of sewage works, but who desire to know something of the principles on which the treatment of sewage is based, this little volume will serve as a useful guide.

The opening chapters, which describe the development and objects of sewage treatment and the characteristics of sewage, are followed by two dealing with the physical aspects of sewage treatment and the micro-biology of sewage. The purification processes mostly in use to-day are dismissed in a single chapter of twenty pages. The activated sludge process is dealt with somewhat more fully, two chapters being devoted to the consideration of the various methods employed.

Trade wastes and sludge disposal form the subjects of separate chapters. In the latter we find the cryptic remark that "practically all the solids have been removed from the sludge."

No less than thirty pages are devoted to the bacteria present in sewage and to methods of chemical analysis.

A number of figures are given purporting to show the cost of treating sewage on land, laying down sewage works, treating sewage, pressing sludge and washing filtering material. The author omits to state that most of these figures are of ancient date, many of them being taken from the Fifth Report of the Royal Commission on Sewage Disposal.

The book is well and clearly written, and there are thirty-two illustrations.

GOOD HEALTH AND HAPPINESS. By J. ELLIS BARKER. London: John Murray, 1927. pp. 525. Price 7s. 6d. net.

This book was written in one month. Its main object is to announce that 90 per cent of our ailments and diseases are "diseases of civilisation," and spring from faulty methods of living, and are therefore easily avoidable. The faulty methods lie particularly in relation to food and feeding, and according to the heading of one of the chapters (Chapter X) the finest remedies in the world would appear to be "The Blessings of the Simple Life and the High Mortality of the Doctors." The author does not apparently hold any medical degree, but is not, in his own view, without qualifications for writing a book on health for the guidance of laymen and professional men alike. These qualifications are that he has studied the science of health preservation "during many years" and is "thoroughly acquainted not only with practically the entire modern medical literature, but also with the best medical and hygienic writings of the past." In addition, he has received invaluable assistance from some of the greatest physicians, surgeons, chemists and hygienists living. In particular he owes a great debt of gratitude to Sir W. Arbuthnot Lane. That he has read widely is evident from a study of the volume. The majority of the pages consist of extracts from a multitude of publications, linked together by a few lines of statement by the author. In the chapter about himself and how he came to enjoy his present excellent health and to finish this book, which he could easily have extended to ten volumes, in the month, Mr. Barker conceals nothing from us, not even the fact that he once had a kink in his bowel, has flat feet owing to early rickets, and walks at a fast pace, usually with his hat in his hand.

A CITY COUNCIL FROM WITHIN. By E. D. SIMON, M.A., M.I.C.E., M.I.M.E., ex-Lord Mayor of Manchester. London: Longmans, Green and Co., Ltd., 1926. pp. 246. Price 7s. 6d. net.

A book of this type is exceptionally rare in this country. One would imagine *a priori* that a subject of this nature must necessarily prove uninteresting reading, and we have to congratulate Mr. Simon on the fact that, while discussing with knowledge and acumen many aspects of local government, he has succeeded in producing a contribution to this form of literature of a chatty and interesting nature. As a record of personal observation and experience the book is a living one, and in that respect possesses more real value than if it had been the compilation of a pundit. It has the additional advantage of having summaries of conclusions throughout the book, with a general summary at the end. Experience on city councils probably has impressed upon Mr. Simon the extremely casual quality of mind possessed by many people, and the necessity of placing opinions before such readers in the plainest and simplest manner possible. The accounts of the various committees and of committee work in general should be of very great value to those for the first time taking up work as members of the councils of local authorities. It would be difficult to find a better description of the psychology of such bodies written in more dispassionate terms.

We may perhaps, however, be more interested in those parts of the book dealing with relations between local government and central government authorities and the appointment of chief officers.

In many directions Mr. Simon shows how undesirable it is to have too great a degree of control exercised over highly efficient and responsible local authorities by central government departments. We entirely agree with his views. So long as the general principles of work are laid down by parliamentary authority and these are adhered to in practice, it can only be to the local and national advantage that as free as possible a rein be accorded to local genius or need. After all, progress can largely be measured by the possibility of experiment, and a hide-bound system stifles initiative from the outset. Mr. Simon might well have given much more glaring examples of trivial central control than those he has

mentioned, but in this respect he exhibits the moderation of criticism which is to be found throughout the volume.

In discussing the type of chief officer from the point of view of administration, we feel bound to say that Mr. Simon seems obsessed with the German idea of the burgomaster, and at the outset it is clear that this is so foreign to our character as to be beyond the routine of practical politics. Mr. Simon's arguments on this point we must take as being based upon his experience in Manchester, and it rather knocks the bottom out of his argument when he goes out of his way to acknowledge the efficiency of the existing chief officers in Manchester, all of whom have large administrative duties and yet are professional or technical or trained men. In point of fact, Mr. Simon illustrates the administrator as being a man of good education, who is in his life-work experienced from the beginning in administrative office. Surely this is actually the position with regard to town clerks or engineers or medical officers of health holding the positions he refers to. Their work essentially has been such as to train them in the control of the department of which they are in charge. It is difficult to imagine an efficient lay administrator running a public medical service with a due appreciation of preventive medicine, and when Mr. Simon refers to a successful medical administrator as a man who is bound to fall behind the times in medical work, he clearly fails to appreciate the double fact that preventive medicine has made larger strides than any section of medicine in our times, and that that advance has in its practical entirety been due to medical officers of health. It is in any case a fallacy that technically qualified men cannot reasonably be expected to be administrators, and the illustration of the central government departments taken in support of Mr. Simon's view does not carry very much weight with those who are in a position to compare the efficiency of local administration with central administration, and to know that it is expressing facts very moderately when it is claimed that local efficiency is at least equal to that of the central departments.

We are, nevertheless, very hearty in our appreciation of Mr. Simon's writing, and consider that he has done a signal service to local government even if he had done nothing more than write the chapter on "Areas of Local Government." This is one of the best parts

of the book, and we would have been glad to see it extended.

TREATMENT OF DIABETES MELLITUS. By O. LEYTON, M.D., D.Sc., F.R.C.P., Physician to the London Hospital. Fourth edition. London: Adlard and Son, Ltd., 1927. pp. 98. Price 6s. net.

Dr. Leyton's book presents in a concise form the modern conception of diabetes mellitus. It is largely, as its name implies, a practical book, and in this respect it is admirable. The instructions are given in clear terms, and the reader is not in doubt as to what is intended. Moreover, the author has succeeded in making interesting what might well have been very dull reading. It is inevitable that in a small volume on a subject so immense many considerations must be omitted, and it is easy to criticise the choice of what has been left out, and what has been put in. On the whole, the author has not only succeeded, but succeeded well.

Dr. Leyton is rather laborious in his methods of diagnosis; they appear to be thoroughly sound, but the amount of technique is too great, and it could, without detracting from its value, be appreciably simplified, especially for practitioners. His idea that patients should be taught to estimate the sugar in their blood, rather than to test for sugar in the urine, seems to be an unsound one. Only a very small minority of patients could seriously make the attempt, and if they did succeed it would hardly be a wise plan unless their local doctors also mastered the technique. And how many general practitioners understand or can carry out the estimations! The author thinks it unwise for the patient to test his urine for sugar as he (the patient) will think that as long as the urine is free from sugar all is well, and will begin to experiment and increase his diet. Surely it is one of the first essentials in the treatment that the patient must learn to do only as the doctor orders, and if he understands that the tests are more for the doctor's information than for his own then everything should be all right.

The description of insulin therapy leaves nothing to be desired; it is clear both for the practitioner and the patient, as are also his remarks on dietetic treatment.

Dr. Leyton makes a very significant statement on p. 2:—"The absence of ketones in the urine may be taken as proof of a mild

diabetes, and not as evidence that the sugar-burning capacity is unimpaired." It raises, in the opinion of many, the whole question of what is and what is not true diabetes. He does not give the subject all the attention it deserves in view of the large volume of research on defects of sugar storage and defects of the sugar-burning power of the tissues.

However, as already mentioned, everything cannot be included in a work of this size and pretensions; it is planned to meet the needs of the general practitioner and this it does very well.

LEADERSHIP. A Manual on Conduct and Administration. By WILLIAM COLBY RUCKER, M.S., M.D., Dr.P.H., Surgeon, United States Public Health Service. London: Macmillan and Co., Ltd., 1926. pp. 171. Price 10s. net.

"The young officer entering the Public Health Service fresh from a hospital internship or private practice find himself in a new world." This is the opening sentence of this book, and the aim of the author has been to try to provide a light for the guidance of the young officer not only along the path but to the point where he must cease to be led and take on leadership. In a foreword, Surgeon-General Cumming gives praise and commends what Dr. Rucker has written to workers in the Public Health Service, in the Hospital and Sanitary field, and to all, indeed, who are engaged in treating the sick or in preventing disease. Both praise and commendation may be echoed, and though, naturally, the views taken are from the American angle, there is much in it that will be found interesting and helpful by health administrators in this country.

MR. A. R. BALMAIN, M.B., B.S., Lond., D.P.H., formerly assistant medical officer of health for Birkenhead and Colchester, has been appointed chief assistant medical officer of health to the borough of Ilford, to succeed Dr. A. G. G. Thompson, who was recently appointed medical officer of health to the borough of Lambeth.

DR. CHARLES PORTER, medical officer of health for St. Marylebone, has been appointed examiner in public health (part II) by the Royal College of Physicians.

Correspondence.

The Editor does not accept responsibility for the opinions of correspondents.

THE ADVANTAGEOUS USE OF SANATORIUM BEDS.

To the Editor of PUBLIC HEALTH.

SIR,—A long experience as tuberculosis officer and sanatorium superintendent has convinced me that sanatorium beds are not always used in the most advantageous way in this country.

The reasons why a patient with pulmonary tuberculosis should be sent to a sanatorium are various: sometimes because other members of his household are in danger of massive infection; sometimes because he is, or should be, confined to bed, and is a burthen to his family; sometimes because he can be relieved or cured in a sanatorium, but not at home. In sending him to a sanatorium we hope to educate him in the matter of infection; to help him to form habits conducive to recovery; to give time for desirable alterations in the home; to remove him for a time from susceptible persons; to reduce his potential infectiousness; to deal with an emergency or complication; or to effect a cure.

The time necessary for these various results is itself variable. A conscientious patient who is not too ill can learn not to be a danger to others in a few weeks; to form "sanatorium habits" will take longer—in some cases two or three months, in others still more; if we aim at the removal of a source of infection from the home, we may require many months or years. Complete unconditional recovery can only be effected in from six to twelve months in an early favourable case; while in those who are aged or complicated or acute recovery will never be more than conditional, and will necessitate several years of suitable conditions and treatment.

It is the common practice in many parts of this country to arrange for a uniform stay in the sanatorium of two or three months in nearly every case; those patients who remain longer do so, not because their chances of recovery are exceptionally good, but for other reasons. If the usual period of residence were sufficient to restore the more curable patients, as is

commonly the case in the United States, the uniform prescription would not matter; but with only two or three months' residence none of the patients has a real chance of recovery, and public money is largely wasted. I would therefore strongly advocate the abandonment of such uniformity, and the division of patients into two or three groups as soon after admission as their chances of recovery can be estimated. Those whose chances are specially good should remain for a long time, say twelve months, while those in whom only educational or temporary results can be expected should make quite a short stay, say one month (as Sir Arthur Newsholme arranged at Brighton years ago for all his sanatorium cases), and the remainder for an intermediate period of residence. Such a course would not involve the need of any more beds or of any greater expenditure, though it would be opposed to the popular obsession that three months is the proper duration for sanatorium treatment, and that all patients should be treated alike—a mischievous fallacy.

Let us suppose that there are 100 sanatorium beds in a given locality, and that the practice has been to admit every patient for three months, so that 400 are treated in a year. We may expect about 15 per cent to be curable with twelve months' sanatorium treatment; in 60 per cent only temporary or educational results are possible in the time. Tabulated, this works out as follows:—

Beds	Bed months	Length of stay	Patients treated
60	720	Whole year	60
20	240	One month	240
20	240	Average 2·4 months	100
100	1,200		400

Under this arrangement 60 patients have been given a real chance of recovery, instead of none at all.

I have purposely left out of consideration some of the indirect consequences of such an arrangement, though I do not think they need present any difficulty.

I am, Yours faithfully,

F. R. WALTERS,

President, Society of Superintendents of Tuberculosis Institutions; for some time Tuberculosis Officer, Surrey County Council, and Medical Director, Crooksbury Sanatorium.

Farnham,

July 22nd, 1927.