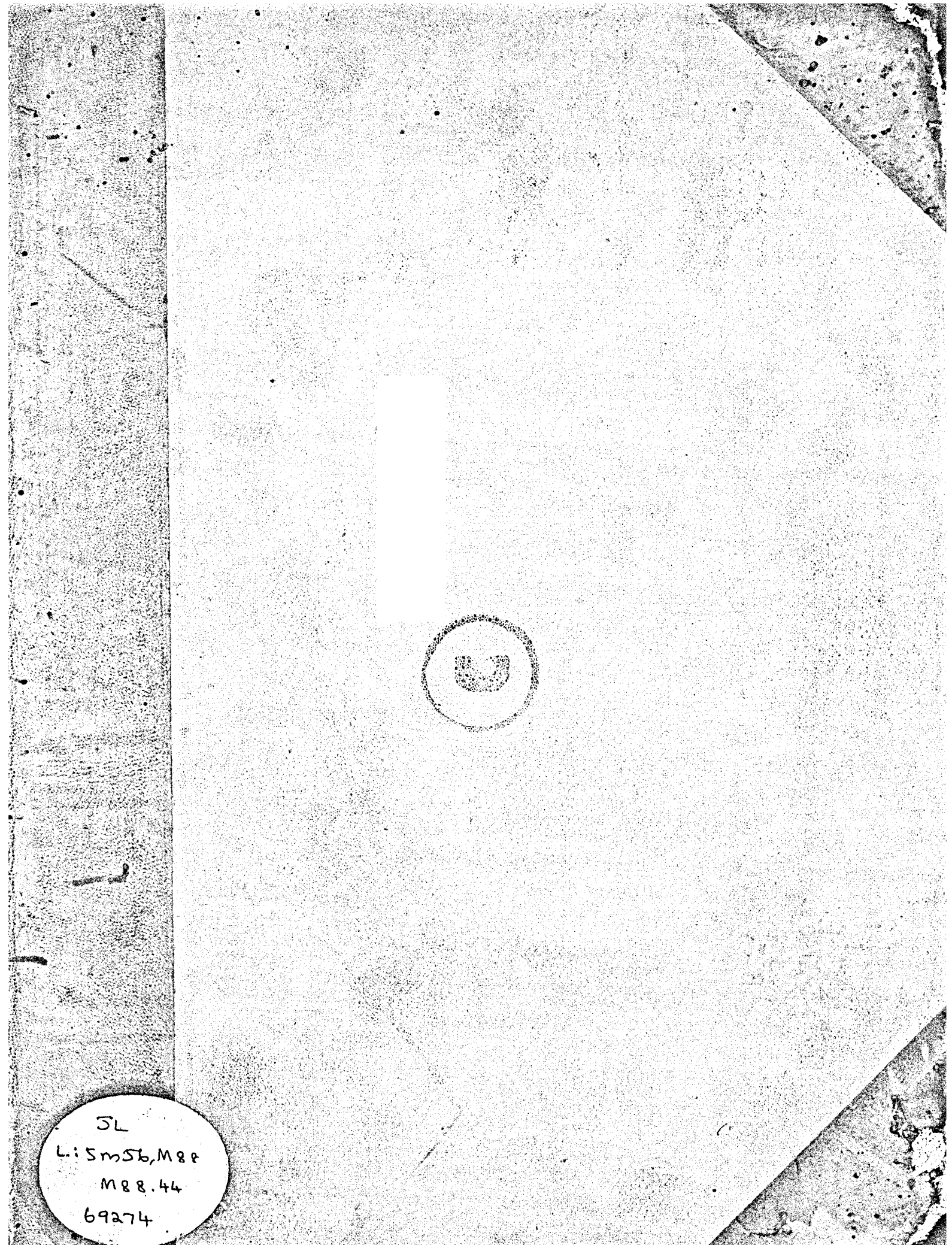




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PUBLIC HEALTH

THE JOURNAL OF
THE SOCIETY OF MEDICAL OFFICERS OF HEALTH.

No. 1. Vol. XLIV. OCTOBER, 1930.

PUBLIC HEALTH, the Official Organ of the Society of Medical Officers of Health, is prepared to receive a certain number of approved advertisements.
Application should be made to the Executive Secretary of the Society, at 1, Upper Montague Street, Russell Square, London, W.C.1.
Subscription price 31s. 6d. per annum, post free in advance. Single Copies, 2s. 6d. post free.

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Editorial.

The Ministry of Health Report, 1929-30.

THE Annual Report of the Ministry of Health* is a little later than usual in making its appearance this year, but if it is open to a medical officer of health to urge stress of work as an excuse for the delay in submission of his report, surely a department which deals with Local Government and Local Finance, administration of the Poor Law, etc., National Health Insurance and Contributory Pensions, in addition to Public Health and the Welsh Board of Health, may be excused if its report is issued a few weeks later than customary. As a matter of fact, an added excuse for delay on this occasion is provided by the work involved in connection with the

coming into operation of the Local Government Act. On account of this alone, delay might readily have occurred, and wonder may be expressed that preparation of the report was so expeditiously carried out. In the report the section dealing with this Act is one of extreme interest and space is found to pay a tribute to the work done by the old boards of guardians, who, as a whole, and in spite of widely divergent methods of administration amongst the 600 of them, did a difficult work extremely well. On the various matters with which the report deals under the headings mentioned, the information given is of the utmost value, and though the public health section not unnaturally is that to which the medical officer of health will devote most attention, there is practically no part that cannot be without interest for him. Specifically

* Cmd. 3667. H.M. Stationery Office. Price 4s. 6d. net.

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of these officers it is noted that during the year sixty-one new appointments were approved. At the end of the period it is pointed out that 366 out of 1,210 medical officers of health in England were whole-time officers, but attention is directed to section 50 of the 1929 Act which requires county councils, after consultation with district councils, to formulate arrangements, by combination of districts or otherwise, for securing that every medical officer of health subsequently appointed shall be restricted from engaging in private practice. Of local government officers generally it is interesting to find the Minister going out of his way to bring before the notice of local authorities the recommendation of the Royal Commission on Local Government relating to the undesirability of public debates upon the salary and promotion of individual officers. The Minister feels that to-day it is increasingly necessary to attract to the municipal service only the ablest men, and debate in public on the salaries to be paid to them is not likely to bring about such a result. Having regard to the work done by the Society and its salaries committee it is gratifying to find the Minister strongly recommending the adoption of definite scales, though he does not indicate in any case what the scales should be. The statistical information with regard to the prevalence of infectious disease is very full. It is a little surprising to find that scarlet fever cases notified numbered over 120,000 and diphtheria over 62,000 (fatality rate, 54.9 per 1,000). Smallpox cases totalled 10,967, compared with 14,787 in 1927 and 12,420 in 1928. Under grant aided health services and the Local Government Act, there is discussion of a number of matters relating to tuberculosis, venereal disease and maternity and child welfare. The number of institutions approved for the reception of cases of tuberculosis is now 498, the beds numbering 23,549. Dr. Camac Wilkinson's method of treatment by tuberculin is to be investigated in a sanatorium near London. The number of new cases both of pulmonary and non-pulmonary tuberculosis was lower in 1929 than in 1928, but though the number of deaths from the latter was less, more persons died of the pulmonary form in 1929 than in any year since 1925. In respect of venereal disease it is noted that there was an increase in the number of attendances at clinics, an increase in the number of cases of gonorrhoea and a decrease of more than 5 per

cent. as compared with 1928 in the number of cases of syphilis. In respect of maternity and child welfare it is shown that at March 31st, 1930, 401 authorities were carrying out schemes. The total expenditure was £1,642,188. The number of authorities who have made special arrangements for the institutional treatment of puerperal fever and puerperal pyrexia is increasing and further progress has been made in the provision of ante-natal clinics and beds in maternity hospitals. The infantile mortality rate was 74 per 1,000. Amongst the numbers of sections which provide interesting and useful information are those on inspection and supervision of food and housing. In the former, milk, of course, receives a great deal of attention and a great deal of space is devoted to a summary of the work done under the Acts relating to food and drugs. Breaches of the regulations relating to the use of preservatives were fewer than in the previous year and the percentage of milk samples reported as not up to standard was slightly lower than in 1928. Special reference is made to the discovery of tin in several samples of cheese sold wrapped in tin-foil. As, indeed, do practically all of the others, the section on housing really requires a note to itself. As evidence of the importance attached to it and allied subjects such as town-planning, some 40 pages of the report are devoted to it. In these, in addition to a great deal of statistical and financial information, statements are submitted to show the progress made by local authorities and others in order to meet housing needs, with references to particular schemes and their administration, to difficulties encountered and overcome. The descriptions of various town-planning and regional planning schemes are particularly fascinating and should be helpful and stimulating to all local authorities. The number of houses completed in England and Wales in 1929-30, it may be mentioned, was 202,060, bringing the total built since the Armistice up to 1,476,648. The total expenditure on housing schemes carried out by local authorities since the War up to March 31st, 1930, is estimated at £400,000,000. These are staggering figures, but they are not the only ones in the report, which, taken as a record of endeavour and achievement, is one of which the Ministry of Health and all concerned in the health administration of the country, if not, indeed, the nation as a whole, may well be proud.

The Lowestoft Meeting.

THE session 1929-30, in many directions an exceedingly busy one for the Society, was brought to a successful close by the provincial meeting held at Lowestoft on September 19th and 20th, which drew together a thoroughly representative gathering of members from all parts of the country. The chief feature of the business programme was a discussion on "The Public Health Significance of General Medical Service Schemes," a subject which at the moment is of especial concern to all members of the public health service. The Society may be congratulated in securing such outstanding contributions as those provided by the leading speakers—Dr. Astley Clarke, Dr. C. E. S. Flemming, Dr. H. P. Newsholme and Dr. A. M. N. Pringle. Those who were fortunate enough to be present at the meeting showed the keenest possible interest in the communications submitted, and it is intended to publish in an early number of the journal, for the benefit of the whole of the members of the Society, the full text of the opening papers, together with the discussion which ensued.

During their stay the visitors were the guests at luncheon of the Mayor and Corporation of Lowestoft, and this enjoyable function was followed by a launch trip on Oulton Broad. A note of these social activities, with full reports of the business meetings, will be found elsewhere in this issue, but the opportunity is taken here to repeat the thanks of the Society to the East Anglian Branch for the excellence of the programme provided, and in particular to Dr. Blackburn of Lowestoft, who was responsible for the local arrangements in connection with the meeting and spared no pains to ensure its success.

* * * * *

Maternal Mortality and Morbidity.

THE Interim Report of the Departmental Committee on Maternal Mortality and Morbidity* presents very grave reading.

One of the aims and objects of the Departmental Committee was to determine, where possible, the primary avoidable cause in each case investigated, and among these factors appears outstanding the lack of serious preparation for confinement made by the woman herself—failure to book a midwife; failure to attend an ante-natal clinic or her own doctor for ante-natal examination when advised; even failure to make rudimentary preparation in her dwelling for what may eventuate into a risk to

* H.M. Stationery Office, 1930. Price 2s. net.

life greater than that in a major surgical operation.

This general apathy of the woman herself towards pregnancy and its termination is almost criminal in some of the results and should be replaced by a cultivation of a sense of personal responsibility, possibly through the channels of education, if any serious reduction is to be made in maternal deaths.

If more than half the deaths investigated by the Committee are considered to have been preventable if proper ante-natal care had been taken, it is apparent that, in future, more attention will have to be given to an efficient ante-natal service.

Whilst accepting the recommendation that the proper person to conduct an ante-natal examination is the medical practitioner who will subsequently be called in during labour if a difficulty arises, it is no easy task, having regard to the exigencies of medical practice and ethics, for a local authority to provide such a service.

Admittedly, full-time medical officers in the employment of a local authority and engaged upon ante-natal work do not see the actual happenings at the time of labour and are not engaged upon work which brings them into close touch with obstetrics as recommended in the Report, but any abnormality of pregnancy found by such a full-time medical officer at an ante-natal clinic can be, and in a great many instances is, communicated in writing to the woman's own medical practitioner who will eventually be called in at labour should a difficulty arise. Conceivably a makeshift, the service now given appears to be the fullest a local authority can give until the time arrives when each pregnant woman is attended by her own doctor before, during, and after labour.

The recommendation that post-natal abnormalities be included in any national scheme for a maternity service can result in nothing but a great improvement in health to thousands of unfortunate women suffering from the vague morbid conditions which only too frequently result from childbirth.

Very valuable information is included in this Report upon light anaesthesia in confinements; upon antiseptics in midwifery; and upon the need for both an improved training of the medical student and for post-graduate instruction for the general practitioner. The whole Report gives a grave and sympathetic consideration to an intensely serious problem and is a very valuable contribution to medical science from the Ministry of Health.

Nasopharyngeal Bacterial Flora.

A more accurate knowledge of the bacterial flora of the normal nasopharynx is very desirable in estimating the importance of pathogenic bacteria in the causation and spread of diseases of the respiratory system. A valuable contribution to this knowledge has been made by a group of workers in Manchester.* Over a period of nearly two years, monthly examinations were made of the nasopharynx of samples of the normal population, varying in number from 70 to 200. The procedure adopted allowed of the identification of (1) the pneumococcus, (2) the influenza bacillus, (3) hæmolytic streptococci, (4) the meningococcus.

The tables and graphs published show marked fluctuations in the carrier rate for the first three groups, the most striking changes appearing in that for the pneumococcus. Graphs for the incidence and mortality from respiratory diseases, and notifications of scarlet fever in Manchester are given for the same period. As the authors of the report say, a far longer experience would be needed to establish the existence of a correlation between any variation in the nasopharyngeal flora and the fluctuations in the prevalence of a particular disease, but, as they suggest, similar surveys carried out in several localities and over considerable periods of time would probably yield a definite answer, and such an answer would be worth obtaining.

The Causes of Neo-Natal Death.

ANOTHER report has recently been issued through the Medical Research Council, as the outcome of work organised by their Child Life Committees, giving the results of work done by Dr. J. N. Cruickshank at the Glasgow Royal Maternity and Women's Hospital.† The author describes in detail the post-mortem findings in 800 infants who died from various causes during

* REPORT ON A STUDY OF THE NASOPHARYNGEAL BACTERIAL FLORA OF A GROUP OF THE MANCHESTER POPULATION DURING THE PERIOD JULY, 1925, TO SEPTEMBER, 1927. Ministry of Health Reports on Public Health and Medical Subjects, No. 58. H.M. Stationery Office, 1930. pp. 29. Price 6d. net.

† CHILD LIFE INVESTIGATIONS. The Causes of Neo-natal Death. By JOHN NORMAN CRUICKSHANK, M.C., M.D., F.R.F.P.S. (Glas.), M.R.C.P. (Lond.). Medical Research Council Special Report Series, No. 145. H.M. Stationery Office, 1930. pp. 87. Price 1s. 6d. net.

the neo-natal period; this period is usually taken as from birth until the end of the fourth week, but it is interesting to notice that of the 800 cases, some 71 per cent. died during the first week, all of which tends to corroborate the statement that "the first quarter of an hour after birth is the most dangerous period of life."

As a large proportion of deaths occur during the early days of life, their cause is to be sought in relation to the causes of stillbirth rather than in the conditions of post-natal life. Complications of labour are responsible for many cases of neo-natal death; and it is seen that asphyxia neonatorum, with other conditions associated with delivery, accounts for nearly 68 per cent. of the fatalities. Prematurity is a potent factor in accentuating the effects of asphyxia and atelectasis; and although prematurity is often due to ascertainable causes (maternal disease, toxæmia, hæmorrhage) in a large number of cases no reason for the premature labour can be found.

Various types of infection account for nearly 30 per cent. of neo-natal deaths; but the time of infection and the mode of infection vary and are often difficult to determine. While the skin and respiratory tract are frequently the portal of entry of infection, the gastro-intestinal canal and the umbilical stump are rarely to be incriminated.

Consideration of the various facts leads Dr. Cruickshank to suggest the general lines upon which preventive measures should run. In view of the large number of neo-natal deaths from asphyxia and birth injuries, increased efforts should be made to deal with preventable accidents and injuries incidental to delivery. Ante-natal supervision must be encouraged and continued up to the time of delivery, while education of the public must proceed as fully as possible. But there must be increased facilities both for ante-natal work and for the indoor treatment of obstetrical cases; and even more important than the premises is the improvement in the personnel, which will come with the better training of medical students and graduates and of midwives.

Dr. Cruickshank deals in a very able way with various other considerations, fully appreciating the financial and administrative difficulties. Particularly he pleads for a fuller application of physiological methods of investigation to the problem of neo-natal mortality. Physiology has assisted in a considerable degree the advances of pediatrics

and it seems clear that the co-ordination of obstetrician, physician, physiologist and pathologist should be of great value in attacking the causes of neo-natal mortality.

Sugar Estimations in Condensed Milks.

THIS is one of the best of the helpful brochures issued by the Ministry of Health in their series of Reports on Public Health and Medical Subjects.*

The author has undoubtedly made here a useful and even valuable contribution to the difficult subject of sugar estimations in condensed milks. His methods are described clearly, and provide a simpler and a more accurate means of making determinations of the sugars mentioned in the heading to the paper than has been hitherto available. He is not only to be congratulated on the method he has evolved, but also upon its presentation. In addition, his consideration for those, his weaker brethren, whose capacities or experience need the additional help of worked examples, is to be commended.

Many authors of original papers who are not blessed with Dr. Monier-Williams' gift of clear exposition might take a leaf from his book, and possibly express in figures what they fail to convey in words.

A Canadian Enquiry into Births.

A REPORT† containing *multum in parvo* has recently been published, dealing with the results obtained from the answers to questions which appeared on the birth certificates of eight provinces in Canada. The questions were based on the children of the mother in the case of each certificate, and had reference to the number born alive, number now living and number stillborn (born dead). The order of birth is determined by the number of children previously born alive or dead to the same mother; mothers of twins are counted twice and mothers of triplets three times, but as the proportion of these

* THE DETERMINATION OF SUCROSE, LACTOSE AND INVERT SUGAR IN SWEETENED CONDENSED MILK. By G. W. MONIER-WILLIAMS, O.B.E., M.C., M.A., PH.D., F.I.C. Ministry of Health Reports on Public Health and Medical Subjects, No. 57. H.M. Stationery Office, 1930. pp. 23. Price 6d. net.

† SPECIAL REPORT ON ORDER OF BIRTH OF CHILDREN BORN IN 1925. Demography Branch, Dominion Bureau of Statistics, Canada. Ottawa, 1930.

births is so small this treatment is not a matter of great significance.

The tabulations have been made according to the age of the mother; the age of the father was not tabulated, because there is in general a close correlation between ages of fathers and mothers, and because there is a much greater range of period of fertility in man than in woman. Other than age of mother, the basis of classification has been by provinces and by occupations of the fathers.

A vast array of statistical information is presented, and gives a representative notation of the fertility of marriages. There are comparatively wide differences in the rates for the various provinces of the average number of children born to married mothers under 45 years of age; and the table with the percentage proportion of stillbirths to total births by age-groups of mothers contains variations, the reasons of which must be of considerable biological importance. The tables of the number of children born to wives of men following certain occupations would seem to suggest the lowered fertility of the sedentary worker. Whether or not this will fit in with the idea that the higher temperatures of indoor workers affects *per se* the testicles is an interesting point; and how far general health or biological variation is concerned would provoke many a useful discussion. For fertility and progress are indeed connected in a subtle but important way.

The Registrar-General's Statistical Review.

THE review of the Registrar-General for 1929, recently issued*, records that the birth-rate for the year 1929 was 16.3 per 1,000 persons living at all ages. This is the lowest birth-rate since the establishment of civil registration in this country, the lowest rates previously being 16.6 for 1927, and 16.7 for 1928.

The death-rate was 13.4 per 1,000 of the total population, against 11.7 for the previous year: it is the highest rate since 1919, which had a figure of 14.0 based on the deaths of civilians only.

The increase in the death-rate was due almost entirely to the high mortality from respiratory

* Part I (Medical Tables) of the above publication is now on sale at H.M. Stationery Office. The price of the volume, formerly 15s., is now 7s. 6d.

and circulatory diseases and the epidemic of influenza during the abnormally severe weather in the months of February and March. The death-rate for the March quarter rose to 20.9, or no less than 5.8 per 1,000 above the average for the first quarter of the eight preceding years, while the rate for the remainder of the year was slightly below the corresponding average for the same period.

The deaths of infants under one year of age were equal to a rate of 74 per 1,000 live births, or nine per 1,000 above that recorded during 1928. Here again the excess was due to the high mortality during the March quarter.

With the exception of the pandemic of 1918-19, the epidemic of influenza was the most severe experienced in this country since the disease reappeared in 1890-91, the mortality being equal to 734 per million living against 196 in 1928. The mortality from respiratory diseases rose from 1,507 in 1928 to 2,104 per million, but the latter figure had been exceeded in 1920, 1922 and 1924. The mortality from circulatory diseases reached the record figure of 3,030 per million, due largely to the deaths of elderly persons during the cold weather of the first quarter of the year.

The death-rate from cancer was 1,437 per million living, against 1,425 for the previous year, thus continuing the steady though slight increase over all recent years, and being the highest crude rate recorded. The increase affected both sexes, but was rather greater for females than for males.

The mortality of women from puerperal sepsis and accidents of pregnancy and child-birth was 4.33 per 1,000 live births, compared with 4.42 in the previous year: the improvement was not in respect of puerperal sepsis, which increased slightly, *i.e.*, from 1.79 to 1.80, but in "other accidents of pregnancy and child-birth," which improved from 2.63 to 2.53. Although lower than that in 1928, the combined rate is still above the experience of the seven years, 1921-27.

The rate for suicide, which had declined in 1928, showed in 1929 a rise to 126 per million, the highest figure on record, the rate for females (73) being the highest on record, and for males (183), only one per million less than the male record in 1927.

Deaths returned by H.M. Coroners as resulting from accidental injury by mechanical vehicles on roads increased from 4,492 in 1927, to 5,251 in 1928, and 5,799 in 1929. Exclusive of collisions between two different types of

vehicles, the deaths caused by motor-cars increased from 1,550 to 1,660, and those by motor-cycles from 1,043 to 1,162, while in respect of motor vans, lorries, etc., the figures rose from 938 to 1,162.

* * * * *

Infant Welfare in Amsterdam.

FEW critics will deny the educational power and value of infant welfare; and it was largely because this work serves as a means to raise the cultural level of the population that the project was taken over in 1920 by the town council in Amsterdam. In his foreword, Dr. L. Heijermans, Director of the Municipal Health Service, points out that it is, indeed, striking to notice the educating influence which emanates from infant welfare; and the very good results which have already been obtained make a pleasing object lesson. This is more particularly praiseworthy because it has never been the practice to entice mothers by promising premiums or giving food preparations, although the allowance of milk to nursing mothers in certain cases is permitted. That half of the mothers in Amsterdam make full use of the infant welfare organisation is due entirely to the confidence which this division has created for itself.

A review (in English)* is given of the work done for children who were born in the years 1922-1926 inclusive; there are now some seventy-two consultations held weekly, a fact which indicates the steady expansion, still proceeding, from the early voluntary start in 1903. The organisation includes a whole-time chief of this division, with a number of part-time infant welfare doctors, full-time infant welfare nurses, municipal midwives and social nurses, regular meetings of the staff being held to discuss points connected with the work. Approximately half the children born in the municipality attend the welfare centres, and this figure is increasing, while there is an admirable increase in the average time during which each child remains under the control and influence of the centre. The number of children who were only taken once has sharply fallen to a very low level. On the whole, almost three-fifths of all the welfare children are fully breast-fed for at least three months; one-fifth are mixed-fed and one-fifth are artificially fed or the method is not known.

* FIVE YEARS OF MUNICIPAL INFANT WELFARE, 1922-1926. Municipal Health Service of Amsterdam (Medical Statistical Department). Amsterdam: H. J. Paris, 1929. pp. 29. Price 1s. net.

The infant mortality shows a steady satisfactory decline, but it is evident how heavily the mortality in early infancy governs the whole rate. The deaths in the first few days have been reduced, and this decline may be accentuated when the influence of ante-natal work reaches a fuller measure.

The statistical work was undertaken by Dr. C. J. Brenkman, Leader of the Medical Statistical Department, and the general review of a five-year period is most valuable when it is laid open and bare by the sober and reasoned judgment of the statistician. It gives those in authority the chance to check their bearings, correct if necessary their course, and progress through the next five years to even richer and more fruitful lands to be conquered.

* * * * *

Obituary.

WE record with great regret the death on August 25th of Dr. John Thomson Wilson, formerly medical officer of health for the county of Lanark. Dr. Wilson was a native of Cambuslang, and graduated at Aberdeen University in 1891. He first assisted Professor Hay in Aberdeen, and afterwards was assistant to the medical officer of health of Shropshire. He was appointed as medical officer of health for the county of Lanark in 1894, and in subsequent years, prior to his retirement, initiated the big hospital and sanatoria schemes for which Lanarkshire is noted. In 1910, at the request of the Scottish Local Government Board, he prepared an exhaustive report on the housing of miners in Lanarkshire. The report, which embraced a mass of details, showing with exactitude how 55,000 miners and their families were housed in the county, laid the foundation for the big improvement that was latterly effected in the miners' housing and environment in Lanarkshire. Dr. Wilson was a past president of the Scottish Branch of the Society of Medical Officers of Health, and of the Incorporated Sanitary Association of Scotland. He was examiner in public health for the University of Aberdeen, and for the University of Edinburgh. On the occasion of his retirement he was presented with a substantial testimonial from the members and officials of Lanark county council. Dr. Wilson is survived by his wife.

The Society also mourns the loss of Dr. Rowan McCombe, Medical Officer of Health

of Margate for the past sixteen years, who died on September 11th, after an illness of three weeks' duration. In addition to holding that appointment he was also school medical officer and police surgeon. Formerly engaged in general practice in the town, he was a member of the honorary staff of the Cottage Hospital, and succeeded the late Dr. Bertram Thornton as medical officer of health in January, 1914, being the first whole-time official. Dr. McCombe, who was in his sixtieth year, studied for the medical profession in Dublin, and was a F.R.C.S.I., and also held the D.P.H. of the Irish Royal Colleges. He possessed a kindly disposition and was highly respected in the borough, taking a keen interest in his duties, particularly those connected with his work as school medical officer and medical officer of the maternity and child welfare centre. He will be much missed by teachers and parents, while the town council have lost a conscientious officer. Dr. McCombe leaves a widow and two children.

DR. RICHARD TOLEMAN has been appointed Assistant Medical Officer of Health and School Medical Officer for Bristol at a commencing salary of £600 per annum.

DR. C. METCALFE BROWN, Assistant County Medical Officer, who is leaving the service of the Leicestershire County Council to take up the appointment of Tuberculosis Officer at Kingston-upon-Hull, was, on September 5th, presented with a morning tea set, fruit dish, and ash tray, by Dr. Fairer, County Medical Officer, on behalf of the medical, dental, health visiting and clerical staff of the county health department.

THE Harben Lectures will be delivered in the Lecture Hall of the Royal Institute of Public Health, 37, Russell Square, London, W.C.1, by Professor William H. Park, M.D., LL.D., D.Sc., Director of the Bureau of Laboratories, Health Department, New York City, on "Pneumonia," as follows: Lecture I, October 6th, 4 p.m., "The Types of Pneumococci in Adults and Children and Their Significance." Lecture II, October 7th, 4 p.m., "The Epidemiology. The Refining of Antipneumococcus Serum." Lecture III, October 8th, 4 p.m., "The Therapeutic Use of Vaccines and Antibacterial Sera." No ticket of admission is required.

The Municipal Dental Service.

By W. G. SENIOR, L.D.S., Senior Dental Surgeon, County Borough of Croydon.

Readers will, it is certain, be glad of the opportunity of seeing this extremely thoughtful and practical paper by a writer with great experience in the dental service, and noting the breadth of the view taken of the situation created by the appointment of specialist officers by local health authorities. The paper was read at a meeting of the Dental Officers' Group of the Society.

ALMOST a quarter of a century ago the Cambridge Dental Institute commenced its pioneer work in the treatment of school children, for it was in August, 1907, that the Institute was opened. This year sees the fiftieth anniversary of the British Dental Association, a body responsible for investigations into the dental health of the school child as long ago as 1891. Since those days the work and status of the school dentist have changed out of all recognition, and though it is impossible within the limits of a short paper to pay honour to all who have worked to bring about this change, it should be placed on record that the efforts of our profession have been ably seconded by medical officers who have constantly urged extensions of dental treatment. That this is so is borne out by a succession of annual reports presented by medical officers of health in various areas reiterating the need for more dentists.

It has been enacted by Parliament that local authorities may provide for the dental inspection and treatment of elementary school children, expectant and nursing mothers, children of pre-school age, and tuberculous patients. They may, in addition, inspect and advise as to treatment in secondary schools, treating scholarship holders. As to the latter, it would obviously be unfair that children should, by virtue of gaining scholarships, disentitle themselves to treatment they would have received had they remained in primary schools. No mention is made of dental treatment in the Local Government Act; one supposes the treatment formerly provided by the guardians will now be administered by the public health departments, where it is so delegated by the public assistance committee, and will eventually devolve on the municipal dental surgeon.

From the foregoing brief survey it will be observed that the field for our activities has widened considerably, and that there is a very real opportunity for sound preventive work.

The Board of Education and local education authorities are responsible for the provision of dental inspection and treatment of school children; the Ministry of Health and local authorities for maternity and child welfare and tuberculous patients. This division of responsibility is reflected throughout the country in the organisation of dental schemes. In some areas, for example, school dental and maternity and child welfare schemes are in watertight departments, the former being administered by the school medical service, the latter by the health department. In other areas the three schemes are administered by the health department by arrangement with the committees concerned. The latter method is typical of the trend towards what one might term rationalisation of public service, and from our point of view is the ideal method, as it enables the same dental surgeon to be in touch with a child from earliest years to adolescence. There are many other advantages, not the least of which is economy. The following up of dental cases can be much more satisfactorily carried out by visitors common to the three services, as they have, by reason of home visits in connection with baby work, obtained the confidence of parents. Under the separate services method we have the spectacle of homes being visited by two sets of visitors—health and school—with annoyance to parents and, what possibly may be more serious, often with views that differ as to the necessity for dental treatment. There is also to be considered the break in continuity of examination and treatment when the child is handed over to the school medical service at five years of age. Finally there is the London County Council dental scheme, which so far as one is aware, is the only one of its kind in existence. The London County Council employ dental surgeons, termed inspecting dental officers, who carry out the inspection of elementary schools. The treatment is carried

out at clinics set up and administered by voluntary committees, the County Council paying the cost of treatment. Conditions, due to the huge areas administered by the London County Council, have led to the inception of what many of us may regard as a curious scheme, yet the fact remains that wonderfully good results are being obtained. The success is attributed to the fact that local committees understand local conditions, and also to the very excellent voluntary care committees.

Of the two main systems described, the second—unified control—is that to which the term “municipal dental service” may be applied.

In order that such a scheme may be successful it is essential that the staff should be capable of dealing with the volume of work. It is generally agreed that a single-handed dentist can deal comfortably with 5,000 children in urban areas; in county areas the figure should be smaller. Cambridge—the pioneer—have but 3,500 per dentist, and in consequence they are able to devote valuable time to the teaching of preventive methods. Very few areas can show as low a figure as 5,000; in many it is so high as to be obviously absurd. Understaffing must lead to hurried work or to the deliberate exclusion of age groups, and this Society should press for the ideal—3,500 children per dentist.

The time to be allotted to the three divisions of the work—school; maternity and child welfare; and tuberculosis—is based usually on a total of eleven sessions a week, the total cost of the scheme being borne by the various committees in proportion to the sessions devoted to their patients. The general rule is ten-elevenths school and one-eleventh maternity and child welfare and tuberculosis.

It is essential that the time of each session should be fully occupied if the scheme is to be economical, and to this end school inspections and visits to centres must be balanced with treatment sessions so that an even supply of patients is ensured.

With regard to school inspection, procedure varies in different areas. We have found the following method satisfactory. The dentist enters on the child's chart the number of temporary and permanent teeth sound, saveable and unsavable, and the chart is passed to the dental nurse. She makes out a consent form bearing the child's name, address and school. A space is provided for the insertion

of the number of fillings and extractions required. The body of the form contains advice on the importance of obtaining dental treatment, and at the foot there are two declarations, one of which the parent is invited to sign: (a) I wish my child to be treated at the council's dental clinic; (b) I wish my child to have private treatment. A carbon copy of the form is filed at the clinic and ultimately destroyed on the return of the original; in the event of non-return the carbon may be issued for following-up purposes without further clerical work. The original forms returned are divided into consents awaiting appointment, private dental consents, and refusals, these latter replies being noted on the dental charts. By the above method we have a supply of cases who, but for ill-health, are almost certain to attend when sent appointments. We have signed consent to the treatment advised, and we have written proof that treatment was either refused or promised privately. This is most helpful when at a later date our help is requested on account of urgent toothache, the parent protesting that “He has never been seen in school,” or “I said I would have him done but he has not been sent for.” It should be added that the inclusion of details of treatment required on the consent form is of use in making appointments and in following up, when it enables health visitors to explain more fully to the parents.

Appointments are sent to school and given to the children by head teachers, thus gaining the co-operation of the school, and also enabling the teachers to know which children are likely to be late owing to attendance at the clinic. The appointments are made for definite times providing an even flow of work and avoiding long waiting.

Clerical work is unavoidable, but it should be of the minimum necessary to ensure proper records being kept. Careful filing of charts makes possible one entry, of treatment carried out, on the chart alone. One has heard of three separate records of each child's treatment! A “daily work sheet” plays an important part in our organisation. This sheet bears the name, address, school and time of appointment of all the children sent for each session. In addition, columns are provided which show whether the child is a special, pre-tensions and adenoids, or routine case; by means of two other columns headed “maternity and child welfare” and “tuberculosis,”

the sheet may be used for such patients, thus simplifying printing accounts. All these details are entered by the clerk when the appointments are being made; there only remains the time of arrival and departure and fee paid to be entered by the nurse in attendance. The dentist has to enter "yes," "no," "gas," in the column provided. Without further clerical work the sheet provides an answer to queries by auditors, health visitors following up special cases, head teachers, and it is the source of appointments for re-visits.

Treatment should be of the best and fullest nature, for it is more economical to treat one child thoroughly than three partially. In this connection one is alarmed at the view expressed in some quarters that temporary teeth should not be filled, and to know that dental officers are being told to cut down the time spent in this work. Every instance of this heresy that comes to the notice of the Group should be met by protest backed up, if possible, by the Council of the Society. The question of regulation work was discussed very fully at a recent meeting of the Group, and so far as one knows has been discussed for a number of years and appears to bristle with difficulties. No hard and fast rule can be laid down as to details of treatment; for example, copper amalgam proves in one man's clinic as good a filling material as silver in another clinic; one man gets perfect results with local anaesthesia, another uses nitrous oxide, still another advocates ethyl chloride.

Payment for treatment is the subject of varied opinions. We charge 6d. per visit and 1s. 6d. when "gas" is required. It is made quite clear to the parents that the charge in no way represents the cost of the treatment the child receives, and they are invited to make voluntary contributions, a box being provided for this purpose. We find these charges do not affect attendances in the least, nor is there now any tendency to judge the work by the fee paid. The voluntary contributions reach a respectable sum in the course of a year. No fee is required in necessitous cases.

"Special" or "urgent" cases are a nuisance and, like the persistent refuser, damage most schemes. We have set aside two periods of an hour, on Mondays and Wednesdays, when urgent cases may attend. They must first obtain from the head teacher a request form for urgent treatment and it must be signed by the parent. This procedure entails

a certain amount of trouble at school and at home and results in only urgent cases being sent for treatment. As most of the cases are old refusals one feels that the above arrangement is the only one possible if routine work is not to be interfered with. Persistent refusers may be made to see the error of their ways through prosecution, but the time and trouble required to obtain a conviction are very great, and one is convinced that it is time mis-spent. It is preferable to re-inspect and offer treatment in the hope that the force of example will gain what a police court fails to gain—real appreciation of dental treatment.

Maternity and child welfare dental work provides a welcome change from school work. Probably the pleasantest side is the visits to centres; it is an important side, too, as contact is made there with the mothers at an early stage in the child's life. Confidence gained at this time by a few words of advice on teething or habits or on the mother's dental needs is invaluable. Time does not allow of many visits to centres in the course of a year, so that the supply of work depends on medical officers of centres, and it should be urged on them that expectant mothers be dentally examined as soon as possible. Young children are seen at centres up to the age of five; it is the experience in most areas that they cease to attend after two years of age, and so remain out of touch during the most important years both from dental and medical points of view. To meet this difficulty we warn parents that children failing to attend regularly at infant centres will not be eligible for dental treatment.

One of the difficulties in persuading mothers to accept treatment advised used to be the difficulty of obtaining dentures; this is no longer an obstacle, as most clinics now supply dentures. It is essential to enquire into home circumstances to be sure that the patient cannot afford private treatment. We require the patient's signature to a statement of income, and on this statement is based any reduction of fees which may be considered necessary. The fees charged for dentures are those charged to us by a mechanic to the profession, and payments are arranged so that they may be spread over the period of extractions and subsequent fitting of the denture. In the event of the payments not being completed by the time the teeth are supplied, the collection of the balance is undertaken by the Borough Treasurer's department.

It may be of interest to note that in con-

nection with the treatment of expectant mothers our experience has been that urgent treatment only should be carried out during the first three months; during this period we use local anaesthetics. From three months to full time we use nitrous oxide, and find patients suffer less shock than with the use of locals. It is, of course, important that the anaesthetist should be used to this type of patient, that the anaesthetic should not be pushed too far, and that cyanosis and jactitation (both signs of bad anaesthesia) are avoided.

With regard to tuberculous patients, these may be referred for treatment by the tuberculosis officer or in some areas they are treated at sanatoria. Where such patients are treated at the same clinic as school children and maternity and child welfare patients, separate gas-bags and face-pieces must be provided; they must not attend at the same time as other patients, and the rooms used must be disinfected.

The tuberculous patient, once confidence is secured, is, in our experience, an easy type of patient to treat. We rarely extract under general anaesthesia as we have found relapses following such administrations. The number of extractions should not exceed two or three per visit, and the reaction will be found to be comparatively slight. Healing may be delayed longer than normal, possibly due to an impaired capacity for repair of tissue damage. This should be borne in mind in the fitting of dentures, as the process of absorption appears to extend over a long period so that dentures often require re-making.

The foregoing appear to be the chief points of interest arising in connection with the various branches of work. There are, however, one or two points of general interest affecting the work as a whole which should be discussed. The question of nursing assistance has been raised once more by the action of a teaching centre instituting a course for dental hygienists. Where maternity and child welfare cases are being treated it is most essential to have a fully trained nurse in attendance; during school sessions a dental attendant is all that one requires. If there are two or more dental surgeons employed, the solution is to appoint a qualified nurse in charge and two attendants. A place may be found in the service for dental hygienists, and personally I believe they would be of use, but it would be more satisfactory to us if the Ministry of Health insisted on the appointment of sufficient dental surgeons to meet the

real needs of the school population. The question of salary has been discussed and a scale has been adopted. The latter may prove double-edged, in that local authorities, while accepting the minimum, fail to remember the maximum.

Finally, the question of status is a matter of some difference of opinion amongst school dental officers, many holding that a dentist should not "have to work under the eye of a medical man," but that he should have "complete freedom of action." One has never quite understood what was meant by this expression, for if it refers to treatment, then a difference of opinion should never arise except where, for example, a dental officer adopts an unusually costly line of treatment or wishes to instal special equipment. The difference of opinion would then be between himself and the committee, and ultimately the ratepayers, unless the medical officer of health cared to intervene. There have been cases of friction, but may they not have been due to quite understandable ignorance of dental needs on the part of the medical officer, and inability to make clear these needs on the part of the dental surgeon? From the point of view of economy and administration it is essential that there should be one executive head of the health department, and under him, and responsible to him, specialist officers in charge of their departments. Where there are a number of dental surgeons, the senior dental officer would be in this position, in exactly the same way as the tuberculosis officer, the bacteriologist, and the eye specialist, each practising their speciality under the supervision of the medical officer of health. There should be no loss of professional prestige, which appears to be the point at issue; rather should it promote efficiency, team work, and what is our ultimate goal—real preventive medicine.

THE National Council for Mental Hygiene announce a series of six lecture-discussions to be delivered in the Lecture Room of the Medical Society of London, 11, Chandos Street, Cavendish Square, London, W.1, on Thursdays, at 5.15 p.m., commencing October 16th, 1930. Full details of the course may be obtained from the Secretary, National Council for Mental Hygiene, 78, Chandos House, Palmer Street, London, S.W.1. THE Second Mental Health Conference, organised by the Council, will be held in May, 1931. Further particulars will be announced later.

Oral Sepsis and Ocular Disease.

By A. F. MACCALLAN, C.B.E., F.R.C.S., Surgeon, Royal Eye Hospital;
Assistant Ophthalmic Surgeon, Westminster Hospital.

In this abstract of a paper read before the Dental Officers' Group, Mr. MacCallan deals with a number of new points and issues some reminders in connection with the subject of his contribution which will be found of interest to readers of the journal generally.

AS a matter of practical experience, it has been found that certain ocular diseases have been cured in a number of cases by the elimination of oral sepsis. These are increased lacrymation, blepharitis, episcleritis of the sub-conjunctival variety, ulceration of the cornea, iritis and cyclitis.

This statement by no means implies that all cases of these diseases are amenable to this treatment in conjunction with local therapy, since many of them have a specific origin and have no relation to oral sepsis.

The possible aetiology of every case of ocular disease should be investigated, and in many cases it will be found that there is more than one causative factor. For instance, in a case of iritis there may be evidence of syphilis as shown by a positive Wassermann reaction, as well as severe oral sepsis, and perhaps, in addition, definitely septic tonsils. In such a case it may be that it is the teeth or the tonsils alone which are the exciting cause.

My experience has shown that there are a number of other ocular diseases which are almost invariably associated with oral sepsis but in which a cure cannot be expected after elimination of the focus of sepsis. Nevertheless, the focus should always be dealt with, since in some cases an amelioration or even an arrest of the disease may be obtained. Such diseases are cataract, glaucoma, and thrombosis of the central artery or vein of the retina.

The question will naturally be asked: "By what ocular signs does one recognise oral sepsis?" The reply is by observing the signs pointing to one of the diseases which I have just mentioned, and excluding the other possible causes. There are, however, certain other ocular signs which are frequently associated with oral sepsis; these are very slight opacities in the lenses, only seen after the pupil has been dilated, the appearance of opaque curtains or networks in the vitreous, hyperæmia of the retina about the macula,

patches of choroiditis, and progressive myopia. It must be remembered that each of these phenomena may have causes other than focal sepsis.

In children the ocular defects which can sometimes be attributed to oral sepsis are blepharitis (inflammation of the lid margins), conjunctivitis, ulceration of the cornea, phlyctenular conjunctivitis and keratitis, and in some cases progressive myopia.

These conditions in children may be associated with the gingivitis which often accompanies enlarged tonsils and adenoids, the stomatitis which occurs in specific fevers, and with merely carious teeth.

In adults the more usual forms of oral sepsis which lead to ocular changes are carious and septic teeth and stumps, apical abscesses, the buried fragments of previously extracted teeth, unerupted impacted teeth, residual sepsis and pyorrhœa alveolaris.

In hospital practice among adults the most frequent variety of sepsis found is the "open" variety, as exemplified by chronic gingivitis, pyorrhœa alveolaris, carious teeth and septic stumps. Less frequently cases of "closed" dental sepsis are seen, such as buried fragments of previously extracted teeth, unerupted and impacted teeth, and residual sepsis.

In private practice among adults the more frequent cause of oral sepsis is the apical abscess under a crowned tooth, the root of which may or may not have been adequately filled.

It is, of course, clear that such conditions as buried fragments of previously extracted teeth, unerupted impacted teeth, residual sepsis and apical abscess cannot be stated to be absent in many cases until satisfactory dental radiography has been carried out.

When, therefore, it is desired by a medical man, who is not a dental surgeon, to determine whether or not the mouth is healthy, it is

necessary to do more than ask the question if the patient has any teeth, for a patient may believe himself to be edentulous and yet have been left with a stump protruding from the gum, over which a plate is worn. More than this the patient may have buried fragments, an unerupted tooth, or residual sepsis, any one of which may seriously militate against the success of a cataract extraction operation.

As a preliminary to all intra-ocular operations (indeed, the precautions I am about to mention are already adopted by several general surgeons in London) the teeth should be examined and scaled (unless this has been done within a month), all defective teeth should be removed, and wherever there is any indication for the procedure, dental radiography should be carried out.

Some years ago when I was obliged to do a large number of cataract extractions without any possibility of getting any skilled dental treatment, I got good results by having the teeth brushed with soap and chalk powder under supervision after every meal, and once a day getting the teeth and gums carefully swabbed with tincture of iodine. This was carried out for a week before operation.

What is the channel whereby toxic products or bacteria (and it is usually the former) reach the eye from the mouth? There is the ever open channel, the nasal duct, communicating between the conjunctival sac and the nose, and there is no doubt that in certain cases pyogenic bacteria do travel from the mouth to the eye by this route. However, it is far more commonly the case that toxic products are absorbed from the mouth into the lymphatics or directly into the veins. Thus obtaining access to the blood stream they are carried to the eye and other parts of the body.

When, as a preliminary to operation, it has been decided to clear the mouth, or remove a number of teeth, the question is usually raised: "Shall the mouth be cleared at one séance, or shall the teeth be extracted by instalments?"

Another question which should be raised is: "Shall the dental operation be performed under local anaesthesia, under nitrous oxide gas, with or without oxygen, or shall it be performed under general anaesthesia?"

My opinion on these points is as follows:—

(1) Where there is an inflammatory condition of the jaws, or where there is ocular

inflammation, local anaesthesia is contra-indicated.

(2) In my experience there is no more increased toxæmia resulting from a complete operation if it is carried out under hospital conditions and if, after careful extraction of the teeth, the mucous membrane is sewn up over the alveolar margin, than after the extraction of two or three teeth with the sockets left gaping.

Such an operation must be performed under prolonged gas and oxygen or under a more adequate general anaesthetic. Hospitalisation for a week is essential as there is a considerable amount of shock and toxæmia.

The question of the advisability of applying vaccine therapy frequently crops up in cases where it is established that ocular complications are the result of focal sepsis in the mouth. In my opinion it is dangerous to give vaccines until the septic focus has been cleared up. When this has been done vaccine treatment is of definite value in certain selected cases. The vaccine must be autogenous.

In conclusion, I wish to say a few words on unerupted impacted teeth and on residual sepsis. Experimentally it has been shown that all unerupted impacted teeth are infected with a hæmolytic streptococcus. Whether or not local or general complications result depends on the individual resistance that is available. In many cases the resistance is sufficient to counteract the effect of the constant pouring into the blood stream of toxic products. This may be effective over many years, but a time will come when, as a result of some physical shock or of prolonged subjection to cold, the resistance is lowered. Then the defensive mechanism of the body is unable to withstand the toxins and something happens. It may be an ocular disintegration or it may be an inflammation of the appendix or of the gall-bladder, or it may be a blood change, as in some forms of anæmia.

In some forms of residual sepsis there is very little to go on. Perhaps the dental radiographs show merely a feathery condition of the jaw where extractions have been carried out at some more or less distant date. Here it is advisable to make spear cultures from the jaws in order to determine whether or not there is any residual infection. If such is found some form of scraping operation is usually required, followed in some cases by an autogenous vaccine treatment.

Ut Ita Dicam.

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

Lowestoft.

It is a dreadful confession to make but the reason why I was unable to attend the meeting at Lowestoft, was because I was on my annual holiday and, being where the weather was decent, was unwilling to leave it for the awfulness of my native climate. For this reason—and I dare swear it is a better one than the many who did not put in an appearance could advance—I must rely upon second-hand reports for information as to what occurred. From these I learn that though the attendance was meagre and the climatic conditions—not unexpectedly—rather unpleasant, the meeting may be described as successful. Of this I am very glad. Dr. Blackburn, of Lowestoft, who was largely responsible for the arrangements for the comfort and entertainment of the visitors, spared no pains to ensure these things. In his efforts he was well backed by his colleagues in East Anglia, and it was because of him no less than because of a desire to honour the Society that the Mayor and Corporation of Lowestoft so readily and splendidly were prepared to act as hosts.

Business Done.

One most enjoyable function was the reception by the Mayor of Lowestoft on the Saturday, which preceded the luncheon given by the Mayor and Corporation. For a variety of reasons there was little of speech-making on this occasion, but the President (Dr. J. J. Buchan), in thanking the hosts, most adequately and appropriately expressed the appreciation of the Society as a whole for the opportunity that had been offered for holding the meeting in Lowestoft, for the honour shown and the kindness and hospitality given. The Council on Saturday morning dealt mainly with routine matters, approving and adopting, amongst other things, the annual report. One item, on this that may be noted is that relating to the resignation of Mr. G. S. Elliston from his position as Secretary after twelve years of hard and useful work for the Society. If for no other reason than that it is the last that George Elliston will attend as Secretary, this meeting at Lowestoft may be counted as noteworthy. It is gratifying that the Society is not to lose his services entirely, since he will retain his connection as Consultant Secretary. The decision that he should be a guest of honour at the Annual Dinner, with Sir Andrew

Balfour, Sir Eustace Hill and Dr. Willoughby, is one everybody will applaud. The discussion at the ordinary meeting on the Friday afternoon upon "The Public Health Significance of General Medical Service Schemes" proved extremely practical and attracted a number of speakers. The attendance, though on the small side, was representative of most parts of the country. As provincial meetings must always do, this one at Lowestoft will do good, and personally, I am sorry I could not be present to support the President and show, instead of merely expressing here, the warmth of my appreciation of the kindness and hospitality of our fellows in East Anglia.

The Late Dr. J. T. Wilson.

I knew both Dr. J. T. Wilson and Dr. Rowan McCombe, of whom, I am sorry to say, obituary notices appear elsewhere, rather well. Like quite a number of men in the service—the President amongst them—I was one of J. T. Wilson's young men in Lanarkshire. The thing that impressed me most about him was his quietness. He was extraordinarily efficient too, however, terribly hard-working and conscientious. One of the first of my chiefs in the service, I held him in high reverence and as the years went on I never lost that nor the affection I had for the very quiet man who seemed to know so well how to manage committees. I was young then and rather afraid of bodies of that sort, even the small and rather unimportant one with which I had concern, and Dr. Wilson's off-hand way with them used to fill me with alarm. His experience with committees and councils must have been vast, since, in addition to being medical officer of health for the county of Lanark and the holder of the most important post in Scotland, he acted in that capacity for a number of areas within the county. In his time he must have seen an unexampled variety of work, and partly for this reason and partly because of the man himself and what he could and did teach, it was regarded as a very great score to be appointed to a post under him. Certainly very many of those who were with him have done well. This was a source of very great satisfaction to him, and he was always delighted to hear of progress made by any of them, and anxious and willing to assist in that progress or with advice and guidance when difficulties or problems appeared. It was

with sincere regret that I heard the news of his passing. In his day he was a big man in the world of public health, and without question he is to be counted as one of those to whom public health and the public health service of to-day are deeply in debt.

The Late Dr. Rowan McCombe.

Dr. Rowan McCombe, I imagine, until the congress of the Royal Sanitary Institute was held at Margate this year, was known to a comparatively small circle of medical officers of health. Yet he had been in charge of health work in Margate since 1914 and was a most successful and highly esteemed officer. Myself, I came into contact with him in connection with the preparations for the congress, and found him keen to ensure the success of the meeting and to make of the occasion something noteworthy for the borough, whose welfare and prosperity he had so much at heart. Rather reticent, he was easily worked up to enthusiasm, particularly on any subject affecting infant and child welfare. In part his quietness was a matter of health. He did not impress as being a particularly robust man, though he worked very hard for the congress and up to the moment it ended. Having got to know him at Margate I, like many others, who met him there, had looked forward to seeing him taking a more prominent and active part in the work of the Society, and I regret intensely that it was not to be.

The Factory Report.

The report of the Chief Inspector of Factories and Workshops appears to me to become more and more interesting every year. This, I imagine, is because it becomes more and more medical. As for the medical part for which Dr. Bridge is responsible in that for 1929,* as he has been for some years past, this is certainly more interesting than it was in the old days. Because, on evidence submitted by Dr. Bridge that the work of the medical inspectors had greatly increased, the Factory Staff Committee have recommended that additions be made, the medical section and the report as a whole are sure to become increasingly interesting. Even with the existing staff, large numbers of important investigations have been made, not all of them, though Dr. Bridge says, on account of the work done in that connection, the present period should be known as the "Dust Age,"

* Cmd. 3633. H.M. Stationery Office. Price 2s. 6d. net.

into problems relating to the effect on the lungs of dust of all kinds. Silicosis and asbestosis certainly did receive a vast amount of attention, and there is a very full summary of a report prepared by Dr. Merewether on the subject. The object of the investigation was to determine what pulmonary affections, if any, workers exposed to the inhalation of asbestos dust are more prone to contract than the general population. The outcome of the enquiry was to establish the occurrence of a definite type of fibrosis quite different from that produced by free silica dust, and that amongst asbestos workers or amongst cases of fibrosis in such workers there appeared to be no outstanding susceptibility to pulmonary tuberculosis.

Industrial Dermatitis.

Dermatitis and a number of processes in which there is liability to skin injury are very fully discussed by Dr. Bridge. Bakers' dermatitis particularly was investigated but little that was new was revealed. It is reiterated in the report that in many cases dermatitis can be prevented by close and daily attention to cleanliness effected by non-irritating substances; by prompt first-aid treatment of injuries; by periodic inspection of hands and arms; by the use of lanoline and vaseline ointment at night and, where work permits, before work; and by the use and care of protective gloves where provided. Chronic ulceration, it is noted, is on the increase, mainly because of the increase in the demand for chromium-plated articles. The effects of chromic acid are local, and the precautions necessary are localised exhaust ventilation, suitable protective clothing and attention to minor accidents. Epitheliomatous ulceration is apparently decreasing and there is reason to hope that with increasing knowledge of the causation there will be further reductions. Amongst others of the notifiable conditions, lead poisoning, always interesting and important, is also declining. The number of cases reported in 1929 was 244 with 31 deaths, as against 326 with 43 deaths in 1928. Excluding cases among painters of buildings, the number, 169, is, with one exception, the lowest recorded since notification was introduced. What is so pleasant about Dr. Bridge's reports is the note of enthusiasm and optimism for the work that runs through them, and having regard to the improvements he has to record and that he can promise if the advice he offers is accepted, the enthusiasm and optimism are certainly justified.

Clean Milk Production.

By E. K. MACDONALD, M.D., D.P.H., Medical Officer of Health and School Medical Officer, County Borough of Barnsley.

The information submitted in this paper, read at a meeting of the Yorkshire Branch, is based mainly on the experience gained in connection with the conduct of clean milk competitions. The views with regard to the necessity for pasteurization and other procedures, being therefore practical, have an added value.

THE first essential of a clean milk supply is a healthy cow. No amount of care in grooming or in sterilizing the utensils will help if the cow from the beginning is producing milk that is contaminated with pus. This point is important because the milk of one infected cow will contaminate the whole supply of the herd and, if bulk mixing is practised, the mixed milk of many herds.

Sir George Newman states: "Where milk (from 50 or 100 farms) is mixed the chances of infecting a guinea-pig with the centrifuged deposit must be very much greater than would be the case when the sample was taken from a farmer's churn containing the mixed milk of only a few cows, though the dilution of the infective material where present would probably be enormously greater in the former than in the latter case."

What is the present position of milk as regards contamination? As far as my experience goes I am certain that very often milk is being produced in a definitely unsatisfactory manner, the methods of production in the majority of cases being such that the milk is quite unnecessarily contaminated with organisms and with dung. There are exceptions, no doubt, but the fact that milk is such a wonderfully fine culture medium for micro-organisms complicates the matter considerably.

In the Milk and Dairies (Consolidation) Act, 1915, section 5, provision is made for the scheduling of certain diseases of the cow, and prohibiting the sale of milk from a cow so suffering. The diseases which are named in a schedule to the Acts include tuberculosis, acute inflammation of the udder, acute mastitis and suppuration of the udder. In addition to these I should like to mention contagious abortion, a disease extraordinarily common among the bovine population of the country, and due to an organism named the B. abortus. Within two or three days of an abortion due to this organism the infection appears in the milk and probably continues

present for the rest of the cow's life. In fact, the mammary gland acts as a reservoir for the organism.

One veterinary authority states that he has found the abortion bacillus in 18 per cent. of composite milk samples and that there is little doubt the organism is a common contamination in ordinary market milk.

It would seem that, although brucella melitensis and brucella abortus are practically identical, the caprine strain is the only one pathogenic as a rule to mankind, being responsible for Malta fever, whereas the bovine strain, if it is so frequently found in ordinary milk, must probably be non-pathogenic, except occasionally. However, it is possible that ultimately certain obscure cases of fever in man may be found to be due to the brucella abortus.

What is the position as regards tuberculosis?

The extent of tuberculosis among dairy cattle is difficult to estimate, but there is no doubt that many more cattle are diseased than is realised.

In 1928, 14,000 cows were slaughtered under the Tuberculosis Order, 1925, but the majority of authorities consider that from 20 to 40 per cent. of cattle are re-actors to the Tuberculin test, and that about 0.5 per cent. of milch cows are actually giving tuberculous milk. It is practically certain that under the Tuberculosis Order only the most advanced cases are being dealt with, and Savage is quoted as considering that a definite clinical diagnosis of udder tuberculosis is impossible except in advanced cases, the importance of which will be dealt with later.

In Edinburgh in the period 1918-27, 8.5 per cent. of the samples of raw milk examined were found to be infected with the tubercle bacillus.

In the Medical Officer of Health's report for Manchester for 1927, the chief veterinary officer refers to the increase in the percentage

of tuberculous milk found during the year, 11.09 per cent. of samples being found infected as compared with 10.33 in the previous year. Possibly this state of affairs is largely due to bulk mixing, but in any event I think it will be agreed that the problem is widespread and urgent.

The next point to be considered is whether tuberculosis in the cow has any effect on the human race, but I think that now there will be no doubt among us that quite an appreciable number of cases of tuberculosis are definitely due to the bovine bacillus.

Dr. Stanley Griffith considers that 47 per cent. of enlarged cervical glands, 52 per cent. of lupus, 18 per cent. of bone and joint lesions, 17 per cent. of genito-urinary lesions, 19 per cent. of meningitis and only one per cent. of pulmonary tuberculosis are due to the bovine tubercle bacillus. He further believes that 6.9 per cent. of the total deaths from tuberculosis are bovine in origin.

In 1928, there were 36,623 deaths from tuberculosis of all forms in England and Wales: and 6.9 per cent. of that figure gives a figure of 2,526 deaths, which may be regarded as of bovine origin.

In the same year, 2,776 children under five years of age died from tuberculosis other than respiratory tuberculosis. It is reasonable, I think, to accept that probably one-third to one-half of these children obtained their tuberculosis from the consumption of infected milk.

The main source of tubercle bacilli in milk is the diseased udder, which, I believe, takes time to develop in the majority of instances, and should be discovered, if the cattle are tested with tuberculin every six months, probably before the milk is heavily infected.

Another source is from infection by the faeces in the case of lung tuberculosis when the cow will swallow the sputum and the tubercle bacilli be found swarming in the faeces.

It is obviously important that cows suffering from tuberculosis, at any rate of an infective character, should be found as soon as possible and segregated from the rest of the herd. Any bovine infection of milk is undesirable, but of all, that by tuberculosis is the most important, and it is essential to get rid of the tuberculous cow if a safe and clean milk supply is to be obtained.

By extension of work under the Milk and Dairies Order, 1926, and the Tuberculosis Order

1925, it is hoped to provide a partial solution to this problem, but to make any scheme of frequent veterinary inspection really effective, local authorities should be empowered to offer, nay rather to insist on, regular tuberculin testing of the cows, at the expense of the authority. At the present time, only cows in Certified and Grade A (T.T.) herds, together with occasional cows, the property of keen and up-to-date owners, are tested with tuberculin; the vast majority of the cows in this country are not so tested.

In 1928, there were approximately 12,000 cows included in herds licensed by the Ministry of Health, and, therefore, regularly tuberculin tested; a very small proportion indeed of the total milch cow population of the country—approximately two and a half millions!

If one is correct in considering that 40 per cent. of milch cows are re-actors to the tuberculin test, it means that one million milch cows in the country are infected.

Slaughter of this number is, of course, at present impracticable; first, for financial reasons, and secondly, and this is more important, because the milk, which is quite safe in a large number of cases, is at present needed urgently for the population.

I suggest that the right procedure is:—

(1) The tightening up of the work done under the Milk and Dairies Order, 1926, and the Tuberculosis Order, 1925. I think there is no doubt that only the most obvious cases of disease are at present taken under the latter Order.

(2) The creation of tubercle-free herds, which is the ideal method of dealing with the problem.

All re-actors should be segregated, but may be used for stock-rearing purposes, the calves being removed immediately after birth and hand-fed on sterilized milk, cod liver oil being given to avoid rickets.

In the meantime, the milk of the re-actors, if found to be free from tuberculosis, may be used, but should definitely be either pasteurized or sterilized.

A modification of this scheme, originally recommended by Bang thirty years ago, has been in operation in this country for many years, and it has been found possible to build up a non-reacting herd quite easily, and at a minimum of expense.

The question of finance is one of the most difficult aspects of the problem, but I feel

that the subject is so important that some measure of Government assistance should be given in selected cases.

In the meantime, work under the Milk and Dairies Order should be pressed on, especially as regards providing the cows with better light and ventilation, as there is no doubt that the incidence of the disease is directly proportional to the extent of the captivity and confinement.

I have suggested what can be done in the future, but until all dairy cattle are free from tuberculosis there are two ways of dealing with the situation:—

(1) Pasteurization—the low temperature method preferred—of all milk other than Certified milk to be compulsory, with due safeguards as to its efficiency.

(2) If pasteurization is not to be compulsory, at any rate we should urge people to boil all milk other than Certified milk.

I feel strongly that the appellation "Grade A" milk is highly misleading to the public, in that it is not in any way guaranteed to be free from tuberculosis, and reconsideration of the nomenclature of milk grades is urgently needed.

What is the position as regards the general contamination of milk?

In considering this point, the method of testing milk by bacterial count is, in my opinion, most important. If a sample is taken from the farm or on the early morning round of the milkman, is then put on ice and delivered to the laboratory within four or five hours of milking, in the majority of cases the count will be small, whatever the method of production; but if, on the other hand, the milk is kept at a uniform temperature of 60° F. for twenty-four hours after production and is then plated, in my opinion a much more accurate idea of the quality of the milk would be obtained. This latter method is that which is followed in clean milk competitions. In September last year, out of 23 samples so taken at the farms in the course of a clean milk competition, and after the farmers had been instructed extensively for two months in methods of clean milk production, only one sample had a count of under 30,000, only two others under 200,000 and the majority averaged 500,000 organisms per c.c.

B. coli was present in 14 cases in 1/100 c.c. or worse, and was only absent in 1 c.c. in four samples. Truly an appalling state of affairs to be found in a clean milk competition.

We found, however, that the farmers who followed out certain instructions and methods of milk production, as outlined below, could improve the quality of their milk to a very high degree, and although the method of sampling was severe this quality could be maintained, the best count in the course of the competition being 560 organisms per c.c. after incubation at 60° F. for 27 hours.

The chief points we found that were important in the production of a high quality milk were:—

(i) The clipping of the cow's udders, flanks and tail.

I consider this the most important point of all as without clipping it is absolutely impossible to clean the cows properly. All the first seven prize and diploma winners in the competition carried out this clipping thoroughly. I have never heard of a case of injury or disease to the cow occurring as a result of the clipping.

(ii) The toilet of the cow before milking.

(iii) The discarding of the foremilk.

(iv) The use of covered milking pails.

An interesting point here is that we found, other things being equal, a slow milker produced cleaner milk than a fast milker, probably because there is less disturbance of the bag.

(v) The milk should be removed as soon as possible after production from the cowshed into the dairy and cooled.

(vi) Sterilization of the utensils.

Next to clipping the cow, I consider this the most important point.

Nothing short of efficient steam sterilization of all utensils will keep the bacterial counts down to the desired minimum, and an efficient steam sterilizer can be fitted up quite cheaply.

(vii) Adequate lighting of the cowshed for day and night is very important; also avoidance of all dust during milking.

A COURSE of Post-Graduate Lectures on Maternity and Child Welfare, for health visitors, nurses, midwives, superintendents of infant welfare centres, etc., will be given in the Lecture Hall, Carnegie House, 117, Piccadilly, London, W.1, on Mondays, from 6.30 to 7.30 p.m., commencing October 13th, 1930. Syllabus and full particulars may be obtained from the Secretary, National Association for the Prevention of Infant Mortality, 117, Piccadilly, W.1.

The Society. Reports, Proceedings and Announcements.

PROVINCIAL MEETING.

A Provincial Meeting of the Society was held by invitation of the East Anglian Branch at the Grand Hotel, Lowestoft, on Friday, September 19th, 1930. The President (Dr. J. J. Buchan) presided and there was an excellent attendance of members and guests.

The minutes of the last meeting having been approved and signed, the following candidates were elected to the Society:—

As Fellows:—

Abbott, Edith Isobel Lucy, M.B., B.S. Lond., M.R.C.S., L.R.C.P.; Appleton, Frank, M.B., Ch.B. Manch., D.P.H.; Cellan-Jones, Katharine Mary, M.D., B.S., B.Hy. Durh., D.P.H.; Chalke, Herbert Davis, M.A. Camb., M.R.C.S., L.R.C.P., D.P.H.; Cohen, Hilda A., M.R.C.S., L.R.C.P., D.P.H.; Deane, Sidney, M.R.C.S., L.R.C.P.; Hill, Charles, M.A., M.B., B.Chir. Cantab., M.R.C.S., L.R.C.P.; Hogben, George Hamilton, M.R.C.S., L.R.C.P., D.P.H.; Hughes, Daniel, M.B., B.Ch., B.A.O., N.U.I., D.P.H.; Innes, John, M.A., M.B., Ch.B. Aberd., D.P.H.; Leaning, Robert Craske, M.B., B.S. Lond., M.R.C.S., L.R.C.P., D.P.H.; Lobban, Jas. Wilson, M.A., M.B., Ch.B. Aberd., D.P.H.; McCarthy, Denis Francis, M.B., B.Ch., B.A.O., N.U.I., D.P.H., L.M.; Murray, John James, M.B., B.Ch. Belf., D.P.H.; O'Reilly, Terence Patrick, L.R.C.P. and S.I., D.P.H.; Regan, Daniel, M.B., B.Ch., B.A.O., N.U.I.; Seekings, Thomas Alfred, M.B., B.S. Lond., M.R.C.S., L.R.C.P., D.P.H.; Stanley, Herbert Vernon, M.C., M.B.E., Major, R.A.M.C., B.A., M.B., B.Ch., Dubl., D.P.H.; Waldron, Francis Raymond, M.B., B.Ch., N.U.I., D.P.H.; Walton, William Stanley, M.B., B.S., B.Hy. Durh., D.P.H.; Weir, James Howe, M.B., B.S., B.Hy. Durh., D.P.H.; Wells, Henry James Gordon, Major, R.A.M.C., M.B., Ch.B. Edin., D.P.H.

As Associates:—

Eady, Kenneth Wilfred, L.D.S., R.C.S. Eng.; Haworth, Lawrence Joseph, L.D.S., R.C.S. Eng.; Lamb, Denis Wilfred, L.D.S., R.C.S. Eng.; Robertson, Muriel Cameron, L.D.S., R.F.P.S. Glasg.

A number of nominations were received for the next election.

There followed a discussion on "The Public Health Significance of General Medical Service Schemes."

The opening speakers were Dr. Astley Clarke, Senior Physician, Leicester Royal Infirmary; Dr. C. E. S. Flemming, Member of Consultative Council, Ministry of Health; Dr. H. P. Newsholme, Medical Officer of Health, Birmingham and Dr. A. M. N. Pringle, Medical Officer of Health, Ipswich.

A report of the discussion will appear in an early issue of PUBLIC HEALTH.

The meeting closed with a vote of thanks to the speakers, and to the East Anglian Branch for the excellent local arrangements.

COUNCIL MEETING.

A meeting of the Council was held at the Grand Hotel, Lowestoft, on Saturday, September 20th, 1930. The President (Dr. J. J. Buchan) was in the chair and there were present Professor H. Kerr (President-Elect), Drs. A. M. N. Pringle, T. W. Naylor Barlow, E. H. Snell, H. J. Milligan, Agnes H. Nicoll, G. H. Pearce, J. Howard-Jones, D. J. Thomas, R. H. Wilshaw, A. K. Chalmers and E. H. T. Nash.

The minutes of the last meeting having been approved, apologies for absence were received from Professors A. Bostock Hill, W. W. Jameson, J. J. Jervis, Lieut.-Colonel F. E. Fremantle, M.P., Drs. A. A. Turner, P. H. Stirk, J. Fenton, T. P. Puddicombe, K. E. Tapper, F. A. Sharpe, H. Gibbons Ward, A. A. Mussen, A. E. Baker, F. T. H. Wood, F. C. Linton, G. F. Buchan and R. H. H. Jolly.

Elections to Council, Session 1930-31.—The following were elected to vacancies on the Council under 19 (d) of the Society's Articles of Association, viz.:—Professor W. W. Jameson, Sir T. Eustace Hill, Dr. R. M. F. Picken, Dr. T. W. Naylor Barlow, Dr. W. G. Willoughby, Professor J. J. Jervis and Dr. H. J. Milligan.

Lieutenant-Colonel F. E. Fremantle, M.P., was re-elected to the Council under Article 19 (f) and the election of a second member under this Article was deferred until the meeting of the new Council in October.

Regulations under the Poor Law Act.—In view of the consideration now being given to particular points in the Poor Law Act, 1930, and the Regulations in regard to which it is desirable that the Minister of Health should relax control, it was decided to appoint a Special Committee, with full powers to make any representations they consider advisable to the Ministry of Health, the County Councils Association, and the Association of Municipal Corporations. The Committee was constituted as follows:—Dr. J. J. Buchan, Professor H. Kerr, Dr. H. B. Brackenbury, Dr.

R. M. F. Picken, Sir Eustace Hill, and Dr. G. H. Pearce.

B.M.A. Annual Representative Meeting.—A report was received from Sir Eustace Hill, Professor H. Kerr, Dr. R. M. F. Picken and Dr. R. H. Wilshaw, recording their attendance at the A.R.M. of the British Medical Association as the elected representatives of Public Health Service Members. The report is reproduced in full on page 25. On the proposal of Dr. Snell a cordial vote of thanks was passed to the representatives for their attendance at the A.R.M. and for their interesting report of the proceedings.

Co-ordination of M. and C.W. Work with the Hospital Services.—Minor amendments to the memorandum submitted by the M. and C.W. Group and approved by Council, in reference to the relationship of Maternity and Child Welfare schemes to the use of hospitals for women and children, were received from the British Medical Association. These amendments having been referred to the Group and accepted by them, it was directed that the revised Memorandum be circulated forthwith to the hospitals concerned.

Institutional Treatment of the Sick.—Attention was drawn to possible difficulties in connection with Form Hosp. 6, issued for Hospitals and Institutions as defined in the Public Assistance Order, 1930, and maintained under the L.G. and P.H. Acts. The President reported that he had already made representations in this matter, and that if the need arose he thought the Ministry of Health would welcome suggestions from the Society in this connection.

B.M.A. Representation.—Dr. J. J. Buchan was elected as the representative of the Society on the Insurance Acts Committee of the British Medical Association, in place of Dr. Fenton, resigned.

Representation of the Society.—The Executive Secretary reported that the Society had been represented at the annual conference of the Sanitary Inspectors' Association by Professor A. Bostock Hill, and at the annual meeting of the General Council for the National Registration of Plumbers by Dr. R. H. Parry (M.O.H., Bristol).

Photographic Group of Council.—It was agreed that members of the Council should be asked to attend at a convenient place in London on a date to be arranged by the Executive Secretary for inclusion in a group photograph.

Annual Dinner.—Subject to any personal

wishes of the President-Elect it was agreed that at the Annual Dinner on November 13th the guests of honour should be Sir Andrew Balfour and Sir Eustace Hill on their creation as Knights, Dr. W. G. Willoughby on his election as President of the British Medical Association for the Session 1931-32, and Mr. G. S. Elliston on his retirement from the post of Executive Secretary of the Society. It was reported that the Minister of Health had promised to attend and that he would be asked to propose the toast of "The Society."

Annual Report of Council.—The report of the Council for the Session 1929-30, which appears on page 22, was adopted.

The Council then adjourned.

MAYORAL LUNCHEON.

On Saturday, September 20th, the party, which included a number of ladies, lunched at the Grand Hotel, on the invitation of the Mayor and Corporation of Lowestoft, those present including the following:—

Dr. J. J. Buchan (President of the Society) and Mrs. Buchan, Dr. Astley Clarke (Leicester Royal Infirmary), Dr. C. E. S. Flemming (Bradford-on-Avon), Dr. H. P. Newsholme (Birmingham), Dr. A. M. N. Pringle (Ipswich), Dr. E. H. Snell (lately Medical Officer of Health, Coventry) and Mrs. Snell, Dr. J. Howard-Jones (Newport, Mon.) and Mrs. Jones, Professor Harold Kerr, O.B.E. (Newcastle-upon-Tyne) and Mrs. Kerr, Dr. T. W. Naylor Barlow, O.B.E. (Wallasey) and Mrs. Barlow, Dr. A. K. Chalmers (formerly Medical Officer of Health, Glasgow), Dr. A. N. Stevens (Great Yarmouth), Dr. Percy Moxey (Southampton) and Mrs. Moxey, Dr. Arthur Hawley (Coventry) and Mrs. Hawley, Dr. G. H. Pearce (Batley) and Mrs. Pearce, Dr. E. H. T. Nash (Heston and Isleworth) and Mrs. Nash, Dr. H. J. Milligan, M.C. (Reading), Dr. R. H. Wilshaw (Worthing), Dr. James Mair (Harrogate), Dr. H. W. Barnes (Camberwell), Dr. V. F. Soothill (Norwich) and Mrs. Soothill, Dr. Laurence Gibson (Oulton Broad, Mutford and Lothingland), Dr. H. H. Back (Blofield and Aylsham), Dr. Irene B. M. Green (Norfolk County Council) and Mrs. Green, Dr. Agnes H. Nicoll (Willesden), Dr. Margaret C. Scrace (Lowestoft), and Mr. G. S. Elliston, M.A. (Executive Secretary of the Society).

The Mayor (Alderman Shadforth), who received the guests, was supported by the Deputy Mayor (Councillor Evans), Councillor Dr. J. M. Taylor, and Dr. W. H. Blackburn (Medical Officer of Health, Borough and Port of Lowestoft; President of the East Anglian Branch of the Society).

After the loyal toasts had been honoured, the President (Dr. J. J. Buchan) said that, despite the inclement weather, the Society, in holding a meeting in East Anglia for the first time, had

had a most representative and successful gathering, and the members had thoroughly enjoyed their stay in Lowestoft. In proposing the toast of "The Mayor and Corporation," Dr. Buchan voiced the high appreciation of the guests of the warm welcome and generosity accorded to them, and of the kindness of the Mayor in being present to meet the members.

The Mayor, on behalf of the Corporation, expressed the keen pleasure it had given the local authority to welcome the Society to Lowestoft, and in addition to surveying the amenities of the town from the health point of view, drew an interesting picture of the extent and importance of the local fishing industry, referring to the extensive trade carried on with European countries. Among many facts and figures quoted, it was stated that over forty million herring had been landed at Lowestoft in one day.

After the Mayoral Luncheon the party were the guests of the East Anglian Branch for a launch trip on Oulton Broad. During the afternoon the weather became very bad with grey skies and driving rain, but the party found sufficient shelter under the awning of the launch and thoroughly enjoyed the kind hospitality of their hosts. After tea, at St. Olaves, Professor H. Kerr proposed a vote of thanks to the Branch, and especially to Drs. Pringle, Blackburn and Gibson for everything that had been done to make the meeting so successful. The vote was carried by acclamation.

THE METROPOLITAN BRANCH.

President: Dr. J. B. Howell, M.O.H., Hammersmith.
Hon. Secretary: Dr. James Fenton, M.O.H., Kensington.

The annual meeting of the Council of this Branch was held at the house of the Society on June 20th, 1930. The President occupied the chair and thirteen other members were present.

Dr. E. G. Annis reported that he and Dr. A. M. Hewat had examined the accounts of the Branch for the year ending June, 1930, and had found them correct.

The Hon. Secretary read a letter from the Clerk of the London County Council in regard to the arrangements for the vaccination of patients admitted to the smallpox receiving station at South Wharf. The Branch Council agreed that the subject of the letter was one more suitable for discussion by the newly-formed Group of Metropolitan Borough Medical

Officers of Health, and accordingly requested the Hon. Secretary to bring the communication to the notice of the Group Secretary (Dr. F. L. Keith).

In a discussion on the draft revised London County Council By-laws in respect of water-closets, etc., made under Section 39 (1) of the Public Health (London) Act, 1891, Dr. F. L. Keith drew attention to the fact that the draft by-laws do not define the superficial area of an intervening lobby between a water closet apartment and a living room. The Branch Council agreed that such an entrance lobby should have a superficial area of not less than nine square feet; and the Hon. Secretary was directed to make appropriate representations thereon to the Ministry of Health and the London County Council.

The Sub-Committee set up by the Branch Council to consider and report on the question of the present administrative procedure in regard to the surveillance of smallpox contacts, submitted their report, which was adopted by the Council with two small amendments. It was decided to send a copy of the amended report to the Council of the Society.

The annual meeting of the Branch followed the Council meeting.

The annual report of the Council of the Branch for the session 1929-1930 was submitted and approved, and the Hon. Secretary was requested to circulate copies with the agenda paper for the next meeting of the Branch.

Correspondence from Dr. F. N. Kay Menzies, the County Medical Officer, and Dr. Maitland Radford, of Shoreditch, dealing with the question of the supervision of school children contacts of smallpox cases, was referred to the Group of Metropolitan Borough Medical Officers of Health.

Mr. G. W. Andrews, Technical Advisor to the Federation of British Industries, gave an address on "Smoke Abatement in reference to the proposed London County Council By-law, from the Manufacturers' Point of View." A discussion followed, and at the conclusion a vote of thanks was accorded to Mr. Andrews for his interesting paper.

It was proposed that the resolutions recently passed by the Federation of British Industries on the question of smoke abatement should be considered at the end of the discussion on Mr. Andrews' paper, but, owing to the lateness of the hour, consideration of these and of other matters was referred to the Branch Council.

Annual Report of the Council, 1929-30.

Your Council report—

1.—That one hundred and fifty-seven candidates have been elected as Fellows or Associates of the Society during the Session 1929-30. During the same period seventy-six resignations were accepted from members who are retiring from active work, or leaving the Public Health Service for other branches of medical practice.

2.—That the Society has to mourn the loss by death of Dr. H. Cooper Pattin who filled the office of President in the Session 1909-1910. Other members whose deaths were recorded during the Session were Drs. Philip Boobbyer (Nottingham), F. Foord Caiger (M.A.B.), G. P. P. Clapham (Leeds), D. Dempster, M.C. (Perth), T. F. Dewar, C.B. (Edinburgh), R. Govan (Hammersmith), J. A. Harris (Chorley), J. C. Heaven (Keynsham), R. L. Legate (Christchurch), W. C. Lodwidge (Longfort), Muriel J. Lough (Barking), A. B. MacCarthy (Bridport), C. R. Macdonald (Ayrshire), J. Wright Mason, M.B.E. (Hull), C. A. Moore (Leicester), T. E. Pemberton (Buckingham), W. H. Rees-Thomas (Basingstoke), H. Lloyd Roberts (Leamington), J. G. Ross (Whitby), J. E. Sandilands, M.C. (Bombay), S. G. Sloman (Farnham), S. T. Steele (Morley), D. L. Thomas (Stepney), Winefred F. Wigglesworth (Manchester), J. T. Wilson (Lanark), Rowan McCombe (Margate) and John Gray (Stanhope).

3.—That allowing for these losses the membership of the Society shows a net increase of 53 as compared with 44 and 48 respectively in the two preceding Sessions.

4.—That the total membership still falls short of 2,000, and further efforts are necessary to enrol the many members of the Public Health Service who benefit by the work of the Society without making any contribution towards its activities. It may also be hoped that during the coming Session there will be a considerable increase of membership in connection with the extension of health services under the Local Government Act, 1929. This is a matter calling for early action by the Branches of the Society.

5.—That Dr. J. J. Buchan delivered his presidential address on "Some Principles in Public Health Reform" at the annual meeting of the Society on October 25th, 1929.

For the ordinary meetings of the Session, the President arranged the following series of discussions:—

"The Local Government Act, 1929." J. J. Butterworth, M.D., D.P.H., Medical Officer of Health, Lancashire. R. M. F. Picken, M.B., B.Sc., D.P.H., Medical Officer of Health, Cardiff. James Fenton, M.D., D.P.H., Medical Officer of Health, Kensington. A. B. McMaster, M.D., D.P.H., Medical Officer of Health, Dover.

"The Public Health Service and its Future." Prof. H. R. Kenwood, C.M.G., M.B., F.R.S., Ed. Prof. W. W. Jameson, M.A., M.D., M.R.C.P., D.P.H., Director of Division of Public Health, London School of Hygiene.

"Modern Methods of Refuse Disposal." J. C. Dawes, O.B.E., M.I.MECH.E., Public Cleansing and Salvage Inspector, Ministry of Health. Charles Porter, M.D., B.Sc., M.R.C.P., Ed., Medical Officer of Health, St. Marylebone. A. E. Kennedy, M.R.SAN.I., Superintendent of Cleansing, Kensington.

"The Medical Officer of Health in Relation to Housing and Housing Procedure." C. Killick Millard, M.D., D.P.H., Medical Officer of Health, Leicester. A. J. Shinnie, M.D., D.P.H., Medical Officer of Health, Westminster. V. T. Thierens, M.B., D.P.H., Medical Officer of Health, Blackburn.

"Mental Deficiency and Lunacy in Relation to Public Health." W. M. Ash, M.B., F.R.C.S. Ed., D.P.H., Medical Officer of Health, Derbyshire. Reginald Worth, O.B.E., M.B., B.S., Gen. Sec., Royal Medico-Psychological Association. W. A. Potts, M.A., M.D., C.M., Medical Officer of the Birmingham Committee for the Care of the Mentally Defective.

6.—That, in addition, the President arranged two provincial meetings. At the first of these, held at Harrogate on May 16th, the subject of discussion and opening speeches were as follows:—

"Rheumatism in its Public Health Aspects." M. B. Ray, D.S.O., M.D., Senior Hon. Phys., British Red Cross Rheumatism Clinic. Geoffrey Holmes, M.B., B.Ch., Hon. Phys., Royal Bath Hospital, Harrogate. Sinclair Miller, D.S.O., M.C., M.D., D.P.H., Hon. Clin. Pathol., Royal Bath Hospital, Harrogate.

The meeting was well-attended and the thanks of the Society are due to the Mayor and Corporation of Harrogate who entertained the members at dinner and to Dr. James Mair who made the local arrangements for a very successful meeting.

The second provincial meeting was held at Lowestoft on September 19th, when the subject of discussion and the opening speeches were as follows:—

"The Public Health Significance of General Medical Service Schemes." Astley Clarke, M.A., M.D., D.L.,

J.P., Senior Physician, Leicester Royal Infirmary. C. E. S. Flemming, M.R.C.S., L.R.C.P., Member of Consultative Council, Ministry of Health. H. P. Newsholme, M.A., M.D., F.R.C.P., D.P.H., Medical Officer of Health, Birmingham. A. M. N. Pringle, M.B., C.M., D.P.H., Medical Officer of Health, Ipswich.

On this occasion members were entertained at luncheon by the Mayor and Corporation of Lowestoft, and afterward at a launch trip on Oulton Broad by the East Anglian Branch of the Society. In spite of exceptionally bad weather there was an excellent attendance during both days of the meeting and cordial thanks are due to Dr. A. M. N. Pringle, Dr. W. H. Blackburn and Dr. L. Gibson, for the arrangements which made the occasion so enjoyable.

7.—That eight meetings of the Council were held during the session, and committees of the Council met on fifteen occasions. The proceedings of the Council have been duly recorded in PUBLIC HEALTH, for the information of members.

8.—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 various matters affecting public health administration and officials.

9.—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 General Medical Council, the British Medical Association, the Smoke Abatement League, the Association of Public Vaccinators, the British Dental Association, the Royal Sanitary Institute, the National Association of Local Government Officers, the County Councils Association, the Association of Municipal Corporations, the Institute of Municipal and County Engineers, the British Dairy Farmers' Association, the National Union of Teachers, the British Social Hygiene Council, the National League for 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 National Milk Publicity Council, the Health and Cleanliness Council, the Institute

of Hygiene, and the Queen Victoria Jubilee Institute of Nurses.

10.—That representatives of the Society have been nominated to serve on the Council and Committees of the British Medical Association, the Central Midwives Board, the National Milk Publicity Council, the Central Council for Infant and Child Welfare, the Central Association for Mental Welfare, the National Clean Milk Society, the Industrial Health Education Society, the Board of the London School of Hygiene and Tropical Medicine, and numerous other bodies dealing with matters affecting Public Health administration.

11.—That the Society has continued to arrange facilities for any foreign medical officers introduced by the Health Section of the League of Nations. No group interchange has been held in Great Britain during the past year, but introductions have been arranged for individual visitors. A member of the Society, Dr. Dunstan Brewer, on the nomination of the Council was elected by the Ministry of Health as a participant in an interchange held in France during June and July.

12.—That, as for several years past, your Council have arranged study courses in health administration for foreign Health Officers sent to this country by 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 the Committee on the Remuneration of Medical Officers of Local Authorities has continued to watch the operation of the Scale of Salaries, and to advise members in reference to the terms of their appointments, security of tenure, office and travelling expenses, and superannuation. The rejection of the Askwith Scale by the County Councils' Association has made it necessary for the professional journals to refuse insertion of all advertisements for county councils other than those who are known to have adopted the Scale. Any other course could not be pursued without injustice to those medical officers in county health departments whose salaries have not been adjusted in accordance with the new Scale. The Society is much indebted to the *Lancet*, the *British Medical Journal* and the *Medical Officer* for their indispensable support in this matter, as the censorship of advertisements would be impossible without the generous co-operation of these journals. In the usual expression of thanks to the British Medical Association, especial reference

may be permitted this session to the services of Dr. C. Courtenay Lord, who for some years past has acted as liaison officer with the Society in connection with public health appointments. His approaching retirement from the B.M.A. staff will be much regretted by the members of this Society who know how much he has done on their behalf.

14.—That the Special Committee under the chairmanship of Prof. W. W. Jameson appointed to consider "The Place of Preventive Medicine in the Medical Curriculum" have completed their work. The report which has been approved and adopted by this Council and published in *PUBLIC HEALTH* (May, 1930, pp. 253 *et seq.*) has been generally received as a notable contribution of immediate interest to the Universities and Medical Schools. Its useful purpose has already been the subject of favourable reference by the President of the General Medical Council, who promised that it would receive the careful consideration of that body.

15.—That during the Session two Fellows of the Society have received the honour of Knighthood from H.M. the King. Sir Andrew Balfour, who received the K.C.M.G., as Director of the London School of Hygiene and Tropical Medicine, is shaping the destinies of the rising generation of the Public Health Service. Sir Eustace Hill, our President in 1922-1923, and still a member of this Council, has spent his whole professional life in the work of health administration and in the service of his colleagues. We feel that this report would not be complete without some brief record of honours so well conferred.

16.—That the annual exchange of Officers and the re-election of the Council involves the retirement of Professor H. R. Kenwood, Dr. R. A. Lyster, Dr. A. A. Mussen, Dr. Stella Churchill, Dr. F. A. Sharpe and Dr. F. T. C. Linton.

We recommend that the thanks of the Society should be accorded to these representatives for their services as members of the Council.

17.—That the grateful thanks of the Society are due to Dr. J. J. Buchan for his services as President of the Society during the past Session. Dr. Buchan has been assiduous in his attendance at the meetings of the Council and its committees, and by his wise guidance has done much to ensure the efficient working

of the Society. His term of office, coinciding with the extension of health services under the Local Government Act, 1929, has covered a period during which his long experience and ripe judgment have been of especial value to his colleagues.

18.—That on completion of nearly twelve years' service, Mr. G. S. Elliston has resigned his appointment as Executive Secretary, but he will retain his connection with the Society as Consultant Secretary. The Council desire to place on record their high appreciation of the work which Mr. Elliston has done for the Society during the past twelve years. During this time its membership has increased three-fold, and the Society is to-day in an exceedingly strong position as the representative body of the Public Medical Service, almost entirely through the unremitting efforts of Mr. Elliston. Changing councils during his period of service, and a succession of officers of the Society, have found in Mr. Elliston a wise and competent executive officer wholeheartedly devoted to the good of the Society and its members. The Council received his resignation as Executive Secretary with deep and real regret, but they are glad to be able to report that he has not been compelled to sever all his connection with the Society. He will be succeeded as Executive Secretary by Mr. G. L. C. Elliston, M.A. Oxon, who has been appointed to that office as from October 1st, 1930.

A CONFERENCE on the Pollution of Rivers and Streams will be held at the Royal Sanitary Institute, 90, Buckingham Palace Road, London, S.W.1, on November 18th, 1930, from 11 a.m. to 1 p.m., and 3 to 5 p.m. The chair will be taken by Professor A. Bostock Hill, M.Sc., M.D.

A COURSE of Ten Lectures on "The Prevention of Accidents, Disorders and Disease" will be delivered in the Lecture Hall of the Royal Institute of Public Health, 37, Russell Square, London, W.C.1, on Wednesdays, at 4 p.m., commencing October 15th, 1930. The subjects to be dealt with include tuberculosis; venereal disease; pre-cancerous states and the arrest of cancer; mental illness; industrial diseases; tropical disorders and disease; accidents in factories and workshops; and the importance of a complete study of the nutritional value of milk. Full particulars may be obtained of the Hon. Secretaries at the Institute.

The Annual Representative Meeting of the British Medical Association.

REPORT BY THE PUBLIC HEALTH SERVICE REPRESENTATIVES.

The Annual Representative Meeting of the British Medical Association was held this year from July 18th to 22nd, 1930, in the Great Hall of the British Medical Association House, Tavistock Square, London, owing to the Annual Meeting of the Association taking place at Winnipeg.

Dr. C. O. Hawthorne presided.

The first item of business that was of special interest to the public health service was the adoption of the recommendation of Council that:—

"W. G. Willoughby, M.D., D.P.H., Medical Officer of Health, Eastbourne, be elected President of the Association for 1931-32."

It is a very great honour indeed, not only to Dr. Willoughby, an ex-President of our Society, but to the whole of the public health service that he should be thus selected as President of this Association of the entire profession, and speaks most eloquently for the greatly improved relations that now exist between the members of our whole-time service and other practitioners.

A large part of the second day was occupied with the consideration of the Association's Hospital Policy, which has a close bearing upon the organisation and management, not only of voluntary hospitals, but also of the late Poor Law Hospitals which have passed into the control of the County Councils and County Borough Councils. With regard to the latter the Association is averse from employment of whole-time staff except in the case of superintendents, house physicians and house surgeons, and desires not only that visiting physicians and visiting surgeons of standing should be appointed but that general practitioners should also be brought in as clinical assistants or in some other capacity for the direct treatment of patients.

The provision of pay beds for patients who are not exactly eligible for charity is also advocated, and the desire is expressed that if the Hospital has not a Resident Medical Officer and/or a visiting staff, patients should be admitted under the care of the private practitioner of their choice and allowed similar discretionary selection of a consultant. The

formation of contributory schemes for hospital provision is advocated.

A strong attempt is being made to grapple with the overlapping and abuse of voluntary hospitals that is practically universal.

The draft General Medical Service Scheme was also debated in considerable detail. This is an endeavour to provide medical advice and treatment for all persons having less than a definite income. In fact it expresses the anxiety of the private practitioner to anticipate the organisation of a State Medical Service, and thus to avoid any form of official control in his clinical work. It is very inclusive, providing for everything requisite short of institutional provision, and is designed upon a contributory basis. Provision for the indigent, which was originally included, at the charge of the Local Authority, was deleted from the scheme, the suggested arrangement for this not being felt to be practicable.

The Medical Officer of Health of the administrative area concerned is named as the administrative head of those parts of the scheme which need central administration. He is suggested as the liaison officer between the local practitioners and the Authority responsible for financing and directing those parts of the scheme which are administered on an insurance basis, or provided by the community. In short, the Medical Officer of Health is recognised as being the most appropriate person for this responsible duty which "will call for a high level of professional ability and equipment, and with large and increasing responsibilities will offer an opportunity for public service even greater than at present."

A Local Medical Advisory Committee elected by the Local Practitioners to advise the Medical Officer of Health, is also provided for under the scheme, but the Meeting decided that it was desirable that such Committee should have the right of direct access to the Local Authority where the circumstances appear to make it advisable, or in other words, where the Medical Officer of Health adopted an attitude or a policy that was definitely opposed to the wishes of the doctors.

Under the discussion of the Local Government Act, acknowledgment was made of the valuable assistance rendered by the Council of the British Medical Association in obtaining the recall and drastic amendment of the original draft Poor Law Order, 1930, which placed the Medical Officer of Health under the control of the lay public assistance officer.

Under "Medico-Political" there was a considerable argument as to the fees which should be demanded of Local Authorities for the calling in of medical practitioners upon the advice of midwives. Ultimately, a scale considerably in excess of that at present provided under the Midwives Act, 1918, was evolved, but it would appear that consideration of this by the Ministry is likely to be greatly influenced by the reports of recent Departmental Committees.

The giving of advice as to Birth Control at Maternity and Child Welfare Centres received attention and the following resolution was adopted:—

"That in the opinion of the Representative Body the medical officer in any Maternity and Child Welfare Clinic (voluntary or municipal) equally with any other medical practitioner has the right to advise either for or against the use of contraceptive methods in accordance with his individual judgment and responsibility and should not be subject to dictation by the patient or by the Doctor's employing Authority in this matter."

Under "Public Health," the function of the Public Health Committee of the Association was modified to consider and report on questions relating to the Public Health Service. This adds to the function of that Committee matters relating to M. and C.W. and School Medical work (formerly dealt with by the Medico-Political Committee); questions relating to Hospitals (of any sort) will go to the Hospitals Committee, except that of remuneration of medical officers of Council Hospitals which will remain the function of the Public Health Committee.

The recommendation that the School Medical Service should come under the supervision and control of the Health Committee, rather than the Education Committee, as early as possible was also strongly reaffirmed.

It was decided that the new scale of salaries agreed upon by the British Medical Association and the Society of Medical Officers of Health, with all the Local Authorities' Associations excepting that of the County Councils, should now be acted upon in connection with all appointments advertised from other

than County Councils. With regard to the last named, advertisements will be accepted from such as comply with the requirements only if all existing appointments under that County Council already conform with the conditions of the new scale.

Both the *Lancet* and the *Medical Officer* have definitely agreed to assist the *British Medical Journal* in making effective the carrying out of this agreement.

Your Representatives have to report with satisfaction upon the almost entire disappearance of jealousy or distrust of the Public Health Service on the part of other practitioners, and of the notable development of a spirit of co-operation.

They would also mention the very perfect organisation of the meeting and its efficient control and management.

(Signed) T. EUSTACE HILL.

HAROLD KERR.

RALPH M. F. PICKEN.

R. H. WILSHAW.

25th July, 1930.

DR. JAMES LAW BROWNLIE, at present County Bacteriologist and Pathologist in Lanarkshire, has been appointed a Medical Officer of the Department of Health for Scotland. Dr. Brownlie graduated in medicine at Glasgow University in 1913, took the Diploma of Public Health (Cambridge) in 1916, and the M.D. with high commendation in 1918. Among the previous appointments he has held are resident posts for several years in Glasgow Fever Hospitals and for six years Assistant Bacteriologist in the Glasgow Corporation Laboratory.

THE Report of the Conference convened by the Science Standing Committee of the Royal Institute of British Architects to consider the question of damage to plumbing work caused by frost has now been issued, and may be obtained from the Royal Institute of British Architects, 9, Conduit Street, London, W.1, price threepence. At the Conference the Society of Medical Officers of Health was represented by Dr. Maitland Radford, Medical Officer of Health of Shoreditch. The report contains a number of extremely practical suggestions, some of which might very well be broadcast to householders in every area on the approach of winter.

Branch and Group Elections: Session 1930-31.

METROPOLITAN BRANCH.

President Dr. J. Macmillan, D.S.O.,
M.C.
Vice-Presidents .. Dr. F. E. Scrase.
Dr. J. B. Howell.
Hon. Treasurer .. Dr. F. L. Keith.
Hon. Secretary .. Dr. James Fenton.
Representatives on
Council of Society Dr. James Fenton.
Dr. E. G. Annis.

SCOTTISH BRANCH.

President Dr. T. Adam.
Vice-Presidents .. Prof. Matthew Hay.
Dr. A. K. Chalmers.
Hon. Secretary and
Treasurer .. Dr. G. V. T. McMichael.
Representative on
Council of Society Dr. A. K. Chalmers.

MIDLAND BRANCH.

President Dr. P. S. Blaker.
President-Elect .. Dr. Wyndham Parker.
Vice-Presidents .. Prof. Bostock Hill.
Sir John Robertson, C.M.G.,
O.B.E., LL.D.
Dr. E. H. Snell.
Dr. W. D. Carruthers.
Hon. Auditor .. Dr. W. M. Clendinnen.
Hon. Treasurer .. Dr. E. H. Snell.
Hon. Secretary .. Dr. R. H. H. Jolly.
Branch Correspondent .. Dr. G. N. Anderson.
Representatives on
Council of Society Dr. R. H. H. Jolly.
Dr. H. Gibbons Ward.

EAST MIDLAND BRANCH.

Election pending.

NORTHERN BRANCH.

President Dr. Charles Franks, J.P.
Vice-President .. Dr. A. F. G. Spinks.
Hon. Secretary and
Treasurer .. Dr. J. A. Charles.
Representative on
Council of Society Dr. G. C. M. M'Gonigle.

NORTH-WESTERN BRANCH.

President Dr. C. O. Stallybrass.
Hon. Treasurer .. Dr. H. H. I. Hitchon.
Hon. Secretary .. Dr. G. W. N. Joseph.

Representatives on

Council of Society Dr. R. Veitch Clark.
Dr. F. T. H. Wood,
O.B.E.
Dr. G. W. N. Joseph.

WEST OF ENGLAND BRANCH.

President Dr. A. H. Wilson.
Vice-President .. Dr. A. T. Nankivell
Hon. Secretary .. Dr. P. H. Stirk.
Hon. Treasurer .. Dr. J. F. Blackett.
Representative on
Council of Society Dr. P. H. Stirk.

SOUTHERN BRANCH.

President Dr. R. H. Wilshaw.
Hon. Treasurer .. Dr. H. L. Cronk.
Hon. Secretary .. Dr. H. D. Kelf.
Representative on
Council of Society Dr. R. H. Wilshaw.

WELSH BRANCH.

President Dr. E. Ll. Parry-Edwards.
Hon. Secretary and
Representative on
Council of Society Dr. D. Jenkin Thomas.

HOME COUNTIES BRANCH.

President Dr. K. E. Tapper, O.B.E.
Hon. Treasurer .. Dr. A. E. Porter.
Hon. Secretary .. Dr. A. A. Turner, M.C.
Representatives on
Council of Society Dr. K. E. Tapper, O.B.E.
Dr. E. H. T. Nash.
Dr. A. A. Turner, M.C.

YORKSHIRE BRANCH.

President Dr. L. Pickering-Pick.
Vice-Presidents .. Prof. J. Johnstone Jervis.
Dr. J. J. Buchan.
Hon. Secretary and
Treasurer .. Dr. G. H. Pearce.
Representatives on
Council of Society Dr. G. H. Pearce.
Dr. J. Mair

EAST ANGLIAN BRANCH.

President Dr. W. H. Blackburn.
Hon. Secretary and
Treasurer .. Dr. A. M. N. Pringle
Hon. Auditor .. Dr. C. L. Leggat, O.B.E.
Representative on
Council of Society Dr. A. M. N. Pringle.

MALAYAN BRANCH.

President .. Dr. W. Dawson, D.S.O.
 Vice-Presidents .. Dr. P. S. Hunter.
 Sir Malcolm Watson.
 Hon. Secretary and
 Treasurer .. Dr. R. W. C. Kelly.
 Members of Council The Hon. Dr. A. L. Hoops.
 Dr. W. J. Muir.
 Representative on
 Council of Society Prof. A. Bostock Hill.

SOUTH INDIAN BRANCH.

President .. Lt.-Col. A. J. H. Russell,
 C.R.E., I.M.S.
 Hon. Secretary and
 Treasurer .. Capt. A. M. V. Hesterlow,
 I.M.S.
 Representative on
 Council of Society Lt.-Col. A. J. H. Russell,
 C.B.E., I.M.S.

TUBERCULOSIS GROUP.

President .. Dr. F. J. C. Blackmore.
 Hon. Secretary .. Dr. Ernest Ward.
 Representative on
 Council of Society Dr. Ernest Ward.

SCHOOL MEDICAL SERVICE GROUP.

President .. Dr. W. J. M. Slowan,
 O.B.E.
 Hon. Secretary and
 Treasurer .. Dr. Louisa C. Adam.
 Representative on
 Council of Society Dr. T. P. Puddicombe,
 D.S.O.

MATERNITY AND CHILD WELFARE GROUP.

President .. Dr. Ethel Cassie.
 Ex-President .. Dr. J. A. Stephen.
 Vice-Presidents .. Dr. Stella Churchill.
 Dr. T. Yule Finlay.
 Dr. Margaret Emslie.
 Representative on
 Council of Society Dr. Agnes H. Nicoll
 Hon. Secretary .. Dr. Grace Calver.
 Hon. Asst. Secretary Dr. Caroline I. Wright.

NAVY, ARMY AND R.A.F. HYGIENE GROUP.

President .. Wing-Cdr. Andrew Grant,
 M.B.E.
 Hon. Secretary .. Lt.-Col. G. S. Parkinson,
 D.S.O.
 Representative on
 Council of Society Lt.-Col. G. S. Parkinson.

FEVER HOSPITAL MEDICAL SERVICE GROUP.

President .. Dr. D. Sage Sutherland.
 Editor .. Dr. F. M. Turner.
 Hon. Secretary .. Dr. J. C. Blake.
 Representative on
 Council of Society Dr. A. F. Cameron.
 COUNTY DISTRICT GROUP.

Chairman .. Dr. A. B. McMaster.
 Vice-Chairman .. Dr. W. F. Corfield.
 Hon. Secretary .. Dr. C. E. Herington.
 Representative on
 Council of Society Dr. A. B. McMaster.

DENTAL OFFICERS' GROUP.

President .. Dr. J. Sim Wallace
 Vice-President .. F. Breese, Esq., L.D.S.
 Hon. Treasurer .. G. Thomson, Esq., L.D.S.
 Representative on
 Council of Society A. E. Baker, Esq., M.R.C.S.
 Hon. Secretary .. W. L. Breese, Esq., L.D.S.

DR. IVOR LEWIS has been appointed Assistant Medical Officer of Health for Plymouth and Superintendent of the City Hospital at a salary of £1,000 per annum.

THE Forty-second Congress and Health Exhibition of the Royal Sanitary Institute will be held at Glasgow, from July 4th to 11th, 1931, under the Presidency of Sir Henry Mechan, LL.D.

THE County of London Branch of the British Red Cross Society is arranging a course of lectures on Tropical Hygiene and Nursing for the benefit of prospective settlers in tropical countries. Full particulars may be obtained from the British Red Cross Society, 27, Grosvenor Place, London, S.W.1.

FOUR lectures entitled "Health and National Progress" are to be delivered in the Memorial Hall, Farringdon Street, London, E.C.4, on November 4th, 6th, 11th and 13th, by Sir George Newman, the Chief Medical Officer, Ministry of Health, who will describe how England learned to control disease; how the State deals with poverty, its protection of the child, and the development of public health services. For tickets for free reserved seats, application should be made to the Secretary, Halley Stewart Trust, 32, Gordon Square, London, W.C.1.

The Literature of Preventive Medicine.

THE MORPHINE HABIT AND ITS PAINLESS TREATMENT. By G. LAUGHTON SCOTT, M.R.C.S., B.A. (Oxon), lately Senior Physician, London Neurological Clinic. London: H. K. Lewis & Co., Ltd., 1930. pp. 94. Price 5s. net.

The number of methods of treatment suggested for the sufferer from the morphine habit is very large, but the fault of most of them, in the opinion of the author of this interestingly and sympathetically written little book, is that too little care is taken to avoid or minimise the shock of withdrawal of the drug. In the method Dr. Laughton Scott describes, practises and commends, this point receives the most careful attention. The evidence he submits with regard to the cases in which he has used it with success is sufficiently strong to suggest that it is worthy of study and trial by others who may be called upon to deal with patients unfortunate enough to have become addicted to the drug and whose desire it is to be freed from the habit.

A TEXTBOOK ON THE NURSING AND DISEASES OF SICK CHILDREN FOR NURSES AND WELFARE WORKERS. By VARIOUS AUTHORS. Edited by ALAN MONCRIEFF, M.D., B.S., M.R.C.P. (LOND.), Medical Registrar and Pathologist to the Hospital for Sick Children, Great Ormond Street, London. London: H. K. Lewis & Co., Ltd., 1930. pp. 580, illustrated. Price 15s. net.

Designed in its general scope to provide a nurse entering for the Final State Examination with a textbook, and conforming to the syllabus for the examination for the certificate for sick children's nurses, this volume is calculated to fill every need that the readers with the ends named in view could possibly experience. The ground covered is extraordinarily wide, and the detail given extremely full, almost too full, it might be imagined, in many instances for the nurse for whom it is designed. The editor, Dr. Alan Moncrieff, has been exceedingly well served by the various contributors, all of them members of the staff of Great Ormond Street Sick Children's Hospital, and the thanks he offers them and Miss Fussell, the Sister Tutor at the Hospital, are thoroughly well earned. The readers for whom it is intended will find

the book of great value. To welfare workers, for whom also to some extent it has been designed, its greatest use probably will be as a book of reference.

LETTERS OF A GRANDMOTHER. Glimpses into a Happy Home. By HILDA M. HALLIDAY, M.R.C.S., L.R.C.P., D.P.H., Medical Officer for Maternity and Child Welfare, Somerset County Council. Bristol: John Wright & Sons, Ltd., 1930. pp. 64. Price 9d. (7s. 9d. per dozen to Societies).

In these letters the grandmother, either off her own bat or on receipt of a communication from her daughter or son-in-law, gives information on infant and child welfare and education and upbringing, much of it of the type more normally conveyed in leaflets or handbooks for mothers. The book is written in such a style as to give rise to a suspicion that the old lady would prefer to be known as Grandmamma, and people who like the grandmamma idea and the grandmamma atmosphere in their reading matter—there may still be a few in spite of bobs and shingles, lipsticks, safety razors, artificial silk and abbreviated skirts—will find the book to their liking. To others it may prove less attractive, though the information it gives is accurate and useful.

LIP-READING. By IRENE R. EWING, Ellis Llwyd Jones Lecturer for Training Teachers of the Deaf, University of Manchester. Manchester University Press, 1930. pp. 74. Price 3s. 6d. net.

Blindness always excites sympathy, but deafness seems to produce feelings of annoyance, although deaf people and those who are becoming so are no less deserving of sympathy than are the blind. Mrs. Ewing says truly that few hearing persons realise the diabolical disadvantages of deafness. Acquisition of the faculty of lip-reading is well worth while, and this manual, written by one who has been teaching lip-reading to deaf people for over twenty years, provides most practical instruction on the subject. It is divided into three parts; the first for those who are deaf or becoming so, the second for those who wish to teach or are willing to practise with adults, while the third deals with methods of teaching lip-reading to the deaf child.

HOUSECRAFT, HYGIENE AND CARE OF INFANTS.

By the Rev. J. W. HAYES, formerly Chairman, Council Schools, West Thurrock, Stifford and Purfleet; and H. EMLYN-JONES, M.R.C.S., L.R.C.P., late Medical Inspector of Schools, Essex County Council. Fourth edition, revised and expanded by Jane E. Hayes. London: George Philip & Son, Ltd., 1930. pp. 110. Price 1s. 6d. net.

The popularity of this little book is obvious from the number of revisions since 1912, but mistakes still exist.

No mention is made that it is essential that gas stoves should ventilate into a flue, nor is any reason given why children should not be allowed to rend bread with their teeth instead of cutting it with a knife. After all, exercise for the muscles of the jaw is beneficial.

As regards the dietary, many of the suggested diets are beyond the purse of the average working-class woman, who will emerge from the school girls for whom this book is written.

As regards actual infant care, fresh fruit is omitted from the dietary to prevent rickets.

Two-hourly feeding for infants should be superseded by three-hourly feeding, and a child should be awakened during the day to be fed, although not by a spoon as is suggested.

With these alterations the book may be a valuable addendum to those already prepared for giving instruction on the hygiene of the home to girls of school age.

THE HEALTH GAME. By B. E. WASHBURN, M.A., M.D., Field Director, the International Health Division of the Rockefeller Foundation, etc. London: J. & A. Churchill, 1930. pp. 202, illustrated. Price 5s. net.

The articles, prose, poems and stories which comprise this volume cover the more important topics of public health work. The aim is to give the facts as to how the body can be kept strong and well in such a simple direct way that the reader may come to realise that only as he observes "The Rules of the Health Game" can he keep happy and be successful. Along with this is stressed the fact that each person is a member of a community and that the health of his community depends upon the individual and his associates. The stories and articles appeared originally in the monthly bulletin of the Bureau of Health Education

of the Jamaica Central Board of Health, which is issued to meet the demands of the people for definite and practical information. The outcome of presenting subjects which meet definite enquiries has resulted in people of all classes becoming interested in "Jamaica Public Health" as the bulletin is called, and in its being used as a text-book of hygiene in many of the schools. The book is of more than local interest; its teaching is applicable in any part of our Empire, which is shown by the fact that there has been a demand for the bulletin in a number of countries outside of Jamaica. It is most suitable for propaganda work.

In the Annual Reports.

EARLY TREATMENT OF DIPHTHERIA.—In all these unfortunate cases, the child had been ill several days, and it may be said with truth that if energetic anti-toxin treatment had been given from the commencement these children would in all probability not have died. In the great majority of the other fatal cases, admission to hospital took place comparatively late in the disease, and if anti-toxin had been administered at home—a not very usual procedure—the dose was too small. This unhappy position is not due entirely to the neglect of the parent to summon a doctor. The habit of some medical men to wait for the result of a bacteriological examination of a throat or nose swab before diagnosing diphtheria is also to blame.—*Dr. Oscar M. Holden, Croydon.*

THE MONEY VALUE OF HEALTH WORK.—If a comparison be made of the last twenty-one years, from 1908-1929, the period during which I have had the honour of being Medical Officer of Health to the County Borough of Tynemouth, it is found that the death rate in 1908, expressed in terms of the present population, would be equivalent to 1,106 deaths for the year 1929, whereas the mean number of deaths of the last five years was only 838, or a saving in life of 268 persons per annum. Political economists place a definite money value on each member of the community, based upon the power to earn wages. Some years ago it was stated to be as high as over £400. Assuming the figure to be only £250, it will be seen that the annual financial saving to the borough is a sum of £67,000 during the last five years, as compared with 1908.—*Dr. James A. Hislop, Tynemouth.*

THE COST OF DISEASE.—If plague or cholera were to visit one of the great towns of England, it might well wipe out in a week two-thirds of the population. The citizens and the city would be dead, and there would be no shortage of houses for many years. Trade would be at a standstill, and the prisoners would be freed from their prisons in order to bury the dead. The tragedy of a fearful and empty city can better be imagined than described. Such horrors do not happen casually to-day, but if it were not for the work of preventive medicine, they would now be as common as they were in the Middle Ages. People grumble sometimes and tell me how expensive is the work of the public health department in Plymouth. Such

complaints are ill-advised and misinformed, for the work of preventive medicine in Plymouth costs every person in the city the small sum of only 5s. 11½d. each year, which surely is a very small insurance premium against ruin and death.—*Dr. A. T. Nankivell, Plymouth.*

THE DOCTOR IN THE SCHOOL.—Sufficient time has now elapsed to justify comparison with the early years of school medical work. The work of inspection has been carried on by Dr. Gurney since 1911, so that so far as a purely personal standard is concerned, the comparison afforded by figures can be checked by personal experience and opinion. Compared with those early years the change in the improvement of the children is remarkable, and as regards cleanliness and general appearance is a complete revolution. At all ages examined the children are taller and heavier, of better physique, freer from defects, better clothed and infinitely cleaner than their predecessors of twenty years ago. A poorly fed or poorly clad or really dirty child is exceptional. Skin diseases, especially impetigo and ringworm, are greatly reduced, ringworm indeed being for quite long periods entirely absent. There were no cases of this troublesome disease in the schools at the end of the year under review. There is almost as complete a change in the attitude of parents to medical inspection. In the early years of the work objections to inspection arose in about 20 per cent. of the cases; now they are practically unknown. At first, few parents accepted the invitation to accompany their children; now over 70 per cent. of the children have their mothers with them. This is almost as large a number as can conveniently leave their homes for this purpose.—*Dr. Andrew J. Laird, Cambridge.*

SMALL-POX AND VACCINATION IN CHINA.—Small-pox was known in China long before the Christian era, and is described in books still extant. For centuries it was one of the greatest scourges, depopulating cities and exterminating nations. It is the typical preventable disease, and vaccination is the typical method of specific prophylaxis. Vaccination protects from small-pox as much as that disease itself. "I never expected that it would do more," said Jenner in 1798, "and it will not, I believe, do less." Vaccination was first performed in Shanghai in 1846 by Dr. Lockhart of the Shantung Road Hospital. A municipal vaccination dispensary was opened in the Maloo in 1871 by Dr. Edward Henderson. During that year 258 children were vaccinated, and since then well over half a million free vaccinations have been done by the public health department. This year the number was 58,213, which constitutes a record. It is estimated that about 75 per cent. of the new-born babies in the settlement are protected each year against small-pox by vaccination. The efficacy of vaccination in the prevention of the disease has been proved by the accumulated experience of a hundred and thirty years.—*Dr. C. Noel Davis, Shanghai.*

MILK CLUBS.—The question of the formation of milk clubs in the schools was raised, after the summer holidays. It was ascertained that the head teachers of the schools were willing for milk clubs to be formed, and the committee gave sanction to the head teachers to arrange for these, making their own arrangements as to supply, provided the milk was obtained from an

approved source. The milk is delivered at the schools in bottles, containing one-third of a pint, after being heated at the dairies. It is drunk from the bottle by means of a straw. The cost is 1d. per day. The following notes are taken from a report of the secretary of the committee:—"57 out of 68 departments have formed milk clubs, the average number of children receiving milk is 5,966. The milk is delivered from five dairies. One department uses malted milk. The scheme is much appreciated by parents and it has been found that many children who would not drink milk at home drink it at school. Although these clubs have only been functioning for two months, the teachers state that the children display more energy during the morning. In many cases the "bread and butter" and "cake" lunch has given place to the milk. The work entailed does not interfere with the routine of the schools."—*Dr. Duncan Forbes, Brighton.*

SUICIDE.—I regret to see the increase in the number of suicides that have occurred during the year. It occurs to me that this is largely due to the continued reports in the newspapers of these cases of suicides, and the method by which life was taken. One must remember that if six individuals succeeded in committing suicide during the year, there is a large number of others who have attempted suicide and failed. To those whose lives are unhappy and who feel the strain of life under modern conditions, the repeated reading of these reports of suicides acts as an incentive to the commission of this felony, and I feel very strongly that steps should be taken to prevent newspapers reporting at any length, if at all, on these cases.—*Dr. D. H. Geffen, Enfield.*

HEALTH EDUCATION IN SCHOOL.—The bed-rock of all health instruction lies in the schools. Ever since 1904 the Board of Education has been reiterating the plea for more intensive and more widespread health education in our schools, and in 1928 the Board issued its "Handbook of Suggestions on Health Education" which deals fully with the subject matter of health practice and health lessons for both the younger and the older children in our schools. Owing to the tendency to overcrowding of the school curriculum and the necessity of "cramming" for examinations, the subject has never been popular among those responsible for elementary education; the result being that the actual teaching of the practice and art of hygiene in many of our schools leaves much to be desired.—*Dr. Andrew W. Forrest, Leyton.*

THE DIAGNOSIS OF DIPHTHERIA.—It has now become a firmly established practice among the majority of medical practitioners to swab every suspicious throat and wait for a bacteriological report before notifying the case or administering antitoxin. This is to be regretted, not only on account of the delay in giving antitoxin, but because the bacteriological reports are not always reliable, and do not justify the faith placed in them by practitioners and the general public. Not infrequently the swab has proved negative in cases which have been suffering from virulent diphtheria. . . . Much better results would, I think, be obtained if practitioners relied entirely on their clinical diagnosis, and in doubtful cases either administered antitoxin or sent the patient into hospital.—*Dr. F. Garland Collins, West Ham.*

Correspondence.

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

PASTEURISATION OF MILK.

To the Editor of PUBLIC HEALTH.

SIR,—I was much interested in the characteristically amusing, but equally interesting, observations under "Ut Ita Dicam" in the August number of PUBLIC HEALTH, on milk pasteurisation.

Perhaps the simple reason why the recent letter of Dr. Bolduan, of New York, has failed to excite comment is the fact that this subject is not at the moment "in the news."

I am one of those who agree on the need for pasteurisation as the one immediately practical method of protecting the public against milk infection; and I cannot help thinking that PUBLIC HEALTH would do important service to the cause we have at heart if it tried to secure from the large number of medical officers and other medical men who favour the Pasteur method, a declaration of the faith that is in them. It should not be difficult to draft a formula to which they would gladly assent; and their public adhesion would strengthen the hands of those who are striving after the provision of a safe milk supply.

I am sure I speak for many when I say that we do not regard pasteurisation as necessarily the last word in milk reform. Sooner or later science may discover an alternative method which will make pasteurisation obsolete. Nor are we opposed to certification and grading, although most of us are agreed that the number of grades should be reduced and the terminology simplified.

But, so long as we continue to press for improvement of milk at the source, I am convinced that the majority of medical officers would welcome an opportunity of declaring openly in favour of pasteurisation. Let PUBLIC HEALTH extend its valuable propaganda work and evolve a simple declaration that will be of practical use as a guide to the public; and I for one will willingly subscribe to it.

I am,

Yours faithfully,

JAMES FENTON,
Medical Officer of Health.

Town Hall,

Kensington, London, W.8.

September 15th, 1930.

THE RESEARCH DEFENCE SOCIETY: APPEAL BY VISCOUNT KNUTSFORD.

To the Editor of PUBLIC HEALTH.

SIR,—I wish I could persuade more members of the medical profession to be subscribers to the Research Defence Society.

We do not need any large sum, but if we could get two hundred more annual subscribers of £1 it would make our work easier to carry on. We are the only Society that exists to expose the mis-statements of the Anti-Vivisection Societies and agitators. They preach that all experiments on animals are useless; that no good has come from them to man or beast, and that the experiments are grossly cruel.

An uninformed public accept such statements as true, and the only way to get the facts known is by the propaganda of a Society such as ours. But this is expensive—and so I ask the help of those who wish it well.

I am, Yours faithfully,
KNUTSFORD,

Chairman, Research Defence Society.
11, Chandos Street,
Cavendish Square, London, W.1.
September 13th, 1930.

THE Hygiene Commission of the Federation Dentaire Internationale decided, during the recent sessions held at Brussels, that an International Oral Hygiene Exhibition should form part of the VIIIth International Dental Congress at Paris from August 3rd to 8th, 1931. In order to ensure the international character of this exhibition, a committee comprising representatives chosen from all countries affiliated to the Federation was constituted. As it is most desirable that Great Britain should be adequately represented, it is hoped that those who are in a position to assist with suitable exhibits relating to all branches of oral hygiene, including the teeth of children of all ages as well as those of adults and the care of the expectant mother, will forward as soon as possible to either of the Joint Organisers of the British Section (Mr. Alfred E. Rowlett, 165, London Road, Leicester, and Mr. J. Menzies Campbell, 14, Buckingham Terrace, Glasgow, W.2) full particulars of any exhibits which they may be prepared to loan.

PUBLIC HEALTH

THE JOURNAL OF
THE SOCIETY OF MEDICAL OFFICERS OF HEALTH.

No. 2. Vol. XLIV. NOVEMBER, 1930.

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

Application should be made to the Executive Secretary of the Society, at 1, Upper Montague Street, Russell Square, London, W.C.1.

Subscription price 31s. 6d. per annum, post free in advance. Single Copies, 2s. 6d. post free.

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Editorial.

The President, 1930-31.

AT the Annual General Meeting of the Society held on October 17th, Professor Harold Kerr, O.B.E., Medical Officer of Health of Newcastle-upon-Tyne, was installed President for the Session 1930-31 by his predecessor, Dr. John Buchan of Bradford. Having regard to his long and intimate association with the Northern Branch, both as Honorary Secretary and President, it was not surprising that the members of that Branch, to which he has given so much work and devoted so much enthusiasm, should have taken the first available opportunity to nominate him for the Presidency of the parent body. Member of the Council of the Society for a long period of years, strenuous in his desire for its progress and the advancement of the interests of the

service, it was no matter for surprise that the nomination of his own Branch secured the immediate acceptance of every other Branch and Group and his unanimous promotion to the highest post within the Society.

In installing Dr. Kerr, welcoming him and congratulating him, Dr. Buchan chose to warn him that the honour conferred brought with it a multitude of responsibilities and much hard work. As compensation, however, there was everything in the shape of loyalty, regard and support from everyone within the Fellowship of the Society. Very feelingly Dr. Buchan testified to the value of these in carrying out the duties of the office and lessening the weight of the work he was called upon to perform.

In accepting nomination, Professor Kerr doubtless was aware of what there was to be

carried and what he had to face. Everyone knows that the Presidency is no sinecure, no mere ornamental position, involving attendance at a few meetings and representing the Society at a number of functions. Those who nominated him knew he was a worker; knew, too, that he had the ability to perform the work and would on all occasions so act as to uphold the dignity of the Society and the health service and add to their prestige. These beliefs were shared by all who supported his nomination and, believing, offer him welcome at the beginning of his year of office, wish him all happiness and success, and pledge themselves to support him loyally throughout its course. The welcome that was actually voiced at the installation, Professor Kerr may rest assured is echoed by everyone of his fellows. These echo also the expressions of gratitude to and appreciation of the services rendered by Dr. John Buchan during the period he has occupied the chair. It is early days yet to assess the value of what he has done to add to the esteem in which health officers and their Society are held. It is open to believe, however, that not all the energy he threw into his efforts and the sincerity he displayed can have failed to convince that his own enthusiasm for the public health was real and was not his alone but was shared by all in the service he represented.

* * * * *

The East Midland Branch.

THE first meeting of this Branch was held at the Guildhall, Nottingham, on October 2nd, 1930.

The following were present: Drs. Stevens, Stanley Banks, O'Connor, Killick Millard, Stirling, Ash, Mackay, Burke, Campbell, Lilico, Davies, Kynaston, Warner, Newth, Barker, Bertram Smith, MacKenzie, Sprenger, McCulloch, Cyril Banks, Malkin, Fairer, Wear, McKean, Ogilvie, Jeremiah, Ferguson, Mr. Carrington and Mrs. Curtis (Dental Officers). Dr. J. J. Buchan, immediate Past-President of the Society; Mr. G. L. C. Elliston, Executive Secretary of the Society; and Drs. Seacombe and Conway also attended as guests.

Apologies for absence were received from Drs. Tibbits, Pooler, Morris and Jennings.

Dr. Cyril Banks, on behalf of the negotiating committee, announced that the Council of the

Society had approved the formation of the East Midland Branch.

The following office bearers for the session 1930-31 were proposed, seconded and duly elected:—

President: Dr. C. Killick Millard.

Hon. Secretary and Treasurer, and Representative on Council of Society: Dr. J. A. Stirling.

Branch Council: Drs. W. M. Ash, Cyril Banks, W. S. H. Campbell, J. A. Fairer, H. C. Jennings, G. Lilico, A. H. Lowe, C. Rolleston, B. C. Stevens, and A. C. Tibbits.

Dr. J. J. Buchan delivered the inaugural address to the Branch, dealing in a very interesting and reminiscent way with the public health activities and the advances made since the formation of the Society of Medical Officers of Health in 1856. On the motion of Dr. Ash, seconded by Dr. Fairer, Dr. Buchan was heartily thanked for his address.

Mr. Elliston was also welcomed to the Branch and responded in suitable terms.

Dr. Millard proposed a vote of thanks to Dr. Cyril Banks for the invaluable services he had rendered in the formation of the East Midland Branch, and this was seconded by Dr. Stevens and carried unanimously. Dr. Banks, in the course of his reply, mentioned the interesting fact that owing to the formation of the Branch over twenty new members, who would not otherwise have been secured, had joined the Society.

It was agreed that future meetings of the Branch should be held on the first Thursday in each month at 3.30 p.m., and that the Branch Council should meet on the same day at 3 p.m.

* * * * *

The Housing Act, 1930.

SINCE the Royal Commission of 1844-5 reported on "The Health of the Towns and Populous Places" and legislation for improvement of the living conditions of working people was introduced by Shaftesbury's and Cross's Acts, housing has been a main plank in the platform of social reformers. The earlier laws concentrated upon the eradication of unhealthy areas and the provision of adequate dwellings for the working classes—slum clearance, in fact, and the elimination of jerry-building. It was not till 1890 that in a consolidating Housing Act the importance was recognised of continuous and piecemeal

improvement of housing, although such a procedure had been partially provided for by Sections 91, 94, 95 and 97 of the Public Health Act, 1875. The process of closure and demolition was then laid down, but the local authority had to act through the courts, and any repairs, not depending for their completion upon closure, had to be done under the Public Health Act. Comprehensive measures for the improvement of the housing of the working classes really became practicable for the first time in 1909 with the passage of the Housing, Town Planning, etc., Act. For the first time disrepair became remediable without proof of nuisance in the courts. The whole machinery was rendered far more efficient by the power given to local authorities to proceed with the work of repair after the lapse of a reasonable time and the transfer of appeals from the courts to the Ministry of Health.

Meantime the law in regard to slum clearance, rehousing and the erection of workers' dwellings was carried on from enactment to enactment without any great changes of principle, although the town planning sections of the Act of 1909 introduced a new idea which immensely broadened the scope of the local authorities' control over building. But when the steadily falling stream of house-building finally dried up in war-time, and the inevitable measures which had to be taken to protect the public from exploitation by means of the Increase of Rent and Mortgage Interest (Restriction) Acts finally made private enterprise in house-building uneconomic, something had to be done to provide dwellings for the people. Post-war housing legislation marks the stages in an uphill fight toward this objective. It would be idle to pretend that it has been quite successful. It is common knowledge in most health departments that overcrowding is rife in houses which are in no sense slums or capable of being dealt with by any scheme for clearance, reconstruction or improvement. If local authorities' housing schemes have fallen off, it is probably for economic reasons and not because they have nearly reached fulfilment.

However this may be, the Government consider that the time has arrived for concentration once more on the slum aspect of the housing problem, which was the main concern of local authorities before the Great War, and for this purpose the Housing Act, 1930, has been passed.

While still in Bill form this measure was

dealt with at some length in the issue of May, 1930, and what was then said need not be repeated. It is now the duty of all urban local authorities with a population exceeding 20,000 to make a special housing survey and submit to the Minister before the end of the present year a programme setting out the action they propose to take during the ensuing five years for dealing with housing conditions in their area and the provision of further housing accommodation. It may be assumed that their activities as to repair (Sections 17 and 18 of the new Act) cannot well be foretold, but the programme will be expected to contain a statement of the number of areas to be dealt with as "clearance" and "improvement" areas, and the number of houses outside of such areas which will be closed and demolished, as well as the number of new houses to be provided, distinguishing those intended for the population displaced by the foregoing procedure. The authorities will inevitably depend upon their health departments for an enlightened but reasonable estimate of their probable activities, although they are empowered to act upon any other information in their possession. It is, perhaps, fair comment that the time given to prepare a five years' programme is rather short when the many other responsibilities cast upon these departments by recent legislation are taken into consideration. Most health officers will have decided as to the areas which ought to be dealt with by clearance, and the number of houses that ought to be dealt with by closure is also known. The sort of "improvement" provided for in Sections 7 and 8, however, admits of so much latitude of interpretation that time for careful thought appears to be required. There are obvious advantages in adopting the procedure of these sections as widely as possible, for they provide a means of preventing the growth of new slums by the registration of dwelling-houses within such an area and the stringent application to them of by-laws controlling their occupancy; but the primary condition must be satisfied that "the housing conditions in that area are dangerous or injurious to the health of the inhabitants by reason of the disrepair or sanitary defects of dwelling-houses therein, and also by reason either of overcrowding in the area or of the bad arrangement of the houses or of the narrowness or bad arrangement of the streets." As already noted in previous comment upon the Bill, the use of the

word "overcrowding" here is ambiguous. Does it refer to houses overcrowded with occupants or land overcrowded with houses, or to both? The Ministry, judging from the memorandum accompanying circular 1138, would seem to favour the first of these interpretations. If this view is accepted by the courts, then it should be possible to treat by "improvement" quite extensive areas in some towns which otherwise would hardly comply with the terms of the Section. In this connection it is important to note that appeals now lie with the county courts and not with the Ministry, so that the future of this new line of procedure is rather uncertain.

In the earlier note it was shown that the standards for distinguishing houses which are repairable from those which are not so regarded have been changed by this Act. The new basis of "reasonable cost" remains to be tested in practice. Difficulties may arise, but the public health service is used to solving difficulties. It has been suggested that 25 per cent. of the estimated capital value of the repaired house might be the limit of expenditure which an owner reasonably could be expected to incur on repairs. It should also be noted that the rehousing of tenants displaced from houses or parts of houses closed but not demolished in terms of Sections 19 and 20, does not appear to rank for the special grant provided by this Act unless these houses are included in an improvement scheme.

The Act has been the subject of a recent conference summoned by the Housing Committee of the Association of Municipal Corporations, but health departments were not strongly represented there, and the deliberations of the meetings do not appear to have been of a very practical character. The trouble about housing is that its problems appear on the surface to be so simple that everyone is free to regard himself as an expert on the subject.

The B.M.A. Meeting in Canada.

FROM reports now to hand it is clear that the British Medical Association meeting at Winnipeg was an unqualified success from every point of view. For this, thanks are due to Canadian colleagues and the inhabitants of Winnipeg, who exerted themselves to the utmost to make the occasion a memorable one. From the moment of landing the visitors encountered a hospitality so bounteous that to describe it worthily is impossible. The utmost

goodwill and enthusiasm prevailed at all stages of the progress from Quebec to British Columbia and during the Conference at Winnipeg. The large representation from this country and from Canada, the discussions which took place, and the impressiveness of the more ceremonial functions were worthy of the best traditions of the British Medical Association and its sister body, the Canadian Medical Association. Representatives from the United States, under Dr. Parry Morgan, added to the distinction of the gathering.

The section on Preventive Medicine was well attended, and the discussions reached a high level. Among those who travelled from this side were Dr. A. S. M. Macgregor (President), Sir Eustace Hill, Dr. W. M. Willoughby (President-Elect of the British Medical Association), Dr. A. Greenwood, and Dr. C. T. Maitland (Ministry of Health). A considerable proportion of Canadian medical officers were present, including Professor J. G. Fitzgerald (Toronto), Dr. Grant Fleming (Montreal), Dr. J. A. Roberts (Ontario), Dr. M. R. Bow (Deputy Minister of Health, Edmonton, Alberta), Dr. Norman McLeod Harris (Ottawa, Ontario), and many others. Dr. Brackenbury and Dr. Bone also honoured the section by attending certain of the meetings.

The subjects selected for discussion were those likely to be of interest to the representatives of the public health services of both countries. They included "The Development of a well-trained Public Health Personnel," with special reference to the training in preventive medicine of the graduate, the undergraduate, the sanitary inspector, the health visitor, and the midwife. Professor Fitzgerald, out of his wide teaching experience, gave a valuable and suggestive opening address, while Sir Eustace Hill's appreciation of the position of the midwife, based on his special experience, was highly esteemed. At the second session, under the chairmanship of Dr. A. J. Douglas (Winnipeg), pasteurisation of milk was discussed, while the third session was held jointly with the section on Tuberculosis and was devoted chiefly to a very interesting study of racial proclivity to tuberculosis by Professor Lyle Cummins and a discussion on anti-tuberculosis schemes opened by Dr. Macgregor (Glasgow).

On the more social side, pleasure and inspiration both resulted from the opportunity presented to exchange views with Canadian

colleagues in the public health service. In many directions high standards of public health practice are maintained, particularly in the cities. Especially interesting to note was the vigorous manner in which the city of Winnipeg has developed its public health and sanitary services, to keep pace with its rapid growth, under the guidance of Professor Douglas, who has been its medical officer since its village days. One difficulty which confronts Canada is its rural problem—how to make modern public health organisation effective in wide and sparsely populated districts. Everyone is acquainted with the high standards reached in milk distribution, especially in ensuring its pasteurisation, and an important paper was read at the section on Tuberculosis by Dr. Ray Price (Toronto), in which evidence was brought forward to show that the practice of effective pasteurisation could be credited with having practically eliminated the menace of bovine tuberculosis from Toronto.

Acquaintance was again renewed with certain members of the tuberculosis service of Canada, made familiar by the visit paid to this country two years ago, among them the genial Dr. Wodehouse. It was a pleasure to meet again Dr. D. A. Stewart, of Ninette, Manitoba, whose magnetic personality, acute observation and powers of exposition on the platform and in his writings make him a prominent figure in any gathering.

Delightful as it was to renew these and other old friendships, even more of a delight was it, perhaps, to make new friends and to gain stronger belief in the views as to the need for progress in the field of preventive medicine from learning that these beliefs are shared by others in other lands.

Travelling Scholarships for Tuberculosis Officers.

AMONG those who attended the British Medical Association meeting at Winnipeg were the participants in the Canadian scholarship tour, in which some forty members of the tuberculosis service and others took part. Provided by the Sun Life Assurance Company of Canada, this tour proved most helpful to tuberculosis work in this country. A liberal education was contained in a few crowded but happy weeks, and it was not only delightful to make so many permanent friendships with Transatlantic colleagues, but useful also to get to know intimately so many

English colleagues representing every group of medical men and women interested in tuberculosis work in this country. The party included members of the staff of the Ministries of Health and Pensions, tuberculosis officers, medical superintendents, consultants, a bacteriologist, a medical officer of health, as well as such workers as the registrars of leading chest hospitals, and in order to make the tour more useful to participants and to non-participants a special aspect of the subject was allotted to the various members for them to observe, reflect upon and write up on their return. In this way the utmost value was obtained from visits to institutions, and a repetition of the same questions by different men was largely avoided. On such visits there were first introductions, then an illustrated exposition of their work by those engaged there, followed by an inspection of the institution. Transatlantic colleagues facilitated the work in every possible way, and there is no doubt that the tour will have a far-reaching influence on British tuberculosis work. It is to be hoped, now that a Canadian assurance company has shown the way, that British companies will follow suit and contribute also to a mutual object—the prevention and cure of disease.

The Mental Treatment Act, 1930.

THE Mental Treatment Act, 1930, is largely based on the findings of the Royal Commission, and with the issue of the Board of Control circular (745) and memorandum, it is possible to form some opinion as to the views of the Board in relation to the application of the Act.

It is pointed out in the memorandum that the Act is designed very largely "to bring within the range of treatment, cases in the earliest stage of mental illness," and there will be general agreement with the opinion stated that "these patients may be very sensitive and critical of their surroundings, and the benefits and popularity of the Act will be lost if they find themselves in proximity to patients whose symptoms are acute and distressing." It is surprising to find in the next sentence that it is the opinion of the Board of Control that there will probably be advantages in admitting voluntary patients to a mental hospital. Admittedly it is provisional on the mental hospital having good admission wards, but it is regrettable that the Board of Control should not realise that a mental

hospital is the last place with which a case of incipient mental illness should be associated. Reference, however, to the report of the Royal Commission reveals the fact that the Commission also were of opinion that a voluntary patient (i.e., a patient capable of forming his own opinion and expressing his desires) should be accommodated in a mental hospital, and recommended that local authorities should make adequate provision for the accommodation of such patients in mental hospitals (p. 52.) Particularly is it remarkable since the Royal Commission itself recognised that mental hospitals, at least in the eyes of the general public, are institutions where human society places those of its members of whom it is "intolerant," for the purpose of "expelling them from its company and confining them in isolation."

It was definitely stated during its passage through the House of Lords that the intention of the Bill was to keep early mental treatment "away from all mention of the machinery of insanity," and that the object of the Bill was "to take these people from their suffering from mental illness in the same way as we take them away from their suffering from physical illness."

The memorandum certainly points out that the Act contemplates that the resources of general hospitals should be available for the treatment of incipient mental illness, and calls attention to the importance of giving due consideration to the use of these hospitals. Nevertheless, it leaves the impression that the general hospital is merely an alternative if accommodation in the mental hospital is not readily available. The intentions of the Act are far more likely to be attained if incipient and minor cases are treated at the large general and municipal hospitals, either as in-patients or out-patients, rather than at mental hospitals which, in spite of the alteration of the name, will for many years continue to be popularly known as asylums, and must always remain in the public view, institutions for the reception of the insane. It is not to be anticipated that the public will differentiate between the types of accommodation to be provided at mental hospitals for voluntary, temporary, or certified patients.

The same objections, though in a much lesser degree, apply to the accommodation of temporary patients in mental hospitals. As the memorandum properly points out, the purpose of the Act is to enable a temporary

patient (i.e., one for the time being incapable of expressing himself) to receive treatment without incurring the "stigma" of certification, but to the erstwhile temporary patient who has been successfully treated and discharged, and possibly to his relatives also, the stigma of admission to a mental hospital is almost as great.

Nevertheless, the difficulty in deciding what is the best form of accommodation for this type of patient is great, and it must be admitted that a detached department of a mental hospital would appear, in the circumstances, to be the best place to accommodate a temporary patient.

In explaining the powers and duties of local authorities for the provision of out-patient clinics for the treatment of mental illness, the memorandum definitely expresses a liking for the general hospital in preference to the mental hospital for the establishment of such clinics.

Amongst the other provisions of the Act, which are explained, are the powers to provide for after-care and research and the further protection afforded to those administering the Lunacy Acts.

The general impression left by the memorandum is that the policy indicated therein is not towards the detachment of the treatment of incipient mental illness from the machinery of insanity, but towards its attachment to the most prominent part of that machinery, *viz.*, the mental hospital.

* * * * *

The Registrar-General's Statistical Review.

THE most recently issued volume of the Registrar-General's Statistical Review for 1929* contains, as usual, information of great interest to all concerned with the public health.

It is recorded that the estimated population (in thousands) was:—

	1928.	1929.	Increase + or decrease — per cent.
England and Wales...	39,482	39,607	+ 0.32
Scotland ...	4,893	4,884	- 0.18
Northern Ireland ...	1,250	1,250	—
Irish Free State ...	2,949	2,943	- 0.20
Total ...	48,574	48,684	+ 0.23

* The Registrar-General's Statistical Review, 1929, Tables, Part II, Civil, obtainable from H.M. Stationery Office. The price of the volume, formerly 5s., is now 2s.

The number of marriages solemnised in England and Wales during the year was 313,316, and was equal to a rate of 15.8 persons married per 1,000 persons living. Both number and rate are the highest since 1921. The increase was shown over three quarters, but the April-June quarter had a fairly substantial decline. The greatest quarterly number of marriages was again recorded in the July-September quarter (being nearly double that in the January-March quarter) thus continuing the preference for the third quarter of the year, a feature of the returns since the beginning of the present century.

An additional table (F.1) appears in this issue showing for the year 1929 for England and Wales and the constituent registration counties, the numbers of marriages with religious ceremonial according to the rites of the Established Church and various other religious denominations, and also the numbers of civil marriages. Compared with 1924 the number of marriages with religious ceremonial has declined from 762 to 743 per 1,000 marriages, while civil marriages have increased from 238 to 257 per 1,000 marriages.

As regards divorces, the number of decrees nisi made absolute during the year was 3,396, as compared with 4,018 in 1928, a decrease of 622 or 15.5 per cent.

The births registered during the year numbered 643,673, equal to a rate of 16.3 per 1,000 of the population, a decline from 660,267 and 16.7 respectively, and continuing the steady fall of recent years broken only by the figures for 1928.

The number of illegitimate births was 29,307, or 395 less than in 1928.

The proportion of male to 1,000 female births was 1,043, a close approximation to the proportion in recent years and to pre-war years. The maximum reached was 1,060 in 1919.

The numbers of parliamentary electors on the register for 1929 prepared in respect of the qualifying period of three months ended on December 1st, 1928, were 11,866,794 males and 13,228,999 females, giving a total of 25,095,793, this being the first parliamentary register in which the number of females showed an excess over the number of males. This is the first register compiled under the provisions of the Representation of the People (Equal Franchise) Act, 1928. Compared with the previous register the number of male voters shows an increase of 5.7 per cent., while the

extension of the female franchise has resulted in an increase of 53.1 per cent.

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Special Lectures at the London School of Hygiene.

THE programme of special lectures arranged by Professor W. W. Jameson at the London School of Hygiene and Tropical Medicine (University of London) in connection with the course of study for the Diploma in Public Health, Session 1930-31, is now issued. These lectures are open, not only to the D.P.H. students at the School, but also to any member of the public health service, and, indeed, to all interested members of the general public.

The programme to the end of the Easter Term is as follows:—

AUTUMN TERM (Concluding Lectures.) 1930.

November 11th, 5 p.m.—"Atmospheric Pollution." Sir Leonard Hill, M.R.C.S., L.R.C.P., F.R.S., National Institute for Medical Research.

November 27th, 5 p.m.—"Atmospheric Pollution." J. S. Owens, B.A., M.D., Assoc.M.Inst.C.E., Supt. of Observations, Dept. of Scientific and Industrial Research.

EASTER TERM. 1931.

January 12th, 3 p.m.—"The Control of the Marketing of Fish." C. N. Hooper, Clerk to the Fishmongers' Company. January 12th, 4 p.m.—"Fish Inspection." C. Hattersley, Chief Inspector of the Fishmongers' Company.

January 14th, 5 p.m.—"Bovine Tuberculosis." W. G. Savage, M.D., M.O.H., Somerset.

January 19th, 5 p.m.—"Certain Diseases Common to Man and Lower Animals." F. C. Minett, M.B.E., D.Sc., M.R.C.V.S., Royal Veterinary College.

January 21st, 3 p.m.—"Shell Fish and the Public Health." Professor J. W. H. Eyre, M.D., Professor of Bacteriology, Guy's Hospital.

January 21st, 5 p.m.—"Certain Diseases Common to Man and Lower Animals." D. S. Rabagliati, O.B.E., F.R.C.V.S., B.Sc., D.V.S.M., Chief Veterinary Officer, Wakefield.

January 26th, 5 p.m.—"Public Cleansing: The Composition and Storage of House and Trade Refuse." J. C. Dawes, O.B.E., M.I.Mech.E., Ministry of Health.

February 2nd, 5 p.m.—"Public Cleansing: The Disposal of House and Trade Refuse." J. C. Dawes, O.B.E., M.I.Mech.E., Ministry of Health.

February 4th, 5 p.m.—"Food Poisoning." W. G. Savage, M.D., M.O.H., Somerset.

February 9th, 5 p.m.—"Venereal Disease: Gonorrhœa." Colonel L. W. Harrison, D.S.O., Ministry of Health.

February 11th, 5 p.m.—"Venereal Disease: Syphilis." Colonel L. W. Harrison, D.S.O., Ministry of Health.

February 16th, 5 p.m.—"Venereal Disease Schemes." Colonel L. W. Harrison, D.S.O., Ministry of Health.

February 18th, 5 p.m.—“Venereal Disease: Treatment Centres.” Colonel L. W. Harrison, D.S.O., Ministry of Health.

February 23rd, 5 p.m.—“Meat Inspection.” T. Dunlop Young, O.B.E., M.R.C.V.S., Veterinary Inspector, City of London.

February 25th, 5 p.m.—“Meat Inspection.” T. Dunlop Young, O.B.E., M.R.C.V.S., Veterinary Inspector, City of London.

March 9th, 2 p.m.—“Meat Inspection.” T. Dunlop Young, O.B.E., M.R.C.V.S., Veterinary Inspector, City of London.

March 9th, 5 p.m.—“Public Abattoirs: Lay-out, General Arrangement, etc.” J. C. Dawes, O.B.E., M.I.Mech.E., Ministry of Health.

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Presentation to Mr. G. S. Elliston.

AT their last meeting the Council came to the conclusion that there would be a widespread desire to mark the occasion of Mr. G. S. Elliston's recent retirement from the Executive Secretaryship of the Society by making a presentation to him at the Annual Dinner on November 13th next. That in so deciding the Council interpreted correctly the views of the members generally will not be questioned.

During Mr. Elliston's twelve years' of office the membership of the Society has increased from under 700 to nearly 2,000; remarkable improvements have been secured in conditions of service, notably remuneration; and the prestige and influence of the Society have been greatly augmented. Those most intimately acquainted with the work of the Society know how great has been the part played by Mr. Elliston in securing this success, and how much the Society owes to his energy, ability and general popularity both within and without the Public Health Service.

The appeal of the special committee appointed to make the necessary arrangements, and consisting of Professor Harold Kerr, O.B.E. (President), Dr. George F. Buchan (Hon. Treasurer), and Dr. James Fenton is one that probably by now in the majority of cases has been answered. If not, however, the list doubtless is still open, and Dr. Fenton, as Hon. Secretary to the Presentation Committee, will be pleased to receive contributions addressed to him at the Town Hall, Kensington, London, W.8. In anticipating that the response to their appeal would be practically unanimous, and that therefore the amount of the contribution suggested (2s. 6d. upwards) need not be high, the special committee were justified. It is safe to assume also that they will find in the result

full justification for the hope, expressed in the letter sent to every member, that the number of individual subscribers will adequately reflect the regard, esteem and affection in which George Elliston is held by the Society as a whole.

THE Child-Study Society, London, announce that lectures and discussions will take place at the Royal Sanitary Institute, 90, Buckingham Palace Road, London, S.W.1, as follows: November 13th, at 6 p.m.: “The Methods of a Modern Reformatory,” by Arthur H. Norris, M.C., M.R.C.S., L.R.C.P., D.P.H., Chief Inspector, Children's Branch, Home Office; December 4th, at 6 p.m.: “The Changes in the Child's Attitude to Life during the School Period,” by C. W. Kimmins, M.A., D.Sc. An admission charge of one shilling for each lecture is payable by those who are not members or associate members of the Society.

The Third Health Education Conference, arranged by the Central Council for Health Education, will be held at the London School of Hygiene and Tropical Medicine, Keppel Street, Gower Street, London, W.C.1, on Thursday, November 13th, 1930, from 11 a.m. to 5 p.m. At the morning session an address on “Publicity in Public Health” will be given by Lord Riddell, to be followed by a paper on “Popular Health Talks—Presentation and Subject Matter” by Dr. John Hall, Lecturer-Organiser, Merseyside Boroughs Education Committee. The afternoon session will be devoted to an address by Professor H. R. Kenwood; and papers on “Health Teaching in the Schools” by Mr. G. H. Barker (Member of Executive Council, National Union of Teachers); and on “The Production and Application of Health Propaganda” (illustrated by lantern slides) by Miss Norah March (Secretary, Health and Cleanliness Council) and Mr. T. Crew (Organising Secretary, Central Council for Health Education). A number of the latest health films will be shown during the meeting. Special railway vouchers, entitling representatives to travel at a fare and a third, will be available in connection with the conference. All further information may be obtained from the Central Council for Health Education, Society of Medical Officers of Health, 1, Upper Montague Street, Russell Square, London, W.C.1.

The Future of the Municipal Hospital.

Being the Presidential Address of Professor HAROLD KERR, O.B.E., M.A., M.D., D.P.H., Medical Officer of Health, Newcastle-upon-Tyne, President of the Session, at his Installation on October 17th, 1930.

THE past session, 1929-30, marked a most important epoch in the history of public health administration and development in Great Britain. The Local Government Act, 1929, came into force, and local authorities found themselves, from April 1st, responsible for the functions previously fulfilled by the boards of guardians, who were themselves the original public health authorities, but with very limited powers. They had been the first administrators of measures for the prevention of epidemics, and in connection therewith had instituted the first public hospitals other than those established by the Church. The vestry of the parish had become the sewer authority, and the union board of guardians the nuisance authority. This responsibility was transferred to the local boards, when they were established by the new Local Government Board, 1871, in 1872, and these were also empowered to provide hospital accommodation for epidemics, as well as for undefined conditions, by the Public Health Act, 1875. Even to-day there are still areas in which the poor law hospital serves, however inadequately, all public purposes, notably where there is a lax local authority, and where the demands are not so great as elsewhere. The Vaccination Acts, the key measure for the prevention of perhaps the most important epidemic disease to which the population is liable, remained under the authority of the guardians right up to the present year, to the great inconvenience of those who were responsible for the control of the disease, and who administered similar measures for the prevention of other infections, such as diphtheria and scarlet fever.

Charles Dickens expressed eloquently the public opinion of the spirit of red tape and repression that in his day characterised the methods of the guardians, which fell into considerable public disrepute. The “stigma of pauperism,” of which we hear so much, is no new thing, but is largely the results of these earlier methods, which gave the dog the bad name from which, try how it might, it could not altogether rid itself.

At any rate, in the more advanced areas, great dissatisfaction existed, and ten years ago, in 1920, Bradford gave a lead to the country

by transferring its poor law hospital to the local authority. It was most fitting, therefore, that the Medical Officer of Health of Bradford, Dr. J. J. Buchan, under whom the transfer was effected and has proved so brilliantly successful, should have been the President of this Society during the year 1929-30, when his pioneer work was of the highest value and help to his colleagues. Dr. John Buchan's lead in getting a municipal general hospital in his area was followed by his distinguished brother George at Willesden, shortly afterwards, though the Willesden scheme did not include the taking over of the poor law hospital. He had already occupied the presidential chair of the Society in 1925-26, and, as our Honorary Treasurer, and a member of Council for many years, has been among the foremost in the control of our policy and in the great developments the Society has undergone since the War. Finally, Aberdeen, under Dr. Parlane Kinloch, now Chief Medical Officer of the Department of Health for Scotland, took over and developed its poor law hospital in 1928, and the County and the City amalgamated first their hospital, then their health services, thus anticipating the re-organisation of local government areas that will result from the Local Government Act. Important national legislation always follow upon successful adoption of new principles by individual authorities, and the divorce of all health services from consideration of the financial position of the beneficiary we owe undoubtedly to the pioneer work of John Buchan and his authority at Bradford. Only those intimately concerned can appreciate the enormous difficulties he has had to contend with, and the opposition he has encountered in guiding and bringing to a successful issue this far-reaching social reform.

Local authorities have thus become possessed of considerable hospital accommodation, with much less limitation as to the purposes to which it may be applied than had the guardians. It is upon us medical officers of health that rests the first charge of advising our authorities wisely, and of guiding their new enterprise into such calm waters as John

Buchan has now reached, through all the turmoil that is inevitable in effecting drastic changes. It is because this obligation stands foremost in the minds of so many of us just now that I have chosen the subject for my Presidential Address, and recognising its tremendous importance to us all, I am breaking a tradition in inviting discussion, which will be opened by Dr. William Brander, Principal Medical Officer of the General Hospitals Division of the Public Health Department of the London County Council.

For the most part, poor law hospitals, however acute the hospital shortage locally, served only the destitute classes. The other hospital accommodation might be grossly overcrowded, with a long waiting list, while a large section of the beds in the poor law hospital might be constantly unoccupied, yet there was no co-operation between the two hospitals. In London this had taken place already, and also to some extent in a few of the larger towns, but not at all in most areas. In some places the guardians had done their utmost to popularise their hospital, taking private paying patients, giving the hospital an independent entrance, and even appointing part-time consultant physicians and surgeons to their staffs. But the poor law stigma hung over the place, and the general public fought shy of it. In my own City of Newcastle the guardians did all in their power to attract private patients, but with comparatively little success. Their hospital was quite separate from, though next to the workhouse, or "institution," and the wards and equipment were excellent and up-to-date; there was also a modicum of consulting staff. There were always plenty of empty beds, though the Royal Victoria Infirmary in the same town had an average of 2,000 patients on its waiting list. One can only ascribe the deterrent influence to the blight of the poor law.

Long before the Local Government Act came into force my local authority had declared with no uncertain voice the policy it intended to adopt. It was to dissociate all functions in any way connected with health from administration by the public assistance committee—to depersonalise sickness in fact—and to relegate them to the health committee. In so far as certain of these duties can only be delegated from the public assistance committee if performed under its supervision or subject to its approval, if that approval be withheld, or objection be taken to the health committee's

procedure, the latter could always appeal to the local authority, to which the public assistance committee is equally subject. This applies particularly to the administration of the domiciliary medical service, hitherto carried out by the district medical officers, or "parish doctors."

Further, my authority, recognising the chaotic condition of local hospital services, formed a joint committee of members of the health committee and representatives of the local voluntary hospitals council. The formation of the latter body, though attempted many times previously without success, was only now effected through fear of the unknown possible results of the new Act.

This joint committee was a real step forward in the co-ordination of hospital services, and was of real value in bringing about a closer mutual understanding between hospitals. Very much work was done privately outside, in anticipation of each meeting of the Committee, with the result that little time was wasted in committee upon explanations of elementals, and each member had a full acquaintance beforehand with pros and cons of the subjects that were to be discussed. The committee fully endorsed the declared policy of the local authority that the hospitals, and particularly the poor law hospital, should be administered in such a way as to provide the best possible results for the people of Newcastle as a whole, the voluntary hospitals still, of course, maintaining their service to other areas outside the City, but with greater co-ordination than in the past. A scheme was drawn up, and was duly approved and adopted by the local authority at the next council meeting.

The existing poor law hospital consisted of a large new block of three floors and six wards, with annexes of excellent modern design, with fine operating theatres, electro-therapy plant and so forth, and 150 beds. It was decided to establish this as a first-line hospital, staffed similarly to the best type of voluntary general hospital, for acute medical, acute surgical, and surgical tuberculosis cases. Its purpose is to supplement—not replace—the beds ordinarily occupied in the Royal Victoria Infirmary by Newcastle people, and so to ease the pressure on these and make it possible to retain operation cases rather longer than necessity permits at present. The remainder of the hospital, some 520 or so beds, is to be occupied by the less acute cases, including those chronics for so many of whom it was the sole refuge under

the poor law. By the transfer of all pulmonary tuberculosis to the municipal sanatoria and advanced case hospital, of all normal and septic midwifery cases to the voluntary maternity hospital and to the Royal Victoria Infirmary respectively, and of mental defectives to the municipal mental defectives hospital, some more beds could be rendered available in anticipation of an increase in the numbers of admissions. Transfers to the maternity hospital and Royal Victoria Infirmary would, of course, have to be upon some financial arrangement with those institutions, both of whom already receive grants from the Corporation. There is to be no establishment of an out-patient department, other than for cases discharged from the wards, and no special departments as for eyes or ears, nose, and throat, or skin, where such already exist elsewhere, at special hospitals, or at the Royal Victoria Infirmary.

The mode of staffing gave rise to considerable debate between the ex-guardian members of the committee and the rest.

The ex-guardians favoured whole-time appointments, but were not prepared to pay salaries that would attract good men. They approved the principle that is so attractive to all short-sighted Authorities (with a big A) of being able to "kick their own nigger," and so ensure his amenability to their control, ignoring the fact that no really good man with any ambition will "stay put" at a small salary. Yet they were in the strongest sympathy with the desire to put the hospital in the very front rank of efficiency. They were persuaded, however, and for the acute block a part-time visiting staff was determined upon, on the clinic system, with a senior physician and a senior surgeon at the head as directors, and one assistant physician and two assistant surgeons, one medical and two surgical registrars, and house physicians and house surgeons *q.s.* The visiting staff will be required to assist if called upon in any part of the hospital other than the new block. The salaries for these posts were carefully discussed, and were decided as follows:—£300 for the two directors, £500 for the assistants, £250 for the registrars and £100 for the residents. There is also a part-time radiologist at £300, and of these the radiologist and the two directors have already been appointed, and the others will be selected shortly. There was no lack of applications, and for the two directors, whose rôle will be mainly to direct their sub-

ordinates and guide the clinical policy of the hospital, we have been extremely fortunate in securing a senior physician and a senior surgeon who have retired within the last few months from the active staff of the Royal Victoria Infirmary on attaining the age limit, and who are both on the teaching staff of the medical school, one being a professor and the other a lecturer. As it is the intention that the wards shall be affiliated with those of the Royal Victoria Infirmary for the training of medical students, this is all to the good. The standard of work of the staff where teaching is one of the duties is always better than in a hospital that lacks the attendance of that most critical of all onlookers, the medical student, whose mere presence is a great stimulus to endeavour, especially when it is remembered that the staff may have to look to him for much of their future livelihood.

The original staff was whole-time, and consisted of a medical superintendent, non-resident, with a resident deputy, and three resident assistants. The superintendent received, with various fees, about £1,200, the deputy £600, and the assistants £250. The two former will continue at the same salary, but the three assistants when they leave will be replaced by a senior medical officer at £300 to £500, and two house surgeons and two house physicians at £100. The medical superintendent remains in complete administrative control of the entire hospital, but is relieved of clinical work except as regards the certification of lunatics, for which he has expert knowledge. His deputy ordinarily acts as an operating surgeon, being specially qualified, and will continue to act as surgeon for the older part of the hospital. Besides these there were a couple of consulting surgeons and a consulting physician at £100, and an ear, nose and throat and an eye surgeon each at £25, whose appointments have been determined, though the last two will probably be renewed on the same terms for service when called upon. The provision of efficient laboratory facilities for pathology is also provided for, the personnel to be obtained as necessary from the College of Medicine.

Such then, is the professional staff of the renamed Newcastle General Hospital. The health committee in its scheme provided for a small medical committee consisting of three representatives of the College of Medicine, one from the Newcastle Division of the British Medical Association, and one from the visiting

staff of the Royal Victoria Infirmary to examine all applications for appointments at the hospital, eliminate those that are unsuitable, and return the other names in the order of merit according to its judgment. The health committee would then make the appointment. This method has the advantage of shutting out unsuitable persons, who are so apt to impose upon an uninformed elective body, but is not too readily acceptable to very many councillors, who will not yield at all on the subject of their right to make appointments, however little they may be able to judge of the qualifications of candidates. Many of them, unfortunately, are flattered by the type of candidate who will canvass them, who, however, usually prejudices the best type of councillor against him. The medical officer of health or his deputy attends all the meetings of this advisory committee, by request of the latter.

Not only did the local authority find the medical staff altogether inadequate to provide full attention and treatment for the patients, but it also found a capable but quite insufficient nursing staff. This shortage has also to be made good. In fact, as regards staff, the late guardians "economised" lamentably on essentials, which seems to have been their policy everywhere else too. A sufficient almoner service is intended, to follow up patients and ensure their necessary aftercare.

One great objection to entrance to the poor law hospital has been the interposition of the relieving officer, and his inquisition as to means, and so forth. To begin with, admission is now arranged for by direct communication between the private doctor and the medical superintendent. For the present, inquiry by the relieving officer still takes place, but only in cases where the payment of charges cannot be undertaken by definite agreement with the medical superintendent and a payment made in advance, and then only after admission of the patient.

Ultimately it is proposed to set up a sort of bureau or clearing-house which shall allocate patients according to the accommodation available to the appropriate institution, thus serving all the local hospitals, and so avoiding overlapping. This, of course, will require a very close understanding and communication between all hospitals.

It is anticipated that a gradually increasing admission rate will follow upon all this re-organisation. As its advantages become

known, the municipal hospital will undoubtedly be much appreciated by the respectable independent middle or lower-middle and working classes who cannot afford the private nursing home, and do not like charity. The comparatively moderate cost of maintenance and treatment will serve a real need. At first, at any rate, the accommodation and treatment will be the same for all; if necessary it may become possible to provide special wards for patients who can, and desire to pay for special private attention. But as the Royal Victoria Infirmary is already making provision for this, it does not appear to be either necessary or desirable for the municipal hospital to undertake it. Under any circumstances, it must not be forgotten that the care of the indigent sick is the hospital's first responsibility, and whatever happens, nothing must be done that shall prejudice in any way the accommodation for them, bearing in mind that they have nowhere else to go to convalesce after illness than the hospital itself or some convalescent home established by the local authority.

To meet this expected increase of patients the hospital sub-committee has certain proposals under consideration. These involve the gradual transfer of the workhouse, or "institution" inmate to some more suitable place, and the adaptation or re-building of their wards to meet hospital requirements. Thus the aged and infirm would go out to cottage homes or almshouses, the able-bodied to some more suitable employment centre, while the children have long been placed in an admirable cottage home settlement which has now been put under the charge of the education committee. Only those who require medical supervision would remain, so that the health committee would have sole control of the entire establishment, from which all suggestion of pauperism would be banished.

The local authority determined at first to proceed by "declaration," but under pressure by the Ministry of Health "appropriated" the guardians' institutions instead, until such time as it should have assessed the obligations it would have to meet—obligations that would in all likelihood be found to increase very considerably over what they were at the moment—and the sufficiency of the means available for meeting them. Meanwhile, hospital assistance will ordinarily be granted under the Public Health Act, 1875, except to such persons as there is reason to believe

belong or are properly chargeable to an outside area. These will receive their hospital treatment by way of poor law relief and an account therefor will be transmitted to the responsible local authority. Such cases will still obtain their admission through a relieving officer or district medical officer.

As indicated previously, wherever possible the medical superintendent will obtain an agreement, with payment in advance, from the responsible person on admission of a patient, payments being made to the hospital steward. For those unable to meet the charges there will have to be a proper assessment of means, and this duty it is proposed to refer to the city treasurer, who also performs the same duty for the public assistance committee, makes payments of relief for it and collects its debts. It is felt that where the actual cost is not to be paid at once, or in full, that it would be better to place its collection in the hands of the city treasurer rather than, as previously, recover through the relieving officer. As all hospital costs will be regarded as public health charges, assessments for such as cannot be met in full will be made by the health committee on the advice of the city treasurer.

What will be the effect on the finances of the voluntary hospitals of the statutory duty to recover costs from patients in council hospitals? Many opinions have been expressed, not a few of them expressing fear of an increase of demand for treatment by the voluntary hospitals by persons who could pay but will not. There does not appear to be very solid grounds for such anticipation, since the same thing is happening already. But there is only too good reason to expect a diminution of voluntary contributions with the establishment of a rate-supported hospital. As it is extremely undesirable that the voluntary hospitals should be weakened or displaced by the council hospitals, there is very strong reason for the establishment of contributory schemes, as put forward by the British Medical Association, and over as wide areas as possible. Already several such schemes are in operation and, given adequate support, should solve the financial problem of the voluntary hospitals, and ensure their continuing in the very important rôle they are endeavouring to fulfil to-day so creditably.

Another matter to which my authority has given much thought is the establishment of a central record office where all assistance given

from public or voluntary sources shall be noted, so as to keep a check upon abuse, re-duplication of charity, and overlapping by the various charities and institutions, both medical and otherwise. This will not be easy to devise, but where there's a will there's a way. It should prove invaluable, not only in actual immediate saving of expenditure, and in drawing the various agencies together and getting a sounder understanding between them, but in bringing about a very much more efficient co-ordination of public service by them.

In the foregoing description of hospital organisation I have taken as an example that of my own City, in which considerable progress has been made already. I have endeavoured to show that the various problems met with have been tackled from no limited viewpoint, but that very careful consideration is being given to effects upon kindred local undertakings, and the possibility of developing these or modifying their function so as to produce a more efficient and economical scheme. By aiming at the closest possible relations between all public medical services, municipal and voluntary, it is sought to direct all efforts in a truly co-ordinated plan so as to result in the maximum of advantage to the people of Newcastle generally. At our meeting here last November, Drs. Butterworth, Picken, Fenton, and McMaster addressed us from their several points of view as medical officer of health of a great industrial county, a big provincial city, a metropolitan borough and a county district.* Although the Local Government Act had not then come into force, it was evident that very much consideration had already been given to the best means of carrying it out. A great deal of what they suggested has now been done, and a fair start has been given to the measure, with very little interruption, if any, to the existing service. The change-over in the big towns is, of course, a much simpler matter than in county areas, where poor law hospitals were much less completely organised, and the hospitals as a rule were not separate from the workhouses. The evolution of the county scheme is naturally a slow and gradual process, and will necessitate classification of institutions, with probably alteration and remodelling and even rebuilding of many. The staffing of the hospitals that will result, being often smaller, will naturally be somewhat different from the large ones. They will not be big enough to

* PUBLIC HEALTH, December, 1929, p. 70.

require a whole-time administrative medical superintendent, for instance, and his functions will devolve on some other member of the staff, whole or part-time. Local practitioners may constitute the visiting staff, with a sufficiency of residents; arrangements should be made for the services of consulting physicians and surgeons to be available when required from the nearest big town.

Upon the re-arrangement of local health authority areas will depend much of the efficiency of the less populous parts of the county districts. If each is centred upon a fair-sized town, it will be much easier to arrange an effective hospital service. Motor transport makes it possible to concentrate the multiple and diffused efforts of the past into single, large, well-equipped foci whose admissions will not be so subject to violent and uneconomical fluctuation.

The possession of this hospital establishment opens up a vista of great usefulness to the local authority. It is no longer hampered by limitations such as hampered the guardians, and it will now be possible to develop it according to the needs of the particular locality. Thus maternity and child welfare may be augmented by provision for improved lying-in or maternity home facilities, for the care of venereal mothers, or nursery homes for the illegitimate; children's wards may be equipped, or provision made for orthopaedic facilities for crippled children. Surgical tuberculosis or tuberculosis of childhood, may be provided for. A clinic for cancer, for diabetes, for rheumatism, or for hearts may be set up, or a ward for pneumonia, where that disease is not dealt with at the fever hospital. There is urgent need in most places for general hospital treatment of those cases of mental breakdown that do not, as yet, amount to insanity and are not certifiable; they are much more numerous than are usually suspected, and it is estimated that in our municipal hospital in Newcastle not less than 150 beds will be necessary for these pre-mental cases. In fact, the potentialities of the new municipal hospital for usefulness are without limit, both in the direction of treatment and of investigation of disease.

It was the wish of the President that there should be added to his address a discussion on the subject of municipal hospitals, and the first contribution was the following memorandum on :—

HOSPITAL SERVICES IN LONDON.

By WILLIAM BRANDER, M.D., M.CH., Principal Medical Officer, General Hospitals Division, London County Council.

Professor Kerr has given us an able but orthodox presentation of the case for co-ordination of the public health and poor law medical services, and this case was successfully made out for the abolition of the boards of guardians. At the same time he recognises that the many interesting problems connected with municipal hospitals, which to-day appear in clear relief and so have become capable of approach, emanated from the splendid efforts of many boards of guardians who had to act under very limited powers.

The problem of municipal hospital organisation in London presents many difficulties, which differentiate it from those which have to be faced in large provincial towns, owing to the magnitude and complexity of the hospital service in London. For this reason alone I wish to say at once that the organisation which may prove to be the most suitable for London is by no means necessarily the best for any other town in England and Wales. It is, therefore, with some considerable diffidence that I venture to participate in this discussion.

So far as the general hospitals section is concerned, 29 separate hospitals containing upwards of 17,500 beds, and 14 other institutions containing roughly 11,500 beds, were transferred to the Council on April 1st last.

With regard to special hospitals, 34 hospitals and institutions with nearly 15,000 beds were transferred from the Metropolitan Asylums Board.

The whole of the general and special hospitals and institutions are administered by the Central Public Health Committee of the Council.

It has also to be recognised that the London County Council have been, since April 1st, 1917, the hospital authority for mental patients. The number of mental hospitals and institutions under the Council's control at the present time (including those transferred from the Metropolitan Asylums Board) is 20, containing upwards of 31,000 beds which are administered by a special committee of the Council which is quite distinct from the Public Health Committee.

Speaking generally, the 29 transferred poor law infirmaries of London are, on the whole, well built, well equipped and well staffed for the purposes of their work. Some of them, indeed, can be fairly described as first-class hospitals and only a very small proportion as below par.

For this reason the London County Council, on the advice of the County Medical Officer (Dr. Kay Menzies), is concentrating in the first place on the obvious defects which are to be found—as might be expected—in certain of the more highly specialised departments.

Special Departments.—So far as the laboratory service is concerned, the Council's aim is that every general hospital dealing with cases of acute illness shall be equipped with an adequate laboratory and the necessary staff.

In addition, they have come to the conclusion that it is desirable at the outset to make certain of these hospital laboratories serve a larger purpose by making them "group" laboratories.

In each "group" laboratory, highly specialised work (bacteriological, bio-chemical and histological) will be done, and research work undertaken for the hospitals in their area.

The vast amount and differing character of the morbid conditions dealt with in the Council's hospitals will provide a very wide field for pathological investigation and research.

So far as X-ray work is concerned, for the most part well-housed radiological departments are already provided and in many of the hospitals the apparatus is of the most modern type. We are aiming at having an efficient radiological and electro-therapeutic department in each general hospital.

Out-patient Departments.—So far as out-patient departments are concerned, here again the problem in London may be totally different from that in Newcastle and other extra-metropolitan areas.

At present out-patient departments are already provided at nine of the Council's general hospitals, and they undoubtedly economise beds.

We wish to avoid the out-patient system of the ordinary voluntary hospital, and therefore it is proposed to limit out-patient attendance to the following classes of patients :—

(1) Casualties (accidents and other emergencies).

(2) Continuation and after-treatment for discharged surgical in-patients.

(3) Consultations on patients referred by district medical officers.

(4) Ante-natal clinics.

Item (4) is an important one so far as London is concerned, as will be gathered when I mention that we deal in the general hospitals with some 8,000 maternity cases in the course of a year.

Convalescent Homes.—There is in the London County Council's institutions at the present time an insufficient supply of convalescent beds. Steps are being taken to remedy this defect—in fact, one convalescent hospital for males for 500 beds has already been acquired and opened. This provision will be of great assistance in relieving the pressure on the bed accommodation at the acute hospitals.

Transfer of Cases of Infectious Disease from the General Hospitals.—While mentioning the question of relieving the pressure on the acute general hospitals, I should like to state that I do not think that there is any doubt that one of the most far-reaching and valuable reforms which the London County Council is now in a position to carry out as the hospital authority for all poor law as well as Metropolitan Asylum Board hospitals is to make sufficient provision, by means of additional fever hospital accommodation, for the treatment in the fever hospitals of certain cases of infectious disease which have hitherto sought and obtained admission to the poor law hospitals. The cases which I have in mind are those of measles, whooping-cough, chicken-pox, mumps and other diseases which periodically occur in large numbers, not only amongst the general community but also as occasional outbreaks in poor law hospitals, schools, nurseries and institutions for which the Council is responsible.

The Mental Treatment Act, 1930.—The passing of the new Mental Treatment Act may, in many cases, involve the provision of new buildings and, in any case, will, in the opinion of the Parliamentary Committee of the London County Council, create a new public health service. I would at this stage desire to stress the importance of centralising the whole of the mental hospital work under the Public Health Departments. This is certainly our view in London, more particularly

having regard to the developments which will arise out of the passing of the Act.

Staffing of Hospitals.—Any sound programme of hospital development is, of necessity, accompanied by the organisation on a satisfactory basis of the conditions of service of the medical, nursing, clerical and domestic staffs. In London we are faced with an enormous problem in the creation of centralised hospital services and the staffing of them. The difficulties include the drawing up of uniform rates of pay and conditions of service for the whole of the staff at these hospitals which numbers at least 17,000. The Council has taken over hospitals and institutions from 26 authorities, each with varying rates of pay and conditions of service for all grades of staff. It is obvious that these conditions could not continue under a unified service and much time and thought has been, and is being, devoted with a view to elucidating this extremely difficult problem.

With regard to the medical and surgical staffs, we are all agreed that the association of consultants of established reputation with the municipal hospitals is necessary and undoubtedly adds to the prestige of the hospital service in the eyes of the public and of the medical profession as a whole.

In Newcastle, the medical superintendent remains in complete administrative control but is relieved of clinical work. This is a point to be debated.

Speaking generally, the medical superintendents of the London General Hospitals have spent a considerable portion of their time in active clinical work. Many of them are surgeons, physicians or obstetricians of repute. One or two have devoted almost the whole of their time to administrative work.

It is impossible to judge whether or not the administrative side has suffered materially in those hospitals where the medical superintendent is mainly interested in clinical work or *vice versa*, but it has been pointed out that, if the medical superintendent is divorced from clinical work, there will be a very small field to draw upon for future appointments, as the average resident medical officer who has, for years, been in actual contact with the sick will not readily dissociate himself from the clinical side and devote himself entirely to administration.

A further effect would be that the benefit of years of clinical experience would conse-

quently be lost to the community. Further, the hospital stewards should relieve the medical superintendents of most of the detailed administrative work in connection with accountancy, stores and maintenance of equipment and fabric. It might, therefore, be considered wise not to lay down any ruling as to the amount of clinical work to be done by the medical superintendent but to leave it entirely to him to see that his administrative work does not suffer.

The time, however, is not ripe for us to dogmatise on the exact lines on which whole-time or part-time medical staffs should be maintained.

Medical Education.—With regard to teaching facilities in the general municipal hospitals, where could anything like such good material be found, not only for the undergraduate but particularly for post-graduate teaching?

The municipal hospitals can also be, indirectly, of inestimable service to the public by affording facilities for many more junior resident house officers working under supervision, thus preparing young qualified medical men and women for more efficient practice than mere diplomas give them.

Effect of Appropriation on Hospital Accommodation.—It can be inferred from what has already been said with regard to the available beds in transferred poor law hospitals that there is very little surplus accommodation, at all events in London, and what exists will be required to meet the statutory obligations in so far as destitute persons are concerned.

I know this is contrary to the anticipations of some authorities and accounts for their deciding to appropriate at once. Professor Kerr points out that "the respectable independent middle or lower-middle and working classes who cannot afford the private nursing home and do not like charity" need municipal hospitals and should be catered for.

They will constitute the "discretionary" as distinct from the "obligatory" class of patient.

If this is true, and I am certainly of opinion it is, the result of the processes of declaration and appropriation under the Local Government Act, 1929, will be, as Professor Kerr says, that increased demands will be made on the first-class municipal hospitals.

If, in this way, the hospital services become amplified so as to provide the best possible

treatment for the majority of ratepayers, the existing accommodation will require very careful consideration by county and county borough councils without delay and, in my opinion, it will prove, in many areas, to be inadequate.

It might even be reasonable to envisage an early increase in the number of the "discretionary" class of patient to such an extent that the accommodation for the "obligatory" class will be insufficient.

In London we have quite definitely in mind the appropriation of our hospitals at the earliest date, but this cannot be done until the above-mentioned problems are settled.

Almoners.—In connection with the question of appropriation, we are in favour of the establishment of almoner staffs on the same lines as at the voluntary hospitals. We consider that the great advantage of the system is that not only is it most acceptable to patients and their friends, but that it is especially conducive to good after-care work.

Co-operation with Voluntary Hospitals.—I mentioned earlier that the association of consultants of established reputation with the municipal hospitals was both necessary and desirable. Conditions are such that these consultants must necessarily be part-time officers. In view, however, of the special conditions in London and of its large number of hospitals with medical schools attached, we are very favourably placed in this aspect of the question of co-operation with the voluntary hospitals.

The other aspects of co-operation in London obviously present a very big problem, particularly with those hospitals which have medical schools. There is, however, one way in which we can bring about effective co-operation, and that is in dealing with the question of the numerous cases on the waiting list of the voluntary hospitals, especially during the summer when there is not so much pressure on the beds of the municipal hospitals. Another means of co-operation is in the matter of undergraduate and post-graduate education to which I have already referred.

DISCUSSION.

Dr. J. J. Buchan (immediate past-President of the Society) congratulated the President on his sound, sane and up-to-date statement of the position of the municipal hospital. The voluntary hospitals of this country were great and wonderful institutions that had done an enormous service for the people, but they had to be considered in the light thrown upon them

by the Local Government Act, 1929, and in relation to their position in the medical organisation of the country at large. Under the Act a definite duty was placed upon county and county borough councils to provide hospital accommodation for the needs of the indigent sick in the community, and in that connection it had to be remembered that the indigent sick did not mean the destitute in a strict sense, but the needy sick. They might be helped by voluntary hospitals or otherwise, but the fact remained that the duty to provide the accommodation they required rested with the local authority. He failed to see that the voluntary hospitals could go on in the future as they had done in the past, holding themselves out as charitable institutions supplying that sick accommodation which it was the duty of the local authority to provide. In the change which would inevitably come about it would be necessary to ensure that nothing should be lost in efficiency. The voluntary hospitals had set ideals which the municipal hospitals were bound to follow.

The President, replying to a number of points raised, said that the clearing-house system to which reference had been made would be dealt with in the office of the public health department. With regard to the question as to whether the infirm wards in Newcastle had been taken over by the public assistance committee or the public health committee, Professor Kerr said that at the moment there were insufficient beds and the merely aged and infirm were remaining for the present with the public assistance committee, but as soon as arrangements had been made for the well cases, the aged and infirm who required medical attention would be taken over by the public health committee, and the medical superintendent of the municipal hospital would automatically take over the work of the public assistance committee's institution. In reference to the Mental Treatment Act, the President held that the clinics for early cases should be associated with the municipal hospital. With regard to the small county borough with a municipal hospital and the suggestion that in such cases a new type of medical man would be necessary, viz., one who was an administrator and, at the same time, a specialist in some direction or other, Professor Kerr agreed that the small county borough hospital was in a class apart, and it would be necessary for provision to be made in the manner that seemed best for the particular needs of such an institution.

Dr. Charles Porter (Medical Officer of Health, St. Marylebone) proposed a hearty vote of thanks to the President for his address, and to Dr. Brander for the important part he had taken in the discussion, and for the very helpful material which both speakers had put before the meeting.

Dr. C. W. Hutt (Medical Officer of Health, Holborn) seconded, and the vote was carried by acclamation.

The President and **Dr. Brander** briefly replied.

DR. CHARLES PORTER, Medical Officer of Health, Metropolitan Borough of St. Marylebone, has accepted an invitation of the Ministry of Health to serve on the Medical Officers of Health Sub-Committee of the Departmental Committee on Cancer.

Ut Ita Dicam.

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

The New President.

The Annual General Meeting on October 17th was notable for many reasons. Primarily, of course, it was the occasion of the installation of Professor Harold Kerr of Newcastle as President. Also, however, it saw the last appearance, and that for a brief period only, of Dr. John Buchan decorated with the Presidential badge, and the beginning of what it may be hoped will be a very long association of Mr. G. L. C. Elliston with the Society as Executive Secretary. Though these two latter events may have had something to do with it, it is open to believe that it was the fact that Professor Kerr was to be installed that was responsible for the very large attendance at the meeting. The esteem and affection in which he is held is not limited to his immediate colleagues in the North. He is admired and liked by all in the service who know him. His interest in and enthusiasm for the Society are well known, and it is largely because of a desire to recognise the value of the work he has done to improve status in all ranks of health officers that he has been chosen to form one of the long line of distinguished men and workers who have occupied the high office of President. There was no one at the meeting, and there is no one in the Society, with any doubt as to the rightness of the choice on this occasion. Kerr always has been wholeheartedly for the Society, and the opportunity he is now given for doing more than he has been able to do in the past is one that he welcomes and that he will use to the full. It is a heavy job being President, as Dr. John Buchan said at the meeting, but work appears to have no terrors for Kerr, and, having shouldered it, he will carry it through. In his Presidential Address itself his appetite for work and his ability in getting it done were well shown. In this he gave a very full description of the organisation of the municipal hospital service of Newcastle-upon-Tyne, and described without any exaggeration or references to the part he himself must have played, the founding of a very big undertaking and the provision made for transforming it later into one still larger. As an Address it was very much appreciated, and from it, as there should be coming from a President, much in the way of guidance and of inspiration was obtained.

The Immediate Past-President.

The suspicion had been that Dr. John Buchan's year of office had been rather strenuous, and this he admitted in replying to the very fully earned vote of thanks accorded to him at the meeting. Quite frankly, indeed, he confessed that he was glad that the end had been reached, and that he could hand over to Professor Harold Kerr in whose ability to carry on he expressed absolute belief. During last session, I imagine, there were rather more than the usual number of meetings away from headquarters at which the presence of the President was demanded. All of these demands Dr. Buchan met, and thus added greatly to his own work at the same time as he increased the pleasure of others in attendance. One of the most interesting of these meetings attended must have been the first of the East Midland Branch, which was inaugurated during the Presidency of Dr. Buchan. Come to think of it, the Branch was not only inaugurated during that year, but the entire business of establishing it, negotiating for its establishment and carrying through all the formalities of getting it going were done during that year. To all concerned in this effort very sincere congratulations are due. Not least is Dr. Cyril Banks of Nottingham to be congratulated, for it was he, I believe, who first indicated the need for a Branch for those members in the Midland area who found the times and places of meeting of the Midland Branch unsuitable, and who saw the establishment of an East Midland Branch as the only way out of the difficulty. I am glad to see that one of the first businesses at the first meeting of the Branch was to accord recognition and to record thanks to Dr. Banks for the work he did in this connection. Thanks were certainly due as the work involved must have been considerable. It is gratifying to note that one of the results of the establishment of the Branch has been to bring no fewer than twenty new members into the Society.

The New Secretary.

Though Mr. G. L. C. Elliston made his first appearance as Executive Secretary at the Annual General Meeting of 1930, it was not by any means the first time that he had been present at meetings. As a fact, he is so well known to members of the Society (some of

us, indeed, had acquaintance with him in very early days) that to see him and hear him in a place at the right hand of the President might quite easily have passed unnoticed. Quite easily it might have been supposed that he was only there carrying on for his father, who would presently arrive and take over. That there should be such a feeling is no bad thing, since it involves a further impression of close identification with the work and interests of the Society. It is because in the case of the new Executive Secretary there must be such identification, almost inevitably since he has been reared in its atmosphere, that his appointment is so appropriate and the hope is so strong that there will be no pause in the progress for which the first Elliston is so largely responsible. The regret that has been expressed at the severing of the connection of George Elliston with the Society is very real. No less real are the expressions of gratification that the mantle he has doffed has fallen upon G. L. C. Elliston, and no less sincere the belief that his devotion to its interests and his aim to ensure the success of the Society will lose nothing in strength in passing from the father to the son.

Pasteurisation of Milk.

Unless I except the forwarding to me by Dr. Macgregor of Glasgow of a copy of the paper on "The Place of Pasteurisation in a Scheme of Milk Distribution," which he read at the British Medical Association meeting at Winnipeg, the effect of Dr. Fenton's letter on this subject in the last issue has been exactly that that follows the dropping of a pin. There has been no rush on the part of medical officers of health to come forward in imitation of Dr. Fenton and declare belief in the value of pasteurisation as a preventive of tuberculosis or any other bovine infection. For reticence the average health officer has the Red Indian completely beaten; and perhaps you did not know that the real reason for the Indian's astonishing studied reticence is fear of ridicule. Because I have nothing to quote other than from the paper of Dr. Macgregor, and in case some may not have seen it—and in any case it is proper that there should be a record of the statement—I set out this author's conclusion:—

"The systematic pasteurisation of ordinary market milk intended for consumption in large urban areas is, in my opinion, unavoidable under present conditions where milk is collected and mixed from widely

scattered and varied sources, not under such scrupulous control as to eliminate the risk of chance infections—a danger which experience shows to be very real. It is difficult to resist the view, which is supported by experimental evidence, that efficient pasteurisation is of real protective value against bovine tuberculosis, and that this practice could not be dispensed with until tuberculosis in dairy herds has been reduced to a minimum."

A Multitude of Obvious Morals.

Although all these things happened in the United States, there is no reason why they should not have happened or might not happen here. The advisability, therefore, of taking such steps as will ensure that the attention of the public shall be directed to them, might be considered when the health propaganda programmes of next year are being drafted:—

"A man was poisoned by daffodils; a park cleaner was bitten by a copper head snake which had selected a bit of paper as shelter; a man was blown against a rail by a high wind at the Battery and his leg injured; a man who tried to catch a pencil that fell from behind his ear was incapacitated for a week when the point pierced his hand; a spider in a cellar bit a plumber who was working there; a girl's facial muscles were paralyzed by fright at a loud noise; while handing a girl a bouquet of flowers, a man pricked his finger with a thorn and was in a hospital for several months; an autoist lost an eye when a pheasant flew against the windshield of his car, breaking it; a bookkeeper turned his head suddenly and a pen in his hand pierced his nose, causing an infection that developed into a fatal brain abscess. . . ."

In the words of Sir Harry Lauder, "Mind, ah'm tellin' ye."

P.

CHADWICK Public Lectures to be given during November include one on "The Treatment of Rheumatism," by Dr. Matthew B. Ray, Senior Physician, British Red Cross Society's Rheumatism Clinic. This will be delivered in the Hastings Hall, British Medical Association House, Tavistock Square, London, W.C.1, on the 6th at 5.15 p.m., and will be repeated at the Town Hall, Gateshead, on the 21st at 7.30 p.m. The Malcolm Morris Memorial Lecture will be given by Sir Robert Philip, M.D., LL.D., F.R.S.E., on "The Outlook on Tuberculosis—Changing Orientation," in the Lecture Room of the Royal Society of Arts, John Street, Adelphi, London, W.C.2, on the 28th at 5.30 p.m. The chair on this occasion will be taken by Sir James Crichton-Browne, M.D., F.R.S., Chadwick Trustee. Admission to all lectures is free, and no tickets are required.

The Society.

Reports, Proceedings and Announcements.

COUNCIL MEETING.

The first meeting of the Council for the Session 1930-31 was held at the house of the Society on Friday, October 17th. The retiring President (Dr. J. J. Buchan) was in the chair and there were present Professors H. Kerr, Bostock Hill and W. W. Jameson, Sir Eustace Hill and Drs. E. H. Snell, J. Howard-Jones, C. Porter, G. H. Pearce, J. Mair, J. Fenton, R. H. H. Jolly, Agnes Nicoll, D. J. Thomas, A. E. Baker, A. B. McMaster, K. E. Tapper, P. H. Stirk, A. A. Turner, A. M. N. Pringle, H. J. Milligan, T. W. N. Barlow, R. M. F. Picken, E. H. T. Nash, J. A. Stirling, G. C. M. M'Gonigle, R. H. Wilshaw, E. Ward, R. Veitch Clark, H. Gibbons Ward, G. W. N. Joseph and F. T. H. Wood.

The minutes of the last meeting, having been approved and signed, apologies for absence were received from Drs. G. F. Buchan, W. G. Willoughby, A. K. Chalmers, A. F. Cameron, E. G. Annis and Lieut.-Colonels F. E. Fremantle and G. S. Parkinson.

The Society's Library.—A letter was received from the Board of Management of the London School of Hygiene and Tropical Medicine, thanking the Council for the recent presentation of the Society's library of books to the School. Some time ago it was realised that the Society had neither the space nor the means to provide a library which could keep pace with the growth of modern preventive medicine. When, however, the new London School was opened, with its fully organised library, the Council felt that the Society's books would be as readily available there with better facilities for reference, and the offer of their gift to the School was therefore made and gladly accepted. In their letter of thanks the Board stated :—

Your Council will be pleased to hear that the library has been housed in the Division of Public Health under the care of Professor Jameson.

The Board thank you very warmly for your generous gift. It is hardly necessary to say that this library will be at the disposal of any of your members who may wish to refer to it, or to remind you that we are anxious that your members should take full advantage of the other facilities—common room, refectory, etc.—available to them at this School.

B.M.A. Annual Representative Meeting.—The Medical Secretary of the British Medical

Association drew attention in a letter to the paragraph on the General Medical Service Scheme in the Public Health Service representatives' report of the A.R.M. (see PUBLIC HEALTH, October, 1930, p. 25). He pointed out that the last sentence of that paragraph—"Provision for the indigent, which was originally included, at the charge of the Local Authority, was deleted from the scheme, the suggested arrangement for this not being felt to be practicable"—was misleading, although technically justified in a summary. In fact, while the suggested *method* of providing for the indigent was deleted, there was no intention of taking out of the national scheme the "pauper class," and he suggested a more accurate version to be: "The suggested method of provision for the indigent was deleted as it was felt not to be practicable, though the meeting disclaimed any intention of removing the pauper class from the national scheme." This amendment was agreed to.

Central Council for Health Education Conference.—A request that space in "PUBLIC HEALTH" might be allocated to reports of papers to be read at the above conference on November 13th was referred to the discretion of the Hon. Editor.

Representation of the Society.—The following were elected as representatives of the Society :—

Central Association for Mental Welfare.—Dr. T. P. Puddicombe.

Central Council for the Care of Cripples.—Drs. E. Ward and T. P. Puddicombe.

National Council of Women of Great Britain.—Dr. Agnes H. Nicoll.

Association of Head Mistresses Conference.—Dr. Nicoll.

Central Council for Health Education.—Professors H. R. Kenwood, Bostock Hill and W. W. Jameson, Drs. G. F. Buchan, W. A. Daley, J. Fenton, J. Macmillan, A. T. Nankivell, C. Porter, E. H. Snell, F. H. Thomson, E. Ward, H. Gibbons Ward, and Mr. G. S. Elliston.

Election to Council under Article 19f.—Sir Humphry Rolleston having intimated his wish not to stand for re-election, as he would be unable to make regular attendances, Sir Robert Bolam was elected to the second place

on the Council under Article 19f of the Society's Articles of Association.

Domiciliary Medical Attendance.—Consideration was given to a request from the British Medical Association for circulation by the Council of a letter to whole-time Medical Officers of Health, urging that their influence should be used in support of Minute 157, A.R.M. 1928, viz. :—

"Resolved: (i) That domiciliary attendance should, in the best interests of the patients, be provided by private practitioners in the area concerned and not by a whole-time medical officer; (ii) that the adoption of the above resolution leaves unprejudiced the position of any medical officers at present holding whole-time appointments in which domiciliary attendance is one of the duties; (iii) that if there are in the area no practitioners willing to undertake the domiciliary work on suitable terms, paragraph (i) shall not apply."

After some discussion it was agreed that the above Minute should be circulated, and the Executive Secretary was instructed accordingly.

Delegation under the L.G.A., 1929.—The Council considered the following resolution, which had been approved and forwarded by the Yorkshire Branch :—

"That this Meeting of the County District members of the Yorkshire Branch of the Society of Medical Officers of Health declares its agreement with the principles of delegation laid down in Section 62 of the Local Government Act, 1929, and is of the opinion that steps should be taken as soon as possible to give effect to the intention of the Legislature in the aforementioned section, and that the Council of the Society be requested to take up the matter with the Ministry of Health."

It was agreed that no action be taken in this matter.

Tuberculous Families in Housing Schemes.—Professor Bostock Hill asked the Council to take action on a point arising from the provision in the Housing Act, 1930, which permits a Local Authority to charge "in respect of any house such rent as they think fit." He suggested that this discretion might be exercised with double benefit when families including one or more cases of tuberculosis were among those displaced by slum clearance or by the closing of their dwellings under other powers given by the Act. Where the breadwinner of a family was affected, there was inability to pay a normal rent, though there was here more than ordinary need for the best possible housing conditions. These points had already been raised at the Sanitary Inspectors' Association Conference, where he represented the Society. The Council referred the points in question to the General Purposes Com-

mittee, with the suggestion that it might consider making representations to the Ministry in conjunction with the Sanitary Inspectors' Association.

V.D. Act, 1917: Desirability of Court Proceedings "in Camera."—Dr. R. M. F. Picken urged, in view of recent experience in his area, that the hearing of cases connected with unqualified treatment of venereal diseases, etc., *in camera* might make the Act more effective than hitherto. It was agreed that a letter urging the desirability that an option should exist to hold such cases *in camera*, and that the Act be, if necessary, amended to allow of this, be sent to the Ministry of Health, the Home Office and the Law Society.

Examination of Milk Companies' Employees by Medical Officers of Local Authorities.—The Home Counties Branch asked for the ruling of the Council on a case where a large dairy company had asked a M.O.H. in the London area to examine men entering their service for signs of tuberculosis. The Council ruled that it was no part of the duty of a M.O.H. to make routine examinations of persons entering employment with dairy or any other companies, except where it was otherwise laid down by Statute or Regulations; in this instance, the dairy company should make their own arrangements for such examinations.

Departmental Committee on the Qualifications, etc., of Local Government Officers.—Attention was drawn to the recent appointment of a Departmental Committee on the qualifications, training, promotion, etc., of Local Government Officers. The President said that the Society might wish to offer evidence on the status of dental and veterinary officers in the service of Local Authorities. A letter had been received from the National Veterinary Association of Great Britain and Ireland, asking for the co-operation of the Society in putting such evidence before the Committee. It was agreed to refer this matter to the General Purposes Committee for action as they thought fit.

General Purposes Committee, 1930-31.—The following were elected as members of the General Purposes Committee for the Session 1930-31 :—The President, Vice-Presidents, Hon. Treasurer, Hon. Editor, Drs. Picken, Fenton, Ernest Ward, Jolly, Barlow, Wood, Mair and H. J. Milligan.

Salaries Committee, 1930-31.—The following were elected as members of the Salaries Committee for the Session 1930-31:—The President; Drs. Wood, Barlow and Picken (County Boroughs); Dr. Tapper (Urban Districts); Dr. Gibbons Ward (Rural Districts); Dr. Fenton (Metropolitan Boroughs); Dr. Ward (Tuberculosis Officers); Dr. Cameron (Hospital Services); Dr. Puddicombe (School Medical Officers); Dr. Baker (Dental Officers); Dr. Nicoll (M. & C.W. Officers); and Sir Eustace Hill (Counties).

Report of the Hon. Editor.—Dr. Charles Porter submitted his report as Hon. Editor of PUBLIC HEALTH for the year ended September 30th, 1930, as follows:—

In addition to providing space for all the addresses delivered and papers read at meetings of the Society, its Branches and Groups, during the past session, the journal was fortunately able to accommodate contributions from other sources. Outstanding amongst these, it is generally admitted, were those from Professor Madsen, Director of the State Serum Institute, Copenhagen, who, regarding the official organ of the Society as an appropriate medium for the publication of pronouncements on any aspect of preventive medicine, readily agreed to contribute a short series of articles based upon lectures on advanced hygiene delivered by him, on the invitation of the University of London, at the London School of Hygiene and Tropical Medicine in October, 1929.

The matters dealt with in other contributions varied widely and attractively in character, and were representative of the many activities of the Society as a whole. In the quality of the contributions there was no falling off from the standard set in previous years, and many of the papers and subjects discussed in the pages of the journal attracted the attention of colleagues and workers in the field of public health at home and elsewhere throughout the world.

The opportunity which this annual report presents is gladly taken to thank, as well as those who contributed papers, other writers who placed their knowledge and skill at the disposal of the Editor. Of these there were many, and to all of them gratitude is most warmly expressed for the valuable assistance they gave and for the readiness with which it was given.

It is noted with regret that during the year there was no increase in the amount of space required for advertisements, and the question of how such an increase might be brought about is one that could very well be considered by the Council of the Society or the recently appointed General Purposes Committee.

So far as pages other than those devoted to advertisements were concerned, it may be noted that it was found necessary only on one occasion to go beyond the normal of thirty-two pages per number. In this one issue, the pages numbered forty-eight. The total number of pages for the year was twenty less than that of the previous year, being 400 as against 420. This, no doubt, was gratifying to those responsible for the financial and business side of the journal, since it limited the number of occasions upon which it was necessary to incur additional expenditure on postage.

In the conduct of the journal the wide journalistic experience and knowledge of Mr. George Elliston, Executive Secretary of the Society, have been of the utmost value to the Honorary Editor. On a number of occasions during the past year, as in previous years, reference to him for advice and guidance was necessary. These were always readily and willingly rendered and this opportunity is taken for expressing gratitude for all the help he has given and all the teaching he has provided. It is a matter for very real regret that his resignation of the position of Executive Secretary must mean a practical end of his close personal touch with the journal and its editor from which both have benefited so much.

Thanks are due also to Mr. James and are gladly rendered. His devotion to the interests of PUBLIC HEALTH and his desire to serve them have never wavered.

The report having been received and adopted, a unanimous vote of thanks was passed to Dr. Porter for his successful conduct of the Society's journal during the past year.

Report of the Hon. Treasurer.—Dr. G. F. Buchan forwarded his report as Hon. Treasurer for the year ended September 30th, for submission to the Council as follows:—

I beg to submit my Report for the year 1929-30.

The total Income of the Society for the year ended September 30th, 1930, has been £3,767 12s. 5d., and the total Expenditure £3,768 8s. 4d., leaving an excess of expenditure over income of 15s. 11d.

The Council will remember that in my Report of last year I stated that the Society could reasonably expect at present running costs a credit balance of approximately £400 per annum. The reason for the debit balance of 15s. 11d. is that I considered the Society was now in a position to revert to the practice of including the travelling expenses of members during the year in which they were incurred. For the last four years the travelling expenses have been: 1927—£218 15s., paid in 1928; 1928—£224 10s. 2d., paid in 1929; 1929—£342 4s. 4d., paid in 1930; 1930—£276 12s. 1d., also paid in 1930.

The Council will accordingly observe that during the financial year just ended a sum of £618 16s. 5d. has been paid in respect of travelling expenses for two years as compared with a payment of £224 10s. 2d. in the previous year. But for the adoption of this policy the approximate balance of £400 per annum would have materialised.

It should however be noted that the travelling expenses of members both in 1929 and 1930 have been heavier than in previous years, and the Council is recommended to consider that meetings should not be held except when there is considerable business to be transacted.

The net cost of the Journal during the year 1929-30 was £619 10s. 6d. as compared with £655 12s. 11d. last year.

Turning to the Balance Sheet it will be noted that investments have depreciated. The lease of our present premises which expires in 1939 was purchased in the year 1925 for the sum of £2,200. This is being paid off by annual instalments of £157 3s., the outstanding balance now being £1,309 9s. 8d.

The Auditor recommends that £400 of our revenue

surplus be transferred to the Reserve Account making £1,275 on the Reserve Account and £520 0s. 2d. on the Revenue Account.

This total sum of £1,795 0s. 2d. is accounted for in the Balance Sheet by a sum of £750 invested in Metropolitan Stock and Consols and the balance of our lease of £1,309 9s. 8d., shewing in fact, an over investment of £264 9s. 6d., which however, will right itself as the lease is written down.

During the year it is satisfactory to observe that there have been no bank charges, although our lease was purchased by the bank against the securities of the Society, it being agreed that interest on overdraft should be paid to the bank. Owing to the skilful manner in which your Secretary, Mr. G. S. Elliston, has handled the bank balance, no payments have become due on overdraft.

Both the Revenue Account and Balance Sheet show that the Society continues to be in a satisfactory financial position.

This is the last occasion on which I shall have the opportunity of paying tribute to the services which Mr. G. S. Elliston, as Secretary, has rendered to me as Treasurer. No man could have worked more carefully or skilfully in the financial interest of the Society. Mr. Elliston became Secretary at a time when the financial position of the Society was at a low ebb, but his careful administration of the affairs of the Society as dictated by the policy of the Council has achieved the best possible financial results, and the Society finds itself to-day in a comfortable and sound position. I may, perhaps, be permitted to say that no Society ever had a better Secretary, and I certainly can say that no Treasurer ever had a more active or capable or courteous colleague.

The report was received and adopted, and the Council offered cordial thanks to Dr. Buchan for his valuable services as Hon. Treasurer. Special appreciation was expressed of the last paragraph in Dr. Buchan's report, referring to the retirement of Mr. G. S. Elliston from the Secretaryship of the Society.

The Retiring President.—At the close of the meeting a very hearty vote of thanks was unanimously accorded to Dr. John J. Buchan for his devoted and unremitting service to the Society during a year of office in which there had been highly important developments affecting the Public Health Service, and for his able and kindly conduct of business as Chairman of the Council.

The Council then adjourned.

ANNUAL GENERAL MEETING.

The Annual General Meeting was held at the house of the Society on Friday, October 17th, 1930, the retiring President (Dr. J. J. Buchan) being in the chair. There was an excellent attendance of members.

The minutes of the last Annual General Meeting, having been approved and signed,

Dr. Buchan announced that the Council, on the recommendation of the Branches, had unanimously nominated Professor Harold Kerr, O.B.E., Medical Officer of Health for the City of Newcastle-on-Tyne, and Professor of Public Health to the University of Durham, for election as President of the Society for the session 1930-31. The nomination having been accepted by the meeting by acclamation, Dr. Buchan invested his successor with the badge of office and installed him in the chair.

In making a brief acknowledgment of the honour done him by election as President, Professor Kerr said that, though he could hardly hope to emulate his distinguished predecessors in that office, he would make every effort to follow them worthily.

Professor Bostock Hill moved a vote of grateful thanks on behalf of the Society to Dr. John Buchan for his distinguished services as President during the year which saw the passing of the great Local Government Act; as one of two brothers (Sir Eustace Hill and himself) who had both served as President, he felt especial pleasure in moving this vote of thanks to one of another pair (Drs. J. J. and G. F. Buchan) who had now enjoyed the same distinction. The vote was seconded by Dr. E. H. Snell, and was supported by Dr. G. H. Pearce, who expressed the pride of the Yorkshire Branch in having supplied such a President.

The annual reports of the Council (see PUBLIC HEALTH, October, 1930, p. 22), and of the Hon. Treasurer and Hon. Editor were received and adopted, and thanks were accorded to the Council and officers for their labours during the past year.

Mr. J. T. Harris was re-elected Auditor of the Society for the Session 1930-31.

The following candidates having been duly nominated, were elected to the Society:—

As Fellows:—

Brodie (Miss), Georgie I., M.B., Ch.B. (Glasg.), D.P.H.; Crosbie, Wilfred Ernest, M.B., B.Ch., D.P.H.; Gaye, Alan Willis, B.A., M.B., B.Ch., D.P.H.; Graham, William, M.B., B.S. (Durh.); Hanna, Margaret Robb, M.B., B.Ch., B.A.O. (Belf.), D.P.H.; Hartley, Alice Muriel, M.B., Ch.B. (Birm.); Hindhaugh, James Cecil Vickerman, M.B., B.S. (Durh.); McGregor, Evelyn Christina McDonald, M.B., Ch.B. (Glasg.), D.P.H.; Scrace, Margaret Charlotte, M.R.C.S., L.R.C.P.; Trimble, Andrew, M.B., B.Ch., B.A.O., R.U.I., D.P.H.

As Associate:—

Moxon, A. Godfrey, L.D.S. (Leeds).

A number of nominations were received for the November election.

Professor Harold Kerr then delivered his presidential address (published in this number) on "The Future of the Municipal Hospital." By a new precedent, this was followed by a discussion opened by Dr. William Brander, Principal Medical Officer, General Hospitals Division, London County Council.

A hearty vote of thanks to the President and Dr. Brander was passed on the motion of Dr. Charles Porter, seconded by Dr. C. W. Hutt. Dr. Porter congratulated the President on the courage with which he had broken the usual custom and had appended a discussion to his address, thus providing a most interesting meeting.

The meeting then adjourned.

THE EAST MIDLAND BRANCH.

President: Dr. C. Killick Millard, M.O.H., Leicester.

Hon. Secretary: Dr. J. A. Stirling, M.O.H., Chesterfield.

The report of the first meeting of this Branch will be found in the editorial columns.

THE MIDLAND BRANCH.

President: Dr. P. S. Blaker, M.O.H., Dudley.

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

The first meeting of the Session of this Branch was held at the Medical Institute, 154, Great Charles Street, Birmingham, on October 2nd, 1930. Thirty-two members were present. Apologies for unavoidable absence were received from seven members.

The retiring President, Dr. W. D. Carruthers, introduced Dr. P. S. Blaker, and offered him the best wishes of the Branch on his election to the Presidential chair.

Dr. Blaker briefly responded, and proposed a vote of thanks to Dr. Carruthers for the manner in which he had directed the affairs of the Branch during the past year. This was seconded by Dr. Snell, and accorded with enthusiasm.

Dr. Blaker delivered his Presidential address on "Some Housing Problems in Dudley," in which he referred to a number of the tremendous difficulties met with in dealing with problems of overcrowding and of tuberculosis in the town. The figures submitted by Dr. Blaker as to the housing conditions of a series of cases of tuberculosis investigated by him were truly appalling, and his audience were extremely interested to learn of the courageous

and successful efforts that he had made to deal with these problems.

On the proposal of Dr. Snell, seconded by the Hon. Secretary, a cordial vote of thanks was accorded to the President for his extremely interesting and instructive address, which it was hoped would appear in PUBLIC HEALTH in due course.

At the conclusion of the meeting a demonstration of the properties of "Vita" glass was given by a representative of the firm of Pilkington Bros., Ltd., after which various questions were asked.

THE METROPOLITAN BRANCH.

President: Dr. John Macmillan, D.S.O., M.C., M.O.H., Woolwich.

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 October 3rd, 1930, the President occupying the chair. Twenty-two other members of the Council were present.

The following nominations to the Council were accepted:—

Dr. Joe (by the Fever Hospital Medical Service Group); Dr. Herington, Erith (by the County District Group); Dr. Blackmore (by the Tuberculosis Group) and Dr. Allen Daley (by Dr. Menzies).

In accordance with the decision of the annual meeting to appoint two Assistant Medical Officers of Health to serve on the Council, Dr. A. Middleton Hewat, of the London County Council and Dr. I. S. Thomson, of Westminster were nominated.

The Council gave careful consideration to the second report of the Sub-Committee appointed to consider the question of administrative procedure in regard to mild smallpox in London. Various amendments to the report were decided upon, and it was agreed that this amended document should be adopted by the Council of the Branch and a copy forwarded to the Minister of Health with a request that a new memorandum should be issued by him outlining a modified form of procedure to be adopted in the metropolitan area in connection with outbreaks of mild smallpox.

The Council had before them a communication from the Metropolitan Boroughs' Standing Joint Committee, asking for the opinion of the Branch on a proposal of the Wandsworth Borough Council that legislation should be secured to enable local authorities to en-

force the provision of one tap on the rising main in each house or part of a house let as a separate tenement. It was decided to inform the Standing Joint Committee that the Branch were strongly in favour of legislation requiring at least one tap on the rising main in each house, but that, in view of the fact that there are not uncommonly three, four or five families in a tenement house, the Branch thought it would not be reasonable to ask for power to require this provision for each family in a house.

A further communication from the Metropolitan Boroughs' Standing Joint Committee referred to the fact that cream was not sold by any specific weight or measure and that there were variations in its consistency. The Branch were invited to express an opinion as to the desirability of securing legislation in these directions, but it was resolved to reply that, as medical officers of health were not weights and measures authorities, the Branch did not feel disposed to express an opinion.

The Council also had under consideration correspondence from the Metropolitan Boroughs' Standing Joint Committee in regard to a suggestion that the London County Council should be approached with a view to that authority establishing clinics throughout London for the treatment of certain cases of rheumatism, and in respect of a proposal that compulsory notification of this disease should be secured throughout the metropolis. The Branch Council came to the conclusion that, as rheumatism clinics were still in the experimental stage, they did not feel disposed to express a definite opinion at the present moment, and that the Standing Joint Committee should be asked to defer consideration of this matter until they had had an opportunity of seeing the Third Annual Report of the Kensington Rheumatism Scheme, the progress of which was being watched with close interest.

At the meeting held on Friday, October 10th, 1930, at the house of the Society, Dr. J. Macmillan delivered his Presidential Address, entitled "Publicity in Public Health." In this, Dr. Macmillan drew largely on his wide experience in the organisation of health weeks and exhibitions in Woolwich, which have met with very considerable success. It is well-known that the Woolwich health exhibition is visited by many workers

interested in public health propaganda for the purpose of obtaining new ideas.

The main theme of Dr. Macmillan's address was the great change which has taken place in the methods of appeal to the public in the last seven or eight years. For the purpose of explaining his points, Dr. Macmillan exhibited a large number of posters and pamphlets and showed many pictures on the screen. His experience leads him year by year to adopt more simple methods. For example, a poster should contain the minimum of printed matter and should not attempt to convey more than one idea. Dr. Macmillan explained how the style of printing, the size of the type and the spacing were of importance, and showed by examples how much more effective a poster becomes when displayed in conjunction with many others if it has a fairly wide margin containing no printed matter.

The address was so full of valuable points that, after Dr. Annis and Dr. Howell had proposed and seconded a vote of thanks, the President was asked to send his address to the editor of PUBLIC HEALTH so that all members of the Society might have an opportunity of benefiting by his experience.

The Annual Report of the Council was received and attention was called to the valuable amount of useful work carried out by the Branch during the past twelve months.

Dr. Hewat, who had been asked to serve on the Council as a representative of the Assistant Medical Officers of Health, wrote stating that he was not able to accept the appointment and would be pleased to be released. The Branch decided to convey to Dr. Hewat their appreciation of his past services and their regret that he would no longer be a member of the Council.

Dr. Annis, of Greenwich, and Dr. Hewat, were unanimously re-elected Honorary Auditors for the ensuing session, and Dr. W. J. M. Slowan, O.B.E., was appointed to the Branch Council as a representative of the School Medical Service Group.

Attention was called to correspondence from the Medical Officer of Health of the South-West Kent United Health Area and to extracts from his Annual Report for 1929 on the question of the responsibility of local authorities for the provision of hospital accommodation in cases of infectious disease. The Hon. Secretary was directed to inform the Medical Officer of the South-West Kent United Health Area that the Branch strongly support

the principle which, so far as they are aware, has always been followed by public health authorities in England, and certainly in London, namely, that cases of infectious disease occurring in a district are the responsibility of the sanitary authority of that district, whose duty it is to take all necessary measures in accordance with the appropriate statutory provisions relating to the area concerned. The Branch were of the opinion that the principle is a sound one and saw no reason why London public health authorities should be asked to accept responsibility for persons from the metropolis who fall ill with infectious disease whilst engaged in hop-picking in Kent.

The Branch gave consideration to correspondence from the Federation of British Industries in regard to the proposed London County Council bye-law on nuisance from smoke. The Federation oppose the two minutes standard, but are prepared to accept a three minutes standard. After discussion, the Branch confirmed the decision of the Branch Council, arrived at in October, 1927, that the emission of black smoke for one minute continuously or for two minutes in the aggregate within any continuous period of thirty minutes should be deemed to be a nuisance under the Public Health Acts.

THE HOME COUNTIES BRANCH.

President: Dr. K. E. Tapper, O.B.E., M.O.H., Bromley, Kent.

Hon. Secretary: Dr. A. A. Turner, M.C., M.O.H., Finchley.

On October 3rd, 1930, some twenty-five members of this Branch visited the Wellcome Physiological Research Laboratories at Langley Court, Beckenham.

After welcoming members in the library, Dr. O'Brien, the Director, explained the methods of standardising the various products of the laboratories in accordance with the Therapeutic Substances Act, and described the most recent work in connection with diphtheria immunisation. It would appear that a considerable advance has been made on the toxoid antitoxin mixture at present in use, and that new immunising substances will be available in the near future which will produce immunity in practically 100 per cent. of cases without causing any reaction, even in adults.

With regard to scarlet fever antitoxin, Dr. O'Brien said that the results had been a little disappointing in that although there could be no doubt that it possessed very strong anti-

toxic properties, it had no effect on the bacterial or pyogenic complications of scarlet fever.

In the stables the veterinary staff demonstrated methods of injection and the bleeding of horses.

In the departments of Drs. Glennie and Parrish, members were shown how to conduct intracardial injections in guinea-pigs and intravenous injections in mice, and the results of virulence tests for diphtheria both by the intradermal and intraperitoneal methods were demonstrated. The precautions taken to ensure that all the serum produced is absolutely sterile were explained, and the highly trained members of the staff were seen conducting the final tests.

After tea the President thanked Dr. O'Brien and his colleagues for the trouble they had taken to provide such an interesting and instructive demonstration.

THE NORTHERN BRANCH.

President: Dr. Charles Franks, J.P., M.O.H., Durham C.C.

Hon. Secretary: Dr. J. A. Charles, Deputy M.O.H., Newcastle-upon-Tyne.

The annual meeting of this Branch was held at the Medical Institute, 7, Windsor Terrace, Newcastle-upon-Tyne, on October 10th, 1930. Thirty members were present. Apologies for absence were received from three members.

The Chairman referred in sympathetic terms to the death of Dr. John Gray, Medical Officer of Health, Stanhope U.D.C., which occurred on September 8th, 1930, and moved that the Hon. Secretary write a letter of condolence to the family. The motion was agreed to and passed in silence, the members standing.

The Hon. Secretary read a letter from Sir T. Eustace Hill thanking the members for their congratulations in connection with his Knighthood.

Dr. Katherine Mary Cellan-Jones, Assistant Maternity and Child Welfare Medical Officer, Sunderland, was elected a Member of the Branch.

Dr. G. C. M. M'Gonigle, Medical Officer of Health, Stockton-on-Tees, was elected as one of the two Representative Governors of the Branch at the College of Medicine, in place of Sir T. Eustace Hill, who has left the Branch area.

The Annual Report of the Council was read and adopted.

The following were elected to constitute the Council of the Branch for the session 1930-31:—Drs. James Bannerman, W. H. Dickinson, C. A. Harvey, A. S. Hebblethwaite, Mary E. Howie, Harold Kerr, Roderick MacLeod, G. C. M. M'Gonigle, J. W. Howard Morrison, J. O. Murray, Alice M. Stenhouse, George Wilson; and *ex-officio*, the President (Dr. Charles Franks), Vice-President (Dr. A. F. G. Spinks), and Hon. Secretary (Dr. J. A. Charles).

The retiring President (Dr. M'Gonigle) stated that it was his pleasing duty to ask Dr. Charles Franks to take the Presidential Chair for the ensuing session. Dr. M'Gonigle felt sure that he was voicing the opinion of the members when he said that it was a great delight to welcome Dr. Franks as their new President. Dr. Franks had a wide experience as a general practitioner. The speaker then referred to the very hard work performed by Dr. Franks as Venereal Disease Medical Officer to the Durham County Council during the war and afterwards. The new President was a very valuable member of the Society, for he understood not only the point of view of the general practitioner, but that of the public health medical officer. Dr. M'Gonigle wished him a happy year of office.

Dr. Franks, in thanking the members for electing him as their President, stated that as he entered the public health service rather late in life, he took it as a great compliment that he had been asked to take over that honourable position. He was looking forward to his year of office as President, and asked for all the members to help in the activities of the Branch. He thought that the average attendance of the 145 members at the meetings last year, *viz.*, 27, was small, and he felt sure that there was a larger number of members in the near neighbourhood who should shew a greater interest in the Branch meetings. He appealed more particularly to the younger members of the Branch, not only to attend the meetings but to take an active part by reading papers, participating in the discussions, and airing their views and opinions. It would be more profitable to the Society if they expressed their views in the meetings rather than outside. Dr. Franks stated that the healthy condition of the Branch was due solely to the large amount of work that had been done for over twelve years by their esteemed Hon. Secretary, Dr. Harold Kerr. He welcomed Dr. J. A. Charles as the new Hon. Secretary, and

stated that the Branch was very fortunate in getting him to take over those responsible duties. He paid warm tribute to the work of the retiring President, who had set a very high standard. Dr. M'Gonigle, he said, had proved himself to be a very keen President and had taken a very live interest in the workings of the Branch during the past year.

A hearty vote of thanks to Dr. M'Gonigle for his services was carried by acclamation, and Dr. M'Gonigle briefly replied.

It was decided to have a discussion on the Housing Act, 1930, at the next meeting of the Branch in November, the date of which was left in the hands of the President and the Hon. Secretary.

The Hon. Secretary was instructed to invite Mr. Phillip Harrold, Deputy Town Clerk, Newcastle-upon-Tyne, and Councillor Walter Thompson, Chairman of the Insanitary Property Committee of the Newcastle-upon-Tyne Corporation, to open the discussion.

It was decided to hold the Annual Dinner on Friday, December 12th, 1930, and that evening dress be worn. It was agreed that no meeting of the Branch be held on that day.

The Chairman reminded the members that Sir Eustace Hill is to be a guest of honour at the Society's Annual Dinner, to be held at the Piccadilly Hotel, London, on November 13th, and hoped that there would be a representative attendance of members from the Branch.

Dr. Charles Franks delivered his Presidential Address on "The Flight of Ages." On the motion of Dr. M'Gonigle, the President was heartily thanked for his Address.

THE NORTH-WESTERN BRANCH.

President: Dr. C. O. Stallybrass, Asst. M.O.H., Liverpool.

Hon. Secretary: Dr. G. W. N. Joseph, M.O.H., Warrington.

A meeting of this Branch was held in the Public Health Laboratory, York Place, Manchester, on October 10th, 1930, Dr. F. A. Sharpe occupying the chair. Thirty-one members were present. Apologies for absence were received from seven members.

The retiring President (Dr. Sharpe) inducted his successor, Dr. C. O. Stallybrass, into the chair with a few appropriate words, and a vote of thanks to the retiring President was moved by Dr. F. T. H. Wood, seconded by Dr. J. P. Litt, and carried by acclamation.

After expressing his thanks to the members for the honour conferred upon him, Dr. Stallybrass delivered his Presidential Address on "The Methods and Results of Premunisation." As an introduction to the subject Dr. Stallybrass traced the history of premunisation from Jenner's great discovery up to the present time. During the nineteenth century the attention of the medical officer of health was directed mainly to environmental conditions. In this manner cholera, enteric fever, etc., were slowly conquered in many places. Notification of infectious diseases began in 1877, followed by isolation and terminal disinfection, which, although reducing the incidence of infectious diseases, failed to stamp them out. During the century, war and pestilence swept across the world and each showed the comparative failure of these methods in dealing with infectious diseases, while the teaching of Jenner and Pasteur was neglected.

In the last decade of the nineteenth century Haffkine commenced inoculation against cholera, and against plague. Later anti-typhoid inoculation was practised, but was not used during the South African War, where the mortality from typhoid was 2,100 per 100,000 soldiers.

Further advance was made when the Schick test was applied in relation to diphtheria, followed by premunisation against this disease. Similarly the discovery of the streptococcus regarded as the causal organism of scarlet fever by the Dicks has led to a like method of control of the disease. Finally, the simultaneous use of diphtheria toxoid and scarlatina toxin was elaborated by Kinloch and Smith to prevent the two diseases by one operation.

Another application of immunisation consists in passive immunity by the use of convalescent serum in several diseases in which the causal organism has not been discovered.

Killed viruses have also been used in some diseases, such as distemper, yellow fever and foot-and-mouth disease.

Dr. Stallybrass then proceeded to classify the methods of premunisation and referred to the variations in the duration of immunity not only in different diseases but for the same disease among different individuals, pointing out that in the case of some diseases, such as yellow fever, the immunity is lifelong, while in the case of influenza it is only partial and transitory.

Premunisation is immediately applicable in the case of some diseases such as diphtheria and scarlet fever. It can be advocated in fever and children's hospitals; in orphanages and schools; it may be distributed gratis to medical practitioners; children under five years may be immunised at infant welfare centres, contacts may be immunised at isolation hospitals, and school children may be immunised, as in the Edinburgh campaign.

In some towns in the United States a considerable proportion of the population have been immunised with a subsequent reduction in the incidence of diphtheria—larger than could reasonably be attributed to chance.

Evidence is also accumulating as to the value of premunisation against scarlet fever in similar circumstances.

In the case of measles there is a limited use for convalescent serum as a preventive in children's hospitals and also for pertussis vaccine in whooping cough.

Dr. McClure, in proposing a vote of thanks to the President for his address, said the subject was one with which all were deeply concerned but in which the application of methods of immunisation lagged behind the advance being made by research workers. On subject, composition and delivery he wished to congratulate the President and hoped the paper would be printed to stimulate medical officers to urge prevention of these diseases.

The proposition was seconded by Dr. Grahame, and carried unanimously.

Dr. Grahame referred to the terms of appointment of the new Medical Officer of Health of Burnley, which, although the salary offered was in accordance with the scale, was objectionable in the limited annual leave provided, and the condition that the officer appointed should examine all candidates for new appointments.

After considerable discussion, on the proposition of Dr. Sharpe, seconded by Dr. Morley Mathieson, it was resolved that the conditions be reported to the Society to take such action as they deemed expedient.

The Hon. Secretary announced that the annual dinner of the Branch would be held in the Exchange Hotel, Liverpool, on Friday, December 12th, 1930. Tickets, price 12s. each, are obtainable from the Hon. Treasurer, Dr. H. H. I. Hitchon, Rock House, Heywood.

THE TUBERCULOSIS GROUP.

President: Dr. F. J. C. Blackmore, T.O., Woolwich.

Hon. Secretary: Dr. Ernest Ward, T.O., South Devon.

A meeting of the Group Committee was held at the house of the Society on October 17th, 1930.

Present: Drs. Blackmore (chair), Jessel, Crossley, Gordon Smith, Dickinson, Trayer, Mayberry, Cameron Renwick, Loraine, Crowe, Ernest Ward, and Peter Edwards.

(1) It was proposed to present to the Council of the Society in November the revised version of the Contact Memorandum, and in December the Memorandum on "The Employment of Tuberculous Nursing and Domestic Staffs." Some alterations have been made in the second Memorandum, and these were approved.

(2) The Council Representative announced that the circulation of *Better Health* had now reached 260,000. He had recently been appointed on the Editorial and Publicity Committee of the Central Council for Health Education.

(3) Recent appointments in a large provincial town were discussed, and the Committee resolved "That vacancies in the public health service should only be filled after the vacancy has been duly advertised, but if an assistant or other local officer is an applicant for the post this should be mentioned in the advertisement."

(4) The question of a Tuberculosis Library was discussed, and the Hon. Secretary was directed to write the Tuberculosis Association thereon.

(5) The Hon. Secretary was also directed to write the Secretary of the Society concerning clerical help for tuberculosis officers. Hardships in this direction were reported from two districts.

(6) Dr. Blackmore was nominated President of the Group for the session 1930-31, Drs. Elliott and Crossley, Vice-Presidents, and Dr. Ernest Ward, Hon. Secretary and Council Representative.

(7) Dr. Ward gave a brief description of the Transatlantic study tour and explained how the subject studied had been divided into a number of headings and these allotted to various members to observe, reflect upon and write up. It might be possible later to publish a symposium.

(8) The Hon. Secretary was asked to approach the Council of the Society with reference to the formation of a register of nurses trained in tuberculosis, and suggest to them that they ask the Nursing Council to start such a register.

(9) Dr. Jessel mentioned that he would bring forward at the January meeting the following resolution:—

"Inasmuch as tuberculosis officers are actively concerned in the diagnosis of diseases of the chest, and not solely tuberculosis, the position should be regularised and they and their dispensaries should have a more appropriate designation than at present."

(10) Friday, January 16th, 1931, at 10.30 a.m., was fixed as the date and time of the next meeting.

The annual general meeting of the Group followed the Committee meeting.

(1) The Council Representative gave an account of the work of the Group during the preceding session. The Salaries Scale, Memoranda on Contact Examination, the Employment of Tuberculous Nursing and Domestic Staffs, and Notification were mentioned: also the Transatlantic Study Tour, a difficulty at the Cheshire Joint County Sanatorium, and other matters.

(2) The President and other officers for the session 1930-31, as nominated by the Group Committee, were duly elected.

(3) Dr. Peter Edwards was re-elected a member of the Group Committee; and Dr. Andrew Trimble of Belfast in place of Dr. Guy of Edinburgh.

(4) Drs. Crossley, Blackmore, and Ernest Ward were elected to represent the Group on the Joint Tuberculosis Council.

(5) As subjects for discussion during the ensuing year the Surgical Treatment of Pulmonary Tuberculosis and the Utilisation of Sanatoria were suggested.

DR. JAMES FENTON, Medical Officer of Health of Kensington, has been elected a Vice-President of the Medical Defence Union, with a seat on the Council of that body. Members of the Public Health Service, particularly those who may have occasion to seek the advice of the Medical Defence Union, will welcome the addition to this body of one so capable as Dr. Fenton of advising upon questions and difficulties that may affect the medical official.

The Literature of Preventive Medicine.

BACTERIOLOGICAL TECHNIQUE. A Laboratory Guide for Medical, Dental, and Technical Students. By J. W. H. EYRE, M.D., M.S., F.R.S. EDIN., Professor of Bacteriology, University of London; Director, Bacteriological Department, Guy's Hospital, London, etc. London: Baillière, Tindall & Cox, 1930. pp. 619, illustrated. Price 21s. net.

One of the most striking statements in this, the third edition of Dr. Eyre's book, is that the second edition appeared originally so long ago as 1913. It is true that this edition was reprinted in 1915, but having regard to the developments that have taken place in relation to bacteriology and to the numbers of laboratory workers to whom "Eyre's Technique" has always been as a bible, it might have been supposed that the demand for a new edition would have been thunderous.

As a fact, of course, intense as the faith in and affection for the book amongst laboratory workers undoubtedly is, the number of laboratories is, after all, not tremendously large and the field to be covered not particularly wide. It has always appeared to be the impression that the book was one for the knowing ones, for those whose workaday world was the laboratory and who had frequent need to refer to it, rather than such as were merely doing courses and were satisfied with a text-book on or a manual of bacteriology.

This was a pity since one of the things about the book was that it gave an atmosphere of reality to the subject; revealed, as discourses on bacteriology do not, how very much of the practical there is in the science.

It is pleasant to find in this new edition that a definite attempt is made to bring it forward as a book for use, for example, by those studying for the Diploma in Public Health as well as those who are working specifically at bacteriology in order to take the more recently established Diploma in Bacteriology.

The revision for the edition has been very full and complete. Descriptions of the many new methods and media that have been introduced since the War and the increase in the number of working bacteriologists that progress has rendered necessary, have been included.

Discrimination has been used in this connection, and Professor Eyre's claim that he has been concerned particularly to incorporate

only such as "appear likely to stand the crucial tests of time and application, with the old and tried methods handed down to us by the pioneers in bacteriological research" is justified.

Needless to say, the work has been well and carefully done, and complete reliance may be placed upon the book as a guide in the laboratory.

One of the pleasantest things to record about the volume is that, though somewhat stouter than its predecessors, it retains the friendly look with which so many of its users credited it.

SAVE THE MOTHERS. By E. SYLVIA PANKHURST. London: Alfred A. Knopf, 1930. pp. 216. Price 6s. net.

One of the views expressed frequently and strongly by those who have spoken and written most on the subject of maternal mortality is that help in dealing with the problem would assuredly follow if wide publicity were given and propaganda work done.

In connection with such work this book should be extremely useful. It is well and attractively written in the popular style, and contains a vast amount of useful information with regard to the situation in relation to maternal mortality and maternity services in various countries.

Its main appeal is for a universal free maternity service, and with all the great skill she undoubtedly possesses, Miss Pankhurst urges and supports that appeal.

THE AGE OF THE CHARTISTS. By J. L. HAMMOND and BARBARA HAMMOND. London: Longmans, Green & Co., Ltd., 1930. pp. 385. Price 12s. 6d. net.

The authors of this book describe it as a study in discontent, and in it they set themselves to discuss the causes of the discontent that was so manifest amongst the people in the first half of the nineteenth century and subsided after 1850. The description given, admirably, interestingly and with knowledge, is of the conditions of the then newer towns in regard to such matters as health, education, amenities and religion, the effect of the agitation over the Corn Laws and the Ten Hours Bill, and the character and consequences of the Chartist movement. The Municipal Reform Act and the new Poor Law are treated

as illustrating the ruling ideas of the time and the character of England's first experiment in making a society under the conditions created by the Industrial Revolution.

In two books already published by the same authors—"The Town Labourer" and "The Skilled Labourer"—the effect of the Revolution upon the life in those parts of England most directly affected is described. The period studied in these ended in 1832.

The study here made extends to 1854. It is clear and penetrating, and is a piece of historical research of the utmost value to all students of the social life of this country, amongst whom those concerned with the public health occupy a prominent place.

KNOWING OURSELVES. A Book for Boys. By A. W. BARNES. With an Introduction by Miss MAUDE ROYDEN. London: John Bale, Sons and Danielsson, Ltd., 1929. pp. 40. Price 1s. net.

It is the hope of the author of this little book that it may remove the very real difficulties with which many parents find themselves confronted when their offspring have reached the age when sexual instruction should be given. The tone of the writing is high and hopeful, and the book should not be unsafe to use.

TO MOTHERS AND FATHERS. Association of Infant Welfare and Maternity Centres, 117, Piccadilly, London, W.1. 1930. pp. 82. Price 6d., post free.

In this new edition, the tenth of this well-known pamphlet, the contents have been revised, re-arranged and supplemented by new chapters on such subjects as rickets, rheumatism, bed-wetting, and many others, to form an excellent compendium on all that relates to the health of mothers and of children under school age. Local authorities in the United Kingdom will no doubt continue to purchase it regularly for distribution at welfare centres, and this they may very safely do. Specially reduced terms are in operation for any quantity from one dozen upwards.

In the Annual Reports.

THE VALUE OF CANCER STATISTICS.—Cancer is a disease of the degenerative stage of human life. It is therefore inevitable that as a greater number of people survive to the cancer ages, a greater number will suffer from cancer. But, of course, if the incidence remains the same, then age for age, the death rates will remain the same. The question of increases then

depends upon the value to be attached to the statistical records over the whole period of years comprised in the series. The value of cancer statistics, like all other medical statistics, depends upon one thing only, and that is diagnosis. Now it is a notorious fact that the diagnosis of cancer in internal organs is, in many cases, even at the present day, in spite of all the advances that have been made in medical knowledge and in the technical equipment for the examination of remote parts of the body, still a matter of difficulty. If this be true, and no knowledgeable person will dispute its accuracy, how then can the earlier statistics afford anything like a comparative basis, when all the adjuncts of diagnosis that are the commonplaces of to-day were not only not in use, but undreamt of? I have repeatedly stated in these reports the view that the increase in cancer is largely statistical. The real increase is in accuracy of diagnosis.—Dr. A. M. N. Pringle, Ipswich.

CLIMATE AND SMOKE AND BRONCHITIS.—The mortality from bronchitis is not far behind that from pneumonia, and of the two, bronchitis is probably the one that causes most suffering and disability. Like pneumonia, acute bronchitis may be associated with influenza, measles, etc., and in children and old people may be hardly less serious. The chronic bronchitic is a long-suffering person who carries his burden through winter after winter, and often gets scant sympathy. In part, he is the victim of our smoky atmosphere and in part, of our rigorous winters. The latter we cannot alter; but the former we can, and should.—Dr. Thomas Gibson, Wakefield.

THE DISPOSAL OF REFUSE.—Careful and constant supervision of the tips by the staff of the cleansing department reduces the risk of these tips becoming a nuisance and a menace to health, but I am convinced that there is the need for the provision of at least one destructor for dealing with such refuse as decaying animal and vegetable matter. "Burn your refuse" is an excellent slogan, but "Burn your refuse and save your rates" is useless advice to the housewife whose kitchen grate is not equipped to burn rubbish without causing a serious nuisance from black smoke. In a modern scientifically constructed destructor, rubbish of all kinds can be incinerated without nuisance.—Dr. Nicolas Gebbie, Stockport.

THE CANCER PROBLEM.—The problem of attracting patients to the Tumour Diagnostic Clinic remains as difficult as ever. A survey of the death returns for 1929 shows that 150 deaths were registered in the borough as due to malignant diseases, yet only 34 people were apparently aware that a clinic existed at their doors for the early diagnosis of such diseases, for it cannot be doubted but that a large proportion of these 150 deaths would have been prevented by early diagnosis and treatment. "Too late and again too late" may be said of almost every case of cancer and sarcoma. It is, of course, remembered that most patients make for hospital when a "growth" is suspected, but it seems a pity that with the facilities provided by the borough council, patients should spend hours in the waiting rooms of the already overcrowded hospitals when with but a few minutes interval they can be seen at the borough clinic.—Dr. E. G. Annis, Greenwich.

COMMUNAL AND OTHER AMENITIES OF MODEL DWELLINGS.—The following communal and other amenities are inserted for consideration in connection with the erection of large numbers of model dwellings or massed tenements. Some of them are admittedly expensive and possibly on that account not likely to be adopted where rents have to be fixed as low as possible and on an economic basis.

1. Central heating.
2. A central hot water supply.
3. A central kitchen or cooking establishment.
4. A central service for domestic cleansing and charing.
5. One or more common rooms to be used for lectures, concerts, a small library and reading room, a boys' work room, a girls' club room, or for the daily employment of "home-workers" or "outworkers."
6. A small child welfare centre with or without nurseries for babies or toddlers.
7. A room set apart for a doctor's clinic or a "poor man's lawyer."
8. A rest room for mothers recently confined.
9. One or more rooms to be used for the confinement of mothers, or for illness of the tenants.
10. A gymnasium or boxing club.
11. A sound-proof room to be used for music practice and amateur theatricals.
12. The reservation of a grass plot for bowls or lawn tennis.
13. The setting apart of ground for children's games.
14. The planting of flower beds, and of trees for shade and decorative effect.
15. The placing of seats in the square or other open spaces.
16. The building of verandahs and the reservation of spaces on the flat roofs for sunning and convalescence.

—Dr. A. E. Thomas, Finsbury.

MEDICAL INSPECTION AT AIR PORTS.—The Ministry of Health asked the council for permission for three of their medical officers to carry out the duties at the aerodrome under the Aliens Order, 1925. In so far as the pressure of their other work has allowed, this has been done. Passenger and goods traffic is increasing rapidly, and this means of transit is undoubtedly going to expand much more. If work under this Order is to be done properly, a full-time medical officer will be required in the near future. The cost of this service does not fall on the ratepayers.—Dr. Oscar M. Holden, Croydon.

SHOULD CONSUMPTIVES PAY FOR TREATMENT?—The principle that the patient should pay something towards the cost of treatment is one which has been adopted by the London County Council, and it therefore forms a definite part of the tuberculosis scheme. I do not dissent from this principle so far as certain services are concerned, but I personally consider that its application in the case of tuberculosis is unfortunate for two reasons. Tuberculosis is a disease of poverty, promoted by poverty and only too frequently leading to poverty. The poor financial resources of most of our patients are ill able to stand the strain of even a small assessment, especially when the payments have

to be kept up over a comparatively long period. The amount collected from those who are in a somewhat better financial position is so small as to render collection only worth while as an object lesson in self-help, and this I imagine is the idea underlying insistence on this form of contribution. There is a second objection, however, which I regard as being of greater importance. The removal of a patient to sanatorium certainly benefits the patient, but it also removes a source of infection from the home. In this latter aspect the removal of a patient to sanatorium is a direct measure of prevention designed to protect the community against a risk, and the community should be prepared to pay for this protection.—Dr. D. M. Conman, Bermondsey.

WITH extreme regret we record the death, under tragic circumstances, of Mrs. Boobbyer, widow of Dr. Philip Boobbyer, formerly Medical Officer of Health for Nottingham. Most sincere sympathy will be felt with the family of Mrs. Boobbyer in the double loss they have sustained in so short a space of time.

A SESSIONAL Meeting of the Royal Sanitary Institute will be held at Cambridge on Saturday, November 15th, 1930, from 10 a.m. to 12 noon, when a demonstration by Professor J. Basil Buxton, F.R.C.V.S., D.V.H., and the Staff of the Department of Animal Pathology of the University of Cambridge, will be given at the Field Laboratories, Milton Road. In the afternoon visits will be made to the new Open-Air School and the new Cambridge Housing Estates. Dr. A. J. Laird, Medical Officer of Health, Cambridge, is acting as Local Secretary of the meeting, and the chair will be taken by Dr. James Fenton (Member of the Council of the Institute), Medical Officer of Health, Kensington.

THE Invalid Children's Aid Association and Central Council for the Care of Cripples (constituent societies of the National Council for Maternity and Child Welfare) will hold a Joint Conference on "Problems relating to those handicapped by Physical and Psychological defects," on Thursday and Friday, November 13th and 14th, 1930, commencing each day at 10.30 a.m., at the Drapers' Hall, Throgmorton Street, London, E.C.2. The opening address will be given by the Right Hon. Arthur Greenwood, Minister of Health. Visits to institutions are being arranged for November 12th and 15th. Conference tickets (price five shillings each) and full information regarding the meetings may be obtained from the Hon. Secretaries at Carnegie House, 117, Piccadilly, London, W.1.

PUBLIC HEALTH

THE JOURNAL OF
THE SOCIETY OF MEDICAL OFFICERS OF HEALTH.

No. 3. Vol. XLIV. DECEMBER, 1930.

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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Subscription price 31s. 6d. per annum, post free in advance. Single Copies, 2s. 6d. post free.

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Editorial.

The State of the Public Health.

SO far as can be judged from the figures given in the report of Sir George Newman on this subject*, it does not seem that the state of the public health in 1929, the year under review, was quite so satisfactory as in some of its predecessors. Almost it would appear that everybody concerned with public health was too much engaged with the Local Government Act and scheming and planning to get the re-organisation for which it provided into operation, to bother very much with the health of the public. The impression, in fact, is rather that of a housewife so engrossed in

spring-cleaning that the members of her family are rather neglected so far as their immediate and routine needs and comfort are concerned and must just put up with it. The report of Sir George Newman somewhat heightens this impression; the general subjects which in ordinary he treats so very fully and attractively being, or seeming to be, somewhat hurriedly and less enthusiastically discussed in order that he may be left free to devote attention to Local Government Act topics. The shadow of this Act, in fact, seems to be over the whole report and the reader is not provided with the treat of having the many interesting happenings examined and analysed for him by Sir George Newman in the way to which he is accustomed. What the report appears to do is to try to show that a new type of preventive medicine

* ON THE STATE OF THE PUBLIC HEALTH. Annual Report of the Chief Medical Officer of the Ministry of Health for the year 1929. H.M. Stationery Office, 1930. pp. 240. Price 3s. 6d. net.

is coming into being and to indicate that in relation to it there is a position of enhanced importance to be filled by the medical officer of health, and there are a number of new topics that the individual concerned to study the state of the public health must accustom himself to see discussed; happenings in institutions of the poor law type for example, and what is being done for the chronically as well as the acutely sick and in relation to acute rheumatism and the social aspects of tuberculosis. As a fact, there is more than the usual amount of space devoted to a discussion of the medical officer of health, his post, his education, his qualifications, and what he can and should do for the authority and the people he serves. This occurs largely because of the need for extended reference to the Local Government Act, but also partly because 1929 saw the opening of the School of Hygiene in London and the establishment of a central and imperial health institute for the training of medical officers in state medicine. The extraordinary variety of the work in which these highly trained officers must engage they may gather from this report. That they may have to work hard is shown by the fact that, while new fields have been opened, some of the older ones still require close attention if they are to be kept in order. It takes little to encourage death-rates, and more particularly the infantile mortality rate, to rise, and the cancer rate, in spite of all, continues to creep up. Tuberculosis, too, though it is being "steadily conquered," flares now and then and is a condition that obviously needs watching. The same may be said of syphilis and gonorrhoea and of various groups of diseases, both infective and non-infective. That the medical officer of health may be relied upon to work, the report assures the people, but it impresses upon them also that it will not and cannot be by his effort alone that success will be secured. Health for a nation will only come if the nation as a whole seeks to achieve it. In addition, therefore, to dealing at length with the efforts put forth by the health organisation of which the health officer is so important a part, Sir George Newman impresses the need for effort by the people themselves. That the effort is worth while he shows, and the indications he offers as to where the people must look for guidance as to the nature and mode of directing the effort are clear and definite. The particular reference to the value and importance of the press, both lay and professional, as the most

effective means of education of the people, is one most properly and justly made. As a source of education the reports of Sir George Newman himself are of outstanding importance, and that of 1929 by no means falls short of any of those that have appeared before it.

* * * * *

The Health Education Conference.

THE Third Annual Health Education Conference arranged by the Central Council for Health Education was held on Thursday, November 13th, 1930, in the London School of Hygiene and Tropical Medicine, where some 250 delegates were present from local authorities, insurance committees, and the principal bodies engaged in the work of health education.

Lord Riddell occupied the chair at the morning session and gave an inspiring address on "Publicity in Public Health." His object, he said, was to ascertain the sort of publicity required, and how best it could be provided. Most social and political movements were aiming directly or indirectly at securing better health, or the means of improving it. Demand for better wages, better housing, better education and the readjustment of our economic system were in reality part and parcel of the race for health and long life. Too much attention was apt to be paid to the abnormal, to the neglect of the normal, and far more money was spent on mental defectives, myopes, etc., than on healthy citizens. The education of a mental defective, for example, cost £70 per annum while a mere £12 per annum was spent on the ordinary child. It was essential to create what was called a "health sense"—the feeling that one's body and mind were sacred things, to be taken good care of, in due proportion. Turning to adult education in health matters, Lord Riddell referred to the preponderance of educational matter for women over that of men, which might explain the amazing progress made by women in health during the past twenty years.

Dr. John Hall, M.A. (Merseyside Boroughs Health Education Committee) submitted a fascinating paper on "Popular Health Talks—Presentation and Subject Matter," in which blackboard demonstrations were given. He stressed the aims and objects of health education, which were to establish the idea of the sacredness of life, to eliminate fear and superstition, to seek to show that life was a great

adventure and to contemplate life and not disease.

At the afternoon session, Professor H. R. Kenwood, C.M.G., took the chair and emphasised the aims and objects of the Central Council for Health Education, particularly urging local authorities to give it their financial support.

Mr. G. H. Barker, M.C., F.I.H. (National Union of Teachers) delivered an excellent address on "Health Teaching in the Schools," which was supplemented by an equally interesting paper by Professor Dr. A. Adam, of Reichsausschuss für Hygienische Volksbelehrung (Berlin). Professor Adam said that on the recommendation of his Committee, the Ministry had issued a decree whereby it was made compulsory for the State and Provincial Governments to include health teaching in the school schedule. Discussion took place as to whether the teacher or the medical officer was the person more fitted to undertake health instruction. The medical officer, for his part, could claim to possess the greater knowledge, and, in his capacity as doctor, would feel justified in being selected to promote national health. Health teaching, however, was concerned not so much with medical knowledge as with the art of its application by the teacher: such teaching was a matter of education and not of memorisation. It being decided that it was the teacher who should give health instruction, it was first necessary to provide the requisite knowledge: the whole question of the scholar's instruction therefore reverted to that of the teacher's instruction.

Miss Norah March, B.Sc. (Secretary, Health and Cleanliness Council) gave an illuminating address on "Production and Application of Health Propaganda," in which she ably dealt with the varied types of material. Her contribution was followed by another on the same subject by Mr. T. Crew (Leicestershire Insurance Committee), who referred to the question of psychology and its important bearing on methods of propaganda.

During the luncheon interval a number of the latest health films were shown, and at the close of the meeting an interesting educational sound film demonstration was given by means of the R.C.A. Portable Photophone and Projector.

Votes of thanks were accorded to the lecturers on the motion of Professor Harold Kerr, O.B.E. (President, Society of Medical Officers of Health), seconded by Councillor

W. E. Hincks, O.B.E., J.P. (Lord Mayor of Leicester).

Professor A. Bostock Hill (Chairman of the Central Council for Health Education), Professor H. R. Kenwood (ex-Chairman), Lieut.-Colonel G. S. Parkinson, D.S.O. (General Secretary) and Mr. T. Crew (Organiser), all took an active part in the proceedings, and spared no effort to ensure the success of the Conference.

* * * * *

The Health of London in 1929.

THE combined reports of Dr. F. N. Kay Menzies for the year 1929*, in his capacity as Medical Officer of Health and School Medical Officer for the County of London, constitute a document of outstanding interest for all students of local government administration.

The experimental scheme inaugurated several years ago by the London County Council to enable the metropolitan borough councils to utilise as part of the tuberculosis dispensary scheme the facilities for artificial light treatment at certain hospitals in London has now been almost completely discontinued. Experience has shown that the best results are obtained only when this form of treatment is given in conjunction with residential treatment at institutions in the country, where all methods of treatment are available, in addition to fresh air, good food and a regular régime.

It is of interest to note that, whilst there are approximately 5,000 certified midwives with London addresses, only 816 gave notice of intention to practise during the year, the remainder acting mostly as general or monthly nurses under medical supervision.

In his report on the school medical service, Dr. Menzies calls attention to the rapid evolution of school planning in the direction of securing what are virtually open-air conditions by means of the provision of French windows and folding-doors opening upon the playgrounds. Careful investigations have elicited the fact that the health of the children and staff of such schools is of a high standard, although a certain amount of discomfort is experienced in bad weather.

In taking stock of the health of the school child, it has been found that a great deal of

* Annual Report of the London County Council, 1929. Vol. III, Public Health. No. 2731. London: P. S. King & Son, Ltd., 14, Great Smith Street, S.W.1. pp. 189. Price 2s. 6d.

preventable disease and suffering exists, but the general condition improves considerably during school life and the child leaving is healthier than the child entering school. In the general tendency towards betterment and alleviation there is evidence of steady progress.

The nutritional state of the children as a whole, the dental condition of the older children, and the standard of personal hygiene have been greatly improved. Favus has entirely disappeared, and ringworm has been reduced to one-tenth its former prevalence. Particularly noteworthy during recent years is the steady diminution in the incidence of otorrhœa, anæmia, grave nervous diseases and tuberculosis.

The question of homework and its relation to over-pressure receives close attention, and the conclusion is arrived at that the amount of homework is generally excessive and allows the pubescent child too little time for meals, physical exercises, sleep, relaxation and recreation. In this connection Dr. Menzies quotes the words of Lord Grey of Fallodon, who said that for healthy development "they want spaces of free and undisturbed time."

Reference is made by Dr. Menzies to the part played by the Metropolitan Branch of the Society of Medical Officers of Health in securing co-operation between health visitors and school nurses during the measles epidemic towards the end of 1929. The opinion is expressed that the degree of uniformity of the method of control throughout London promises better results than have been obtained hitherto in securing early treatment of children suffering from this disease.

Considering the results of school medical inspection and comparing the results of the inspection of school children at different ages, it becomes apparent that the school medical service in London is playing a very large part in the improvement of health and physique.

With regard to housing it is to be noted that since the war the London County Council have built over 37,000 dwellings. The houses and flats completed during the year 1929 totalled 3,104, and the present estimated population of the Council's dwellings is nearly 215,000 persons. The programme of work in hand is considerable and comprises the erection of about 20,000 additional houses under Part III of the Housing Act, 1925, besides the re-housing required under slum clearance schemes.

In July, 1929, the Council decided to undertake a further programme for the clearance and

reconstruction of unhealthy areas in London, covering about 95 acres and involving the re-housing of about 30,000 persons. Between 25 and 30 areas in various parts of the County have already been selected and the total estimated cost of acquisition, clearance and provision of necessary new accommodation is about £4,600,000. It is hoped that all the schemes in this further programme will be initiated during the next five years.

The reports which Dr. Menzies has now been issuing for five years have grown in interest year by year, and lead readers to look forward each year to the next one.

* * * * *

The Effect on Foods of Fumigation with Hydrogen Cyanide.

SINCE the War cyanide fumigation has been developed on a large scale, both for the destruction of rats on board ship and also for vermin and insect pests of all kinds in flour mills, factories, warehouses, cold stores, greenhouses, etc. It is being used to an increasing extent for the destruction of larvae and moths in imported dried fruit and other foods. The question as to whether or not it can affect the food itself is one, therefore, calling for attention.

A considerable amount of work has already been done on the extent to which foods of various kinds may absorb hydrogen cyanide, and in a report of the Ministry of Health by Dr. G. W. Monier-Williams, just issued*, this work is collated and discussed with the object of ascertaining whether, and in what circumstances, the gas may safely be used for the destruction of vermin and insect pests. In general, the conclusion is that if the process is skilfully applied, and due precautions are taken to prevent excessive absorption of gas, no serious risk to health is likely to be involved. It must, however, be emphasised that indiscriminate treatment of food with hydrogen cyanide by inexperienced operators may be fraught with real danger, not only to themselves in the application of the gas, but to the eventual consumer of the food. The report gives definite guidance as to the limits within which fumigation of food may be regarded as free from risk to the consumer, and indicates certain foods in respect of which special care should be taken. Needless to say, the work has been most carefully done, and is of very real value.

* Reports on Public Health and Medical Subjects, No. 60. H.M. Stationery Office, 1930. pp. 32. Price 6d. net.

Tuberculosis Memorandum 37/T (Revised).

IN a Local Government Act circular (1129) issued from the Ministry of Health on July 25th, 1930, it was stated that a further communication would be addressed to tuberculosis authorities in regard to the modification of the requirements of memorandum 37/T, which was issued in September, 1925. This has now appeared and, described as memorandum 37/T (revised), prescribes the form of the annual returns to be furnished by the chief (administrative) tuberculosis officers of local authorities in respect of the year 1931 and following years.

The first schedule to the memorandum contains the form of the obligatory annual returns, part (A) of which, relating to the work of tuberculosis dispensaries, replaces table I in memorandum 37/T, and represents a simplification of that table. Parts (B) and (C) are included in order to secure at the end of each year complete information as to the numbers of tuberculosis dispensaries, and the extent of the accommodation in residential institutions belonging to tuberculosis authorities.

Part (D) corresponds to part (B) of table II in memorandum 37/T; part (E) replaces the second part of the separate form T 54A prescribed, for the current year, in circular 1129; and parts (F) and (G) have been substituted for table III in memorandum 37/T in order to show more conveniently the results of the observations of doubtful cases, and the immediate result of the treatment of definite cases, in residential institutions.

The form of the supplementary annual return, the furnishing of which is optional, is specified in the third schedule to the revised memorandum. This form replaces table IV in memorandum 37/T. Full instructions for the filling in of the two annual returns are contained in the appendix to the memorandum.

Tuberculosis authorities are requested to arrange for returns in the prescribed forms to be furnished to the Minister not later than the end of February in the year following the period to which the returns relate. The first returns in the modified forms, it will be noted, are to be furnished at the beginning of the year 1932.

* * * * *

Obituary.

IT is with great regret that the death of Mr. Robert Lindsay, L.D.S., Edin., is recorded. Mr. Lindsay had held the office of Secretary

to the British Dental Association for the past eleven years, and in the work he had to perform, displayed unusual energy and ability.

During his term of office, many questions, such as the passing of the Dentists' Act of 1921, presented rather formidable difficulties, but largely through his tact, enthusiasm and full knowledge of the affairs of the Association, they were brought to a successful issue. It is not too much to say that the position now held by the British Dental Association in relation to the public health services is largely due to his assiduous work in promoting the professional and other interests of that large and influential institution.

Though not taking a very active part in the proceedings of the Dental Officers' Group of the Society of Medical Officers of Health, he was always present whenever subjects relevant to the concerns of the British Dental Association were likely to be discussed.

At the funeral, which took place on November 7th, the Society of Medical Officers of Health was represented by Mr. Sydney Smith (President of the Dental Officers' Group), Mr. Frederick Breese, Mr. H. W. Breese and Dr. Sim Wallace.

This opportunity is taken of tendering most sincere sympathy to Mrs. Lindsay in her great sorrow.

DR. H. H. BRIND is resigning his appointment as Medical Officer of Health for the Combined Districts of Chertsey, Walton, Weybridge and Windlesham, which he has held for the past thirty years. Dr. Brind's resignation will take effect when he reaches the age of 65 years in March next.

MEDICAL practitioners who desire to be approved by the Board of Control for the purpose of making recommendations in respect of voluntary patients under sixteen years of age (Section 1 (3) and temporary patients Section 5 (3) of the Mental Treatment Act, 1930) can obtain the necessary form of application by writing to the Board of Control, Caxton House West, Tothill Street, London, S.W.1, and marking the envelope "M.T.D." in the top left-hand corner. As the Act comes into operation on January 1st, 1931, intending applicants should write for this form immediately. The Board cannot entertain applications for approval from medical practitioners of less than five years' standing on the Medical Register.

The Public Health Significance of General Medical Service Schemes.

By ASTLEY CLARKE, M.A., M.D., D.L., J.P., Senior Physician, Leicester Royal Infirmary; C. E. S. FLEMMING, M.R.C.S., L.R.C.P., Member of Consultative Council, Ministry of Health; H. P. NEWSHOLME, M.A., M.D., F.R.C.P., D.P.H., Medical Officer of Health, Birmingham; and A. M. N. PRINGLE, M.B., C.M., D.P.H., Medical Officer of Health, Ipswich.

The subject chosen for discussion at the provincial meeting at Lowestoft is one in which every member of the service is interested, and it is unfortunate that the date chosen proved unsuitable for so very many. The papers published are those contributed by the openers, and, with the notes of remarks made by other speakers, give an idea of the main points which appear to call for attention in the devising of schemes.

DR. ASTLEY CLARKE.

IN opening this discussion I want to remark that no one regrets the passing of private practice, which appears to be taking place, more than I do. I view it as a distinct loss to the community, but I have not yet heard of any practical project by which this desirable form of attendance, comparable at all with that of former days, may be retained. Two reasons out of many I will only give, which I believe compel the medical profession carefully to consider any and every project which may be put forward by any responsible source for medical service.

They are both economic. Patients having had much experience of insurance agencies, as well as the hire purchase system, desire to be relieved of the possibility of having to meet considerable bills when accident or sickness suddenly and unexpectedly comes on them. On the other hand the medical profession, particularly those doing hospital work, must be able to expect a certain measure of financial success for the long student and post-graduate years which they had to put in before they were in a position to hold these posts. More and more do they see that the patients who formerly paid for outside service, flock into hospitals, with consequent great diminution of private consultations and operations.

We must now first consider some general principles which we must keep in mind when constructing the basis of any medical service scheme which may have any degree of success.

1. The scheme must have the goodwill of the profession, and therefore must be attractive to it, and further, it must be good for it. I do not mean this to be taken as material, financial good, but rather to enable the profession to maintain the self-respect of the

members, and to encourage serious post-graduate study, and most especially to foster a professional outlook as opposed to a merely soulless commercial one.

2. It must embrace the whole of the profession—general practitioners, consultants and specialists. In the last group one very important class is, of course, those practising as medical officers of health.

3. Existing (often excellent) organisations must be utilised and co-ordinated. To start with a clean slate is impossible. The voluntary hospitals and the Act of 1929 are factors of supreme importance and are with us. The Act makes the collection of payment for hospital services compulsory on the local authorities, and this we must also remember.

4. We must recognise that as a nation we are certainly overdrugging, and also, we must try to avoid making a nation of neurasthenics. I have often heard it said, and heard it again only this morning from the lips of a large and considerate employer of labour, that what is wanted is "not more doctoring, but better doctoring," and with this I entirely agree. The discipline of the profession must be done by the profession, and must receive careful thought.

From the discussion point of view it is fortunate that to-day there are two definite proposals before the public, one by the British Medical Association and one by the Labour Party. I presume that all present are more or less familiar with both, but in the discussion each whole document must be taken together as they are so fundamentally opposed in their main features, and it is unfair to criticise small non-essentials in either.

Speaking broadly, it seems to me that the first thing to strike one is that in the B.M.A.

proposals the emphasis is on the *man*, whereas in that of the Labour Party the emphasis is on the *machine*.

Let us now rapidly review the proposals of the British Medical Association for a complete medical service for every section of the public and for every illness. It is primarily divided into two sections, the institutional and the non-institutional as regards treatment, and the underlying principle of its finance is insurance.

Certain points I desire to stress. With regard to the home hospitals, I feel strongly that additional facilities must be provided for the general practitioner to "follow his patient into hospital"; but I want to draw your attention to an aspect of the case which has been lost sight of. Supposing that became a general custom, doubtless the general practitioner would get experience, but only to the extent of his own practice; that is, only a few cases of any given disease would come into his purview, and the gain in knowledge would be limited to himself. On the other hand, this process would certainly damage the means by which those on hospital staffs gain the most valuable of all their privileges, *viz.*, that of seeing and treating many patients of the same disease or accident, from the practices of perhaps 250 of their colleagues, whereby they get that extensive knowledge which makes them worthy to be "consultants." I strongly urge those who desire to keep up with hospital work to claim another method. It would give them far more and better experience if there were created many more posts of the "clinical assistant" type, whereby the occupant would not only see his own few cases, but would, like his chief, profit from those of his colleagues, and thus be far more alert in recognising unusual conditions.

With regard to the staffs of hospitals and their appointment, it is most desirable that the method in existence at voluntary hospitals should be maintained; that is by a lay committee with the active guidance of the present staff. The weight of this medical opinion is of great value in preventing political or other influences creeping in.

I want to reiterate that the most desirable and useful members of a staff are not those necessarily who catch the public fancy and make big incomes outside, and that a good staff does not consist of throwing together a certain number of "geniuses"; the good name of the hospital rests on getting together those with a high standard of ethical conduct who can work together harmoniously.

I now refer briefly to the proposals of the Labour Party. In order to focus our attention I have drawn up side by side the main outlines of the two sets of projects:—

British Medical Association.

1.—To be on an insurance basis, an extension of what already exists, and an attempt to retain the most valuable features of private practice.

2.—The unit is the general practitioner and his patient.

3.—Part-time services of general practitioners, consultants and specialists (tends to bind the profession.)

4.—Patients and general practitioner encouraged to meet in patient's home or general practitioner's rooms.

5.—Present voluntary hospitals to co-operate closely.

6.—Preventive medicine to be part of general practitioner's work.

7.—The local medical officer of health to be administrative head, and a medical advisory committee recommended, which shall have direct access to the local authority.

Labour Party.

To be entirely free to everyone; a charge on the public funds.

General practitioners to be in groups, and the patient attached to one of a group.

The aim is "whole-time service" in all cases (tends to split the profession.)

Patients are not to go to general practitioner's house but to treatment centres.

Voluntary hospitals should eventually be merged into public hospital scheme.

Preventive medicine and propaganda to be the work of special groups.

An area principal medical officer and under him a chief clinical medical officer and a chief public health medical officer.

In spite of this necessarily fragmentary opening I trust we may have an interesting and valuable discussion.

DR. FLEMMING.

You, the apostles of the doctrine that prevention is better than cure, have no doubt been largely instrumental in bringing about the great revolution in the practice of medicine that is now taking place—a revolution brought about mostly by forces acting from within, but without bloodshed or any serious ill-feeling, because it is felt by all to be wanted, because, although it is not always obvious, we are in fact a logical and a progressive profession. The change was first given practical form by the National Health Insurance Act; the next important step after the appointment of a Minister of Health was the publication of the report of the Consultative Council

in 1920, and, lastly, the important proposals of the British Medical Association for a general medical service for the nation; but chiefly has it been brought about by the recognition by all branches of the medical profession of the urgent need for reform, and at the same time a demand by the public for a better and a fuller service.

Nine years ago I had the honour of addressing the West of England Branch of your Society and pleaded for the intimate and hearty co-operation of all departments of medical practice and at the same time for the maintenance of the individualism of the practitioner as far as it could exist in a society so interdependent, but now, thanks to the action of yourselves and the British Medical Association, there is no need to do more than point out that what we want is its accomplishment.

The general practitioner had many shocks and alarms as one thing after another was taken from, or threatened to be taken from, his practice—infectious diseases, tuberculosis, venereal disease, orthopaedics, rheumatism and, last and most serious of all, the care of the pregnant and child-bearing woman.

He began to think—what is the good of six years' studentship and another two years' hospital residence spent in the study of these conditions if he is to be allowed in practice only a casual diagnosis and treatment of these conditions. How can he take a real interest in them; how can he increase or maintain his knowledge of them—and yet he will be blamed if he fails to recognise them when he sees them.

When he starts independent medical life, he is confident that he has that knowledge of his work, and skill in practising it, that are expected of him, but he soon finds that for various reasons, economic and want of appreciation by patients of the need, he does not see many of his patients early enough, and when he does he is crippled by want of means for proper diagnosis, treatment and following up, so that he has to hand the case over to the hospital or the clinic, and soon despairs of ever being able to practise his art as he learned it—and that despair is not removed by others doing his work for him.

He wants to get back some of the practice that he has lost, or that has been threatened; he wants to be given the opportunity to work under conditions that will satisfy his professional ambitions and be some reward for his

many years of hard and costly study. He wants his patients to come to him before he has to go to them; he wants early diagnosis and treatment to be easily available, without too many deterrent formalities; he wants to be able to get the assistance of consultant or hospital when he thinks it necessary, but not to have them thrust upon him otherwise; he wants to take an active part in the prevention of disease; he wants all the control of his professional work to be in the hands of medical men; he wants to feel that if he does his work well he will have no outside interference, and that if ever he does fail or appear to fail, the enquiry as to his actions will be by medical men.

I feel sure that any unprejudiced practitioner who reads the proposals on general medical service that we are now discussing will realise that there lies in them the opportunity to satisfy all his wants. He will take an active part in the various clinics, either as now conducted or, better still, in many instances the work now done at the clinic will be done either in the doctor's consulting room or in the home of the patient; in the latter case the medical man will have the advantage of learning about the family, the surroundings and the conditions of life of the patient and will continue to be, even more generally than at present, a missionary in preventive medicine.

He will have available, when required for diagnosis or for treatment, specialist, laboratory and hospital service and, more important still, he will have available hospital beds where he himself can carry out the diagnosis and treatment that he is only prevented from doing now by want of these institutions—which are not to be the monopoly of the specialist—and last, but by no means least, he is not only to continue to practise midwifery and the antenatal care of pregnant women, but is to have a much larger responsibility in this work, and that under conditions better than before, both for himself and for the patient.

The control of his professional work, its efficiency and his discipline are to be as far as possible in the hands of the profession itself, and the medical officer of health is to be an integral and important part of that organisation. The position of the general practitioner is recognised as it never has been before, but with this recognition there come, of course, certain increased responsibilities, but this recognition of the private practitioner in no way infringes the rights or position of

any other members of the profession. He maintains his professional liberty and individualism within bounds that are necessary if we are to avoid anarchy, and full provision is made for the authority of the administrator, the medical officer of health, within bounds that are necessary if we are to avoid despotism.

As Mill wrote: "The maintenance of individuality in work and ideas is essential to progress"—progress which might be imperilled by undue control.

We realise, of course, that such changes in practice as proposed must be gradual, so that they will for the most part affect those now commencing or about to commence practice.

It will be necessary, it is now necessary, for the profession as a body to watch, criticise, and as far as possible control these changes. There must be for you and for private practitioners difficulties of administration and of practice to be overcome, but none of them need be insuperable given goodwill and united action. There will, no doubt, be objectors, but we may remember that they do good and strengthen our position in so far as they make for more careful examination of any proposal criticised.

It is objected that there will be a continued harassment of outside control, but I doubt if it will be as bad as that from interference of relatives, governors of institutions, schools and business establishments that is so often experienced in private practice.

If the practitioner will realise that he is a unit in a general service; that he must conform, as any other member of society, to certain rules, he will find that his personal independence is not interfered with, that the work, in spite of regulations, is easy if well done.

It is objected that the inclusion in medical benefit of dependents of insured persons, dependents who are now our private patients, will, if they are to have a full service, give such an amount of work as will be impossible for us to do. The answer is that in such a case they are not now receiving the service that they ought to. The remedy is a better organisation of work—perhaps more medical men—possibly some of those now in charge of communal clinics, men who are good material lost to general practice.

All this will, of course, entail some rearrangement of the clinical work now undertaken by public authorities; there will no doubt be difficulties, some real, some less real. I

plead and with every hope for your support, in this respect, because I am anxious for the success of our proposals and realise the importance of the support of every arm of the service that each must be complementary to and have full confidence in the others.

I would like to quote the recently published words of a statesman: "I wonder often whether any other generation has seen such astounding revolutions of data and values as those through which we have lived. Scarcely anything material or established which I was brought up to believe was permanent and vital has lasted—everything I was sure or taught to be sure was impossible has happened."

In medical practice we are dealing with an old institution, to which with its customs, its methods, its ideals, we are particularly attached. If it is to continue it must progress and be improved or lose for ever its superlative value. Now is our chance.

DR. NEWSHOLME.

The part allotted to me in this discussion is that of considering the effect of a general medical services scheme on the services previously provided by the poor law. I shall, however, have to ask your indulgence if my remarks are mainly concerned with the requirements for a satisfactory scheme; for the effect on the treatment of the destitute must depend in large measure on the character of the scheme itself.

Classification of Medical Services.

Medical services fall into two main divisions, institutional and domiciliary.

Institutional Medical Service includes treatment in hospitals and in special clinics, whether voluntary or municipal, and for our present purpose I include with it the service of specialists and consultants. On the whole, this institutional medical service is a specialist service, that is, its technical quality is its most striking feature. In so far as it is non-specialist it could, broadly speaking, be adequately provided by the general practitioner in his private capacity.

Domiciliary Medical Service includes treatment in the home and in the doctor's surgery. Its essential feature, given adequate medical skill and conscientious regard for the patient, is not its specialisation, but the personal relation between doctor and patient. In the institutional medical service, on the other hand, while the personality of the doctor and his knowledge of the patient play their important

part, the specialised technical knowledge or skill is the dominant factor. This broad distinction, between an institutional medical service with emphasis on its specialist character and a domiciliary service with emphasis on the mutual relation between doctor and patient, gives a starting point from which to discuss the basis of a satisfactory general medical services scheme.

A.—*Institutional and Specialist Medical Service.*

A wide provision is already to be seen in the voluntary hospitals and certain voluntary clinics on the one hand, and on the other in the municipal general hospital and the special hospitals for infectious diseases, tuberculosis, mental disease, maternity, children, etc., and the municipal clinics for the treatment of tuberculosis, venereal disease, infant welfare, and the school child. Such voluntary and municipal services, dealing largely with specialist advice and treatment are, by common acknowledgment, giving a high level of service; and their expansion either on the voluntary or on the municipal side to cover other specialist services would be a matter readily compassed as necessary. Where these services are non-specialised, and capable, therefore, at any rate in theory, of being provided by the private practitioner, their transfer back from the hospital or clinic to the private practitioner in his domiciliary practice might well result, by the choice of the patients themselves, if and when (a) the practitioner is able to provide service equally satisfactory to the patient, and (b) the hospital patient, like the private patient, is asked to pay according to his means. With equal terms in these two directions, the patient is likely to prefer the easier and more direct method of treatment at his home rather than in an out-patient department of a hospital or in a clinic. The proportion of the medical service at municipal clinics which can, at the present time, be regarded as non-specialised is probably only a comparatively restricted portion of those clinic services; large sections, such as those for tuberculosis and venereal disease, will always be specialised in character, while the care of mother and child, which should, in fact, not be specialised but should be within the range of the average practitioner, must continue to be looked on as specialised until a considerably higher standard of preventive and of curative medicine has been reached in these directions by the average general practitioner.

We may here deal shortly with the relation of the institutional medical service under a general scheme to the treatment of the destitute. Whatever the details of the arrangements, the institutional treatment of the destitute cannot vary radically from the treatment provided now. They cannot pay, but they need the institutional treatment. They will get that treatment, free, in the future as in the past. That will no doubt apply whatever the place of the voluntary hospital in the scheme; for voluntary hospitals have always given free treatment to those unable to pay, and they will as undoubtedly continue to do so.

B.—*Domiciliary Medical Service.*

I have suggested that a dominating feature in domiciliary medical service is the nature of the relation between doctor and patient. The private practitioner, seeing the patient in the home, sees ill-health often at its inception, and alone is in a position to meet its early or premonitory phases. His equipment should include a sensitiveness to early deviations from health; but that implies that he should also have a close acquaintance with the normal health of his patient. His relation with the patient should be an intimate and a continued one. Further, he should know the patient not only as an individual but as a member of a family. The family should be the real unit with which he deals, though we have never yet achieved that ideal throughout all sections of the community. The health of the individual is intimately linked up with the health of his family, both through the ties of hereditary influences and inherited constitutional peculiarities, and through the reactions between one member and another making for or against health. It is by a close knowledge of the family, and not merely of the unit member of a family, that clues in these directions can be obtained towards an unravelling of the causes of ill-health. In what direction are we to look for the domiciliary medical service embodying these features? Obviously, the family doctor in his direct intimate relation with the family as a family is potentially capable of providing it. Is that equally true of such alternatives as the panel doctor under a National Health Insurance Scheme expanded to include the dependents of the insured; or the salaried whole-time public medical officer engaged at a municipal clinic extended to deal with a larger clientèle, or were he converted into a medical officer visiting the home?

(1) *Domiciliary Medical Service—The Panel Doctor.*

First, then, does the panel doctor fulfil the conditions needed for the family doctor of an ideal form of domiciliary medical service?

I have personally formed the view that the method of service resulting from the National Health Insurance Scheme is such as to prevent the panel doctor from becoming in the true sense the family doctor under any extension of the Insurance Scheme to cover dependents of insured persons. The panel doctor is not as such the family doctor now, for he deals only with certain individuals in the family; and the particular relation towards those patients into which he is brought by the nature of the Insurance Scheme would, it is submitted, prohibit him from becoming in more than a superficial sense the family doctor, even were the National Health Insurance Scheme to cover the whole family.

The relation between family doctor and patient in private practice is a peculiarly intimate one. It is begun by a deliberate act of choice by the patient, and its continuance is purely voluntary, based on the quality of confidence and trust between the two parties. The services are paid for direct and rendered in the knowledge of such direct payment. The National Health Insurance Scheme is not based on this free and direct relation. The patient is compelled to provide for medical services, whether he uses that provision or not; and if he does not choose a doctor he is allocated to one. Payment is wholly impersonal, and the administrative machinery reduces to a minimum both the knowledge of the patient that he is paying, and of the doctor that he is receiving, very indirectly, a fee from his patient. Other circumstances arising out of the form of the Insurance Scheme suggest that it does not give a happy basis for a domiciliary medical service of the ideal family doctor type. These can be gathered from a significant passage in the report of the Royal Commission on National Health Insurance, 1926, where the Commission are investigating the meaning of the limitation of medical benefit to "services within the competence of the average general practitioner." That definition of medical benefit, in the Regulations under the Act, is based on the facts that every qualified medical practitioner had the right to come on the panel list; that every insured person would have one doctor and not more than one at any given time; and that if he did

not choose a doctor he might be allocated to one. The Royal Commission's Report summarises the position as follows:—

"In these circumstances it appeared to the legal advisers and to the Department that the scope of medical benefit must be construed as limited to services within the competence of the average general practitioner. Further, though the medical lists included a certain number of men with special experience, whose competence in certain directions was therefore above the average, it was felt that if all doctors were to receive the same rate of remuneration, as practical considerations were found to require, a uniform obligation and a uniform content of service were implied, and that it would not be equitable to require one man, because he happened to possess some special skill, to render a wider range of service than was required from the majority of his fellow practitioners engaged under the insurance contract."

In that passage is exposed the fundamental weakness of the National Health Insurance Scheme. The fact that all doctors were to receive the same rate of remuneration may, in the phrase of the Report, make it "not equitable" in law to require a medical man possessing skill above the average to render a wider range of service than his fellow; but it would be an offence to the conscientious doctor not to give it if he possessed it. The intention was, no doubt, to exclude certain forms of service, such as particular operations, from the scope of the medical skill to be required of the panel doctor; and with that we can have no quarrel. But the definition, and the conclusion to which it can too easily lead, is far more general. The man of more than average skill is, in the words of the Royal Commission, not required "to render a wider range of service" than the average practitioner. How fatally easy for individual practitioners or individual patients to deduce from this, even though unjustifiably, that the clever doctor need not use the whole of his skill on his patient! Something in the very nature of the Insurance Scheme has produced that definition of medical benefit; the definition with its implications has introduced the possibility of a relation between doctor and patient which is altogether alien to the ideals of our profession. It leaves a loophole, whether used or not, for a form of professional "canny" which must be detestable to every

self-respecting practitioner. It may well be a factor producing suspicion in the mind of the patient that he does not get the treatment which would be his were he a private and not a panel patient.

Now what is it in the National Health Insurance Scheme which leads to this position? The Royal Commission's report refers to several factors; the freedom of all doctors to join in the scheme; the more qualified freedom of the patient, and his automatic allocation to a doctor's panel if he does not exercise his choice; and the flat rate of payment for services. To these I would add, first the compulsion which, on the one hand, forced the medical profession into the Scheme, and on the other, forced a section of the population to insure; and then the indirect method of payment between doctor and patient adopted under the Scheme.

These three elements, the flat rate of payment, the indirect method of payment, and the fact of compulsion on a selected section of the community to insure under the National Health Insurance Scheme need some comment as being the factors principally hindering its expansion into a satisfactory domiciliary medical service:—

(a) *Flat Rate of Payment.*—The private practitioner in relation to his private patients, does not adopt a flat rate of fee. His fee varies with the means of the patient, but to each, whatever the payment, he gives the whole of his skill, in range and in degree. But the greater his skill in general, the larger the fee he can command. Both these aspects of payment would need inclusion in an ideal domiciliary medical service scheme; both are absent from the National Health Insurance Scheme.

(b) *Indirect Method of Payment.*—Human nature tends to value what it pays for, and it realises the payment best when that payment is made direct for the service received. The payment under the National Health Insurance Scheme is so indirect that so far as the cash nexus is concerned the personal relation existing between patient and doctor as truly family doctor is lost.

(c) *Compulsion.*—Where an individual is compelled to a course of action, there is a risk that the effect on him may be that of indifference, or of a dislike which may turn to suspicion. I believe that the National Health Insurance Scheme has not escaped these dangers with its compulsion of a section of the com-

munity to take part in health insurance, and its virtual compulsion of the medical profession as a whole to submit to the scheme at its inception. The effects of compulsion die hard, and leave their ineradicable scar. It is for that reason that I regard the form of compulsion applied under the National Health Insurance Scheme to a section of the community, in respect of so personal a matter as domiciliary medical care, as an important factor hindering the ideal relation between doctor and patient.

It might conceivably be true that, were compulsion excluded from a scheme of national insurance, progress in physical welfare would tend to be less widespread and slower than under a system of compulsory insurance. I suspect, however, that in the long run the progress which depended on the deliberate choice and initiative of the patient would be more deepseated and hence more lasting than where he had been treated merely as a cipher with no personal responsibility of decision. It might be argued that in the absence of compulsion there would be many who would neglect their duty to themselves or to their dependents in obtaining necessary medical treatment. That might be minimised, though not eliminated, by provision for penalties for negligence. I should, however, be prepared to run the risk of neglect among the few in order to maintain for the many their personal initiative. If, on the other hand, compulsion is to be adopted as a principle in regard to domiciliary medical care in a national scheme of medical service, then it should be in a form which interferes neither with the initiative of the patient in seeking advice; nor with his sense of freedom and of intimacy of relation with a doctor who cares for the patient within the circle of his family; nor with the direct cash nexus between doctor and patient whereby the one receives direct from the other the return for his services. Further, that compulsion should be in a form which prevents one section of the community from concluding that it is being singled out from the rest by reason of its personal deficiencies. Our national system of compulsory insurance does not fulfil these conditions. It is conceivable that some other form of compulsion would fulfil them. The Norwegian system, for example, seems to approach it in some measure—a system by which what in effect is a tax is imposed on the individual, available in lieu of wages when he is sick, and paid to him up to a fixed limit in return for receipts for pay-

ments made by him direct to a doctor who has given treatment and charged his fee.

It would appear, then, that the framework of the National Health Insurance Scheme is such that the panel doctor is largely prevented from being the family doctor whom he would like to be and should be; and that this would not be remedied by extension of the Scheme. It is through the very nature of the Insurance Scheme itself that the panel doctor's services, though in general they have been honest and sufficient, have too often been regarded with suspicion, sometimes with aversion, by many of the insured.

(2) *Domiciliary Medical Service through a Municipal Medical Staff.*—I can deal very briefly with the second alternative for a domiciliary medical service: its provision through a whole-time medical staff at clinics or in the home. Such medical care provided through clinics, even if the interpretation of domiciliary medical care could be stretched to cover this, would suffer from two of the basic flaws to which we have referred already: the doctor would be dealing with the individual as apart from his family; and there would be no clear direct cash nexus between patient and doctor. The introduction of the private practitioner as such into this machinery of the municipal clinic, so that he, rather than the salaried medical officer, should carry on the work, would not remove these fundamental obstacles, even where the work was so non-specialised as to be within the scope of the general practitioner. He would still, for the reasons stated, fail to be giving a domiciliary medical service in the real sense as a family doctor: and that, in my view, is the direction in which his great value to the community lies. The private practitioner, that is, should seek to absorb back into his domiciliary practice the patients who attend municipal clinics for non-specialised advice, rather than seek himself to become a part of municipal service. If, on the other hand, the municipal service were extended by the provision of salaried medical officers to visit the homes, they would, it is true, be dealing with the family as the unit; but again the cash relation between the patient and doctor is removed; and more important still, there would almost necessarily be limitation of choice of doctor by patient. The true intimacy of relation between family and family doctor must, for these reasons, be gravely affected, and I cannot therefore look on a salaried public medical service as being capable of providing

the ideal conditions for domiciliary medical care.

(3) *Domiciliary Medical Service.—The Private Practitioner as Family Doctor.*—I have already said that the private practitioner as family doctor is potentially capable of providing the ideal domiciliary medical service. I say "potentially capable," for we may conceivably not yet have reached a stage at which domiciliary medical care can be provided on a national scale with full confidence in the ability of the body of private practitioners to fill out the rôle of family doctor. The private practitioner may need in some directions to alter his standard of diagnosis and treatment. He certainly needs to develop his ideas of prevention of disease; and the public need a clearer certainty that he will give himself as much to advising how recurrence of the conditions for which they seek treatment is to be avoided in future, and still more, how to prevent the more basic deviations from equipoise of body and mind out of which those conditions have arisen, as he gives himself now to the cure of these conditions. Nevertheless, I do not believe that the domiciliary aspect of a general medical services scheme can attain any real comprehensiveness and stability until it is built upon the family doctor in the most complete sense.

An Approach to Domiciliary Medical Service.—If the private practitioner is to be the family doctor on whom the domiciliary medical service is to be based, how is he to do this if it cannot be either through an extended National Health Insurance Scheme or through an extended Municipal Medical Service? Can any alternative be envisaged? Certainly no simple or neat alternative; nor is it so likely to be a scheme imposed from without as one growing by deliberate effort from within. What kind of scheme might it be?

(1) It might conceivably be the old-fashioned relation of private practice, between patient and family doctor throughout the population, with payment per attendance, with all its advantages, and for the poorer section its evils. The family doctor would be resurrected in full Victorian vigour and his services applied to the poorer section who have never yet fully participated in it. Such an arrangement might certainly become a national habit; it could scarcely be described as a national scheme. The fundamental difficulty would be that of money. The poorer section—those broadly of the class to whom

the Insurance Act applies—could not or would not afford it; and any system of subvention out of the proceeds of a generally applied health tax would be exposed to the risk of intervention, and with intervention, alteration of the relation between patient and doctor.

(2) It might be a system of insurance; but if it were it must be—

(a) Either optional, with the right of the patient to choose the alternative of payment per attendance, and of the doctor to charge a sum corresponding with the patient's means; or if compulsory, then such that it interferes neither with the freedom, the personally intimate relations, nor the directness of payment between patient and doctor.

(b) It must be such that the doctor is not discouraged from using his full skill and capacity because the payment is not proportionate to that skill.

Now even a graduated scale of payment for insurance based on the patient's income scarcely meets this requirement arising from the need for payment for skill; for the graduated scale varies with the patient's income, but not also with the doctor's skill, as does the fee for attendance under the circumstances of ordinary practice. I see only two possible ways of meeting this:—

(a) On the one hand, something on the general lines of the Norwegian scheme, to which I have already referred and which I will not elaborate, might be so adapted as to give compulsion without the evil results of our system of compulsion.

(b) In the alternative, by private practitioners voluntarily forming groups, with agreement between members of a group as to the proportion in which fees received are to be allotted to each according to skill, experience, or amount of work done; for neighbouring groups to determine reasonable scales of insurance applicable within their area; and then for each group of practitioners to offer voluntary insurance to their patients on a basis graduated according to income, perhaps according to scope of service, perhaps to a defined maximum of attendances. On some such basis, tested experimentally here and there, and extending throughout the body of private practitioners, it is possible, even if difficult, to visualise a domiciliary medical service giving the normal relation between patient and family doctor, gradually capable of transferring back from the municipal clinic or the hospital to the home such portions of institutional medical service as are non-specialist

in character, and ultimately perhaps even capable of swaying public opinion back to a revision of the policy underlying the National Health Insurance Scheme. I cannot pretend, within the limits of my time, to expand this aspect, even were I capable of doing so, or of dealing with the fundamentally difficult financial problems connected with it. I would only say that if the general public could only be made fully aware of what they are losing by the disappearance of the family-doctor type of service from our midst, and if medical practitioners could become equally conscious of what they are losing in happiness and social value in that disappearance, a very large part of the financial difficulty would solve itself.

I will end by returning to the particular aspect of the relation of a national medical services scheme to the treatment of the destitute. I have already pointed out that, so far as *institutional and clinic* care is concerned, there is little to note, for the treatment of the destitute will continue in the future as in the past, and on very similar lines.

So far as a system of *domiciliary* medical service is concerned, I assume a system based on direct relation between family doctor and family. Under such an arrangement I should endorse the tentative suggestion which appears to be implied in the British Medical Association Scheme, of some form of contract between the public assistance committee and the body responsible for medical benefit, which would result in the destitute, at present dealt with by district medical officers, being transferred to the family doctor, in so far as the district medical officer is not a family doctor. It will be understood that the panel doctor and the family doctor are not, in my view, synonymous. The payment for service would quite appropriately be by the public assistance committee; and it might appear as though the destitute would lose thereby the value of the personal doctor-patient relation in which the paying section of the community would have been enrolled. But the relation between doctor and destitute patient would be moulded by the corresponding relation between the doctor and his other patients; and that would, on our assumed scheme, be direct and personal, based on their direct insurance with or payments to him, and on their relation to him as families and not as individuals. Thus the destitute equally with the more fortunate members of the community would obtain the ideal domiciliary medical care implied in the family type of private practice.

At this point, with this very incomplete statement, I must close my contribution to a peculiarly complex problem.

DR. PRINGLE.

Whatever disguise may be adopted for the British Medical Association scheme, it is the second stage of a State service for treatment purposes; which means that the British Medical Association has gone a very long way since the time it opposed the first Insurance Act. Under the old scheme no specialist or other services were provided for: the new scheme, on the other hand, makes provision for all services needed by a patient, thus bringing in the necessity for co-ordination. I am entirely opposed to the substitution for the private doctor of any system of municipal doctoring. I do not think it would be a success.

With regard to the question of bringing preventive medicine into the work of the private practitioner, I think it will be difficult to do so in actual practice. The private doctor has in his mind the idea that his sole duty is to treat disease and not to practise prevention.

The British Medical Association scheme is an admirable one—on paper. The essence of success for the private practitioner lies in his individualism, and the greater the individualism the greater the difficulty of merging him into a common scheme.

In dealing with this matter there should be brought to bear upon the patient all services necessary to restore him to health. Here is the great need for co-ordination, and the medical officer of health should be the director of the team, and should regard the work of co-ordination as a personal task. He is more or less well known to the public as well as the local practitioners, and has, or should have, an adequate staff and system of administration.

The discussion that took place on these proposals at the Representative Meeting of the British Medical Association rather suggested that in many areas there existed an element of friction between the medical officer of health and his fellow practitioners, and I know that in some districts this is so. There are difficult men in general practice just as there are in the public health service, but as there are many practitioners and only one medical officer of health in an area, the task of the medical officer

of health in securing and maintaining an amicable relationship is the harder one. But if, only the medical officer of health would carefully study the idiosyncrasies of his fellow practitioners—and look to some of his own—all should be well.

With regard to the question of the voluntary hospitals, I have always felt that it was a very poor compliment to the medical profession that it should have been thought necessary to put in section 13 of the Local Government Act, 1929. That was a tactical blunder. It should have been obvious to anyone that no responsible authority would think for one moment of ignoring the voluntary hospital in making arrangements for the treatment of the sick. I hope that the services of the voluntary hospitals will be continued and supported by local authorities to the utmost of their capacity. Voluntary hospitals have ceased to be charities; they have become institutions supported by voluntary levy. The contributory scheme has been a tremendous success; it has kept the voluntary hospitals alive, and is the financial basis of the existing service.

The moment it is found necessary to support an institution by means of a voluntary levy the inevitable tendency is for that levy to become a legal obligation, and in consequence, for the voluntary hospital to pass gradually into and become part of the State scheme which the British Medical Association is putting forward.

As regards the borough hospitals, and in particular the separate hospital units of the poor law, many of them well equipped and staffed by extremely highly skilled practitioners, little difficulty arises, save that they still remain poor law hospitals. They should be used in addition, to provide services necessary but not already rendered. The problem is not so easy of solution when the unit is also a workhouse. In the combined hospital and poor house the main difficulties are (1) the insane; (2) the mentally deficient, and (3) the simple seniles. In order to utilise the hospital beds to the full we must remove the insane, and also, it is hoped, the simple seniles, who require no medical treatment at all but only simple nursing.

The great need at the present time is for hospital accommodation for commencing degenerations—the commencing hearts, the chronic bronchitics and cases of that kind, and, of course, the rheumatics. There is no accommodation for such cases in the voluntary

hospitals, but they are peculiarly suitable for the hospitals of the local authority.

With regard to the question of the family doctor in the hospital, judging from my own experience of a maternity home, there is no difficulty in that type of hospital, but I see apparently insuperable difficulties in a private practitioner attending his own cases in the wards of the large institutions.

DISCUSSION.

Dr. E. H. Snell (formerly Medical Officer of Health, Coventry) said that everyone would desire to see schemes provided for the public, but he shared the views of Dr. Graham Little that private practice was better conducted by private practitioners. So far as the private practitioner allowed anyone else to come between him and his patient so far as he ceased to be a private practitioner, and his work would gradually develop into a State medical service. Practitioners had recognised the drawbacks of the club system; they had fought hard against what they considered to be an expansion of that system, but had been beaten. They had found, however, that the State system had improved on the club system, particularly from the financial point of view, and after experience they were willing to extend the scheme to the dependents of insured persons. On that he did not think it wise to express an opinion. Dr. Newsholme had brought it out clearly and cogently in his paper that, after all, private practice was what should be aimed at if possible. Conscientious men, however, would do their best for their patients in whatever way they might be working. Dr. Flemming had referred to the existence of municipal clinics and their encroachment on private practice. Local authorities did not spend money on clinics if they could possibly avoid it, and clinics had only been started where no facilities existed for the kind of ailment to be dealt with. A greater matter having an influence on public health than general practice was the hospital schemes that might be introduced in the future, and the sooner all hospitals were municipal the better it would be for the community. The idea of the British Medical Association scheme in trying to get the private practitioner to follow his patient into hospital was undoubtedly a good one, and something in that direction might be done in connection with the municipal hospitals.

Dr. E. H. T. Nash (Medical Officer of Health, Heston and Isleworth) said that anything which was going to improve the medical service to the poorer sections of the community would be to the advantage of the public health. A successful service for the dependents of insured persons had been worked directly by the British Medical Association in his own area.

The President (Dr. John J. Buchan) assured the opening speakers that their contributions had been greatly appreciated. All the papers had shown more points of resemblance than points of difference. Dr. Astley Clarke had referred to two schemes, that of the British Medical Association and that of the Labour

Party, yet if each were examined deeply enough, points of similarity would be seen, and each possessed essentially the same ideal—the betterment of health—an ideal that was fully taken up and endorsed by the Society. The President welcomed the British Medical Association scheme, which would bring into being a private practitioner who was really a part of the health service of the country—a man who had responsibilities to his patient and his patient's family and also to the State. There had been no more marked change in the past twenty years in the point of view of the practitioner than in a fuller appreciation of his responsibilities to the State, and the National Health Insurance Act had done a great deal to bring that about. On private practitioners the public health would largely depend, and private practice ought to be made as attractive to the medical student as specialism appeared to be to the great mass of medical men and women.

Dr. A. K. Chalmers (formerly Medical Officer of Health, Glasgow) moved a hearty vote of thanks to the opening speakers. He held that there was too much talk of schemes and too little talk of the objectives of the schemes. There ought to be room in a hospital scheme for bringing in the general practitioner if he were eager to take part in the work.

Professor Harold Kerr, O.B.E. (Medical Officer of Health, Newcastle-upon-Tyne), seconding the vote of thanks, said that, on account of the Local Government Act; the general medical service schemes; and the hospital schemes; the public health service was at a critical point of its work at the moment, and it was undoubtedly of immense value to meet and talk with representatives of general practitioners. A remark had been made that contained much truth—that not more doctoring but less doctoring and better doctoring was wanted, and the private practitioner was coming closer to the public health man in his conception of what was needed, just as they of the public health service were learning more of the general practitioner's point of view. The general practitioner, it had been said, considered it his business to treat the already sick, prevention hardly entering into his scheme. Panel practitioners, however, had seen the force of prevention from the standpoint of their own benefit. The Society had gone into the question of training of the general practitioner in the idea of prevention during his period as medical student, and the report of the special committee appointed to deal with the matter had been sent with very little amendment to the General Medical Council, who were considering it carefully, so that there might follow some general all-round improvement in the teaching of public health methods and principles to the embryo practitioner.

The vote of thanks was accorded with enthusiasm.

Dr. Astley Clarke, in reply, said that what had impressed him more than anything was the indication at the meeting that there was a feeling that if the establishment of the general practitioner as a friend in the home could be secured, the better it would be for the nation.

Dr. Flemming, Dr. Newsholme and Dr. Pringle also made brief acknowledgment.

Ut Ita Dicam.

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

The Annual Dinner.

In the sense that it was used largely as an opportunity for recognising a number of happenings in the circle of the service, the annual dinner this year was much more of a family affair than usual. Even the Minister of Health, who was the chief guest, seemed to accept it as such; made himself one of ourselves, stopping practically until the end and, when his turn came to speak, refraining from making pronouncements, talked about his worries and ours and his aims and ours in relation to the public health; of how much assistance the medical officer of health had been in the past, and of how much he relied upon us for help in the future. The Lord Mayor of Newcastle-upon-Tyne, having been Vice-Chairman of the President's Public Health Committee for years, assumed the attitude of a member of the family almost as naturally as the guests of honour, Sir Eustace Hill, Dr. W. G. Willoughby, and Mr. G. S. Elliston, all of them of our fellowship. Probably it was because of the family atmosphere that so many of the speakers permitted themselves to take liberties in respect both of quantity and quality in their speeches. There was, therefore, no end of reminiscing, and several of the stories told sounded familiar. It was regrettable that, on account of the absence of Sir Andrew Balfour, the quartette of the guests of honour was incomplete. One of the most pleasing events of the evening was the presentation to Mr. G. S. Elliston of certain tokens to mark our esteem and regard for him, and our regret at his resignation of the position of executive secretary after a period of some twelve years. The words used by Dr. G. F. Buchan in making the presentation, not unexpectedly, were just those that we all desired to be used. They were delivered just as they should be delivered, and as no one else than Dr. Buchan could have delivered them. The announcement he made that Mr. Elliston had been adopted as a prospective candidate for Parliament at Blackburn interested everybody, and his comment upon it that he had no idea what Mr. Elliston was standing as—"a Baldwinite, a MacDonaldite, a Lloyd Georgeite, or a Simonite, or merely as a Bolshevik, but in any case, I hope he gets in," I liked very much. I liked also Mr. Elliston's speech in response, and particularly the part

in which he assured us that the main result of his resignation would be to give him more time to work for the good of the Society, and those who belong. I expect if he is not too busy being Lord Mayor of London or Minister of Health, or Prime Minister at the time of the annual dinners, Mr. Elliston will make these one of the occasions for getting together with us. For one, I hope he will, and I know that I am not alone in hoping so.

The First Council Meeting.

The opening Council meeting of the session was held on the afternoon of Friday, November 14th, Professor Harold Kerr, the new President, occupying the chair for the first time. It was well attended in spite of the dinner on the previous evening, and in spite also of the fact that the General Purposes Committee had sat for a number of hours in the morning. Nothing that was very exciting came up for consideration, and nothing particularly noteworthy occurred except that, of the two brace of brothers on the Council two were in entire agreement and two in complete disagreement over everything that came up. Possibly because they learned to hustle during their visit to their colleagues in Canada, and the United States, the Tuberculosis Group appear to have become extremely active, and it was noticeable that their representative, Dr. Ernest Ward, had the floor more frequently than anybody else at the meeting. The first thing he did was to submit the very interesting memorandum on the examination of contacts, which is reproduced elsewhere in this issue; then he referred to complaints made as to the clerical duties imposed upon tuberculosis officers, and ended up by bringing forward a representation from the Group with regard to the methods of filling vacancies in the service generally.

Tuberculosis Officers and Clerical Work.

That there was a great deal of sympathy with tuberculosis officers as regards clerical work was evident from statements made during the discussion on the matter. As a fact, there is no one branch of public health work that seems to necessitate the making and keeping of so many records and returns as tuberculosis. And the curious thing about them is that they are always changing and always becoming more and more involved and incomprehensible. A great

deal of the difficulty arises no doubt because of the prolonged course run by so many of the cases, but it certainly seems a pity that so much of the time of experts that might be devoted to preventive work has to be spent in making entries on forms and doing sums in addition and subtraction. One knows, of course, that there are certain people who believe that the proper place to study and effect the solution of problems in epidemiology is a room fitted with a black-board, a box of variously coloured chalks and a comptometer, but in the case of tuberculosis work, direct relationship to the sufferer, his contacts and his home is regarded as having a certain amount of value also. The Council referred the question of clerical duties back to the Tuberculosis Group in the hope that they might, after careful and specific consideration, find themselves in a position to offer suggestions for meeting the difficulty.

The Due Advertisement of Vacancies.

On the whole, the other point raised by the Tuberculosis Group, with regard to the filling of vacancies in the service, it seemed, was coldly received. The demand that posts should only be filled after "due advertisement," and that if a selection had already been made or if it is intended to fill the position by promotion within the department, the fact should be stated in the advertisement, gave rise to no excitement whatever. This, possibly, was due to the fact that most of those present were long past the age when the advertisement columns of the journals are those exclusively read, and when the discovery that time, trouble and money expended in sending in an application have been wasted, has ceased to mean anything. If there had been more of those who are only on the threshold of their career at the meeting, conceivably the question would have been discussed at greater length and more vigorously. Even so, it is very doubtful if, as a result, we should have got any nearer a decision as to what is best to be done that would satisfy all and sundry of those who, having applied for a job, have seen someone else, less worthy, appointed.

Presentation to Dr. William Robertson.

I have been interested to hear of the presentations made to Dr. William Robertson, both by the City Council and by his colleagues in the service of the Corporation, on his retirement from the position of Medical Officer of Health of Edinburgh. Robertson has so very closely identified himself with the work and life of the City that it seems almost incredible that actually

at the time of his retirement he had only been Medical Officer of Health for a little over seven years! Prior to that he had served as "assistant" with Dr. Maxwell Williamson, a post he accepted after the amalgamation between Leith and Edinburgh in 1920. Both in Leith and Edinburgh and throughout the whole period of his service Dr. Robertson has enjoyed and deserved the entire confidence of the Council and the people. In his address of thanks to the Council and to his colleagues he attributed his success in getting things done to the fact that he had the people with him, and that he was a non-academic rather than an academic medical officer of health. This did not, however, prevent him from doing a great deal of education, and the fact that out of 24,000 gallons of milk sold daily in the City, 16,000 gallons are of high-grade quality, is taken as evidence of the success that has attended his efforts in this direction. In a statement on this matter, Dr. Robertson suggests that Glasgow compares rather unfavourably with Edinburgh, since, though her population is over a million, she has only a daily sale of 2,000 gallons of high-grade milk. If Dr. Robertson has not already made provision for disposing of the free time he has secured as a result of his retirement, it is open to suppose that quite a good deal of it may be taken up in facing the storm that this statement is certain to arouse in the western parts of Scotland. Even if the public health workers in Glasgow do find it necessary to object to the comparisons made between the milks retailed in the two cities, it is certain that they will unite with their colleagues in the public health service throughout the country in echoing the wish of the Lord Provost of Edinburgh that Dr. Robertson may have many happy days in his retirement, with health and strength to enjoy them.

Unsolicited Testimonial.

"I have no hesitation in saying that members of the public health service anticipate more eagerly the appearance each week of the ——— and enjoy its perusal very much more than they ever do in the case of the official organ of the Society." Extract from a speech delivered at the Annual Dinner of the Society. Thanks are accorded to the sympathetic stranger who said that he did not see any reason for the preference since, after all, if members of the Society would only read it, they were more liable to see their own names in print in their own journal than in any other periodical.

The Society.

Reports, Proceedings and Announcements.

ANNUAL DINNER.

The Annual Dinner of the Society was held at the Piccadilly Hotel, London, on Thursday, November 13th, 1930, when the President (Professor Harold Kerr, O.B.E.) and Mrs. Kerr received over 160 members and guests. The occasion was in the nature of a domestic celebration of distinctions recently conferred on members of the Society, and the guests of honour present were Sir Eustace Hill, O.B.E.; Dr. W. G. Willoughby (President-Elect of the British Medical Association); and Mr. G. S. Elliston, M.C., M.A., on his retirement from the post of Executive Secretary of the Society. Sir Andrew Balfour, K.C.M.G., who was also invited, was unfortunately unable to attend.

The President was supported by the following:—

Past-Presidents.—Sir Arthur Newsholme, K.C.B.; Professor A. Bostock Hill; Dr. A. K. Chalmers; Dr. Charles Sanders; Lieut.-Col. F. E. Fremantle, O.B.E., M.P.; Dr. T. W. Naylor Barlow, O.B.E.; Dr. R. A. Lyster; Dr. G. F. Buchan (Hon. Treasurer); Dr. E. H. Snell; Dr. J. Howard-Jones; and Dr. J. J. Buchan.

Members of the Council.—Dr. James Fenton; Dr. E. H. T. Nash; Dr. H. Gibbons Ward; Dr. G. C. M. M'Gonigle; Dr. F. T. H. Wood, O.B.E.; Dr. R. H. Wilshaw; Dr. G. H. Pearce; Dr. J. Mair; Lieut.-Col. G. S. Parkinson, D.S.O.; Dr. Agnes H. Nicoll; Dr. A. E. Baker; Dr. H. B. Brackenbury (Chairman of Council, British Medical Association); Dr. W. Paterson; Dr. R. M. F. Picken; Professor W. W. Jameson; Dr. H. J. Milligan, M.C.; and Dr. Charles Porter (Hon. Editor).

Branch and Group Presidents.—Dr. Charles Franks, J.P. (Northern); and Dr. J. Sim Wallace (Dental Officers).

The Rt. Hon. Arthur Greenwood, P.C., M.P. (Minister of Health); Mrs. Willoughby; Alderman David Adams, J.P. (Lord Mayor of Newcastle-upon-Tyne); Sir Squire Sprigge; Dr. Alfred Cox, O.B.E. (Medical Secretary, British Medical Association); Sir William R. Smith, J.P., D.L., Lady Smith, J.P.; E. Potts, Esq., O.B.E., B.Litt.; Dr. F. N. Kay Menzies; Sir William Hart, O.B.E. (Town Clerk of Sheffield); Mrs. J. J. Buchan; Mrs. Bostock Hill; Lieut.-Col. William Clayton Smales, D.S.O.; J. A. Inglis, Esq., F.S.A.A.; Mrs. Frost; W. J. H. Griffiths, Esq.; Mrs. Bruce

Penny; Dr. A. G. G. Thompson, Mrs. Thompson; Osmond Cattlin, Esq., M.I.C.E., Mrs. Cattlin; L. J. Packington, Esq.; Ken Koike, Esq., L.D.S. and guest; Arnold Thorne, Esq., Mrs. Rosa Thorne, L.D.S.; Dr. May Clarke; F. Breese, Esq., L.D.S., Mrs. Breese; Dr. J. A. H. Brincker, Mrs. Brincker; Dr. William Brander, Mrs. Brander; H. Morley Lawson, Esq., M.I.M. & C.E.; W. H. Green, Esq., J.P., L.C.C.; Dr. F. L. Keith; Arthur Purkis, Esq.; L. J. Gill, Esq., A.S.A.A.; Dr. H. D. Kelf; Dr. Dorothy Catchpool; Dr. J. C. Lindsay; Dr. G. A. Dawson; Dr. F. D. Ross-Keyt, Mrs. Ross-Keyt; Dr. R. P. Garrow; Sir W. Dalrymple-Champneys; Bart., Lady Dalrymple-Champneys; Harold Wilson, Esq., F.R.C.S., Mrs. Wilson; Dr. James Hudson, Dr. James Bannerman; Dr. H. L. Barker, Mrs. H. L. Barker; Dr. Lydia Leney; Dr. A. Hawley, Mrs. Hawley; Mrs. Ward; Mrs. E. H. Snell; Edward Dean, Esq., Mrs. Edward Dean; Frank Dean, Esq.; Miss Dean; Dr. J. H. Harvey Pirie, Mrs. Pirie; Mrs. Pearce; J. Bott, Esq.; A. Griffiths, Esq.; Dr. H. W. Barnes; Mrs. Milligan; Dr. H. A. Bulman, Mrs. Bulman; Mrs. Porter; T. Crew, Esq.; Dr. I. S. Thomson, Mrs. Thomson; Dr. Cyril Banks, Mrs. Banks; Dr. Grace Calver; The Rev. C. G. T. Colson; Mrs. Paterson; Mrs. Nash; Mrs. M'Gonigle; Dr. W. A. Lethem, M.C., Mrs. Lethem; Dr. Mary Kidd; Dr. T. N. V. Potts; Dr. V. T. Thierens, Mrs. Thierens; Dr. Margaret Emslie; Dr. Stella Churchill, L.C.C.; Mrs. Fenton; Mrs. G. F. Buchan; Dr. W. M. Willoughby, Mrs. W. M. Willoughby; Dr. P. Manson-Bahr, D.S.O.; Dr. Joan Cave; Dr. R. J. Maule Horne; Dr. Hugh Willoughby; Dr. Carol Sims; Dr. H. M. C. Macaulay, Mrs. Macaulay; Dr. N. Gebbie; Major H. V. Stanley, M.C., M.B.E.; Dr. A. Hamilton Wood, Mrs. Wood; Dr. J. Ferguson, Mrs. Ferguson; W. K. Chalmers, Esq., Mrs. W. K. Chalmers; Dr. H. P. Newsholme; Miss Darbishire; Professor Dr. Adam (German State Committee of Health Education); Dr. E. W. Caryl Thomas, Mrs. Thomas; Dr. C. W. Hutt; Dr. Graham Forbes; Dr. J. Tate, Mrs. Tate; Dr. Caroline Wright; Dr. J. B. Howell, Mrs. Howell; Dr. A. J. Shinnie, Mrs. Shinnie, and Mr. G. L. C. Elliston (Executive Secretary).

The loyal toast, proposed by the President, was enthusiastically honoured.

The Rt. Hon. Arthur Greenwood, P.C., M.P. (Minister of Health), in submitting the toast of "The Society," referred to the substantial progress it had made and the invaluable assistance it rendered to the Ministry of Health. In medical officers of health, whether whole-time or part-time, the country possessed a body of workers imbued with the spirit of public service, who had, in a relatively short space of time, exercised a very powerful influence on the attitude of the people towards general

health questions. With regard to the Local Government Act, Mr. Greenwood said that it had been made clear that steps were necessary to co-ordinate similar services, and the new policy involving concentration of services in the hands of major authorities ought to be used as an instrument for promoting the development of the health services of the country. He failed to understand why a person diagnosed as suffering from a disease should be dealt with differently because he lived in a poor law institution; his human needs were the same in the circumstances as any other individual, and everyone would agree that the distinction between the pauper and the person who was not a pauper should be abolished. The problem brought with it new responsibilities which he had no doubt medical officers of health would be able to carry with distinction. Turning to grave health problems yet to be faced, Mr. Greenwood said there was still a great deal of observational work to be done by medical officers of health in regard to cancer. They were also greatly concerned with maternal mortality, a problem which had, unfortunately, proved to be stubborn. Nevertheless, the present rate was a standing challenge to the medical profession, and to the mass of the people of this country, because it was quite clear from the most recent evidence received that a very large volume of that mortality was avoidable. He spoke strongly on the subject, not only because 3,000 deaths a year appalled, but because the conditions that created those deaths left their mark upon the survivors. Public opinion would not permit motherhood to be the most dangerous occupation of this country, which it was to-day. Seven million births a year and 3,000 deaths represented a heavier death-rate than any that could be produced in industry, even in the mining industry. Medical officers of health were doing far more than any other body of people in this country to provide a healthy environment for the people, and to instil into their minds the principles of a decent, healthy life. The problem of the health of the people was no mere narrow party issue; it was a grave national problem. In these days when big issues which faced the people were primarily economic, it was always necessary to come back to the question—How could material prosperity be maintained without a healthy and vigorous people? What mattered most was the quality of the common stock, which determined the place a nation occupied in the world. In conclusion, Mr. Greenwood said: "I

recognise the very distinguished public life of your President. He does his work and teaches it, and that happy alliance between practical work and professorial work is one which the medical profession has utilised to the full, and quite rightly. I have the greatest respect and admiration for the Society of Medical Officers of Health, and I am glad to have had the opportunity of being here to-night."

The President, in returning thanks, said that it was a great honour to welcome Mr. Greenwood, whose valuable services rendered to the nation in his capacity as Minister of Health, were fully recognised by the Society. The great majority of the members of the Public Health Service were now within the Society, and of the value of such a representative body he was firmly convinced. Apart from its usefulness in providing a medium for giving expression to corporate views, in the meetings of its Branches and Groups there were facilities to compare notes with colleagues, to learn the trend of opinion and practice, and to thrash out schemes before they were put into operation. In that way information on every aspect of every question that arose in public health was available to the body of members, while as a social medium the membership of the Society was invaluable. Speaking personally, Professor Kerr said the Society had taken a very large place in his life, and to it he owed many of his closest friendships. Referring to legislation, the President stated that efforts had recently been made to deal with the confusion that clouded much of public health practice, and a number of codifying Acts had been passed, notably in relation to housing, education, and food and drugs, but a great deal yet remained to be done to clear up the tangle of amendments and orders that obscured almost every principle of public health. Another reform keenly anticipated was the re-arrangement of local authorities for administrative purposes. That indeed would be a great advantage, for the present state of affairs made administration extremely difficult. Dealing with the subject of popular education in health matters, Professor Kerr said that medical officers of health were giving more and more attention to that important branch of work. A year or two ago an offshoot of the Society, the Central Council for Health Education, was started for the purpose of helping local authorities and their staffs to carry out the propaganda and teaching necessary to instruct

the people in the principles of healthy living, and as evidence of the success achieved mention need only be made of that excellent little monthly, *Better Health*, conducted under the able editorship of Mr. George Elliston. The publication now had a circulation of nearly 300,000, and an even greater number of readers, and of its popularity and usefulness in various parts of the country a great deal had been heard. On behalf of the members the President expressed the appreciation of the Society to Mr. Greenwood for his generous references to its work and returned thanks to him as the head of the service, who understood the needs of the people and worked so wisely and effectively to meet them.

The Lord Mayor of Newcastle-upon-Tyne (Alderman David Adams, J.P.), in proposing the health of the President, said that Professor Kerr was synonymous with Newcastle-upon-Tyne, and the City considered itself exceedingly fortunate in possessing him as medical officer of health. As soon as the Local Government Act had been passed (when it was in Bill form, in fact) the local authority of Newcastle was the first in the country to present a scheme to the Ministry of Health, and since then there had been no aspect of the Act which had not been carried out in the City or was not in process of being carried into effect. Under Professor Kerr a unified scheme of medical service for the people of Newcastle had been set up, and in order to remove every taint of pauperism, arrangements had been made for poor people to choose their doctor from a panel of practitioners which had been formed. The different hospitals had been co-ordinated, and Professor Kerr had so organised the general health services of the City that the general practitioner had been preserved and would be preserved.

The President, in a brief reply, said that he relied on the continued support of his colleagues during his period of office, and hoped that his many weaknesses and failings would be regarded with indulgence.

Sir Arthur Newsholme, K.C.B., M.D., F.R.C.P. (Senior Past-President), proposed the toast of "The Guests of Honour," and expressed regret at the unavoidable absence of Sir Andrew Balfour. Many years, he said, had elapsed since he was the youngest President in 1899, and he had seen the list of Past-Presidents decrease until, unfortunately, his

name headed the list. First attending the meetings of the Society in 1883, Sir Arthur referred to men to whom public health owed a great deal, among them Henry Armstrong of Newcastle, predecessor of the President. One night, he suggested, write a paper on "Presidents I have known," which would practically be a history of public health. Two Past-Presidents were being honoured that evening, and the very fact that they had been Presidents showed that so far as the Society was concerned they had received the highest honour it was possible to impart to them. Those two Past-Presidents—Sir Eustace Hill, and Dr. W. G. Willoughby—had many characteristics in common. Both had been magnificent organisers and administrators, and both had distinguished themselves in a particular line of public health work which at the present time was extremely important—the improvement of the relationship between medical officers of health and general practitioners of medicine. As an old general practitioner he was able to speak from both points of view. Only by medical officers of health and general practitioners working shoulder to shoulder in their overlapping spheres of work could the ultimate and utmost good of the people be realised, and it was the greatest possible augury that Dr. Willoughby had been chosen President-Elect of the British Medical Association. The members of the Society were delighted to have Sir Eustace Hill and Dr. Willoughby present, and congratulated them on the honours they had received.

Sir Eustace Hill, O.B.E., M.D., in expressing grateful appreciation of the privilege of being invited to the dinner as a guest of the Society, claimed that the honour conferred upon him was not so much a personal honour as one to the public health service generally, of which he had always been proud to be a member. As a county medical officer he had held office for thirty-eight years, and there were probably very few men who could retire, as he had done, at sixty-five with a full forty years' service. The status of the medical officer of health had changed greatly during the past forty years, his relations with the general practitioner had also materially altered, and his value and importance as an administrator and adviser in public health matters were now fully recognised. His emoluments, however, had not kept pace with his improved status, but even there improvement had taken place owing to the

efforts of the Society and the British Medical Association.

Dr. W. G. Willoughby (President-Elect of the British Medical Association), who occupied the Presidential Chair of the Society in 1910, modestly claimed to be the oldest Past-President still working as a medical officer of health, and added, parenthetically, that in spite of his thirty-eight years' service, he would retire with no pension. There were probably others present who were similarly placed, and he mentioned the matter in the hearing of the Minister of Health. He had considered it a very great honour that the medical men of Eastbourne should have unanimously nominated him for the Presidency of the British Medical Association, but did not lay too much stress on the fact that it was the first time a medical officer of health had been chosen for that high office. The Society had not existed more than half the time that the British Medical Association had existed, and private practitioners and others in the Association had from time immemorial been the leaders in preventive medicine wherever their work had been carried out conscientiously. The British Medical Association was ably represented on the Society of Medical Officers of Health and the Society had capable representatives on the Council of the British Medical Association, and that being so, must mean that there were no secrets. A nasty word, "encroachment," had been used a good deal recently. In Eastbourne, the conclusion had been arrived at that there was no such thing as encroachment, but that there was a great deal of mutual assistance and the need for more complete trust between all branches of the medical profession, who could not exist in water-tight compartments. In conclusion, Dr. Willoughby said: "I would not like to say I will represent the Society of Medical Officers of Health in the British Medical Association, but I hope to do my share with the other members of the Council to promote the good of the whole of the profession and of the people of this country."

Dr. G. F. Buchan said that it was a great privilege to propose the health of Mr. George Elliston, who had been Secretary of the Society for twelve years. During that period all the members had come under his influence, and at some time or other had found occasion to seek his help and guidance, which had always unflinchingly been given; he had, in fact, been

all things to all men. When the Society was founded in 1856, there was an Honorary Secretary appointed. Subsequently, two Honorary Secretaries were appointed; one for the provincial areas, and one for the metropolitan area. That arrangement was followed by the appointment of an Executive Secretary; and then came Mr. George Elliston at a time when the Society was in a fairly precarious position. The membership then was 700; now it numbered about 2,000. Then the financial position was somewhat insecure; to-day it was sound. The Society during Mr. Elliston's period of office had been remodelled, and its opportunities for service were greater now than they had ever been. The present satisfactory position and the fact that the Society continued to retain friendly relations with various medical societies were due largely to Mr. Elliston. In addition, he possessed a certain number of gifts which had proved of great benefit to the Society. His literary attainments were of a high order, and as Editor of *The Medical Officer* a liaison had been formed which had been of great value to the public health service, as the utterances in that journal had always been regarded as semi-official. A man of Mr. Elliston's versatility was not going to retire. His immediate ambitions were political. Already a member of the Court of Common Council of the Corporation of the City of London, he had now been adopted as a prospective parliamentary candidate for Blackburn, and whatever party he might be standing for it was to be hoped that he would be returned to Parliament, for he would do a great good to the public health service. In presenting to Mr. Elliston a piece of plate, Dr. Buchan said that with it went a motor car, and with both went all the affection of the members for Mr. Elliston, who was held by all in the highest possible esteem. The Society wished him the longest of lives, the best of health, and the greatest good fortune.

Dr. Buchan then handed to Mr. Elliston a silver tray which bore the following inscription:

Presented to

George Sampson Elliston, Esq., M.C., M.A., Barrister-at-Law, by the Society of Medical Officers of Health in recognition of his devoted services as Executive Secretary of the Society—1919-1930.

The toast was pledged with musical honours.

Mr G. S. Elliston, who, on rising to reply, received a most enthusiastic reception, said that any debt between the Society and himself was entirely on his side. During his period of office he had received nothing but kindness and generosity from the Society, and these further expressions of goodwill he appreciated fully. There was no sadness of farewell in his departure. The appointment of a new Executive Secretary had relieved him of the more laborious work, and he would continue in other capacities to serve the Society. As for any success achieved in the past, it had been possible only by the co-operation of a series of distinguished Presidents and members of the Council. Mr. Elliston concluded with a tribute to the very valuable work which Dr. George Buchan had unceasingly carried out in the interests of the Society and its members.

During the evening, several excellent songs rendered by Mr. Harry Dearth were greatly appreciated.

The list of subscribers to the testimonial to Mr. Elliston is as follows:—

Dr. Louisa C. Adam, Dr. T. Adam, Dr. A. Adams, Dr. A. F. Adamson, Dr. H. M. Agnew, Dr. Margaret E. Alden, Dr. F. W. Alexander, Dr. F. J. Allan, Dr. J. Anderson, Surg.-Capt. O. W. Andrews, Dr. E. G. Annis, Lt.-Col. E. G. Anthonisz, Dr. W. Archibald, Dr. W. M. Ash, Dr. C. K. Attlee, Dr. G. A. Auden, Dr. M. Avent.

Dr. H. H. Back, Dr. Marjorie Back, Dr. W. S. Badger, Mr. A. E. Baker, Sir Andrew Balfour, Dr. A. R. Balmain, Mr. H. E. Bampton, Dr. Cyril Banks, Dr. H. S. Banks, Dr. J. Bannerman, Dr. H. L. Barker, Dr. T. W. Naylor Barlow, Dr. H. W. Barnes, Dr. W. Barr, Dr. F. Barrow, Dr. J. Beard, Dr. N. R. Beattie, Dr. G. P. G. Beckett, Dr. J. C. Beckett, Dr. S. T. Beggs, Dr. F. A. Belam, Dr. J. Bennett, Dr. Victoria E. M. Bennett, Dr. G. E. Bensley, Dr. W. Benton, Dr. Margaret Bergin, Dr. Agnes Bernfeld, Dr. R. B. Berry, Dr. W. D. Betenson, Dr. H. B. Binks, Dr. J. F. Blackett, Dr. Mabel N. Blake, Dr. P. S. Blaker, Dr. P. J. Bodington, Sir Robert A. Bolam, Dr. T. M. Bonar, Surg. Rear-Admiral R. St. G. S. Bond, Dr. W. G. Booth, Dr. V. Borland, Dr. W. Brand, Dr. C. S. Brebner, Mr. F. Breese, Dr. Dunstan Brewer, Dr. J. A. H. Brincker, Dr. W. C. V. Brothwood, Dr. A. Middleton Brown, Dr. R. E. Brown, Dr. G. R. Bruce, Dr. G. F. Buchan, Dr. J. J. Buchan, Dr. J. Buck, Dr. W. A. Bullough, Dr. L. T. Burra, Dr. A. H. G. Burton, Dr. W. H. Butcher, Dr. L. C. Butler, Dr. J. J. Butterworth, Dr. A. H. Bygott.

Dr. A. J. Calman, Dr. Grace S. Calver, Dr. T. Carnwath, Dr. W. D. Carruthers, Dr. Ethel Cassie, Dr. H. J. Cates, Dr. R. Cattley, Dr. P. N. Cave, Dr. N. E. Chadwick, Dr. A. K. Chalmers, Dr. Hilda Channon, Dr. J. A. Charles, Dr. H. T. Chatfield, Dr. Stella Churchill, Dr. J. A. Clark, Dr. R. V. Clark, Dr. B. M. Cockerell, Dr. F. G. Collins, Dr. F.

Colquhoun, Dr. A. E. Cope, Dr. C. L. Corbett, Dr. W. F. Corfield, Mr. A. P. I. Cotterell, Dr. F. J. H. Coutts, Dr. G. Lissant Cox, Dr. W. J. Cox, Dr. J. Craig, Dr. A. V. B. Crawford, Anonymous (Crewe), Dr. E. E. Critchley, Dr. E. J. Cross, Miss Mary Cross, Dr. A. Cubley, Dr. J. Cullen, Prof. S. Lyle Cummins, Dr. R. J. W. A. Cushing.

Dr. W. A. Daley, Dr. G. H. Dart, Dr. W. Horton Date, Dr. S. H. Daukes, Dr. D. S. Davies, Dr. E. I. Davies, Dr. L. Meredith Davies, Dr. H. Glen Davison, Dr. R. T. Davison, Dr. G. A. Dawson, Dr. W. F. Dearden, Dr. J. A. Delmege, Dr. W. H. Dickinson, Dr. Margaret S. Dickson, Dr. G. B. Dixon, Dr. Helen M. Dixon, Dr. J. R. Dobson, Dr. F. Lawson Dodd, Dr. H. G. Donald, Dr. N. M. Donnelly, Dr. P. A. Dormer, Dr. A. E. Druitt, Dr. A. Duckworth, Dr. W. Duff, Dr. A. Duncan, Dr. R. A. Dunn, Dr. N. D. Dunscombe.

Dr. Peter W. Edwards, Dr. T. R. Elliott, Dr. Margaret Emslie, Dr. Mary Esslemont, Dr. T. Evans.

Dr. J. A. Fairer, Dr. H. J. Faussett, Dr. J. Fenton, Dr. A. Ferguson, Dr. J. Ferguson, Mr. W. Fisk, Dr. G. W. Fleming, Dr. E. S. Foley, Dr. F. Fonseca, Dr. J. Graham Forbes, Dr. A. G. R. Foulerton, Dr. C. Franks, Dr. A. Mearns Fraser, Dr. K. Fraser, Lt.-Col. F. E. Fremantle, M.P., Dr. R. French, Dr. A. W. Frew, Dr. L. S. Fry.

Dr. J. E. Gains, Dr. E. E. S. J. Galbraith, Dr. R. M. Galloway, Dr. Katherine M. L. Gamgee, Dr. R. P. Garrow, Sir Henry Gauvain, Dr. N. Gebbie, Dr. R. J. George, Dr. Cameron R. Gibson, Dr. L. Gibson, Dr. J. R. Gillespie, Dr. W. Gillitt, Dr. A. G. Glass, Dr. R. A. Glegg, Dr. C. E. Goddard, Dr. W. L. M. Goldie, Dr. E. W. Goodall, Dr. C. G. R. Goodwin, Dr. H. Gordon-Smith, Dr. M. C. R. Grahame, Dr. W. M. Gray, Dr. Lila S. Greig, Dr. A. M. M. Grierson, Dr. A. J. B. Griffin, Dr. E. J. Griffiths, Dr. M. Gross.

Dr. W. E. Haigh, Dr. B. C. Haller, Sir William Hamer, Dr. F. W. Hamilton, Dr. R. Hamilton, Dr. W. Hanna, Dr. R. Hannah, Dr. J. A. Harbison, Dr. H. W. Harding, Dr. E. H. R. Harries, Dr. A. Wellesley Harris, Mr. G. W. Harris, Dr. W. Harvey, Mr. E. W. Harwood, Dr. F. Hauxwell, Dr. A. Hawley, Major A. H. Hayes, Dr. A. S. Hebblethwaite, Col. P. H. Henderson, Dr. H. G. M. Henry, Dr. L. I. Henzell, Dr. C. E. E. Herington, Dr. R. Herley, Dr. A. Middleton Hewat, Prof. A. Bostock Hill, Sir Eustace Hill, Dr. T. W. Hill, Dr. W. Bertram Hill, Dr. T. W. Hinds, Dr. J. A. Hislop, Dr. G. H. Hogben, Dr. O. M. Holden, Dr. S. J. C. Holden, Dr. J. Holroyde, Prof. E. W. Hope, Dr. R. J. M. Horne, Dr. P. G. Horsburgh, Dr. J. B. Howell, Dr. G. Hurrell, Dr. C. W. Hutt.

Dr. Ruby Inkster.

Major R. W. H. Jackson, Dr. R. W. Jameson, Professor W. W. Jameson, Dr. J. D. Jenkins, Professor J. J. Jervis, Dr. G. Jessel, Dr. A. Joe, Dr. G. S. Johnston, Dr. G. C. Johnstone, Dr. Doris E. P. Jolly, Dr. R. H. H. Jolly, Dr. Dilys M. Jones, Dr. J. H. Jones, Dr. J. Howard Jones, Dr. Rose F. Jordan, Dr. G. W. N. Joseph.

Mr. S. Keenan, Dr. F. L. Keith, Dr. P. W. Kent, Prof. H. R. Kenwood, Prof. H. Kerr, Dr. B. Mary

Kidd, Dr. H. R. Kidner, Dr. C. Alice King, Dr. Violet M. R. King, Dr. J. T. Knight, Dr. J. E. Knox.

Dr. T. L. Lack, Dr. A. J. Laird, Dr. R. E. Lauder, Dr. J. H. D. Lawrie, Dr. G. L. Leggatt, Dr. G. H. Leigh, Dr. Lydia Leney, Mr. H. Lesser, Dr. W. A. Lethem, Dr. D. T. Lewis, Dr. W. G. Lidderdale, Dr. F. T. C. Linton, Dr. S. Fox Linton, Dr. N. H. Linzee, Dr. J. P. Litt, Dr. J. L. Livingston, Dr. D. M. Livingstone, Dr. E. T. Lloyd, Dr. J. B. Lowe.

Dr. H. M. C. Macaulay, Dr. E. K. Macdonald, Dr. G. Macdonald, Dr. J. F. Macdonald, Dr. G. C. M. M'Gonigle, Dame Louise McIlroy, Dr. G. W. McIntosh, Dr. T. S. McIntosh, Dr. A. R. McKail, Dr. I. C. Mackay, Dr. I. M. MacLachlan, Dr. D. J. McLeish, Dr. R. Macleod, Dr. A. B. McMaster, Dr. G. V. T. McMichael, Dr. J. Macmillan, Dr. P. R. McNaught, Dr. Elizabeth MacRory, Dr. A. A. McWhan, Mr. J. E. Magraw, Dr. J. Mair, Dr. J. A. Marsden, Dr. J. Holt Marsh, Dr. A. W. Martin, Dr. C. A. Mason, Dr. D. Morley Mathieson, Dr. E. W. Matthews, Dr. F. N. Kay Menzies, Dr. C. Killick Millard, Dr. J. Watterson Miller, Dr. J. Wilson Miller, Dr. H. J. Milligan, Dr. G. Mitchell, Dr. C. W. P. Moffatt, Dr. Rosemary O. Morris, Dr. W. A. Muir, Dr. W. A. Murphy, Dr. J. A. Musgrave, Dr. A. A. Mussen.

Dr. A. T. Nankivell, Dr. E. H. T. Nash, Dr. J. T. C. Nash, Dr. J. T. Neech, Sir George Newman, Dr. H. P. Newsholme, Mr. S. B. Newton, Dr. A. H. Nicoll,

Dr. J. E. O'Connor, Dr. A. Ogg, Dr. H. O'Neill, Dr. A. L. Ormerod, Dr. T. Orr, Dr. Marjorie I. Outram, Dr. E. Lloyd Owen.

Dr. G. R. Panton, Dr. Louis C. Parkes, Lt.-Col. G. S. Parkinson, Dr. J. J. Paterson, Dr. J. H. Patterson, Dr. W. Paterson, Dr. H. Paul, Dr. and Mrs. G. H. Pearce, Dr. H. Peck, Dr. C. F. Pedley, Dr. A. C. T. Perkins, Mr. P. Phelps, Dr. R. M. F. Picken, Dr. A. E. Porter, Dr. C. Porter, Dr. J. H. Porter, Dr. T. N. V. Potts, Dr. A. T. W. Powell, Dr. R. Prichard, Dr. A. Priestman, Dr. A. M. N. Pringle, Dr. P. V. Pritchard, Dr. S. I. Pritchett, Dr. T. P. Puddicombe.

Mr. D. S. Rabagliati, Dr. and Mrs. M. Radford, Dr. A. S. Ransome, Dr. E. G. Rawlinson, Dr. A. C. Renwick, Dr. H. M. Richards, Sir John Robertson, Dr. F. Robinson, Dr. G. C. Roe, Dr. C. Rolleston, Dr. J. D. Rolleston, Dr. F. D. Ross-Keyt, Dr. D. W. Roughton, Dr. E. W. Routley, Dr. S. Rowland.

Dr. C. Sanders, Dr. J. C. Saunders, Dr. W. E. R. Saunders, Dr. W. G. Savage, Dr. H. Scurfield, Dr. A. Senior, Col. E. P. Sewell, Dr. C. W. Sharpley, Dr. A. J. Shinnie, Dr. J. V. A. Simpson, Dr. Carol Sims, Dr. W. Sisam, Dr. W. J. M. Slowan, Lt.-Col. W. Clayton Smales, Dr. R. D. Smedley, Dr. Andrew Smith, Dr. C. N. Smith, Sir William R. Smith, Dr. E. H. Snell, Dr. V. F. Soothill, Dr. J. Sorley, The Southern Branch, Dr. A. F. G. Spinks, Dr. A. E. Sproule, Dr. H. N. Stafford, Dr. and Mrs. Stalker, Dr. C. O. Stallybrass, Dr. J. A. Stephen, Dr. L. E. W. Stephens, Dr. B. C. Stevens, Dr. W. Stewart, Dr. P. H. Stirk, Dr. J. A. Stirling, Dr. T. S. Stirling, Dr. W. B. Stott, Lt.-Col. C. H. Straton, Dr. J. Sullivan, Dr. B. G. Sumpter, Dr. A. D. Symons.

Dr. A. Tait, Dr. J. W. Talent, Dr. K. E. Tapper, Dr. J. Tate, Dr. R. G. H. Tate, Dr. G. C. Taylor, Dr. J. Teare, Dr. and Mrs. Thierens, Miss M. M. Thom,

Dr. C. J. Thomas, Dr. D. J. Thomas, Dr. E. W. Caryl Thomas, Dr. J. L. Thomas, Dr. A. G. G. Thompson, Dr. C. S. Thomson, Dr. Christina J. Thomson, Dr. F. H. Thomson, Mr. G. Thomson, Dr. H. Hyslop Thomson, Dr. I. S. Thomson, Dr. Ruby Thomson, Dr. T. L. Thomson, Dr. J. C. Thresh, Dr. T. M. Tibbetts, Dr. A. C. Tibbits, Dr. S. V. Tinsley, Dr. G. Clark Trotter, Dr. A. A. Turner, Mr. E. E. Turner.

Dr. J. Sim Wallace, Dr. E. Ward, Dr. H. Gibbons Ward, Dr. Margaret Ward, Dr. F. W. Waterworth, Dr. H. E. Watkins, Dr. W. B. Watson, Dr. A. M. Watts, Dr. A. E. L. Wear, Dr. A. E. R. Weaver, Dr. E. R. Webb, Dr. C. G. Welch, Dr. J. H. Whitaker, Dr. C. F. White, Dr. H. Whitehead, Dr. J. B. Wilkinson, Dr. G. C. Williams, Dr. A. B. Williamson, Dr. W. G. Willoughby, Dr. W. M. Willoughby, Mr. W. Wilmore, Dr. R. H. Wilshaw, Dr. J. G. Wilson, Dr. A. Hamilton Wood, Dr. F. T. H. Wood, Dr. Helena Wright.

Dr. Meredith Young.

COUNCIL MEETING.

A meeting of the Council was held on Friday, November 14th, 1930, at the house of the Society. The President (Prof. Harold Kerr) was in the chair, and there were present Professors A. Bostock Hill, W. W. Jameson, and Sir Eustace Hill, Drs. R. M. F. Picken, J. Fenton, T. W. N. Barlow, G. H. Pearce, J. Mair, H. G. Ward, R. H. H. Jolly, Agnes H. Nicoll, T. P. Puddicombe, A. B. McMaster, P. H. Stirk, E. Ward, E. H. T. Nash, A. M. N. Pringle, A. K. Chalmers, R. H. Wilshaw, E. H. Snell, J. Howard-Jones, C. Porter, G. F. Buchan, H. B. Brackenbury, E. G. Annis, G. W. N. Joseph, F. T. H. Wood, W. Paterson, G. C. M. M'Gonigle, J. A. Stirling, J. J. Jervis, J. J. Buchan, and Lt.-Colonels F. E. Fremantle, M.P., and G. S. Parkinson.

The minutes of the last meeting having been approved and signed, apologies for absence were received from Drs. W. G. Willoughby, H. J. Milligan, R. Veitch Clark, A. F. Cameron, A. E. Baker, and K. E. Tapper.

Annual Report of Council 1929-30, Par. 13.—Letters were read from Dr. C. Courtenay Lord (B.M.A.) and the Editor of *The Lancet*, thanking the Council for the appreciative references in the Annual Report to their co-operation in the matter of public health appointments.

Representation of the Society.—The following were elected as representatives of the Society:—

Joint Tuberculosis Council.—Prof. W. W. Jameson.

R.S.I. and Sanitary Inspectors' Joint Examination Board.—Drs. T. W. Naylor Barlow and R. H. Wilshaw.

National Smoke Abatement Society.—Prof. J. J. Jervis.

Dental Board of the U.K., Dental Health Education Committee.—Dr. Charles Porter.

Election to Council under Article 19 (f).—Sir Robert Bolam being unable to accept election to Council under Article 19 (f) of the Society's Articles of Association, several further nominations were put forward. The suggestion was made that it was not expedient to make a further election at present, and the Council resolved to use their power of discretion and to leave this election in abeyance until the specific need arose.

Memorandum on the Examination of Contacts.—The Tuberculosis Group submitted their revised memorandum on the examination of tuberculosis contacts, which had been referred back to the Group. Some minor criticisms of the wording of the memorandum were raised, but in view of the fact that it gave valuable guidance on a subject of great and current importance to tuberculosis officers, the Council unanimously adopted the memorandum, which is as follows:—

In the Astor Report, examination of Contacts was regarded as one of the six cardinal functions of a tuberculosis dispensary, but many Tuberculosis Officers consider that the results are not commensurate with the time and labour thus spent.

To obtain information, Dr. Jessel investigated 1,030 cases of pulmonary tuberculosis occurring in his area (350,000 population) during the years 1921-1924, together with 198 secondary cases (158 pulmonary, 40 non-pulmonary), discovered during the examination of 6,747 contacts up to the end of 1929. It was found that:—

(1) Known cases of pulmonary tuberculosis gave rise to 15 per cent. secondary cases, in spite of modern anti-tuberculosis measures.

(2) The average interval between the discovery of primary and secondary cases was three and a half years.

The following comments are made:—

1. The most profitable contact work is that carried out in the families of patients, whose sputum has contained tubercle bacilli, as these produce the great majority of secondary cases; but the examination of the contacts of non-pulmonary cases may reveal unsuspected sources of infection.
2. As regards the T.B. positive cases, it will be found most profitable to limit attention to contacts on whom for some reason suspicion rests.
3. Close contacts of patients, whose sputum has contained tubercle bacilli should be kept under observation for at least four years. A single negative result may induce a false sense of security.
4. The place of examination must depend upon local circumstances. The dispensary is obviously the most comfortable and convenient, but Tuberculosis Officers can frequently do good work during their home visits to patients, and

by neglecting such methods they miss many opportunities.

5. More attention should be paid to adult contacts, who may be the source of infection. Child contacts might with advantage be left to the School Medical Officer on the understanding that "Suspects" be referred to the dispensary.
6. Where workshop or office infection is suspected, some effort should be made to secure that a discreet outlook is kept for ill-health or suspicious coughs, amongst those employed. In this welfare workers might assist.
7. The widespread dissemination of knowledge on health subjects, beginning at school, the growing familiarity of the public with medical examinations, and in particular the regard and esteem which efficient dispensaries must inevitably earn will tend to facilitate contact examination.
8. Radiography of young children (under eight) is usually waste of time, but may be helpful with adolescents. In a Lancashire area (population 350,000) out of 965 skiagrams taken during 1929, 49 were those of contacts.

Arrangements under Sec. 58, Local Government Act, 1929.—Dr. G. F. Buchan asked the Council to approve as a matter of urgency, recommendations prepared that morning by the General Purposes Committee on the draft memorandum of the Ministry of Health headed "Local Government Act, 1929—Arrangements under Section 58. Medical Officers of Health restricted from engaging in private practice." The Council resolved the Committee's recommendations, set forth below, be forwarded at once to the Ministry:—

The Society of Medical Officers of Health have had the draft memorandum of the Ministry of Health under consideration. They note that the memorandum sets out various methods by which it is possible to secure a Medical Officer of Health for a district who is not engaged in private practice as a medical practitioner. These methods include (i) a combination of districts, and (ii) a combination of duties, and it is known that experience of these methods has been gained over a number of years. It should be observed, however, that instances have come to the notice of the Society of Medical Officers of Health in which difficulties have arisen with regard to the salaries of Medical Officers of Health holding combined appointments of the nature indicated in the memorandum. The Society of Medical Officers of Health would also desire to bring to the notice of the Ministry that combined appointments which include the post of Assistant County Medical Officer of Health do not give the security of tenure which it is desirable that Medical Officers of Health should have.

The Society were of opinion that one of the main features of the Local Government Act of 1929 was to secure better local government and better local government areas. They feel that it is unwise although it may be strictly legal to divorce Section 58 of the Act from Section 46, which deals with the review of districts, and perhaps also Section 63 dealing with the survey of hospital accommodation for the treatment of infectious diseases.

The Society of Medical Officers of Health are aware that a Medical Officer performing all public health duties in an area, namely, those of Medical Officer of Health, School Medical Officer, Maternity and Child Welfare Medical Officer, Tuberculosis Medical Officer, and Venereal Diseases Medical Officer may easily have all his time fully occupied with a population of less than 20,000, and it may be that a County split into units of this or lesser size would supply units suitable for the appointment of a whole-time Medical Officer of Health provided that all the duties above-named were carried out by him in the area.

The Society of Medical Officers of Health do not, however, favour small units where larger units are possible. They are of opinion that where one man has to perform the multifarious duties required in a small area that the best service cannot reasonably be expected of him in respect of all branches of work. They are further of opinion that to place a man single-handed in any area is not consistent with good medical administration. Epidemics of disease occur when it is necessary for a Medical Officer to devote all his energies to controlling the outbreak to the detriment of his other work if he is a single-handed officer. The Society are also of opinion that in the interests of efficient administration it is desirable that a Medical Officer of Health should serve only one authority.

In all these circumstances, the Society of Medical Officers of Health are of opinion that although no exception can be taken to the supply of information to County Councils as to various methods by which men not engaged in private practice have been appointed Medical Officers of Health, nevertheless, some general principles should be stated for the guidance of County Councils. The Society of Medical Officers of Health feel that this opportunity arises if Section 58 now under discussion is considered in relation to Section 46 dealing with the provision of hospital accommodation for the treatment of infectious diseases.

The Society of Medical Officers of Health find it difficult to lay down any hard and fast line as to the population which can be best administered with efficiency where many of the services are such as to require special knowledge and special experience which no one man can possess, but they desire to urge upon the Ministry the division of counties into the largest areas compatible with the considerations set forth in this memorandum. They feel that if this is done the way is prepared for the solution of the problems which arise and the arrangements to be made under Section 58 of the Act.

Advertisement of Public Health Vacancies.—The Council considered the following representation from the Tuberculosis Group:—

That the Council of the Society be asked to recommend to the Ministry of Health and Local Authorities that vacancies in the Public Health Service should only be filled after due advertisement, and that if a selection for the post has already been made, or if it is intended to fill the post by promotion within the Department, such fact should be stated in the advertisement.

As the General Purposes Committee are in the course of preparing evidence for submission to the recently appointed Departmental Com-

mittee on the Promotion, etc., of Local Government Officers, it was resolved that this representation be referred to them.

Clerical Duties Imposed on Tuberculosis Officers.—Dr. E. Ward drew attention to the hardship involved in certain cases where Tuberculosis Officers had to do their clerical work themselves in the absence of adequate assistance, this being detrimental to their professional duties. The Council asked the Tuberculosis Group to prepare recommendations on the whole question of clerical work entailed by the tuberculosis returns which have to be made to the Ministry of Health.

Status of Midwives.—The Council considered the following resolution forwarded by the Incorporated Midwives Institute:—

That Members of the Midwives Institute have read, with much interest, the Interim Report of the Departmental Committee on Maternal Mortality and Morbidity. They desire to point out that the scheme for a National Maternity Service, as therein set out, leaves the position and responsibility of the midwife ill-defined. Midwives maintain that all cases booked by them and found normal on the ante-natal examination by a medical practitioner should be their cases and their responsibility throughout, the midwife sending for the doctor when abnormality or emergency supervenes, as laid down by the rules of the Central Midwives Board.

After some discussion it was agreed that no action be taken on this resolution at present.

Inspection of Private Schools.—Dr. Agnes Nicoll, who had represented the Council at the recent Conference of the Association of Head Mistresses, reported that among the matters discussed was the inspection of private schools. One passage of Dr. Nicoll's report ran as follows:—

Among the many who spoke in this discussion, none except the Society's delegate, who briefly drew attention to it, made any reference to the need for some form of medical inspection and health supervision of the children themselves, and it would seem that, in the event of a Bill being introduced into Parliament, some care might be needed on the part of those representing public health interests there, in order to ensure that this important provision be not omitted from it.

Dr. Nicoll was thanked by the Council for drawing attention to the above possible omission in the event of legislation, and it was agreed that any developments in this direction be closely watched.

The Council then adjourned.

Erratum.—In the proceedings of Council, October 17th, 1930 (Printed in PUBLIC HEALTH,

November, 1930, p. 52) the name of Dr. F. T. H. Wood was by inadvertence omitted from those elected to represent the Society on the Central Council for Health Education, 1930-31.

ORDINARY MEETING.

An Ordinary Meeting was held at the house of the Society on Friday, November 14th, 1930. The President (Prof. H. Kerr) was in the chair.

The minutes of the last meeting having been approved and signed, the following candidates were elected to membership of the Society:—

As Fellows:—

Alford, Arthur Frederic, M.B., Ch.B. (Bristol); Bradley, Clement Montague, L.R.C.P., L.R.C.S. (Edin.), L.R.F.P.S. (Glasg.); Brown, Frederick George, M.B., B.Ch., B.A.O., D.P.H.; Cowan, Kenneth, M.D., B.Ch., D.P.H.; Daniel, Gwyneth M., M.B., B.S. (Lond.), D.P.H.; Davies, Gwladys D., M.R.C.S., L.R.C.P.; Davies, Iforwyn Glyndwr, M.B., M.R.C.P., D.P.H.; Dawson-Walker, Edwin Felvus, M.D., B.S., B.Hy., D.P.H. (Durh.); Evans, Gwladys, M.R.C.S., L.R.C.P., D.P.H.; Harries, Gwilym Emrys, M.B., B.S. (Lond.); James, Edward, M.D., Ch.B. (Aberd.), D.P.H.; Jones, Edmund Mervyn, M.R.C.S., L.R.C.P., D.P.H.; Lawrence, David Edward, B.A., B.Sc., M.R.C.S., L.R.C.P., D.P.H.; McCloskey, Gerard, M.B., B.Ch., B.A.O., D.P.H.; McFarlane, Andrew, M.D., Ch.B., M.R.C.P. (Ed.), D.P.H.; Milne, John, M.A., M.B., Ch.B., D.P.H.; Morison, Alexander Gavin, M.A., M.B., Ch.B., D.P.H.; Morrison, Alexander, L.R.C.P.S. (Ed.), L.R.F.P.S. (Glasg.); Payne, George Edward Basham, M.B., B.S. (Lond.), D.P.H.; Roberts, Anne Cochrane, M.A., M.B., Ch.B., D.P.H.; Robertson, John Carr, B.Sc., M.B., Ch.B., D.P.H.; Toleman, Richard James, M.B., B.S. (Lond.), M.R.C.S., L.R.C.P.; Walker, Hilda, M.B., Ch.B. (Birm.), Walker, Lena, M.D., Ch.B. (Edin.); Wylie, Margaret Elizabeth, M.D., Ch.B. (Glasg.).

A number of nominations were received for the December election.

Prof. David Burns, M.A., D.Sc., Professor of Physiology in the Durham University School of Medicine, was introduced by the President, who spoke highly of the influence enjoyed by his lectures in the Durham School. Prof. Burns delivered a most interesting paper on "Some Points of Contact between Physiology and Preventive Medicine." There also spoke the President, Prof. W. W. Jameson, Drs. C. W. Hutt, A. K. Chalmers, G. C. M. M'Gonigle, Agnes Nicoll, J. Howard-Jones, E. H. T. Nash, G. P. Crowden and P. A. Galpin, and the usual formal vote of thanks was omitted, as every speaker referred in highly appreciative

terms to Prof. Burns' paper. (A report of the discussion will appear in an early issue of PUBLIC HEALTH.)

The meeting then adjourned.

THE WEST OF ENGLAND BRANCH.

President: Dr. A. H. Wilson, M.O.H., E. Wilts. C.S.D., and Salisbury R.D.

Hon. Secretary: Dr. P. H. Stirk, M.O.H., Exeter.

A meeting of this Branch was held at St. Peter's Hospital, Bristol, on October 24th, 1930.

Some sixteen members lunched together at the Cadena Café, Wine Street, Bristol, prior to the meeting.

The Hon. Treasurer presented his balance sheets for the years 1928-29 and 1929-30.

Drs. Crossley and Tangye were appointed Hon. Auditors for the session.

Dr. Ernest Ward, the retiring President, then vacated the chair to Dr. Wilson.

A hearty vote of thanks was proposed by Dr. Wilson to Dr. Ward for his conduct in the chair during the past session, and the interest he had shown in the work of the Branch. This was seconded by Surgeon-Captain O. W. Andrews, and carried by acclamation.

Dr. Ward, in reply, said that it had been a great pleasure to him to preside at the meetings of the Branch.

Dr. Ward proposed, and Dr. Blackett seconded, a vote of thanks to the Hon. Secretary for the work he had done during the past session. This was also accorded enthusiastically.

Dr. Wilson delivered his Presidential Address on "The Future of the District Medical Officer of Health." The address will appear in PUBLIC HEALTH in due course.

Dr. Remmett Weaver proposed a vote of thanks to the President, and this was seconded by Dr. Lowe, and carried unanimously.

It was decided to hold the next meeting of the Branch, if possible, in February, 1931, at Salisbury (or neighbourhood), the arrangements to be made by the Hon. Secretary in consultation with the President.

The Hon. Secretary read correspondence submitted by Dr. Tangye, Wiltshire County Council, between the British Medical Association and himself, on the subject of the appointment of an assistant county medical officer of health, to act also as a district medical officer.

After considerable discussion, it was decided, on the proposal of Dr. Ward, seconded by Dr. Remmett Weaver, that the correspondence be referred to the Salaries Committee at headquarters for their consideration, subject to Dr. Tangye's consent to his correspondence being so submitted.

It was decided to again nominate Dr. Ernest Ward for the Presidency of the Society.

Mr. Lamb, Secretary, Public Assistance Committee, Bristol, gave a short Address on St. Peter's Hospital, and showed members round the building. He explained that the building was one of the oldest in Bristol. It had been in use in different capacities since the year 1402, and was originally the Bristol Workhouse; it had also been in use as a Mint, and was, at the present time, the Offices of the Public Assistance Committee. Members were deeply interested in the character of the building, its decorations and furniture.

Votes of thanks were passed to Mr. Lamb (Secretary) and to the Public Assistance Committee for the use of the ancient building, and for having afforded the members an opportunity of viewing it; and to Dr. Parry for the assistance he had given the Hon. Secretary in arranging the meeting, and for the tea which he had kindly provided.

THE YORKSHIRE BRANCH.

President: Dr. L. Pickering-Pick, M.O.H., Spenborough.
Hon. Secretary: Dr. G. H. Pearce, M.O.H., Batley.

The inaugural meeting for the session 1930-31 of this Branch was held at the Hotel Metropole, Leeds, on October 31st, 1930.

The Council met at noon, when domestic business was transacted, followed by a meeting of the County District Group at 12.30 p.m. Dr. J. Mair, Medical Officer of Health, Harrogate, was elected Chairman of the Group, and Dr. Scott, Medical Officer of Health, Shipley, Honorary Secretary of the Group. Dr. W. Bertram Hill was thanked for his services as Chairman of the Group during the previous year.

An adjournment was then made for luncheon which was attended by over twenty members. Apologies for absence were received from Professor Harold Kerr, O.B.E. (President of the Society), Dr. J. J. Buchan (immediate Past-President of the Society), who were engaged elsewhere on Society business; Alderman Dr. David Walker, who it

was regretted to learn was indisposed, and from nine other members.

The incoming President, Dr. L. Pickering-Pick, was invested with the Presidential badge and installed in the Chair by the retiring President, Professor J. Johnstone Jervis, who expressed his pleasure that Dr. Pickering-Pick had received the highest honour in the power of the Branch to confer on any of its members, and assured him of the goodwill and support of every member during his year of office. The President then took the Chair, luncheon being immediately served.

After the loyal toast had been duly honoured, Major D. S. Rabagliati, B.Sc., F.R.C.V.S., proposed the health of the President in a happy speech and congratulated him on the birth of a daughter since his election as President. Mrs. Pickering-Pick and the new arrival were also duly toasted.

The President expressed thanks and specially referred to the happy relations between the members of the medical and veterinary professions within the Branch, both being mutually helpful in their work for the public health.

Dr. G. B. Hillman, M.B.E., an ex-Mayor of Wakefield, representative on the Branch Council of the British Medical Association, and formerly a Medical Officer of Health, was very cordially welcomed and made a complimentary speech which was much appreciated.

The new Executive Secretary of the Society, Mr. G. L. C. Elliston, M.A., received a special welcome. In his speech he made particular reference to the activities of the Society, reminded members of the facilities at headquarters for assisting any of them in all matters connected with their work, and invited all to make the fullest use of them.

The wish was expressed that Mr. G. L. C. Elliston would be able for many years to visit the Yorkshire Branch and carry out the duties so ably performed in the past by his much esteemed father, Mr. G. S. Elliston, M.A.

Dr. Pickering-Pick then delivered his Presidential Address which dealt with small-pox as experienced in Spenborough during recent years, followed by some observations respecting the nature of the present type of small-pox and its administrative control.

Permission having been given for discussion, a vote of thanks to Dr. Pickering-Pick was proposed by Dr. W. Stevens, Medical Officer of Health, Featherstone, seconded by Dr. T. N. V. Potts, Medical Officer of Health,

West Riding County Council, and heartily approved. The discussion was continued by Drs. W. Bertram Hill, Macdonald, Scott, Holt, and Fleming, the latter receiving expressions of goodwill on his forthcoming removal from Todmorden to Gosport as Medical Officer of Health.

Dr. Pickering-Pick briefly replied. The Address will appear in PUBLIC HEALTH in due course.

Some further items of business were transacted, and the Hon. Secretary reported that following an interview with Dr. J. A. Hargreaves, Medical Officer of Health, Wetherby, the latter had agreed to withdraw his resignation from the Society, of which he has been a Fellow for many years.

THE NORTH-WESTERN BRANCH.

President: Dr. C. O. Stallybrass, Asst. M.O.H., Liverpool.

Hon. Secretary: Dr. G. W. N. Joseph, M.O.H., Warrington.

A meeting of this Branch was held in Manchester, on November 7th, 1930, the President occupying the chair. Seventeen members were present.

Dr. John D'Ewart, Medical Superintendent of Booth Hall Infirmary, Manchester, opened a most interesting discussion on "The British Medical Association's Proposals for a Complete Medical Service." He pointed out that the profession was going through a stage of evolution and there were two main schools of thought: (a) the advocates of a State Medical Service and (b) the advocates of the Association's scheme. The introduction of such social services as sickness and unemployment insurance, school medical and maternity services had sapped the independence of the people and led them to expect to continue to be spoon-fed. On account of this and his experience as a district medical officer his thoughts had, during the last five years, turned definitely against a State Medical Service. The British Medical Association scheme was directly opposed to it.

It attempted to approach the problem for an extension of the panel system to all persons with incomes below £250 per annum. The original panel system, at first very unpopular, was now popular with both doctors and patients. Private practice had been killed in many areas by industrial depression, especially in the cotton trade. The British Medical Association proposed a system of capitation

on a voluntary basis. Dr. D'Ewart thought that every practitioner would not be eligible for the extended service. What then should be the standard, and who should fix it? The general practitioner then would have his insured patients plus his panel of "volunteers" for whom he would provide general medical services. This would inevitably mean a larger number of patients going to hospital, particularly where overcrowding was prevalent. This tendency would increase the creation of home hospitals, simple in organisation, where good nursing could be obtained and treatment given by the general practitioner. A re-organisation of the voluntary hospitals might result. There might be a general system of payment of the honorary staffs who even now often received substantial honorariums in addition to professional increments arising out of hospital connection. There was a tendency for out-patient departments to organise on two lines—consultative and specialised treatment. Council hospitals would take their place alongside the great voluntary hospitals. Many medical superintendents were averse to the staffing of those hospitals by general medical practitioners. The visiting by outside men, however, tended to raise the standard. The stipulation now demanded by authorities that medical men must have undertaken three years' post-graduate work before they could obtain various appointments or undertake special work in general practice, such as the administration of salvarsan or tonsillectomy in panel cases, rendered it essential that opportunities for them to work in the municipal hospitals should be afforded. The Association offered two alternative methods of staffing. First, whole-time medical superintendent with whole-time resident staff, outside consultants with clinical assistants from among the general practitioners of the area. Secondly, whole-time superintendent with whole-time assistants and part-time assistants in charge of beds or patients. The latter method was perhaps the only one available for remote areas of the county though not suitable for the larger towns. Suitable safeguards must be provided against the incompetent, but experience had already showed that such a scheme could be quite satisfactory. It was not part of the scheme that any general practitioner should go into a municipal hospital and attend any of his patients who might be admitted, but only in institutions where there were special wards or annexes set apart for this purpose. He

should, however, have a right to clinical assistantships.

Dr. Wood, in moving a vote of thanks to Dr. D'Ewart for so ably introducing this important subject, agreed that there would probably now be less reluctance than formerly on the part of the general public in accepting a whole-time scheme of domiciliary service, but he entered a mild protest against Dr. D'Ewart taking the popularity of municipal clinics as evidence of lack of a spirit of independence. Dr. Wood contended that any scheme of domiciliary service based on the British Medical Association principles must be open to all practitioners on the Medical Register, although he agreed as to the impracticability of giving every general practitioner the right of following his cases into hospital. Further, it was proper that hospital out-patient departments should be more consultative in character and that references to institutions and clinics should be subject to some form of oversight. In parenthesis Dr. Wood invited Dr. D'Ewart to estimate the income of a fully-occupied general practitioner under this scheme, and to relate it to that of a municipal medical officer.

Dr. Sharpe seconded the vote of thanks and said that the discussion could be divided into two parts—organisation of domiciliary service and hospital treatment. Primarily the extension of capitation fees would be a great benefit to practitioners. He considered that the best men in each area were already in touch with the hospitals.

The President, in conveying the vote of thanks to Dr. D'Ewart, mentioned that medical officers of health were becoming more and more concerned with treatment. The scheme suggested that the medical officer of health should be, in effect, the principal advisory officer for schemes of insurance. In Denmark they already had such a system. Any extension would be a great benefit to women and children and should therefore receive support. The section regarding clinics needed very careful consideration. In Liverpool, for instance, since the inauguration of the infant welfare clinics, infant mortality had dropped from 200 to 69. There were other factors at work, but the handing over of the functions of the clinics could not be viewed lightly. Any extension must be in co-ordination with the existing system. The position of hospitals in regard to the question of accommodation required very careful consideration.

Dr. D'Ewart, in reply, stated that he

thought an adequate salary for a general practitioner should not be less than £2,000 a year. He did not think it feasible that every man on the register should become an official. A large part of the problem of hospital beds would be solved by the increased provision of convalescent beds.

THE EAST MIDLAND BRANCH.

President: Dr. C. Killick Millard, M.O.H., Leicester.
Hon. Secretary: Dr. J. A. Stirling, M.O.H., Chesterfield.

A meeting of this Branch was held at the Town Hall, Leicester, on November 6th, 1930, the President occupying the chair. Twenty members and four guests were present. Apologies for absence were received from three members.

The Lord Mayor of Leicester (Councillor W. E. Hincks, O.B.E., J.P.) welcomed those present.

It was reported that the meetings of the Midland and East Midland Branches were held on the same date, and it was decided that future meetings of the East Midland Branch be held on the second Thursday of the month instead of the first Thursday.

Dr. C. Killick Millard delivered an exceedingly interesting Presidential Address on "Birth Control from the point of view of Public Health," and at the conclusion invited questions. A discussion ensued in which Drs. Stevens, Jennings, Fairer and Newth took part. A hearty vote of thanks was accorded Dr. Millard on the proposition of Dr. Stevens, seconded by Dr. Jennings.

Tea was kindly provided by the Lord Mayor of Leicester, to whom a vote of thanks was unanimously accorded on the motion of the President, seconded by Dr. Campbell.

THE SOUTHERN BRANCH.

President: Dr. R. H. Wilshaw, M.O.H., Worthing.
Hon. Secretary: Dr. H. D. Kell, Assist. M.O.H., Hants. County Council.

The first meeting of the session of this Branch was held at Southampton, on October 3rd, 1930. A good number of members and associates were present. Apologies for absence were received from several members, including Sir Eustace Hill, who is now residing in the area of the Branch.

The retiring President (Dr. H. Gordon Smith) installed Dr. R. H. Wilshaw in the Presidential Chair, and invested him with the badge of office.

Dr. H. Leslie Cronk read the financial statement for the past year; the Hon. Treasurer's report was adopted, and a vote of thanks accorded to Dr. Cronk.

Dr. R. H. Wilshaw delivered his Presidential Address on "Eugenics in relation to Birth Control and Public Health." After referring to the earliest writings dealing with health and sanitation, Dr. Wilshaw stated that all those engaged in public health are eugenicists, since they are interested in the breeding of good things and in the prevention of the breeding of bad qualities or defects. Although environment had greatly improved since the Public Health Act of 1875, the position of heredity had not been dealt with. He gave various figures, including the number of insane and mental defectives, also the estimated number of 600,000 backward children in England and Wales. Dr. Wilshaw discussed briefly in turn the various problems, biological, ethical and physiological, leading to the proposals for birth control and sterilisation.

He thought that eugenic or voluntary sterilisation with segregation would reduce insanity and mental defectiveness by 17 per cent. in one generation.

An interesting discussion followed, and a hearty vote of thanks was accorded the President for his very instructive address, and for the vigorous manner in which he had developed his arguments.

A further meeting of the Branch was held at Winchester, on November 7th, 1930, the President occupying the chair.

The following representatives were re-elected on the Tuberculosis Group Committee of the Society:—Drs. W. J. Hart and Percy Moxey.

A discussion on the "Interim Report of the Departmental Committee on Maternal Mortality and Morbidity" formed the main business of this meeting.

Dr. H. L. Cronk gave a lucid *résumé* of the report, drawing special attention to the primary avoidable factors in the mortality and sepsis, and outlined the scheme which was being developed in Hampshire for ante-natal clinics staffed by private practitioners.

Dr. H. Gordon Smith gave his experiences of the work which had been done in Lincoln and in his present area of Bournemouth, and showed the contrast between two types of county boroughs.

Dr. Dora Bunting referred to the work in the County Borough of Southampton, and pointed

out that the most important impediment to the improvement in maternal mortality and morbidity was the patients' own negligence.

Dr. Leslie Housden, as a private practitioner, contributed to the discussion, illustrating the difficulties in rural areas by referring to several recent cases in his own practice.

A general discussion followed in which it was agreed that with the recent rapid development of ante-natal clinics in the area, with the increase of maternity beds, provision of consultants, etc., the public health service was doing its share to improve the conditions of women during pregnancy.

A cordial vote of thanks was passed to the various speakers.

THE MIDLAND BRANCH.

President: Dr. P. S. Blaker, M.O.H., Dudley.
Hon. Secretary: Dr. R. H. H. Jolly, M.O.H., Wolverhampton.

The second meeting of the Session of this Branch was held at the Medical Institute, 154, Great Charles Street, Birmingham, on November 6th, 1930. Thirty-three members were present.

The Hon. Treasurer (Dr. E. H. Snell) presented his annual report, which was received and adopted. Dr. Snell then moved that a grant of £10 should be made from the funds of the Midland Branch to the newly-constituted East Midland Branch. This was approved.

A communication was read with reference to the nomination of a President of the Society for the Session 1931-32. The matter was referred to the Branch Council for consideration and report.

Dr. G. N. Anderson read a paper on "Dental Hygiene and Preventive Medicine," in which he dealt with dental hygiene in relation to the various classes of persons at present receiving dental benefit out of the public funds, and concluded with a detailed survey of the scheme of dental treatment administered by the Staffordshire Education Committee.

This interesting paper covered a wide field, and gave rise to a lengthy discussion, in which most of those present took part.

Sir John Robertson enquired whether public health officers were satisfied with the scope of the dental work carried on under their supervision, and whether they could say for certain that a correct diet and proper attention to the teeth were the final word in dental hygiene.

Dr. Auden referred to the research work that was being carried on in connection with the

teeth, and agreed that proper ante-natal care and nutrition appeared to be an important factor in the character of the teeth of a young child.

Other speakers referred to the risk of losing sight of the conservative aims of any public dental scheme if school dentists were allowed to treat "casuals" (children requiring emergency treatment on account of toothache, etc.).

The meeting closed with a hearty vote of thanks to Dr. Anderson for his paper.

THE HOME COUNTIES BRANCH.

President: Dr. K. E. Tapper, O.B.E., M.O.H., Bromley, Kent.

Hon. Secretary: Dr. A. A. Turner, M.C., M.O.H., Finchley.

A meeting of this Branch was held at the house of the Society on November 7th, 1930. Thirty-two members were present. Apologies for absence were received from four members.

Dr. Nash called upon Dr. K. E. Tapper to assume the Presidency of the Branch for the

session, and invested him with the badge of office.

A letter was read from the Tuberculosis Group inviting the Branch to appoint three representatives on the Tuberculosis Group Committee. Drs. Lorraine, Mayberry and Cameron Renwick, the retiring representatives, were re-appointed.

Dr. R. P. Garrow reviewed the provisions of the Housing Act, 1930, and replied to many questions which were raised in the course of a discussion in which a large number of members took part.

Dr. H. J. Milligan, M.C., read a paper on "Glandular Fever." Dr. Milligan experienced a localised outbreak of eleven cases of this disease in Reading during last spring. After reviewing the literature on the subject he gave a very interesting account of his cases, illustrated by their case sheets and blood counts.

During the discussion which followed, the hope was expressed that Dr. Milligan's paper would be published in due course in PUBLIC HEALTH.

Correspondence.

To the Editor of PUBLIC HEALTH.

DEAR MR. EDITOR,

You have been so generous in your references to my retirement from the post of Executive Secretary of the Society, that I hope you will allow me to express through our official journal my sincere thanks for the very handsome presentation which I received from members of the Society at the annual dinner.

The fine piece of plate will remain a treasured possession in my family, and the motor car will make it more easy for me to keep in touch with my public health friends all over the country. But above all I shall value the remarkable list of subscribers, which includes so many of those who in all branches of preventive medicine have established the great reputation of the public health service. Knowing so well the frequent fate of circulars addressed to medical men and women, I can realise how much generosity and goodwill is represented by the wide response to the appeal issued by the President, Dr. G. F. Buchan and Dr. Fenton in connection with this presentation.

As I find it impossible to write individually to such a large number of friends, I hope they will one and all accept this letter as an acknowledgment of the kindness they have shown me

now, and throughout my connection with the Society.

Fortunately, my retirement means no severance of association with old friends, as I am continuing my work as Editor of *The Medical Officer*. Since 1908 I have endeavoured to make that weekly journal of service to the Society by dealing with matters of urgency, and with ephemeral happenings, which cannot await notice in PUBLIC HEALTH. Also, being in a position of more freedom and less responsibility, I am able to commit the calculated indiscretions which the Society's Editor must avoid. May I add how much I appreciate the privilege of publishing from time to time, various articles and communications which you consider of immediate importance to the Society and which, owing to considerations of time or space, you recommend for early acceptance by *The Medical Officer*. My journal has thus been allowed to share in some measure the prestige acquired by the long record of PUBLIC HEALTH, and I am grateful to you, Mr. Editor, for your friendly recognition of a younger contemporary.

Believe me,

Yours faithfully,

G. S. ELLISTON.

November 15th, 1930.

PUBLIC HEALTH

THE JOURNAL OF
THE SOCIETY OF MEDICAL OFFICERS OF HEALTH.

No. 4. Vol. XLIV. JANUARY, 1931.

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

Application should be made to the Executive Secretary of the Society, at 1, Upper Montague Street, Russell Square, London, W.C.1.

Subscription price 3ls. 6d. per annum, post free in advance. Single Copies, 2s. 6d. post free.

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Editorial.

A Memorandum on Maternal Mortality.

"THERE is still much to be done if the preventable maternal deaths are to be prevented." Thus the Minister of Health in circular 1167, which covers memorandum 156/M.C.W., expresses his own and the views of local authorities and their medical officers who are concerned at the non-success that has attended efforts to secure a reduction in the maternal mortality rate. The object of the Minister's circular and memorandum is to give prominence to the recommendations contained in the Interim Report of the Departmental Committee on Maternal Mortality and Morbidity, and to offer guidance to local authorities on how best they may put into operation the essential measures for securing improvements. These essential measures are two in number:

(1) General and sustained efforts to enlighten the women of the country as to the importance of ante-natal supervision; and (2) the improvement and expansion, where necessary, of the maternity services of local authorities, which must form an important part of any national scheme. In the memorandum renewed attention is directed to what the Committee regarded as the four primary avoidable causes in the train of events which led up to a fatal issue; these being absence of ante-natal care; errors of judgment in practice and treatment; lack of reasonable facilities for effective medical care; and negligence on the part of the patient or those connected with her. Under various heads the methods of dealing with these "primary avoidable causes" and the provision proper to be made to that end are discussed. The health officers who are without knowledge

of these must be exceptional, including as they do ante-natal services, at clinics and elsewhere; the supply of midwives, consultants, hospital beds; provision of ancillaries (sterilised outfits, home helps, etc.), and education. That the officers and authorities do know something of the things suggested and have experience of the methods and their working, the Minister himself is prepared to admit. In his opinion, what is wanted is the taking of such action as will increase their usefulness and extend the field of their activities. As is pointed out, with regard to ante-natal clinics for example, it is useless to organise and provide them, and to wait for people to make use of them. Doctors and midwives will not necessarily use them merely because they are invited and encouraged to do so; they must be associated with the institutions and the staffs. And so with the women themselves; it is useless for the authorities, having established clinics and services of various sorts, to be satisfied merely with the announcement of the establishment and to sit and wait for the coming of the women to make use of them. The unwillingness displayed may be accounted for in a variety of ways, though it is just possible that it may be overcome, as the memorandum suggests, by education and by the inauguration of a campaign of enlightenment; informing women generally, but those immediately concerned particularly, of the ante-natal centres; of the arrangements made for the supply of midwives and consultants; of the hospital beds and the ancillaries; of the why and the wherefore of these provisions and facilities; urging, pressing and encouraging that they should be used. The view expressed in the memorandum is that local authorities are in the best position to organise a campaign with the assistance of their medical officers and health visitors, and this no doubt is correct. Just as it is correct to suggest that it is essential to secure the co-operation of the doctors and midwives practising in the area, and of suitable voluntary organisations concerned with the welfare of women. In this memorandum, as in others issued by the Ministry in which reference is made to securing the assistance of their health officers by the local authorities, it is taken for granted that these officers will be ready and willing with assistance. How safe the Minister is in doing so it is unnecessary to say here, though it may be claimed that in no connection more than in relation to the securing of benefits for mothers and mother-

hood, could the Minister more safely take it for granted that for all such assistance as they can give the authorities may rely upon the health officers.

Private Schools and Private School Children.

AT the November meeting of the Council, Dr. Agnes Nicoll, who had represented the Society at a Conference of the Association of Headmistresses, reported that although there had been much talk of the necessity for inspection of private schools, not one of the speakers—apart from herself—made any reference to the need for some form of medical inspection and health supervision of the children attending such schools. Not surprisingly this statement attracted serious attention amongst the members of Council, and determination was expressed to watch most closely any developments in connection with the making of provision for increased supervision over schools of this type. The announcement recently made by the President of the Board of Education that he has set up a departmental committee “to survey the present position of the Board of Education and the local education authorities in relation to schools not in receipt of grants from public funds, and to consider what legislative or other changes are desirable for the purpose of securing that the children attending such schools receive an adequate education under suitable conditions,” suggests that the moment for pushing forward the point of view expressed by Dr. Nicoll at the Conference referred to, and endorsed by the Council, may have arrived. Conceivably the words “under suitable conditions,” in the minute of appointment, may be taken as affording hope that the committee will have the power to consider and advise as to the need for the making of provision for medical supervision in order to secure “that the children attending such schools receive an adequate education.” Whether or not the words are capable of being so read, it may be taken that the Council, if there was any meaning in what was said when Dr. Nicoll made her statement, will spare no effort to ensure that the point of view for which the Society as a whole must stand in this connection is brought prominently before the committee. The fact that there is included on the committee a representative of the service, in one so experienced and influential as Dr. Oscar M. Holden, of Croydon, may be regarded as promising and

as suggesting that any medical and health views expressed will receive full and proper consideration. The other members of the departmental committee are Mr. Ede, M.P. (Chairman), Alderman Francis Askew, Mr. Beaumont, M.P., Captain Cazalet, M.P., Mr. R. H. Charles (H.M. Inspector of Schools), Miss W. M. Crosthwaite, Mr. White, M.P., Mr. M. G. Holmes, Dr. F. R. Hurlstone-Jones, Mrs. Leah Manning, Mr. S. Maxwell, Councillor Wright Robinson, Dr. A. Salter, M.P., Mr. O. H. Wagner, and Mr. T. A. Warren, with Mr. E. D. Marris, of the Board of Education, as Secretary. All who have experience of private schools and have felt the need of power to do something on behalf of the children in certain types of such schools will be inclined to regard this as one of the most important committees set up by any department of recent years; will regard its appointment as a step, rather long delayed, in the right direction, and will hope that its deliberations may be fruitful of results all for the benefit of a set of children whose interests, existence even, have been far too long forgotten.

The Treatment of Tuberculosis.

TWO memoranda of great interest and importance to those concerned with the treatment of tuberculosis have recently been issued by the Ministry of Health.

The first (Memo. 122D/T) deals with costs of residential institutions, and shows in tabular form, under various heads, the cost per patient per week at certain institutions for the treatment of the tuberculous during the year ended March 31st, 1930. For the purposes of comparison the corresponding figures for the two previous years have been inserted in the cases in which these figures are available. The hope is again expressed that the information in the table may be of substantial assistance to authorities in enabling them to decide whether, in any particular case, the various items of expenditure are on the lowest level compatible with efficiency, and to take any further steps necessary to secure the economical administration of their institutions. An analysis shows that in rather more than one-half of the institutions for which comparative figures are available for the last two years, the total cost per patient week has increased. In many of the institutions the increased cost is again attributable, wholly or mainly, to addi-

tional expenditure on renewals and repairs, but in a number of the institutions where the total cost has increased the rate of occupation has diminished. The Ministry point out, as stated in previous memoranda, that full value for the expenditure incurred at a residential institution can only be obtained if the beds are kept constantly occupied, and it is again suggested that, if it is found that some of the beds in an institution are not required for patients from the area served by the institution, every effort should be made to obtain patients from the authorities of other areas who may need additional beds.

The other memorandum (131C/T) contains, also in tabular form, an analysis of work done during the year 1929 under the schemes of local authorities for the treatment of tuberculosis, as shown in the returns furnished in accordance with memorandum 37/T. It has been compiled on lines similar to those of previous years, and also includes a section with regard to the work undertaken by the King Edward VII Welsh National Memorial Association. In studying the table it is considered desirable that local authorities and their officers should, in particular, compare the figures relating to their own areas with those relating to other districts of similar size and character. Such a study, it is felt, may suggest the expediency of extending or varying the schemes in certain directions in order to secure greater efficiency.

Copies of both memoranda may be obtained on application to the Ministry of Health.

Atmospheric Pollution.

THE 1929 Report on the Investigation of Atmospheric Pollution* contains, in addition to the Report of the Standing Conference of Co-operating Bodies, which includes representatives of municipalities and of industrial and other bodies, and nominees of the Department of Scientific and Industrial Research, the Report of the Atmospheric Pollution Research Committee and that of the Superintendent of Observations (Dr. J. S. Owens). In the first-named Report it is noted that the question of the measurement of daylight, and of ultra-violet radiation, and also

* THE INVESTIGATION OF ATMOSPHERIC POLLUTION. Report on Observations in the year ended March 31st, 1929. Fifteenth Report. Department of Scientific and Industrial Research. H.M. Stationery Office, 1930. pp. 64. Price 3s. 6d. net.

the desirability of recording the acidity of the water collected in the deposit gauges, are being investigated, together with those of the measurement of water in fogs, and of sulphur in the atmosphere, which were already in hand.

With regard to the investigation into the problem of measuring sulphur impurities in the air, a striking fact which emerged very early in the work was that in the place of experiment (Holborn) at all events, sulphur trioxide is not a normal constituent of the atmosphere; it appears only during fog. This result was somewhat unexpected, but later work appears to confirm it.

The Superintendent of Observations deals with the deposit gauge figures supplied by the various co-operating bodies, and also with the results obtained with the automatic (air) filter. There were in operation during the year 81 deposit gauges maintained by 33 authorities and, in addition, 12 automatic filters maintained by 7 authorities. A comparison of the deposit gauge results set forth in the tables in respect of different areas is interesting, especially so if constituents directly due to the combustion of raw coal—tar, other carbonaceous insoluble matter (soot) and sulphur, etc.—are considered. In comparing a Lancashire industrial area's atmosphere (Salford) with that of a Lancashire seaside area (Southport), a five years' average shows that the amounts of tar, soot, and sulphur are all higher in the former than in the latter. Actually the tar figure in the industrial area is 59 grams per square dekametre, as against 4 in the seaside area. Tar, of course, is formed during the incomplete combustion of coal, as occurs largely in the domestic grate.

The automatic filter records the amount of suspended air impurity at different times of the day. A series of interesting charts contained in the Report show the hourly variation of suspended impurity at different times of the day at a number of stations, four of these being in London. Reference is made to the profound effect of wind velocity upon the concentration of suspended impurity; as the wind velocity becomes less, the concentration tends to increase, and in London any further fall below two miles per hour tends to the formation of thick haze or smoke fog. The tables given show that the period of maximum intensity of suspended impurity varies in different localities and is later on Sundays than on week-days; generally speaking, in London, the morning maximum occurs about

10 o'clock on week-days and 11 or 12 o'clock on Sundays. In all areas, however, the hour of minimum intensity, *i.e.*, the period of greatest atmospheric purity, appears to be in the early morning from 3 to 5 o'clock.

This Report contains much evidence of careful observation and is a record of very real scientific and practical value.

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Tuberculosis in Lancashire.

THE sixteenth annual report of Dr. Lissant Cox* merits the same close attention from those engaged in public health and tuberculosis work as its predecessors have received.

The area covered contains an estimated population of 1,811,700, and in 1929 there were 1,517 new notifications of pulmonary disease (143 less than in 1928) and 913 new notifications of non-pulmonary disease (43 less than in the preceding year). There were 1,102 deaths from pulmonary tuberculosis, an increase of 36, and 279 non-pulmonary deaths, eight fewer than in 1928. The tuberculosis death-rate is now 76 per 1,000 of the population. There are twenty-four dispensaries, and 86 per cent. of patients are seen by the tuberculosis officer for an opinion before notification.

As previously, the Lancashire team has undertaken various research work during the year. In 1929 it was sought to find how many cases diagnosed in childhood as non-tuberculous became tuberculous later. Of 1,084 new pulmonary patients aged 15-25, only seven had been previously diagnosed as non-tuberculous by the tuberculosis officers, while of 461 non-pulmonary cases, five had been diagnosed as non-tuberculous when examined in childhood.

Treatment by irradiated milk was tried in 11 cases, and five others were regarded as controls. No difference in the results obtained with the two groups was detected.

Sanocrysin was further tried at Peel Hall on 25 cases of whom 10 were found to have maintained an improvement at the end of six months; for this experiment there were no controls.

Artificial pneumothorax treatment is held to be necessary in 10 to 15 per cent. of patients,

* THE PREVENTION AND TREATMENT OF TUBERCULOSIS IN THE ADMINISTRATIVE COUNTY OF LANCASTER. Report of the Central Tuberculosis Officer of the Lancashire County Council for the year 1929.

and 16 out of a series of 34 patients showed definite improvement as a result.

Twelve dispensaries are equipped for artificial light treatment, and 842 patients were under treatment in 1929, of whom 77 per cent. were able to continue at work during treatment. The weekly cost was 4s. 6½d. per patient.

Radiography was employed for 5,883 dispensary patients and 2,143 radiograms were taken in institutions: 6,146 sputum examinations were undertaken, and in 1,244 instances tubercle bacilli were found.

The report is well illustrated and is a model of what such reports should be.

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The Consolidation of Local Government and Public Health Law.

IN pursuance of the policy of consolidating the various statutes regulating the work of the Ministry, the Minister of Health has appointed a Committee with the following terms of reference:—"With a view to the consolidation of the enactments applying to England and Wales (exclusive of London) and dealing with (a) local authorities and local government, and (b) matters relating to the public health, to consider under what heads these enactments should be grouped in consolidating legislation, and what amendments of the existing law are desirable for facilitating consolidation and securing simplicity, uniformity and conciseness." The membership of the Committee is as follows:—*Chairman*: The Rt. Hon. The Viscount Chelmsford, P.C., G.C.S.I., G.C.M.G., G.C.I.E., G.B.E. *Members*: Mr. L. S. Brass, Mr. H. J. Comyns, Captain Ernest Evans, M.P., Sir William M. Graham-Harrison, K.C.B., K.C., Sir Frederick F. Liddell, K.C.B., K.C., Major J. J. Llewellyn, M.P., Mr. E. J. Maude, C.B., Major J. Milner, M.C., M.P., Mr. Cecil Oakes, LL.M., Sir Harry G. Pritchard, Mr. L. A. J. Granville Ram, Mr. C. E. Staddon, and Lieut.-Colonel Sir Seymour Williams, K.C.B. The Secretary to the Committee will be Mr. R. S. King-Farlow, of the Ministry of Health.

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Obituary.

IT is with great regret that the death of William Alexander Todd, M.B., CH.B., Edin., which occurred suddenly on December 1st, is recorded. Dr. Todd, who had held the post of Medical Superintendent of the Leeds City Sanatorium, Killingbeck, since 1920, was a Fellow of the Society of Medical Officers of

Health, and served in the Royal Army Medical Corps throughout the War, seeing service both in France and Germany, and holding the rank of Captain on demobilisation.

In a letter of appreciation, Professor J. Johnstone Jervis writes: "Though a man of retiring disposition and not given to many words, Dr. Todd was, nevertheless, a very efficient administrator and keenly interested in all matters relating to the treatment of tuberculosis. To those who knew him well he was the soul of honour, and ever ready to help anyone who stood in need of assistance. He was beloved alike by the staff and patients of the sanatorium, and he will be particularly missed by the children to whom he was always a devoted friend. By his death the Leeds Corporation has lost an efficient officer, and his comrades in the Service a loyal and devoted colleague."

The Society also mourns the death of Ronald Tydd Herdman, M.D., C.M., Edin., D.P.H., which occurred with tragic suddenness on December 6th. Dr. Herdman, who held the post of Deputy Medical Officer of Health for Bedfordshire, was apparently in normal health on the previous day when he attended a meeting of the Bedfordshire Education Committee in his capacity as School Medical Officer.

He was a Fellow of the Society, attached to the Home Counties Branch.

The death is recorded, with great regret, of Dr. Charles Scott Kilner, M.B.E., for many years Medical Officer of Health for the Thingoe Rural District, and a senior Fellow of the Society. Dr. Kilner took a leading part in medical affairs in Bury St. Edmunds and West Suffolk, and was held in high esteem by his friends and colleagues in the profession.

THE London School of Hygiene and Tropical Medicine (University of London) announces two courses of lectures and demonstrations on Tropical Hygiene, for men and women outside the medical profession proceeding to the tropics, to be given by Lieut.-Colonel G. E. F. Stammers, O.B.E., M.R.C.S., L.R.C.P., D.P.H. The first series will run from January 14th to 23rd, from 2 to 3.30 p.m., and the second from March 18th to 27th, from 5 to 6.30 p.m. The fee for each course is one guinea, payable in advance. Synopsis and other particulars may be obtained from the Secretary, London School of Hygiene, Keppel Street, Gower Street, W.C.1.

Publicity in Public Health.

By LORD RIDDELL, Chairman, Newspaper Proprietors' Association; President, Advertising Association; President, Royal Free Hospital, etc., etc.

The Central Council for Health Education counted itself lucky in having Lord Riddell to preside over the Third Annual Health Education Conference, held at the London School of Hygiene and Tropical Medicine on November 13th, 1930. How lucky they and the many delegates to the Conference were may be judged from the excellent Address that he delivered at the opening.

BEFORE addressing myself to the question of publicity—I use the word in its widest sense—I propose to make a rapid survey of existing conditions as they affect public health. My object is to ascertain what sort of publicity is required and how best it can be provided.

From time immemorial good health has been regarded as the greatest of all blessings. To-day, according to modern ideas, it is regarded more or less as a right. The rich consider they are entitled to it because they can pay for it, rather forgetting that, to quote the poet, "death lays his icy hand on kings" and, it might be added, on millionaires. The poor complain, or rather other people complain on their behalf, that poverty prevents them from enjoying the things that conduce to health. Most social and political movements are aimed directly or indirectly at securing better health or the means of improving it. Demands for better wages, better housing, better education and the re-adjustment of our economic system are in reality part and parcel of the race for health and long life.

It should be noted that "health" is a comprehensive term that includes both a sound body and a sound mind. To give effect to these aspirations we have a vast and ever-increasing mass of statutes and regulations, state and municipal, which prescribe how the citizen is to preserve his own health or to protect and preserve that of his fellow-citizens. There is also a vast army of persons, official and unofficial, engaged in treating the sick or in prophylactic work. Further, there are thousands of institutions, such as hospitals (municipal and voluntary), lunatic asylums, homes for mental defectives, ante-natal clinics, child welfare clinics, dental clinics, venereal disease clinics, and the like. We also have a panel system of medical attendance, medical examination of school children, boy scouts,

girl guides, the playing fields movement, health weeks, baby weeks, newspaper and magazine articles, broadcast talks, and the adjurations of advertisers who proclaim that their wares will cure or ward off disease. Our sewage system, water supply, cemeteries, street cleansing and collection of house refuse are all part, and a very important part, of our public health system. The same may be said of pensions, children's allowances, and subsidised houses. These varied measures are mostly the product of the last eighty years. Results have not been unsatisfactory. We are a cleaner, better fed, better educated, healthier, better-looking, more temperate and longer-lived race than in 1850. When you hear people praising the "good old days" you may be certain they know very little about them. Eighty years ago the mass of the people had a pretty poor time, especially in the industrial districts. There is, of course, another side of the picture.

First, the expense of our social services is enormous and ever-growing. It has now reached dimensions that make it a serious burden on our export trade, on which we depend not only for luxuries but for necessities. We are apt to overlook that regular employment with good wages, good food and satisfactory housing is the best form of prophylaxis.

Secondly, we are apt to pay too much attention to the abnormal and to neglect the normal. We seem to delight in spending more on lunatics, mental defectives, myopes, etc., than on healthy citizens. The education of a mental defective costs £70 per annum, while we spend on an ordinary child only £12 per annum. Ordinary children have been until lately, and still probably are, educated in unmanageable classes of fifty, whereas mental defectives receive almost individual tuition. The truth is that owing to the sympathy, energy and persistence of philanthropists interested in luna-

tics, mental defectives, myopes and the like, better treatment is meted out to these unfortunates than to normal citizens. This is obviously uneconomic and the question arises whether it is fair.

I will now turn to the matter of publicity. What do we want to make known, and how is the information to be spread? There are obvious things that require to be taught—cleanliness, need for fresh air, sleep and exercise, choice of suitable foods and clothes, regular meals, care of the teeth, avoidance of constipation, etc., etc. It is also necessary to acquaint the public with the manifold facilities that exist for dealing with various human ills and for avoiding them. Further, it is essential to create what may be called a "health sense"—the feeling that one's body and mind are sacred things, in due proportion to be taken good care of. I say "in due proportion" because it would be sad if we dimmed the youthful, courageous, adventurous spirit, the expression of which involves risk, and often risk of life and limb. When all is said, within traditional limits a man's life is his own. If he cares to risk it, that is his affair, as long as he does not endanger the lives of other people who do not wish to have them endangered. It is difficult to know where to draw the line, but we all recognise the difference, although it is not easy to define it, between a man who is drinking himself to death and one who is daily risking his life in an aeroplane or in the hunting field.

Health education may be divided into two classes—juvenile and adult. In both branches the medical practitioner should be the chief missionary. Subject to this, for children, home and school education are the best, but unfortunately that provided in some homes is of a very indifferent character. This applies not only to poor homes, but to homes of the well-to-do. At school, health talks, broadcast talks and the like are most useful. I have often thought that more might be done by means of suitable readers with a touch of humour in them. It is important to break down a prevalent objection on the part of some parents to what they call "interference." They do not wish to be advised about their children's health, nor do they wish their children to be advised. They want to go their own way. It is, however, satisfactory to note that this feeling is gradually disappearing, largely due to the influence of the medical profession. In passing it should be noted that the various

scouting movements for boys and girls are rendering valuable service in health education.

When we come to adult education in health matters, we must take note of the preponderance of educational matter for women over that for men. This may explain the amazing progress in women in health during the past twenty years. The general public do not realise how great a part women's papers have played and are playing in this respect. Every week millions of papers are issued largely devoted to telling women how to improve their skin, their hair, their teeth, their busts, their carriage, the shape of their legs, their method of walking, etc., etc. People pay more attention to what they pay for than to things that cost them nothing. These papers are bought and carefully read. That explains their influence. For men, such papers have no counterpart, although there is a good deal of advice forthcoming about muscular development, training for athletics, etc. The bald-headed are special objects of attention by philanthropists who advertise various methods of hair-raising.

We still suffer from Puritanical and professional reticences. Venereal diseases are still more or less a taboo subject, although it is certain that much might be done to prevent the spread of this scourge if there were more publicity regarding its nature and effects. The ignorance of the public is deplorable. It is a public scandal that the health of innocent people, born and unborn, should be sacrificed because we still persist in treating these diseases as the "hidden scourge." The public should be told the truth. They should be told something of the ravages of these diseases and that they are largely preventable. False modesty should not deter us from doing our duty. If the scourge were dragged out into the open it would soon diminish.

Voluntary sterilisation of the unfit is another subject demanding open discussion. The breeding of mental defectives is a menace to public health. Let me give you just one case—I could give hundreds.

A mentally defective woman had seven illegitimate children:

1. Daughter, aged 24, low-grade, feeble-minded, under care in mental deficiency institution since October, 1925; has had an illegitimate child.

2. Son in industrial school, mental condition not known.

3. Daughter, aged 13, feeble-minded, inmate of residential special school.

4. Daughter, aged 12, now an inmate of a residential special school, after having contracted venereal disease.

5. Daughter, aged 11, low-grade, feeble-minded, inmate of residential special school since February, 1927.

6. Son, aged 8, feeble-minded, inmate of mental deficiency institution since February, 1927.

The "do nothings" tell us that sterilisation would not wipe out mental deficiency, as apparently normal parents who are carriers often have mentally deficient children. No one suggests that sterilisation would stamp out mental deficiency, but it would diminish it. Surely that is worth while! What is the anti-sterilisation policy? The opponents propose to build more and more institutions at an estimated cost of £425 per bed. The last annual report of the Board of Control is a terrible and alarming document. It appears that there are 142,387 insane persons in mental institutions, 27,514 mental deficient in institutions or under guardianship, 22,076 mental deficient under statutory supervision, and 30,000 more for whom the Board are anxious to provide institutional accommodation. In a previous report the Board estimated the total number of defectives in England and Wales at 300,000. Last year (1929) no fewer than 1,376 additional beds were provided. It is notable that the Board describe some of their deficiency institutions as "mansions," others as "pavilions," and others as "villas." One may well ask where are the "mansions," "pavilions" and "villas" for the sane, on whose efforts our future depends? It may be noted also that institutional treatment does not prevent a large number of the inmates from going into the outside world and by stealth exercising their natural functions. On the contrary, unless violent or unable to go about, they are allowed out on leave or sent out to work. The law is in a strange state of confusion. It is a criminal offence to have sexual relations with a certified mental deficient, but to marry one is legal. Here is an instance. A feeble-minded man, who escaped several times from institutions and was apprehended by the police for stealing and indecent exposure, was sent out on licence and at times earned his own living. On his last appearance in court he was found to have married a girl of 20 years of age, who was about to give birth to a child. He

was returned to the institution where he and his brother, also a congenital mental defective, are both detained (see Board of Control Report for 1929). By way of contrast it may be remarked that there are no restrictions regarding sexual relations with insane persons, except that officials in mental hospitals are prohibited from interfering with their patients. The opponents of sterilisation put forward the absurd plea that it would result in increased promiscuity by mental deficient. Is it reasonable to suppose that a mentally deficient woman is ever deterred from exercising her sexual functions by the fear of having a child?

The spread of abortion is another unpleasant subject demanding free and open discussion. There is no doubt that abortion is rife, not only among unmarried women but among married women who wish for no more children. There is also no doubt that the harmful effects of this widespread practice are having a marked influence on maternal mortality and morbidity.

These three subjects urgently call for attention. The preaching of cleanliness, dietetics, the need for fresh air, etc., is not sufficient. We must tackle the festering sores that are injuring the national health and causing untold misery.

Two other subjects require careful consideration—publicity concerning birth control and the intimate relations of the sexes. No one can complain that these matters have received sparse attention during recent years. Bishops, deans, social reformers, medical men, medical women and public officials have vied and are vying with each other in full and free discussions of various aspects of these important questions. The last number of *The Modern Churchman*, for instance, contains a series of outspoken articles indicative of the modern spirit. I may refer also to the Lambeth Report and the Birth Control Circular recently issued by the Ministry of Health. Nevertheless, from a health point of view there is something lacking in birth control and sexual relationship discussions. I am not concerned with the principles involved. In considering health education and health publicity, we must assume that "procreation is not the sole purpose of sex connections," to quote Mrs. Stocks in *The Modern Churchman*, and that birth control has come to stay. These assumptions involve health questions of serious importance. The use of unhealthy methods—coitus interruptus

and the like—may have serious effects on the health of the community, and yet there is a great dearth of authoritative, well-informed advice, not only for the mass of the people but for the well-to-do. The Ministry of Health and local authorities are steadily moving in the direction of permitting birth control advice to be given to married women as part of the public health service. But that is only the first chapter in the story. The real difficulty comes in chapter 2—the advice to be given. Most doctors are not expert on this subject and even those who admit the difficulty of prescribing a sound, cheap and effective method. Meanwhile, one is startled by some of the methods recommended, which, to a layman, seem most dangerous. All this demands the thoughtful attention of those concerned with health education. They must realise that we are faced with a new set of problems.

Modern health education involves difficult publicity questions. This is a realistic age. To-day health educationalists are dealing with matters that were rarely mentioned in former times—the evil effects of constipation, sex teaching, hygiene for girls and women, the intimacies of married life, ante-natal care, precautions for girls and women as to exercise, the life of the pregnant woman, etc. Publicity of special kinds is necessary to combat the appalling ignorance which still exists about most of these subjects. Here again we must look to the general practitioner to act as chief publicity agent. In regard to matters concerning children and adolescents, home teaching is of course desirable, but, as stated already, the home cannot be relied upon. School publicity has its disadvantages. I doubt the wisdom of mixing instruction about more or less private health matters with academic and technical education, but I say this with no confidence, not having had sufficient experience to express an opinion of any value. I think, however, that much useful instruction might be given by doctors who inspect school children. A brief hint is often better than a long lecture. As to grown-ups, women's papers are doing a good work, but the task bristles with difficulties. Long-standing conventions and aesthetic considerations cannot be disregarded. Lectures by doctors to girls and women in factories and elsewhere are well attended and very popular. The lecturers are usually outspoken and I regard this sort of publicity as the best for dealing with intimate subjects. Every effort should be made to

extend educational work of this kind. There are many books for men, women and children on every variety of health question. These are widely read and serve a useful purpose, but do not reach the class most in need of instruction—the mass of ignorant young men and women.

In conclusion, I am a fanatic on teeth. Good teeth are essential for health and beauty. Our teeth are a disgrace, as may be seen from photographs of laughing or cheering football crowds. I have a proposal to make. I suggest a "Teeth Week." I suggest that every schoolmaster, schoolmistress, clergyman and dissenting minister should be asked to give a three-minutes' address on the necessity for looking after one's teeth. I suggest that the editor of every newspaper and periodical should be asked to publish a short article to the same effect. And lastly I suggest that the proprietors of every cinema theatre should be asked to screen a brief message. The organisation of such a campaign would be a worthy memorial of this Conference.

THE Minister of Health, with the approval of the Prime Minister, has appointed Sir E. J. Strohmenger, K.B.E., C.B., to be Deputy Secretary to the Ministry of Health, in succession to Mr. E. R. Forber, C.B., C.B.E., and Mr. S. H. G. Hughes, C.B.E., to be Principal Assistant Secretary for Finance and Accountant-General of the Ministry.

THE British Broadcasting Corporation announce an interesting series of talks to be included in the Spring Programme, which begins early in January. Among those of interest from the health point of view are six talks on "Why We Catch Things" by Mrs. Barbara Holmes, of the Medical Research Council's Biochemical Laboratory, at Cambridge, to be given on Thursday mornings from January 15th to February 19th, and dealing in a simple manner with the question of germs, those through which infectious disease is contracted, and those found in food which has become tainted. Another series on "What is Good Food" will be given by Miss E. M. Hume, of the Lister Institute of Preventive Medicine, on Tuesday mornings from March 24th onwards. On Friday mornings from January 9th to February 27th, a series of talks specially planned for the benefit of invalids will be broadcast.

Physiology and Preventive Medicine.

By DAVID BURNS, M.A., D.SC., Professor of Physiology, University of Durham College of Medicine, Newcastle-upon-Tyne.

The belief that physiology is the basis of preventive medicine is one long held and frequently enunciated. In this paper, read at the ordinary meeting of the Society held in London on November 14th, 1930, Professor Burns reveals the soundness of the basis of the belief.

IF physiology is that branch of science which deals with the functions of the healthy organism and is especially interested in the mechanism of adaptation of organism to environment, then it ought to be able to contribute much to the science of preventive medicine.

You will pardon me, I am sure, if I seem to lay undue stress on my subject. Since the War, great strides have been made in extending the bounds and intensifying our knowledge of physiology; but a still greater and more pregnant change has been in the attitude of the physiologist to his science. He has realised, at last, that experiments on frogs, tortoises and rabbits, useful in themselves, are of only limited value; and that, before physiological principles can be applied to the human being, the limitations of the basic experiments must be carefully defined.

One difficulty is apt to occur when differently trained people attempt common converse, and that is in their different use of terms. This is especially so when the subject under review is highly specialised. The confusion of tongues at the building of the tower of Babel is mild compared with the wranglings of philosophers or of scientists of different schools; their energy is wasted on words instead of in building the tower to reach up to perfection.

You will remember that Bacon, in his *Novum Organum* (bk. I) introduced us to the "idola." The figure is probably taken from Plato's Republic, where a cave is described in which men are chained with their backs to the entrance so that only the shadows of the outside world are visible to them. There are those of the tribe to which all men are subject, and which lead the unwary and untrained astray. These you and I have learned largely to avoid, and so they need not detain us now, but when we come to consider the *idola of the den* we have to take notice, for they are the habits of thought and of speech engendered by our profession. We develop

a way of looking at things peculiar to our own particular job and unless we are careful we are apt to lose touch with one another and with the real world outside. The physiologist is especially liable to follow the shadow of controlled experiments and to forget that, outside his laboratory, there is a multiplicity of interacting factors incapable, as yet, of exact experimentation.

More difficult to expose are the *idola of the market-place* embodied in the words and metaphors and even in the clichés and slogans we daily use. Before dealing with this form of self-deception let me just mention the final source of misunderstanding, namely, the *idola of the theatre*. These are associated with our theories. If we remember that a theory is just a convenient peg on which to hang our limited knowledge of certain phenomena and not an inspired addition to the *Law of Moses*, we are comparatively safe from error. When our knowledge increases our original peg becomes too small—we discard it and get a bigger and better peg for our facts.

Now, I wish to clear myself of one of the *idola of the market-place*, and that is in the use of the words "nature" and "natural." I often catch myself using "natural" without any clear idea in my mind as to what I really mean. Our Victorian ancestors had no love for nature or for natural processes. Was it not their great poet laureate who branded nature as "red in tooth and claw," and did not their philosophic biologist, Huxley, write: "The normal state of existence is . . . a continuous free fight . . . a gladiator's show . . . a Hobbesian war of each against all?" Nature was to them an enemy to be overcome; natural processes were taboo.

Human progress is marked by a series of triumphs of man over so-called "natural" forces. These conquests enable him to live a comparatively uneventful life. He protects himself from the rigours of the weather by interposing walls of baked silicate of aluminium but preserves his view of the environment

by substituting sodium for some of the aluminium and boron for some of the silica. He avoids the necessity of using hunger as a sauce to induce reasonably rapid and complete digestion of food by employing physical and chemical means for this purpose. He so arranges the breeding of certain plants and animals that they better serve him as direct and indirect sources of food supply. The pleasurable thrill of living dangerously, of snatching one's very livelihood from the jaws of death, man now has done for him by proxy in a comfortable seat in a cinema. In having achieved civilisation, man has lost much of his early powers by their disuse, but has gained tremendously in freedom. What is the price? Our hospitals, our asylums, our prisons and our streets are full of people who cannot adjust themselves to modern conditions. Figures from America tend to show that this human wreckage and wastage is on the increase.

It is too easy to say: "Let us return to nature"—to a state such as that described by Montaigne as typical of the "primitive" Tupi—Guarini, of Brazil—"a people permanently enjoying the fabled golden age of ancient poetry." On first flush, the idea commends itself. A little consideration raises doubts. How far back do the advocates of the "natural" life wish to put the clock? We are so prone to consider that what was customary in our youth was right, proper and "natural" and all changes since then the work of evil minds and idle hands. Here is an extract from a letter written about a century ago and quoted from *The Observer*:—

Such things as railway roads and telegraphs are impossible and rank infidelity. There is nothing in the word of God about them, and if God had designed his intelligent creatures to travel at the frightful speed of fifteen miles an hour by steam it would have been foretold by one of His holy prophets. These are the devices of Satan to lead immortal souls to hell.

No sane man will, after due thought, admit that there can be any voluntary return to a pre-civilised state. Man will not willingly give up the freedom and comfort that modern invention has brought him. Our job is to take the human being as nature has made him and help civilisation to complete the job by placing his feet firmly on earth, giving him an intelligent love of beauty and hitching his wagon to the star of truth. Such a man would be fit for life.

Kropotkin, in his famous "Mutual Aid,"

defines for us the advantages of our social state: "It defends the feeble, permits long life, slows down the birth-rate, enables the young to be reared with the least waste of energy, renders the quest for food more effective, and develops such qualities as compassion, sensibility, individuality and intelligence. Such qualities thus become of biological significance in evolution; they are fitnesses in the struggle for survival." This is to my mind what preventive medicine is attempting to do and the physiologist should be able to add his quota of help in providing an answer to the question: What are the optimal conditions for human life under present circumstances? That is, authoritative information should be forthcoming as to quantity and quality of food required; the necessary amount of air and the harm or otherwise of admixture with other gases, etc.; the need for clothes with reasons for advocating materials and styles; the best age, season, etc., for procreation, and the ideal number per family, and so on.

A. Food.—This is a problem bristling with difficulties and rendered more puzzling still by the intrusion of economic factors. A good mixed diet, pleasing to the senses and acceptable to the eater is an accomplished fact, possible only to those with a really good income. The family of four with £3 a week has to be content with simpler fare, generally adequate as to calories but woefully inadequate in the quality of its protein and dangerously ill-balanced. The tendency is to fill up with starchy foods, easily cooked, cheap and readily preserved in inefficient larders. This excess leads, as is well known, to a potential decrease in available vitamin D, and I need not take up your time discussing that.

But I do wish to stress just a little this question of balance. The annual consumption of sugar is approximately 1 cwt. per head per annum, so that about 17 per cent. of our total energy intake is sucrose and glucose. Now we know perfectly well that in a well-regulated household this excessive amount of sugar per day is not used. Some people must, therefore, be exceeding this average consumption by a large figure. Add to this a measure of butcher's meat, a rasher of ham, bread, butter, potatoes and, say, half a pint of milk, and you have a fair picture of the 3,500 calorie diet of to-day. Such a diet has been proved inadequate for puppies, though that is no proof that it is inadequate for man. How are we

to set about testing its adequacy? Humanitarian reasons forbid following in the footsteps of von Pirquet and his school and planning a large scale series of human experiments. Short experiments on adults are practically a waste of time and energy, because the characteristic syndrome of a protein deficiency or a wrong Ca./P. balance develop late, perhaps only showing in the second generation.

In experiments on the standard Wistar rat, grades of malnutrition may be detected; for example, (i) a bad diet may prevent any growth, or (ii) may slow down the rate of growth. Another diet (iii) may allow of apparently normal growth but the bones may be imperfectly calcified. A fourth type of diet may appear adequate, causing normal growth: the adult rat is well nourished, but fails in one way or another in reproduction, either (a) being unfertile, or (b) being unable to nourish its young adequately if at all.

The diet which I have outlined as theoretically bad from the point of view of balance is also defective in the main in two respects; the amount of food protein is low and the mineral constituents have too little calcium and tend towards acidity. The regular addition of leafy vegetables and milk, both foods rich in calcium and in proteins, is peculiarly effective in combating the deficiencies in that respect of most cereal foods.

Experiments by Orr and his collaborators on school children have confirmed and expanded those of Corry Mann on the diet of growing boys in a London institution. The conclusion drawn from both sets of experiments is that the addition of $\frac{3}{4}$ -1 pint of milk per boy per day brought about in 6-8 months such changes that the milk-fed boys were easily picked out by a casual glance. The cause of the extra growth and extra healthiness was not the giving of extra calories (388 per day) or extra fat. The former was eliminated by supplying control groups with extra biscuits up to the caloric value, and the latter is disposed of by the fact that *separated* milk was as effective and, in some of Orr's experiments, more effective than full milk.

The results of unbalanced feeding may not appear rapidly. From experiments on rats we learn that a generation may pass before the typical signs of under-nutrition appear, and then only clearly if the young rats grow well. Our country has been passing through difficult dietetic times. During the War, food was limited in amount and somewhat strained as

to quality. Now, after the War, the money necessary to buy food is scarce. Who suffers? Why, the wife and mother every time. Something is certainly now being done to aid the very poor expectant mother to get adequate nourishment; but what of those just above the free milk line?

The child arrives and every attempt is made to breast feed and often too late *for the mother*, if not for the child, the feed is supplemented. There are two lines for investigation here.

The first—the mother. This matter I will leave for the moment and consider it under section D.

The second—the child. Born of an inadequately-fed mother, is this child, when the impetus to growth is stimulated by the extra milk supplied at the clinic, going to develop rickets or some other late sign of parental malnutrition? Time alone will show.

In this connection the following statement made by Sir George Newman at a recent lecture, may be of interest:—

"Perhaps it would not be over-estimating if I say that a third of the deaths that occur in England every year from heart disease arise from rheumatic infection. The number of deaths each year through rheumatic fever is not much below 100,000.

"The more we are able to nourish our children from infancy upwards by food, rest, fresh air, and exercise the greater will be our contribution to the prevention of rheumatic fever."

B. Ventilation.—A series of experiments by Sir Leonard Hill are indicative of the present-day attitude of the physiologist to this important matter. Hill incarcerated a number of subjects in a miniature "Black Hole of Calcutta." After a time the well-known psychical and physical accompaniments of detention in a closed space were manifested, e.g., lassitude, drowsiness, lack of desire to be sociable. The state of the atmosphere was such that a match could not burn in it. The air within the room was now set in motion by an electric fan. Talk restarted, and drowsiness fled, although no fresh air had been added and no CO₂ had been removed. In another experiment the same process was carried out except that the subjects breathed fresh air from outside led in by tubes and mouthpieces. The result was exactly the same. When in a further experiment the subjects were outside the room and they were supplied with "vitiated" air from inside, no signs of lack of ventilation were noticed. From these experiments one must infer that moving air is essential to physical and mental well-being,

but that its CO₂ and O₂ content may vary within very wide limits.

Experiments by Hill, Haldane, Barcroft—to mention only three of those who have added to our knowledge of respiration—teach us that the human body is able to pick up adequate supplies of oxygen from air with remarkably small partial pressures of this gas and that much higher percentages of CO₂ than those to which we are generally submitted are no great drawback to efficient respiration. In fact, CO₂ is a valuable ally to the processes of respiration, especially in those of tender age with ill-developed respiratory centres. Watch the cat curled up asleep with nose buried in fur or the baby sinking below the cot covering. They are preserving an atmosphere which is warm and rich in CO₂, and yet we get those awful diagrams in Sir F. Truby King's "Feeding and Care of Baby," with the statement repeated in various forms: "Warm stuffy air is poisonous." Professor H. S. Raper, of Manchester, found, as a matter of fact, that babies who would otherwise have died of malnutrition picked up and thrived if kept in boxes artificially supplied with CO₂.

C. Clothes.—Ventilation naturally leads to a discussion of clothing. If the demand for moving air is the basic need of skin stimulation, then clothes, if improperly chosen or worn, may raise an effective barrier to this. Apart from the main reason for wearing them, which is aesthetic, clothes act as equivalent to so much food. The physiologist could prepare a balance-sheet giving on one side the gain in calories and on the other the loss in incident ultra-violet light, in skin stimulation, in vasomotor tone, etc., by the interposition of layers of still air between our skin and the everchanging external environment. Some say the balance is a debit one and that we are steadily piling up an overdraft in nature's bank which will some day have to be paid in impaired health. On the other hand, man is extraordinarily adaptable. In any case he will not willingly give up his garments. As Virginia Woolf says in Orlando: "There is much to support the view that it is clothes that wear us and not we them; we may take the mould of arm or breast, but they mould our hearts, our brains, our tongues to their liking."

D. Reproduction.—Sound physiological knowledge of human procreation is singularly lacking. Medical and semi-medical literature abounds in contradictory information on this

subject; principally because of two fallacious forms of reasoning, i.e. (i) arguing from the individual to the race, and (ii) applying the results of animal experiments directly to human beings. Observations by Murk Jansen are of interest in this connection. He found that if there were any weaknesses in the parents the weakness would show up more clearly as the family increased in size. In one family of 9 (family F, 1917) No. 1 was apparently average; Nos. 2, 3, 4 and 5 were below the "normal" height and weight of Quetelet and did not attempt to walk till two years of age or over; Nos. 6 and 7 were below normal height but 4-5 per cent. over normal weight, and were late in walking; Nos. 8 and 9 were low in height and weight and obviously feeble in musculature, i.e., No. 8 could not stand at three years.

Further, feebleness of growth follows the law of the vulnerability of fast-growing cell groups. I have referred to this earlier in dealing with the supply of extra milk to school-children. When growth is rapid, structure is apt to be jerry-built. As muscle and bone form some 40 per cent. of the body weight of the new-born infant, one readily understands why feebleness of the locomotor apparatus becomes manifest. Experiments show, moreover, that subjects showing symptoms of muscular weakness or of delayed or of imperfect ossification, also suffer from weakness of other organs, roughly in proportion to the bulk and rate of growth of these organs.

Experiments reported to the last Physiological Congress make it clear that there is an optimal rate of breeding and size of litter for laboratory and farm animals; any rate greater than this optimum leads to a rapid increase in maternal and infant mortality. In these experiments all other factors which might cause feebleness were avoided. For instance, limitation of food, which may occur in human families with increasing size, was prevented. The increased death-rate in mothers and young found in unlimited families in these experiments must, therefore, be due to maternal exhaustion.

The physiologist, in co-operation with the maternity services, ought to be able to give sound information as to the feeding of the expectant mother, so as to ensure a healthy and reasonably small offspring. Further, real knowledge should be available on feeding, exercise, etc., of the mother post-partum. One regrets to state that in the absence of any

semblance of such knowledge old wives' tales and inventions of cranks pass for knowledge. Of the two evils, the former is to be preferred as generally containing a germ of practical truth.

The whole question of human reproduction in relation to food is a stretch of unknown country common to us both, and it behoves us to explore it thoroughly and soon.

The decline in the birth-rate has many causes. Undoubtedly the principal one is that, with the spread of education and the awakening of a social conscience, married couples determine to bring into existence only the number of children that they desire to have. This is all to the good from the point of view of the individuals of the next generation. It may be termed a selfish outlook. But is it more so than the unbridled licence of the male who, in the days of Victoria the Good, indulged his sexual desires at the expense of the more or less severe disablement of his wife and the impoverishment of his family?

E. The Psychological Factor.—What are the principles of good breeding known to the biologist—principles which have doubled the speed of horses, the weight of cattle, the output of milk, etc., during the past few decades? "They may be summed up under two general heads," writes Conklin, *viz.*, "(1) improved heredity through selective breeding; (2) improved environment through better food, nurture and training."

Training is largely a matter for the psychologist, but the psychological factor in physiological experimentation and in public health administration is too important to be neglected. Training consists in building up what their discoverer, Pavloff, called conditioned reflexes, *i.e.*, reactions to substitute stimuli. I would fain lay great stress on this aspect of our work. All our careful experiments and all our well-thought-out legislation may be wrecked on this rock. The population is a mass of individuals, each different with an individual outlook on life. They cannot be treated in mass like the output from a modern motor car factory. They have got to be won over to our point of view. Public opinion has to be shaped not dragged, and there are ways of shaping public opinion—ways that are intentional and ways that are haphazard.

It behoves us to consider first whether our ideas are founded on a sound experimental basis and then to study how best they may be nurtured and propagated.

Perhaps I may conclude with an extract from an address delivered by Lord Riddell at the third annual conference of the Central Council for Health Education:—

Lord Riddell declared that we were a cleaner, better-fed, better-educated, healthier, happier, better-looking, and more temperate race than in 1850. People who praised the "good old days" knew very little about them. But, he added, it was essential to create a "health sense"—the feeling that one's body and mind were sacred things to be taken care of. Modern health education involved difficult publicity questions, and educationists were dealing with matters which were rarely mentioned in former times.

DISCUSSION.

Professor W. W. Jameson (Director of Division of Public Health, London School of Hygiene and Tropical Medicine), in expressing his personal gratitude to Professor Burns for a most interesting paper, said that it had been apparent to the authorities of the London School of Hygiene that it would be impossible to develop any adequate post-graduate public health teaching unless the work were centred round a department of applied physiology. The students at the School were now able to devote no fewer than fifty hours' study to applied physiology, and the course of instruction provided was proving not only popular but also of great practical value.

Dr. C. W. Hutt (Medical Officer of Health, Holborn) referred to a book by Dr. W. Langdon Brown, of St. Bartholomew's Hospital, on "Physiological Principles in Treatment," which he considered of great value because it treated of physiology from the point of view of the student who was to carry out clinical work in the wards. A great deal was also heard of physiology from the standpoint of preventive medicine; whilst pure physiologists were working at a large number of physiological problems yet unsolved. He suggested there was room for all three types of physiologists, and considered they should all be equally encouraged.

Dr. G. C. M. M'Gonigle (Medical Officer of Health, Stockton-on-Tees) held that medical officers of health suffered from a great disability in that their training had been so biased by pathology that only by some years of work in the actual field were they able to re-orientate themselves. There was an enormous amount of field work to be done which could be guided by the physiologists: such work could only be carried out by medical officers of health; the surgeon, the physician, or the general

practitioner was unable to perform it because he rarely saw the normal but dealt with pathology all the time. Dr. M'Gonigle was of opinion that medical officers of health, in their Society, were not yet doing nearly enough of field work on normal biology and normal growth. Referring to the question of food, he said that in no other mammal but man was milk considered a necessity of growth after the time of weaning, and there was room for research work to enable a diet to be devised which would avoid the absurdity of giving milk after the natural source of that milk was no longer present.

Dr. G. P. Crowden (Lecturer in Physiology as Applied to Hygiene, London School of Hygiene and Tropical Medicine) expressed a desire to associate himself with the remarks of Professor Jameson with regard to the applied side of modern physiology, and said that there was a general tendency for an increased interest in the human element in the problem as distinct from the purely academic. Dr. Crowden referred to the many physical fitness tests used in the Services, which were based upon physiology, and added that there was still a great deal of work to be done on human material in that connection. The question of nutrition was under consideration by the Medical Research Council and other bodies, and it was to be hoped that some valuable information from the human side on that subject would also be available in due course.

Dr. A. K. Chalmers (formerly Medical Officer of Health, Glasgow), referring to the fall in the birth-rate, offered the suggestion that birth-rates went in cycles, like most other things. With regard to clothing, it had been found that the girls of to-day were generally much better grown than the boys, due possibly to the amount and kind of clothing they wore.

Dr. P. A. Galpin (Tuberculosis Officer, West Ham) asked (1) if physiologists had devised any tests for determining the efficiency of the skin, which appeared to suffer along with general disturbance of health; and (2) whether an uncooked diet was recommended for the prevention of disease.

Dr. E. H. T. Nash (Medical Officer of Health, Heston and Isleworth), referring to the question of diet, asked if the skin conditions mentioned were not those which were seen constantly in school children suffering

from malnutrition. The skin, he submitted, was the index which betrayed the child to be suffering from malnutrition.

Dr. J. Howard-Jones (Medical Officer of Health, Newport, Mon.) suggested that in the re-organisation of hospitals, the diet of such institutions might also require thorough revision.

Dr. Agnes H. Nicoll (Maternity and Child Welfare Medical Officer, Willesden) asked if she were right in assuming that rickets could result from malnutrition in a previous generation.

Professor Burns returned thanks for the kind way in which his paper had been received. Replying first to the question raised by Dr. Nicoll, he said that the condition had been produced in rats, and it might happen with the human. Further experiments on those lines were going on. With regard to diet, cooking certainly helped in digestion, but he could offer no opinion as to whether uncooked food was beneficial to the skin; neither was he able to say if any physiologist had devised any method of testing the efficiency of the skin. The birth-rate, he held, was controlled either by chance union or purposive union, and, so far as was known, cosmic cycles were of less importance than economic conditions, and these in turn were overruled by psychological factors.

The President (Professor Harold Kerr, O.B.E.) expressed the indebtedness of the Society to Professor Burns for his paper, and hoped it would not be the last time he would address the members.

SIR GEORGE NEWMAN has been appointed Heath Clark Lecturer in the University of London for the year 1931, on the recommendation of the Board of Management of the London School of Hygiene and Tropical Medicine.

DR. J. HOWARD-JONES, Medical Officer of Health for Newport (Mon.), has been invited by the medical members of the Houses of Parliament to address them on the subject of Marine Hygiene at a meeting to be held in London on January 13th, 1931.

Ut Ita Dicam.

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

A Wonderful Year?

Has 1930 been a wonderful year? I should not be surprised. In any case I think it will be a year frequently quoted in the future, and I can quite well imagine our successors mentioning it in lectures and so on in much the same connections and historical tone of voice and phraseology as we of to-day refer to 1875. The main reason for this is, of course, the coming into operation of the Local Government Act, 1929, and the important changes that followed that event. To say that we do not and cannot yet appreciate exactly the extent of the effect the measure is to produce is only to say what everybody else says. It is, nevertheless, however, very true. It is true also to claim that the great proportion of the several other rather important happenings of the year had a connection more or less close with the Local Government Act and its coming into operation. The Poor Law Order, 1930, of course, was connected with it, but so also were the Local Government (Qualifications of Medical Officers and Health Visitors) Regulations, 1930, and less directly, perhaps, the Vaccination Order, 1930. Conceivably also it might be claimed that the Housing and the Mental Treatment Acts of 1930 saw the light in that year because of the stimulus to activity that the approaching changes in local government gave to all sorts of bodies and individuals. That the idea of the coming of a wider and better system stimulated the preparation and production of schemes to provide for a general medical service, and perhaps even a national maternity service, is not impossible, though for the latter the work of the special committees appointed by the Minister of Health may be regarded as the more definitely deciding factor.

Undulant Fever.

To suggest that the Act had anything to do with disease events, psittacosis and undulant fever, for example, may be counted as going too far. To claim for them, however, a high place amongst the outstanding happenings is certainly justified. With regard to undulant fever it is unnecessary at the moment to say more than that the report of Sir Weldon Dalrymple-Champneys, issued as one of the Ministry of Health Reports on Public Health and Medical Subjects, is one of the most com-

plete and valuable contributions to the subject. That the condition is one deserving of attention and that the work done by Champneys is important is shown by the fact that when undulant fever came up for discussion at the last ordinary meeting the opening papers by him and Major Rabagliati were voted the most fascinating submitted for some time and led to a very keen discussion in which representatives of other branches of medicine than our own, veterinary particularly, took part.

The Psittacosis Report.

Psittacosis, the other disease event of 1930, was made all the more important because of the tragedies associated with it. Some of these, like the death of Dr. D. L. Thomas, for example, were domestic and, being so, helped to reveal the extraordinary lack of knowledge with regard to the condition. Important effects of this revelation were the taking of strong action with a view to putting a stop to the infection and to clear away as much as possible of the ignorance that existed as to the causation and methods of dealing with the disease. Though they were not alone, most active in both connections were the central authorities responsible for the care of the public health in this country. Among the publications issued by the Ministry of Health in particular there is none more valuable as a contribution to the literature and knowledge of the subject than that by Drs. Sturdee and Scott, medical officers of the department, recently issued.* Its preparation has involved an investigation of the details of all recorded outbreaks of the disease, and this it need hardly be said has been thoroughly and painstakingly done. It has resulted in the bringing together of all known facts in such a form that in the event of an outbreak on any future occasion the preventive service and the profession as a whole will not find themselves so entirely at a loss as was the case on the occasion which happily appears to have ended. With regard to this ending it is interesting to note that it came almost at once with the coming into operation of the order prohibiting the importation of parrots, the chief carriers of the infec-

*REPORTS ON PUBLIC HEALTH AND MEDICAL SUBJECTS, No. 61. pp. 132. H.M. Stationery Office, 1930. Price 2s. 6d. net.

tion. Along with the contributions of Drs. Sturdee and Scott there appear in the report of the Ministry communications by Drs. Bedson, Western and Levy Simpson relating to ætiological, pathological and bacteriological investigations carried out by them at the London Hospital, while Dr. Mervyn Gordon contributes a note on certain virus studies which he carried out in relation to the disease. Psittacosis, it will be remembered, was one of the subjects discussed at the Royal Sanitary Institute Congress at Margate in July last, and those who heard it will not have forgotten the intensely interesting paper read by Dr. Bedson on that occasion, in which he described some of the results of his investigations. According to the report the conclusions arrived at as a result of the work done at the London Hospital suggest that the causal organism is a filtrable virus, and that there is considered to be a possibility of producing an active immunity by means of a formalised vaccine. The presence of these notes on laboratory researches in the report adds very greatly to its value, and the appreciation expressed to their authors by Sir George Newman in his introductory address to the Minister is well deserved.

The Ologies and Preventive Medicine.

Often and often I have congratulated myself, in private, that the need for me to sit for a degree or diploma in public health is over and done with. Never, I think, did I feel so thankful as when I read the revised resolutions and rules for diplomas or degrees in sanitary science, public health or state medicine adopted by the General Medical Council on November 28th, 1930, and due to come into operation on October 1st, 1931. True, as a result of the revision certain benefits are secured by students and candidates; they can, for example, complete the curriculum in an academic year of whole-time study covering a period of not less than nine calendar months; also the period of attendance in the clinical practice of a recognised hospital for infectious diseases is reduced to three months with twenty-four daily attendances of not less than two hours each. What worries me about the curriculum is the awful number of ologies that the unfortunate individual is required to study and to profess when he faces his examiner. Frankly, I never knew there were so many things ending in ology as the General Medical Council have pushed into the list. Some of them, I confess, I do not recognise, and the

utility of many of them to the person whose duties are mainly administrative I find it difficult to see. I know, of course, in a general way what bacteriology is and is about, and sometimes I think I know what people mean when they talk about epidemiology and claim that there are only one or two persons sufficiently safe from the charge of illiteracy to be classed as epidemiologists. When it comes to some of the others, electrology for example, I am even less sure of my ground. As a fact, my position is very much that of the junior teacher in a northern medical school who, when asked if he had noted that a former member of the staff had been appointed professor of helminthology, replied: "Yes, indeed, and a very good appointment too. In fact, if I had known what helminthology was I believe I would have applied for it myself!" Probably the list of subjects for the diploma with all its ologies and isms looks a great deal worse than it really is, and at the time of the examination the examiners will be so busy trying to find out if the candidate knows enough about public health and preventive medicine and the broad principles upon which they are founded that they will not have time to think of the higher ologies, and the candidate will be out of the room and through the examination without having heard any mention of them. At least I hope so.

P.

"BRITISH RAINFALL, 1929," the sixty-ninth annual volume of the British Rainfall Organisation, contains a detailed account of the distribution of rain in space and time over the British Isles during the year 1929, as recorded by over five thousand observers in Great Britain and Ireland. It is shown that in each of the last seven years the rainfall has been in excess of the average, although in 1929 the excess (one per cent.) was smaller than in any of the preceding six years. A remarkable feature of the incidence of the 1929 rainfall was the widespread distribution of droughts and dry spells (*i.e.*, fifteen days or more without a wet day), while rain spells were also experienced during the year practically throughout the British Isles. Containing nearly three hundred pages, and illustrated by numerous maps and tables, this extremely interesting publication is issued by the Meteorological Office (Air Ministry), and may be purchased from H.M. Stationery Office, price 15s. net.

The Methods and Results of Premunisation.

By C. O. STALLYBRASS, M.D., D.P.H., Assistant Medical Officer of Health, Liverpool.

In this, his Presidential Address at the opening meeting of the North-Western Branch on October 10th, 1930, Dr. Stallybrass submits evidence of the value of modern methods and results of premunisation, based on his own personal experience, so convincing as to justify their wider adoption or extension, not only in the area of his Branch, but generally throughout the country.

OF the evils that afflict mankind three competitors stand out pre-eminent, namely, war, famine and pestilence—and the greatest of these is pestilence. Cholera was the pestilence that called to office the first medical officer of health, Dr. Duncan, who was appointed in Liverpool in 1847; the suppression of pestilences is still the first duty of the medical officer of health.

Dr. Duncan and the other pioneers who succeeded him found a world ravaged by infections, and, with one solitary exception, no weapons wherewith to fight the numerous foes; the knowledge needed was not to hand. The exception was Jenner's gift of vaccination which had already achieved notable success in the control of small-pox, then—and still—one of the most dreaded scourges.

But for many years this outstanding example of premunisation stood quite alone. Attention was directed to the environmental influences upon health, and throughout the nineteenth century the long and expensive process of sanitation—the removal of excreta, the provision of pure water supplies, the destruction and replacement of insanitary houses, the supervision of food supplies—occupied the attention of the medical officer of health. In this manner cholera, enteric, dysentery and epidemic diarrhoea were slowly conquered in many places.

And then in 1877, in Bolton, Lancashire, began the era of notification of infectious diseases, followed by the removal of cases to hospital or isolation in the home and the terminal disinfection of supposedly contaminated articles. This process resulted in the elimination of typhus in many quarters; the reduction of enteric was hastened; a further reduction of small-pox ensued, though small-pox hospitals would have been useless for preventing the spread of small-pox without the aid of vaccination. It was hoped that scarlet fever

and diphtheria would likewise—perhaps slowly—disappear; be, as the phrase was, “stamped out.” Unfortunately, this did not occur, although the fatality of these twins was greatly reduced, albeit for very different reasons.

There were other, and even more chastening experiences. From time to time wars and famines swept across the picture and renewed their evil association with pestilence. The American Civil War of 1861-2, the Franco-Prussian War of 1871, the Spanish-American War of 1898-9, the South African War of 1899-1902, each told their tale of the comparative failure of sanitation and isolation. And what of the more backward countries? Could we sanitise the teeming lands of the East and the Tropical jungles? The reappearance, in 1899, of the plague, followed by a rapid spread throughout the world, shook our confidence; in India deaths began to be recorded in thousands, in hundreds of thousands, then in millions. What could be done?

Now all this time we had been neglecting the oldest of our weapons, forgetting the first and greatest success of preventive medicine which Jenner had provided; forgetting the teaching of Pasteur himself. For had not Pasteur shown how to prevent anthrax and hydrophobia by methods of inoculation differing in detail only from, but identical in principle with, the Jennerian vaccination? And actually in Valencia, in 1885, a Spanish doctor, Ferran by name, had inoculated against cholera 50,000 people, using somewhat crude methods and living vibrios.

In 1892, Professor Haffkine produced a more exact method, and between 1893 and 1896 over 70,000 inoculations against cholera were performed in Bengal and Assam. The method was successful, though it was found that the duration of the immunity effected was

short—perhaps less than a year. But Haffkine's work was interrupted by the appearance of plague in Bombay; other countries, notably Japan and the Dutch East Indies, carried on Haffkine's work; according to Bentley, in the succeeding thirty years in Bengal alone two-and-a-half million people, mostly in the prime of life, have perished miserably.

Haffkine turned his attention to plague, and a very valuable weapon was forged against this disease in centres where it had already established itself, although we now know that by the control of rats on ships and elsewhere we can prevent the spread of bubonic plague. Haffkine's anti-plague vaccine consists of sterile broth cultures of *Pasteurella pestis* killed by heat. Its use has probably saved millions of lives, but it is purely a measure of personal protection of the individuals inoculated. It does not drain a drop from the main reservoir of infection among the rodents.

In 1896, Professor, now Sir Almroth, Wright, of the Royal Army Medical College, began the practice of anti-typhoid inoculation, using a sterile broth culture. Nothing but the timidity of the Army Council and its advisers prevented the use of this method during the South African War; as it was, 57,686 cases of typhoid and 8,225 deaths occurred, despite considerable advances in sanitary methods; this was a mortality of 2,100 per 100,000 soldiers. In the thoroughly inoculated American armies during the World War the mortality from enteric was 5 per 100,000. Compare this with a mortality in the same army during the Spanish-American War of 967 per 100,000.

During the World War the use of a tetra-vaccine containing the three principal members of the typhoid-paratyphoid group and also cholera vibrios showed that it was possible to immunise simultaneously against several infections with success. Had it not been for the high toxicity of the dysentery organisms, so that painful and even dangerous results follow subcutaneous inoculation with dysentery vaccine, a penta-vaccine could have been used. This difficulty appears to have been overcome by the oral administration of dysentery vaccines. In this method the vaccines are given fasting, *i.e.*, in the early morning, and are accompanied by ox-bile, which increases their effect. Bili-vaccine appears to be only slightly less effective than vaccine subcutaneously administered.

A fresh advance was made in 1913 when

Schick discovered the test of susceptibility to diphtheria which bears his name. This test led to the elaboration by Park and his associates of the method of prophylaxis now generally accepted. Here the method adopted is one used in the immunisation of horses during the preparation of anti-toxic serum, namely, the production of an active immunity by the injection of a partially purified toxin. Owing, however, to the much greater susceptibility of men to the diphtheria toxin the method was modified by the simultaneous injection of anti-toxin in such an amount as approximately to neutralise the toxin injected—that is to say, active and passive immunisation were simultaneously effected. Passive immunisation by injection of anti-toxin had, of course, often been practised, but the effect of passive immunisation being limited to a period of three or four weeks, severely restricts its utility.

The method of inoculation with toxin-anti-toxin (T.A.T.), whereby the antigenic property of the toxin is put to use but its toxic property is neutralised by antitoxin, has now been largely replaced by the use of a modified toxin termed by Ramon anatoxin but more generally known in this country as toxoid. This modification is effected by the action of formalin which converts the toxic toxin into a harmless, but still antigenic, substance, by which immunisation may be effected probably more rapidly and certainly without that risk of dissociation of the toxin-antitoxin combination which constituted a possible danger in the use of T.A.T. A further modification is foreshadowed by Glenny who finds that by using a relatively insoluble precipitate of toxin, thrown down by the addition of alum to a solution of the toxin, a much more actively antigenic substance is obtained. It may be possible, at some future date, to immunise a person with alum-toxin much more rapidly than can be done at present, possibly one injection instead of three sufficing.

The discovery of the toxin-producing streptococcus, now generally regarded as the causative organism of scarlet fever, and the elaboration by the Dicks of a method of immunisation by increasing doses of streptococcal toxin has led to a method of control identical in principle with that in use against diphtheria. Finally, the simultaneous use of diphtheria toxoid and scarlatinal toxin as elaborated by Kinloch and Smith, and early adopted by myself, has enabled us at one

blow to prevent these two diseases in a manner comparable to the prevention of the enteric fevers and cholera by the use of a tetra-vaccine.

Still another application of immunisation consists in passive immunity conferred by the use of convalescent or adult serum in several diseases of which the causal virus is either unknown or is presumed to be an ultramicroscopic virus. Here a vaccine in the ordinary sense cannot be prepared. The use of convalescent serum was applied to the prevention of scarlet fever but is now superseded in that disease. Convalescent serum has been used for the prevention of measles, especially measles in very young and susceptible children, who can be defended for a brief period even if they have actually been exposed to infection. Various amounts of serum such as 3 to 10 c.c. have been recommended. Just as in the case of concurrent vaccinia and variola so here the administration of convalescent serum, too late in the incubation period entirely to prevent an attack (i.e., about the fifth to eighth day of the incubation period), may so modify the attack that a lasting immunity is conferred at small expense to the individual. The whole blood of a parent may be used to confer immunity on a child. In chicken-pox and mumps, convalescent serum may be used to cut short those annoying cross-infection outbreaks that so often throw a hospital ward out of commission. And, incidentally, one may mention that the only effectual treatment of post-vaccinal encephalitis is the intrathecal injection of the serum of a recently vaccinated person, preferably of the parent if it is a child that is affected. This immunising property of the serum in virus diseases such as vaccinia and varicella disposes of Levaditi's opinion that a humoral immunity is not affected in the ectodermoses.

Killed viruses have actually been used by Laidlaw, Hindle and others to produce an active immunity against distemper, yellow fever and foot-and-mouth disease; the main reason why this method cannot be more generally adopted is the difficulty—perhaps impossibility—of cultivating the virus on artificial media, the spleen or other organ of a ferret or some other animal affected with the disease being used as the source of the virus. Even this difficulty has perhaps been overcome by Professor Maitland in the case of vaccinia and by Chevassut in the case of the virus of disseminated sclerosis.

Classification of Methods of Premunisation.
—After this historical survey we are in a position to classify the methods of artificial immunisation that have been adopted:—

A. *Active Premunisation.*

- (i) By living attenuated virus: vaccinia, rabies, anthrax, Haffkine's cholera vaccine, B.C.G. (*Bacille Calmette Guérin*.)
- (ii) By whole killed virus administered:—
 - (a) Subcutaneously: plague, cholera, (dysentery), pneumonia, whooping cough.
 - (b) Orally: dysentery (*Billi-vaccine*).
- (iii) By unmodified toxin or other partially purified antigen: scarlet fever (*Dick toxin*.)
- (iv) By modified toxin (toxoid or anatoxin): diphtheria, scarlet fever, tetanus.

B. *Passive Premunisation.*

- (i) Animal serum: diphtheria, tetanus, gas gangrene.
- (ii) Human convalescent serum: measles, chicken pox, etc.

C. *Combined Active and Passive Premunisation.*

- (i) Sensitised vaccines, e.g., cholera.
- (ii) Toxin-antitoxin, e.g., diphtheria (T.A.T.)
- (iii) Serum administered during incubation period so as to produce a modified attack, e.g., measles convalescent serum given on the fifth to eighth day of incubation period.

Duration of Immunity Effected.—It is well known that the duration and the solidity of the immunity acquired as the result of the natural process of infection—naturally acquired immunity—varies between one disease and another; compare the solid and lifelong immunity acquired from an attack of yellow fever with the partial and impermanent immunity acquired as the result of an attack of influenza; in the protozoal infections, such as malaria, this immunity is often so low as to amount to a mere tolerance. The normal solidity and duration of such immunity are measured by the frequency of occurrence of relapses and second or more numerous attacks of the disease in question. Why such differences should occur between one disease and another is not yet fully understood, and this subject offers a favourable field for research. It was hardly to be anticipated that artificial immunisation would be more effective than the natural process. We are accordingly not surprised to find equal differences in the results of artificial immunisation: thus the effects of anti-typhoid inoculation last much longer than those of anti-cholera vaccines,

which have to be repeated at 6-12 monthly intervals if the necessity arises.

Not only are there differences between disease and disease, but there are also differences between one person and another in the solidity and durability of the immunity conferred by a given dose or sequence of doses of any antigen. In the case of scarlet fever, and more especially diphtheria, the immunity acquired can be measured directly by a subsequent application of the Dick and Schick tests, or, in the case of diphtheria, by the more accurate method of titration of the antitoxin in the blood of the inoculated person. We find in these diseases that 5 or 10 per cent. of those inoculated commonly fail to be immunised by a course of toxin that has successfully, and possibly permanently, immunised their fellows.

During the War a large proportion of the combatants were inoculated with triple vaccine or T.A.B. at yearly intervals or thereabouts. Subsequent events have shown that many of us had acquired a durable immunity and were being inoculated for the benefit of an unknown percentage of persons whose acquired immunity had lapsed or disintegrated and had become inadequate. This has been shown statistically by post-war experience. Thus in France, where typhoid is prevalent, and the adult male population of military age was repeatedly inoculated during the War, the incidence upon such males in immediately post-war years was greatly reduced, whereas the incidence upon females continued as before. In Germany also, from experience acquired in several water-borne outbreaks of enteric, such as those of Pforzheim in 1919 and Hanover in 1926, Professor Knorr was able to estimate the rate at which the male population was losing its artificially acquired war-time immunity; there was a definite, but by no means complete, drop in the immunity of the adult male population of Germany between 1919 and 1926; it seems not improbable that with some of us the immunity acquired in war-time will last through life, but that a large proportion of ex-soldiers have probably lapsed towards their pre-war state as regards susceptibility to infection with enteric. This, however, is probably not quite the whole of the story as, even after immunity to infection has ceased, there may remain a state of greater immunisability, or increased rapidity of response to the presence of the invader when invasion has occurred, which will reduce the fatality of the disease among

the once inoculated population; it is as if the war-time munition factories of the body could be rapidly re-organised into efficiency for the manufacture of defensive antibodies. This deduction has been made as the result of laboratory experiments.

Protection of the Individual and of the Herd.—When we submit our children to vaccination we do so with the object of protecting them individually from infection. When the populations of France, Germany, Austria, or Russia are vaccinated they afford successive barriers against the invasion, by small-pox, of these Isles, and we, in turn, protect the inhabitants of Ireland or Scotland; the greater rapidity of modern travel, however, tends to nullify this effect.

The premunisation of a single individual has no appreciable protective influence upon the herd, but if half the herd is immunised then some definite protective effect will be produced, not only on such as have been immunised, but also upon the individuals who have not been immunised; the chances of exposure to infection in the case of the latter have been reduced by one-half. Increase the proportion of immunised to 70, 80, 90 per cent. and the protective effect upon the herd increases as a geometrical progression. For the virus, it is like the Hampton Court maze; with every avenue of progress that is blocked the chances of progression become—to a blind agent—increasingly less, till finally such a state is reached that progression is impossible, the disease ceases to be propagated, declines, decreases, eventually dies out. Now the exact threshold value of density of susceptibles below which infection cannot spread varies from disease to disease, depending upon the "infectiousness" of that disease, and from herd to herd, depending on other factors: the threshold density of susceptibles that would not permit variola minor to spread would not serve as a barrier to the progress of variola major. This threshold density of susceptibles above which the disease can spread and below which it cannot spread will have different values in different diseases and populations.

This conception of the threshold or limiting density of susceptibles, below which a given disease cannot spread in a given community, is a recent development of epidemiology and one which is of fundamental importance in that science. At this limiting value the disease in question is in a state of unstable equilibrium. The slightest increase or decrease in the proportion of susceptibles may have the

most important results. Decrease but slightly the proportion of susceptibles and the disease dies out; increase, perhaps but slightly, the proportion of susceptibles and an epidemic may ensue. There is, I believe, among *cognoscenti* a consensus of opinion that it is the variation in the proportion of susceptibles around this threshold value which is the main cause of the periodic recurrence of many endemic diseases such as measles. Of course, if the infection is entirely stamped out in a given community the recurrence of the disease will be dependent upon the chance re-introduction of the infection.

Now in the actual communities for whose health we are responsible, we cannot raise, and keep, the density of susceptibles nicely and uniformly at the limiting or threshold value where the infection cannot spread. We are both less omnipotent and more purposive in our activities. Purposive in this sense that we direct our efforts at immunisation most urgently among those portions of the population which, for one reason or another, are most exposed to infection. To take a few instances: we endeavour to surround every case of small-pox by a ring of vaccinated persons; we inoculate the nurses coming in contact with small-pox, scarlet fever or diphtheria against those diseases, and in so doing not only protect them individually, but greatly reduce the chances of their spreading the diseases in question among their charges and the community at large. In institutions, such as orphanages or hospitals, where the density of young, and therefore susceptible, persons is high, and which are likely to act as endemic centres or foci of the disease, we immunise all, or a high proportion of, the inmates. And having once stamped out a disease—say cholera or small-pox—in a given community we may endeavour to prevent its re-introduction by the inoculation of those persons, such as sailors, or railway or airway personnel, pilgrims, emigrants or tramps, who are liable to re-introduce the infection; this is now recognised as one of the basic principles in the practice of quarantine. And so it comes about that in the community at large by purposive endeavour we may reduce the prevalence of a disease, or even exterminate it altogether, even though the density of susceptibles in the population is above that level at which epidemic prevalence is possible. And, in so doing, we often rely largely upon all those other preventive measures such as quarantine, isolation, control of contacts and carriers,

disinfection and so forth, that constitute the armamentarium of the health department. Nevertheless, so long as the threshold density of susceptibles, which permits of epidemic spread, continues to be exceeded, then we are, like a tight-rope walker, in a state of unstable equilibrium or imbalance, continually maintaining an insecure footing by conscious effort. This is essentially the basis of the so-called "Leicester method" of small-pox prevention.

Mass Inoculation.—There are several diseases for the prevention of which resort has been made to mass inoculation. One need only mention the use of antityphoid inoculation in war-time. But in the fight against small-pox and cholera, mass premunisation is being carried out on an almost world-wide scale. By re-vaccinating the whole community at seven-year intervals, small-pox has recently, for the first time in its history, been stamped out in Western Java; in Europe, Soviet Russia and Spain are the latest adherents to compulsory vaccination, and the chances of introduction of variola major into this country have been correspondingly reduced. Again the progress of cholera throughout large parts of Asia—Japan and Korea, the Philippine Isles, and the Dutch East Indies in particular—has been almost completely blocked by the use of millions of doses of vaccines. In Indo-China and India the use of vaccines has been, on the whole, less general, a smaller proportion of the invaded populations having been inoculated. The results in such countries have been correspondingly disappointing as regards barring the progress of the epidemic, although the protective effect upon the individuals inoculated and upon such limited communities as have submitted to mass inoculation, have greatly reduced the general morbidity and fatality but not to the point of extinction. It is to be hoped that the days when small-pox and cholera will be completely controlled, if not extinguished, are not far distant.

An instance, quoted from Bentley, may be given:—

"Last year, cholera broke out in epidemic form in a large village in the Rajshahi district, composed partly of Hindus and partly of Mussalmans. The Hindus readily accepted inoculation, and cholera stopped amongst them. The Mussalmans at first hung back, but when they saw that no more Hindus were attacked with cholera, they also came forward and asked for inoculation. They would not, however, permit their women-folk to be inocu-

lated on account of 'parda.' As soon as all the Mussalman males had been inoculated, cholera ceased among them, but the disease still continued its ravages among the Mussalman women. On seeing this result, the Mussalman males went to the doctor, who was on the point of leaving, and implored him to remain and save the lives of their women-folk by giving them the inoculation from which they had at first been debarred. This he did, with the result that cholera immediately stopped among them."

Where, as in Japan and the Philippine Islands, cholera is an imported disease, mass inoculation forms an effective second line of defence should the disease penetrate the barrier of quarantine at any point.

Immediate Applicability of Premunisation to Local Problems.—The infective diseases of this country which give rise to the highest mortality are measles, whooping cough, diphtheria, tuberculosis, rheumatic fever and pneumonia (whether primary or influenzal). In the first two cases—measles and whooping cough—we have had a slow but progressive reduction in mortality due, in my opinion, to an increased age at attack, so that fewer cases occur in those early years of life in which the fatality is so high. Among the general population inoculation is still quite out of the question as the immunity procurable in either disease is quite temporary. But there is a limited scope for the use of measles convalescent serum and of pertussis vaccine in the cutting short of outbreaks of these diseases among very young and susceptible children in institutions, hospitals, crèches and elsewhere. My own experience has been limited to the prophylactic use of whooping cough vaccine, but this experience has been definitely favourable.

But against diphtheria we have in toxoid a weapon which has now been tried and not found wanting. The reactions caused in the case of young children are so slight as to be of negligible importance. My own experience has led me to believe that simultaneous inoculation against scarlet fever and diphtheria, using one needle and two syringes, can be practised without fear in the case of children. In the case of adolescents and adults I hesitate to adopt this course as yet, as the reactions tend to be increased with increasing age.

The method by which the diphtheria prophylactic can be pushed are:—

(i) In the case of nurses in fever and children's hospitals; this is now becoming a routine practice.

(ii) In institutions such as orphanages and children's hospitals; experience has repeatedly shown, not only that outbreaks can be stamped out, but that by the inoculation of all newcomers the institution can be kept free from the disease. In an institution that has been severely infected it will be found that carriers may persist for some time, even for a year, and if fresh susceptibles are introduced into such a community the disease will break out afresh. But if the immunisation is kept up, the community eventually frees itself from diphtheria bacilli; this I can vouch for from my own experience. In a large institution where, following an outbreak of diphtheria in 1925, carriers were at first numerous and could easily be found when looked for, immunisation and Schick testing have been carried out systematically in the last five years. Investigation in 1930 failed to reveal the presence of a single carrier of virulent bacilli, although the disease was then very prevalent in the City.

(iii) Toxoid can be distributed *gratis* to local medical practitioners; this is done in Liverpool, but so far no great demand has occurred.

(iv) Inoculation of children under five years of age may be carried out—without preliminary testing—at infant welfare centres or at some central clinic, notices in such centres or in *Better Health* calling the attention of parents to this service. Such centres are in operation in a number of towns.

(v) Immunisation may be offered at the isolation hospital to the other children of a family in which a case has occurred; children with scarlet fever may be protected against diphtheria.

(vi) Children attending day nurseries or crèches.

(vii) School children; Benson in Edinburgh obtained consent in 41 per cent. in a school campaign.

By similar methods in the United States a considerable proportion of the population has been immunised in some towns; Lee has produced statistical evidence to show that in a few cities the subsequent reduction in incidence of diphtheria has been larger than could reasonably be attributed to chance; we may conclude that the threshold density of susceptibles has actually been reduced, in parts of the cities, to the point that the disease only spreads with great difficulty. But it is fairly clear that such a degree of success is but seldom attained and that random inoculation of, say, a quarter of a given population will be of little effect as a deterrent to the progress

of diphtheria, the benefits conferred being mainly confined to the individuals inoculated or their immediate entourage.

With regard to the use of B.C.G. (*Bacille Calmette-Guerin*) in the prevention of tuberculosis, I hesitate to speak. Evidence obtained on the Continent, especially Roumania, is strongly in its favour, the Bremen tragedy notwithstanding. In this country the results of the tuberculosis campaign, as evidenced by the enquiry made by Dr. Lissant Cox on behalf of the Joint Tuberculosis Council, are so satisfactory that one may safely wait until more evidence has been accumulated than has so far been presented.

My own experience in relation to premunisation against scarlet fever has been even more satisfactory than that with diphtheria immunisation. The method can be used even more freely in the presence of the disease as the production of immunity appears to follow inoculation more rapidly in scarlet fever than in diphtheria. An example of an undesigned experiment may be given. I was asked to inoculate the infants of a large orphanage in December, 1928, among whom the disease had broken out; following inoculation of this section of the children the disease rapidly disappeared among them. In February, 1929, I was again asked to inoculate the middle grade as the sickness had broken out among them; this was done and again the disease disappeared in the inoculated section. Finally, in May, 1929, I was again asked to complete the inoculation of the school as cases were occurring among the senior children. The disease once more abated and the institution remained free from scarlet fever until the autumn when, a fresh batch of children having been admitted, cases began to occur among them. Once more the new admissions having been inoculated, those in authority, being finally convinced of the efficacy of the method and the necessity for its use, have continued the inoculation of the new admissions, and the institution has since remained free despite the occurrence of a large epidemic of scarlet fever in the city last winter.

In the prevention of scarlet fever and diphtheria I am convinced that the best time to carry out inoculation is during pre-school life. Not only are these years the time when the fatality is highest and the susceptibility greatest, but also, fortunately, the time when the reactions following inoculation are least; are, in fact, negligible. It is clear that we have already forged a weapon of the utmost

utility, but it is also probable that it may be improved in the near future.

THE Joint Tuberculosis Council announce a Post-Graduate Course on Tuberculosis to be held in London from February 16th to 21st, 1931. The main part of the Course will take place at the City of London Hospital for Diseases of the Heart and Lungs, Victoria Park, E.2, and will consist of practical study and demonstrations of modern methods employed in the diagnosis and treatment of diseases of the lungs and pleura. Attention will be focussed mainly on tuberculosis, but other conditions will be dealt with in order to make the intensive study of the greatest possible value to the class. Practical demonstrations of modern methods employed in the diagnosis and treatment of (a) genito-urinary tuberculosis, and (b) tuberculosis of the skin and mucous membranes, will also be arranged, and at one session a lecture will be given by a dental surgeon on conditions of the teeth with reference to tuberculosis. The fee for the Course will be £3 3s. 0d. An application is being made to the Minister of Health to allow the Course to rank for grant as in the case of previous Courses. Details may be obtained from Dr. William Brand, Hon. Secretary for Post-Graduate Courses, 8, Highway Court, Beaconsfield, Bucks.

LONDON Municipal Pamphlet No. 10 contains a description of the new Public Assistance Organisation of the London County Council by Mr. Lewis Silkin. Mr. Silkin, himself a member of the London County Council, is well qualified to describe the arrangements made by the Council, and the brochure is no less well done than the excellent one from the same writer on the work of the Central Public Health Committee. In a foreword written by the Rt. Hon. George Lansbury, M.P. (First Commissioner of Works) hope is expressed that the publication may be found useful by all anxious to understand how the work of the twenty-five boards of guardians and the Metropolitan Asylums Board is to be done by the County Council. Mr. Silkin's description is clearly and simply given, and there is little doubt but that the hope expressed by Mr. Lansbury will be realised. The pamphlet is issued by London Labour Publications Limited, 258-262, Westminster Bridge Road, S.E.1, and the price is twopence.

The Society.

Reports, Proceedings and Announcements. COUNCIL MEETING.

A meeting of the Council was held at the house of the Society on Friday, December 19th, 1930. The President (Professor H. Kerr) was in the chair, and there were present: Sir Eustace Hill, Professors Bostock Hill and W. W. Jameson, and Drs. T. W. N. Barlow, R. H. H. Jolly, E. Ward, E. H. Snell, C. Porter, J. Mair, H. G. Ward, D. J. Thomas, Agnes H. Nicoll, G. C. M. M'Gonigle, J. A. Stirling, R. M. F. Picken, R. V. Clark, F. T. H. Wood, R. H. Wilshaw, G. F. Buchan, T. P. Puddicombe, A. A. Turner, W. Paterson, G. H. Pearce, H. J. Milligan, G. W. N. Joseph, E. G. Annis and J. J. Buchan.

The minutes of the last meeting having been approved and signed, apologies for absence were received from Drs. A. K. Chalmers, W. G. Willoughby, J. J. Jervis, J. Fenton, A. B. McMaster, and Lieut.-Colonel G. S. Parkinson.

Representation of the Society.—The following were elected to represent the Society:—

B.M.A. Committee on Mental Deficiency.—Dr. Henry Herd.

Organising Council, International Congress of Local Authorities, England, 1932.—The President.

Medical Inspections by the Board of Education.—The Council considered a representation by the Yorkshire Branch that visits to schools should not be made by medical inspectors of the Board of Education without notice to and in the absence of the school medical officers concerned. The President undertook to bring this to the attention of the Chief Medical Officer of the Board as opportunity offered.

Remuneration of the Editor of PUBLIC HEALTH.—The Council agreed to a recommendation by the General Purposes Committee that the payment for editorial services, at present about £125, be increased to £150 per annum, of which £50 shall be paid in respect of the services of an assistant and reporter.

The Society's Evidence for the Departmental Committee on Local Government Officers (referred by Council, October 17th, 1930).—The General Purposes Committee reported that their evidence would cover all officers connected with the administration of public health, and the preparation of a

draft memorandum had been allocated to various members. The following had undertaken the preparation of the various sections involved: Dr. G. F. Buchan (Sanitary Inspectors); Dr. James Fenton (Medical Officers of Health); Dr. R. M. F. Picken (Women Health Officers and Nurses); Dr. J. J. Buchan (Veterinary Officers), and Dr. A. E. Baker, co-opted (Dental Officers). Other Associations had been asked to forward their observations for the guidance of the Committee.

Tuberculous Families in Housing Schemes.—The General Purposes Committee reported that, following the reference by the Council, October 17th, 1930, the following resolution had been forwarded for the consideration of the Ministry of Health:—

That the Ministry of Health be asked to urge upon Local Authorities that they should give preference, in the allocation of houses on their estates, to families with members suffering from tuberculosis; and that, when such houses are provided under the Act of 1924 and are therefore not subject to differential rents, a special arrangement should be entered into by the authorities, in the exercise of their Poor Law functions or otherwise, to subsidise such families if their financial position renders them unable to pay the rents fixed by the Council.

Teaching of Birth Control Methods at M. and C.W. Clinics.—The Council considered a resolution forwarded by the M. and C.W. Group, urging that birth control methods be not taught at M. and C.W. clinics or on the same premises.

After long discussion it was found impossible to agree on a form of wording which was acceptable to all members of the Council, and it was therefore decided that no action be taken for the time being.

The Council then adjourned.

ORDINARY MEETING.

An Ordinary Meeting was held at the house of the Society on Friday, December 19th, 1930. The President (Professor H. Kerr) was in the chair, and there was a good attendance.

The minutes of the last meeting having been approved and signed, the following were elected to membership of the Society:—

As Fellows:—

Annan, William Gillies, M.B., Ch.B. (Edin.); Bainbridge, Marion Lilian, M.B., Ch.B. (Vict.), M.R.C.S., L.R.C.P.; Brown, Elsie E., M.B., Ch.B.; Burns, Henry, M.B., Ch.B. (Edin.); Contractor, Jehangir Hormusji, L.R.C.P. and S. (Edin.),

L.R.F.P.S., D.P.H.; Critchley, Alan Michael, M.D. (Brist.), D.P.H.; Davies, Gwilym Ivor, M.B., B.S. (Lond.), M.R.C.S., L.R.C.P., D.P.H.; Dunlop, Martha Lyons, M.B., B.Ch., D.P.H. (Belf.); Fellowes, Vera, M.B., Ch.B. (Birm.); Grainger, Phyllis Mary, M.B., Ch.B. (Birm.), D.P.H.; Jamieson, Janet M., M.B., Ch.B., D.P.H.; Napier, George, B.Sc., M.B., Ch.B. (St. And.), D.P.H.; Parsons, Leonard Gregory, M.D. (Lond.), F.R.C.P.; Raw, May, B.Sc., M.B., B.S. (Durh.); Thompson, Vera, M.B., Ch.B., D.P.H. (Edin.); Williams, Doris, M.B., B.S. (Lond.), D.P.H.; Wood, Kenneth Knight, M.B., Ch.B. (Vict.), M.R.C.S., L.R.C.P.

As Associates:—

Elliot, David William, L.D.S., R.C.S. (Edin.); Oliver, Douglas Harold, L.D.S., R.C.S. (Eng.); Young, John, L.D.S., R.C.S. (Edin.).

Several nominations were received for the January election.

There followed a discussion on "Undulant Fever," opened by Major D. S. Rabagliati, O.B.E., Chief Veterinary Officer, West Riding C.C., and Sir Weldon Dalrymple-Champneys, Bart., of the Ministry of Health. Others who spoke were Drs. R. P. Garrow, E. H. T. Nash and M. A. C. Buckell, and Sir James Dundas-Grant and Sir John Moore (visitors). A hearty vote of thanks to the speakers, proposed by Dr. Charles Sanders and seconded by Dr. G. H. Pearce, was carried by acclamation. (A report of the discussion will appear in a subsequent issue.)

The meeting then adjourned.

THE METROPOLITAN BRANCH.

President: Dr. John Macmillan, D.S.O., M.C., M.O.H., Woolwich.

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 November 21st, 1930, the President occupying the Chair. Fifteen other members of the Council were present, and Dr. J. T. Crowe attended by invitation.

Owing to the resignation of Dr. A. Middleton Hewat from the Council, it was decided to ask Dr. H. A. Bulman, Assistant Medical Officer of Health, St. Marylebone, to serve.

The following nominations to the Council were accepted:—Mr. A. E. Baker (by the Dental Officers' Group), and Dr. G. S. Calver (by the Maternity and Child Welfare Group).

The Council gave consideration to a letter from Dr. J. McDonnell, Tuberculosis Officer, Wandsworth, in regard to the fees paid by the Ministry of Pensions to the London County Council in respect of the examination of tuber-

culous ex-service pensioners by borough tuberculosis officers. It was pointed out by Dr. Crowe (Tuberculosis Officer, Southwark) that the fees for such examinations were paid by the Ministry of Pensions to borough tuberculosis officers until about a year ago. Dr. Crowe also drew attention to the fact that, as the majority of tuberculous ex-service pensioners are bed-ridden and unable to attend dispensaries, when such patients are selected for residential treatment, borough tuberculosis officers generally have to visit them in their homes in order to carry out examinations; fill up Form MPMSD 81 and send it to the County Medical Officer, who signs the form and forwards it to the Ministry of Pensions. The Council decided that the Hon. Secretary should draw the attention of the Ministry of Pensions to the present anomalous position in respect of this matter, with a view to its rectification.

The Council had before them correspondence from the Metropolitan Boroughs' Standing Joint Committee in regard to the joint circular from the Ministry of Health (1054) and the Board of Education (1405) dealing with children under school age. This matter has been considered on three previous occasions and was adjourned at the last Council meeting pending the results of a conference between the Metropolitan Medical Officers of Health Group and the County Medical Officer. Dr. Keith reported that the Group at the Conference, had decided that the matter should be left to each borough to consider on its merits. After discussion, the Council decided to form a Sub-Committee, consisting of Drs. Radford, Shinnie and Thompson, to draft a suitable reply to the Metropolitan Boroughs' Standing Joint Committee.

Dr. Keith read a letter in regard to the unsatisfactory state of the law respecting the sale of unsound food, drawing particular attention to a case occurring recently in Deptford where a wholesaler selling loganberries had exhibited a notice to the effect that all fruit was sold with its defects. The Council agreed that this matter should be referred to a Sub-Committee consisting of Drs. Connan, Keith, Trotter and Willoughby.

The Council discussed the question, raised by the Metropolitan Medical Officers of Health Group, of the publication of a uniform tuberculosis booklet for use throughout London, and it was decided that the Tuberculosis Group should be invited to form a Sub-Committee,

which should include Dr. Macmillan and Dr. Fenton, to deal with this matter.

THE YORKSHIRE BRANCH.

President: Dr. L. Pickering-Pick, M.O.H., Spenborough.
Hon. Secretary: Dr. G. H. Pearce, M.O.H., Batley.

A meeting of this Branch was held in the Council Chamber, Town Hall, Halifax, on November 28th, 1930, at 3 p.m., the President occupying the Chair. Sixteen members of the medical and veterinary professions, and one visitor, were present. Apologies for absence were received from ten members.

Drs. W. Bertram Hill and L. Pickering-Pick were appointed auditors for the year 1930-31.

A letter from Dr. Rennie, the new Medical Officer of Health of Sheffield (who said he hoped to see more of his colleagues in the near future) having been read, and in view of the fact that the Sheffield and Rotherham districts of the Yorkshire Branch had for many years shown no interest in the proceedings of the Branch, it was decided that a meeting in that area be held in the early spring, and the Hon. Secretary was instructed to endeavour to make suitable arrangements.

It was unanimously resolved that the Council of the Society be requested to communicate with the Board of Education expressing disagreement with the practice of medical inspectors of the Board visiting schools for medical purposes and reporting thereon to the Board without the previous knowledge of, and in the absence of, the school medical officer of the area at such inspection.

In the absence of His Worship the Mayor, the Deputy Mayor extended a welcome to those present, his remarks being supplemented by Alderman Dr. Branson, Chairman of the Health Committee.

The President, having suitably acknowledged the welcome, Dr. G. C. F. Roe, Medical Officer of Health, Halifax, read a very interesting paper dealing with recent legislation as affecting mental defectives in poor law institutions, with some observations on the sterilisation controversy and the cyto-architecture of the cortex of aments.

Congratulatory remarks were offered and questions asked by the President, Drs. Fleming and Jervis. A vote of thanks, moved by Dr. J. J. Buchan in a speech which displayed considerable knowledge of the subject, and

seconded by Dr. G. H. Pearce, was unanimously accorded to Dr. Roe, who replied to the several questions in detail.

An adjournment was made for tea, kindly provided by the Corporation, when the President expressed the thanks of all present for the cordial reception and hospitality received.

The Council of the Branch should have met at 2 p.m. for the discussion of several matters of importance, but owing to there being no quorum until 2.25 it was impossible to transact the whole of the business, which had to be adjourned.

The County District Group met at 2.45 p.m.

THE HOME COUNTIES BRANCH.

President: Dr. K. E. Tapper, O.B.E., M.O.H., Bromley, Kent.

Hon. Secretary: Dr. A. A. Turner, M.C., M.O.H., Finchley.

On December 5th, 1930, thirty members of this Branch paid a visit to the Joyce Green Smallpox Hospital of the London County Council.

Dr. J. P. Marsden, the Senior Assistant Medical Officer, conducted the visitors round the wards and demonstrated a large number of cases of smallpox in all stages of the disease.

During tea, Dr. Nash thanked Dr. Marsden for his able demonstration and assured him that everyone present had thoroughly enjoyed and appreciated it.

THE NORTHERN BRANCH.

President: Dr. Charles Franks, J.P., M.O.H., Durham C.C.

Hon. Secretary: Dr. J. A. Charles, Deputy M.O.H., Newcastle-upon-Tyne.

A meeting of this Branch was held at the Medical Institute, Windsor Terrace, Newcastle-upon-Tyne, on November 21st, 1930. The Vice-President (Dr. A. F. G. Spinks), and twenty-three other members were present. Apologies for absence were received from the President and two members.

The Chairman referred to the loss the Branch had sustained through the death of one of its oldest members, viz., Dr. Hugh Dickie, Medical Officer of Health, Morpeth, which occurred on October 22nd, 1930. Dr. Harold Kerr, on behalf of the Branch, had sent a letter of sympathy to Mrs. Dickie, and this was confirmed by the members standing.

The Hon. Secretary reported that he had received a letter of thanks from Mrs. Gray, following the sending by the Branch of an expression of sympathy on the death of Dr. John Gray, Medical Officer of Health, Stanhope U.D.C.

It was reported that the North of England Branch of the British Medical Association had re-elected Dr. James Hudson as their general practitioner direct representative on the Council of the Northern Branch of the Society of Medical Officers of Health.

A letter was read from Dr. W. H. Dickinson in which he asked the Branch to support the candidature of Dr. Ernest Ward, Tuberculosis Officer, South Devon, for the Presidency of the Society for the session 1931-1932. It was agreed that the matter stand over until Dr. Ward's nomination was put forward by the West of England Branch.

The Hon. Secretary reported the receipt of a letter from Mrs. Kerr, expressing sincere thanks to the members of the Northern Branch for the bouquet presented to her on the occasion of the annual dinner of the Society.

The following were elected as members of the Branch:—Dawson-Walker, Edwin F., Assistant R.M.O., City Hospital for Infectious Diseases, Newcastle-upon-Tyne; Hindhaugh, James C. V., M.O.H., Sedgfield R.D.; McFarlane, Andrew, Deputy M.O.H., Darlington. Mr. A. Godfrey Moxon, L.D.S., School Dental Officer, Durham C.C., was elected as an Associate of the Branch.

A discussion on the Housing Act, 1930, was opened by Mr. Phillip Harrold, Deputy Town Clerk, Newcastle-upon-Tyne, and Councillor Walter Thompson, Chairman of the Insanitary Property Committee, Newcastle-upon-Tyne.

Drs. Kerr, Murray, McLeod, M'Gonigle, and W. Hudson, took part in the discussion, and on the motion of the Chairman a hearty vote of thanks was accorded to Mr. Harrold and Mr. Thompson for their instructive contributions.

The Annual Dinner of the Northern Branch was held at the Central Station Hotel, Newcastle-upon-Tyne, on Friday, December 12th, at 7.30 p.m.

Dr. Charles Franks, J.P. (President), presided, and the guests of honour were Professor Harold Kerr, O.B.E., M.D., President of the Society; Sir Eustace Hill, O.B.E.; Mr. G. S.

Elliston, M.C., M.A., Editor of *The Medical Officer*, and Mr. G. L. C. Elliston, M.A., Executive Secretary of the Society. The Lord Mayor of Newcastle-upon-Tyne (Alderman David Adams, J.P.) and the Lady Mayoress also honoured the Branch by their presence.

The total attendance was 92, including many lady guests.

After the loyal toast had been proposed by the President, Dr. J. O. Murray, Medical Officer of Health, County Borough of Tyne-mouth, proposed the toast "Our Guests." This was responded to individually by the guests of the Branch.

In place of the usual somewhat extensive toast list a highly diverting musical entertainment was provided by Drs. D. C. Livingstone, E. Porteus, J. K. Stanger and J. B. Tilley. This innovation was very favourably received and the thanks of the diners were heartily accorded to the artistes. Votes of thanks to the Honorary Secretary, Dr. J. A. Charles, and the President of the Branch, which were moved respectively by Dr. C. Franks and Sir Robert Bolam, O.B.E., concluded a very successful function.

THE MIDLAND BRANCH.

President: Dr. P. S. Blaker, M.O.H., Dudley.
Hon. Secretary: Dr. R. H. H. Jolly, M.O.H., Wolverhampton.

The third meeting of the session of this Branch was held at the Medical Institute, 154, Great Charles Street, Birmingham, on December 4th, 1930, the President occupying the chair. Thirty-nine members were present. Apologies for unavoidable absence were received from five members.

A communication was received from the Birmingham Branch of the British Medical Association inviting the Midland Branch of the Society to nominate two members for co-option on the Branch Council of the former. It was agreed to submit the names of Dr. H. P. Newsholme and Dr. H. Gibbons Ward.

An address was given by Dr. J. Stanley White on "Some Recent Aspects of Biological Therapy." By way of preface a film was shown dealing with the preparation and standardisation of diphtheria antitoxin, after which the lecturer dealt with such interesting subjects as the Schick and the Dick tests; active immunisation; vaccines; the preparation and use of tuberculins; the use of Sano-crysin in pulmonary tuberculosis, etc., his

remarks being illustrated by a series of very fine lantern slides. At the conclusion a second film was shown which provided a graphic record of the varied activities of a physiological research laboratory. An interesting discussion followed, and a hearty vote of thanks was accorded to Dr. White for his very instructive address.

THE COUNTY DISTRICT GROUP.

President: Dr. A. B. McMaster, M.O.H., Dover.
Hon. Secretary: Dr. C. E. E. Herington, M.O.H., Erith.

A meeting of this Group was held on November 7th, 1930, at the house of the Society, when there were present eighteen members. Apologies for absence were received from eleven members.

In the unavoidable absence of the President, Dr. W. F. Corfield took the chair.

Consideration was given to the draft memorandum issued by the Ministry of Health under Section 58 of the Local Government Act, 1929. A full discussion ensued, and the views of the members were embodied in a memorandum, prepared by Dr. G. F. Buchan, which was forwarded to the Council of the Society for consideration.

THE MATERNITY AND CHILD WELFARE GROUP.

BIRMINGHAM AND MIDLAND SUB-GROUP.

A meeting of the Maternity and Child Welfare Group was held at the Carnegie Institute, Birmingham, on November 15th, 1930, to discuss the advisability of forming a Birmingham and Midland Sub-Group.

There was a large attendance of medical officers, who were welcomed by Dr. H. P. Newsholme, Medical Officer of Health, Birmingham.

The Executive Secretary spoke on the aims of the Society and the advantages of membership.

Dr. Ethel Cassie, Assistant Medical Officer of Health, Birmingham (President of the Maternity and Child Welfare Group) explained the advantages to be derived from the formation of a Birmingham and Midland Sub-Group, and proposed that such a Sub-Group should be formed. The proposal was seconded by Sir John Robertson, C.M.G., O.B.E. (formerly Medical Officer of Health, Birmingham), and carried unanimously. The

following were thereupon elected:—

President of the Sub-Group: Sir John Robertson.

Joint Vice-Presidents: Dr. Ethel Cassie and Professor Beckwith Whitehouse.

Hon. Secretary: Dr. J. H. Morton (Birmingham).

Hon. Treasurer: Dr. G. Brodie (Birmingham).

Committee: Professor Leonard Parsons (Birmingham), Dr. C. W. Sharpley (M.O.H., Oldbury), Dr. J. Balsillie (Stoke-on-Trent), Dr. E. C. M. Jones (Gloucestershire), Dr. K. Scott (Warwickshire), Dr. E. E. Stephens (Derbyshire).

It was decided to hold meetings quarterly.

Dr. M. Hamblin Smith, Medical Psychologist, H.M. Prison, Birmingham, read an exceedingly interesting and instructive paper on "The Mind of the Young Child" (which will be published in PUBLIC HEALTH in a later issue). A discussion and tea followed.

As the Conference of the Maternity and Child Welfare Group is to be held in Birmingham in February, 1931, it is hoped that all medical officers interested will join the newly-formed Birmingham and Midland Sub-Group at an early date.

THE DENTAL OFFICERS' GROUP.

President: Sydney J. Smith, Esq., L.D.S., Edin., Chief School D.O., Middlesex C.C.
Hon. Secretary: W. Leigh Breese, Esq., L.D.S., 328, Brixton Road, S.W.9.

The annual general meeting of this Group was held at the house of the Society on October 23rd, 1930.

The following appointments were made for the session 1930-31:—

President.—Mr. Sydney Smith.

Vice-President.—Dr. Sim Wallace.

Representative on Council of Society and on Metropolitan Branch.—Mr. A. E. Baker.

Hon. Treasurer and Representative on Child Study Society.—Mr. George Thomson.

Hon. Secretary and Hon. Editor.—Mr. W. L. Breese.

Messrs. Smith and Magraw were due for retirement from the Council, and Mrs. Thorne and Mr. Chase were elected to fill the vacancies.

The Hon. Treasurer reported that the Group now had a deposit at the Bank of £185.

The Hon. Secretary stated that the membership of the Group totalled 128, an increase of

eight on last year. Papers had been read to the Group by Mr. Cale-Matthews on "Orthodontics"; Mr. Senior on "The Municipal Dental Service," and by Mr. A. F. MacCallan, F.R.C.S., on "Dental Sepsis and Ocular Disease"; these meetings had been comparatively well attended, though there was always room for more members and visitors.

Dr. Sim Wallace delivered his valedictory address. Mr. Thomson eloquently proposed a vote of thanks to the retiring President, and spoke of the high esteem in which he was held by the members and of his untiring services in the direction of the prevention of caries. Mr. F. Breese seconded and offered the warmest congratulations to Dr. Sim Wallace on the award of the Neech Prize to him by the Society, an honour which gave as much pleasure to the Dental Group as no doubt it did to the recipient.

Before vacating the chair Dr. Sim Wallace paid a warm tribute to Mr. G. S. Elliston on his retirement from the post of Executive Secretary of the Society. Dr. Sim Wallace said that Mr. Elliston had been most assiduous in his attention to the Dental Group, and that all the members owed him a deep debt of grati-

tude for the excellent way in which he had assisted in every possible direction in the activities of the Group.

The induction of the new President then took place, Mr. Sydney Smith receiving a very hearty welcome as he took the Chair. Mr. Smith gave a short address, for which a cordial vote of thanks was accorded on the proposition of Mr. Baker.

The Council of the Group wished to thank all those medical officers who had so kindly sent copies of dental literature and pamphlets in use in their areas, in response to the request made to them. It was particularly gratifying to note that the majority were using the leaflet on caries prevention drawn up by the Council of the Dental Officers' Group, and approved of by the Council of the Society, and that the advice given on all the leaflets received was based on the principles therein laid down.

The Hon. Secretary would be glad if any members who are prepared to give a few statistics on hypoplastic teeth would apply to him for the form on which to give the required particulars.

The Literature of Preventive Medicine.

GLEANINGS FROM GENERAL PRACTICE. By DAVID TINDAL, M.D., F.R.F.P.S. (Glasgow). London: Baillière, Tindall & Cox, 1929. pp. 209. Price 6s. net.

The author announces that he has set down a few counsels on professional conduct and on medical subjects, gleaned from long experience as a city practitioner, in the hope they may prove helpful to younger men and women. An interesting book, as must be any book on a life's work by an author inspired with Dr. Tindal's enthusiasm and unselfishness. As usual with the writings of those medical men whose work is not subject to the constant criticisms of their fellows it sometimes seems that the author interprets *post hoc* as *propter hoc*, and is too much influenced by the experience of a single case. The conviction that hæmorrhage in a case of miscarriage was stayed by the administration of gallic acid, dilute sulphuric acid, and ergot, when everything else failed, would need some confirmation, for in these cases when once the products of conception have

left the uterus hæmorrhage ceases and any remedy at that period may be praised.

The author points out that to succeed in practice in the best sense the practitioner must always be inspired by a personal interest and enthusiasm in his life's work. This alone will sustain him.

There are useful instructions and suggestions about cooking, diet, and the treatment of children and the aged. It is a good suggestion that old people should be given a day in bed now and again, but there does not appear to be the advice that they should be given plenty of water to drink, which to some practitioners seems important, and many of the instructions are based on individual opinions which would not be shared by all Dr. Tindal's colleagues. The statement that deformed nails and bunions are often gouty in origin needs some evidence to support it when it is recollected how little is known of the etiological basis of gout, how rare it is becoming, and yet how much is attributed to its influence by elderly practitioners.

A useful and helpful book for other experienced practitioners; much less so, perhaps, for the young people for whom it is intended.

A TREATISE ON HYGIENE AND PUBLIC HEALTH. With Special Reference to the Tropics. By BIRENDRA NATH GHOSH, F.R.F.P. & S. (Glasg.), Examiner in Hygiene, Calcutta University, etc. Revised and largely rewritten with the advice and assistance of A. D. STEWART, M.B., F.R.C.S.E., D.P.H., D.T.M. & H., Lieut.-Colonel, Indian Medical Service, Professor of Hygiene, Calcutta School of Tropical Medicine, etc. Calcutta: Scientific Publishing Co., 1930. pp. 728, illustrated. Price 10s. 6d. net.

In this, the seventh edition of this book, a considerable amount of revision has been done, and an attempt made to bring it completely up to date. In reviewing the contents on former occasions it has been pointed out that the volume is one extremely popular with medical students in India particularly. That a new edition should have been called for in just over three years suggests that the popularity is undiminished, and that any criticism would be superfluous so far as the generality of users is concerned.

THE HOUSING PROBLEM IN ITS RELATION TO THE TUBERCULOUS, AND TUBERCULOSIS CARE COMMITTEES. By W. BOLTON TOMSON, M.D., Medical Superintendent, "Sea-View" Sanatorium, St. Leonard's-on-Sea; Chairman, Tuberculosis Care Committee, Hastings. London: Baillière, Tindall & Cox, 1930. pp. 26. Price 1s. net.

This pamphlet, as stated in the preface, is written in an endeavour "to prove and emphasise the paramount importance of providing necessitous tuberculous persons with suitable homes."

The author discusses the effect of overcrowding and bad housing on the spread of tuberculosis, and attributes the high tuberculosis mortality on the Tyneside mainly to bad housing. He suggests certain steps towards remedying the difficulty:—

(1) A census of tuberculous persons requiring suitable houses.

(2) That appeals be made to local authorities to allot houses to these persons, and that the houses should be suitably built to contain them—on the Papworth model.

(3) The houses should be let at a rental the patient can afford, and in making this calculation the cost of his transport to and from work should be taken into account.

(4) A signed undertaking should be given by the patient, thus provided with a home, that he will take all necessary precautions, and follow the régime advised.

(5) The cost of letting thus, at an uneconomic rental, and other expenses, to be borne by the tuberculosis scheme.

The suggestions made are to some extent ideal, and may be a worthy aim, but it should perhaps be the duty of the public assistance committee rather than the tuberculosis scheme to subsidise the rents, and the value of a signed undertaking to follow a correct line of conduct is a little uncertain.

For those interested in housing the pamphlet contains some useful quotations and references.

THERAPEUTIC USES OF INFRA-RED RAYS. By W. ANNANDALE TROUP, M.C., M.B., CH.B. With foreword by Sir William Willcox, K.C.I.E., C.B., C.M.G., M.D., F.R.C.P. London: The Actinic Press, Limited, 1930. pp. 57, illustrated. Price 5s. 6d. net.

So much has been written about ultra-violet radiation in recent years that it is somewhat of a relief to have a little book devoted wholly to the uses of the rays beyond the other end of the spectrum of visible light. After perusal of Dr. Troup's account of his success with infra-red irradiation in acutely painful conditions, chronic rheumatism, rheumatoid arthritis, paresis, sprains, and long-standing injuries, the conclusion is inevitable that the newer methods of applying those rays render obsolete many of the well-worn ways of applying heat and counter-irritation so beloved by the practitioner. To know how to relieve pain easily and harmlessly by the use of the simple apparatus described, is a piece of knowledge which deserves to be broadcast, not only amongst medical practitioners, but amongst the more intelligent members of the public.

It is of interest to note that the author has found infra-red irradiation to be a marked stimulant of the musculature; so much so, for example, that massage in acute sprains is unnecessary. Murray Levick stated some years ago that muscle stimulation by sunlight or other source of light depended on the red rays contained therein. The present cognate

statement seems a further step towards the elucidation of the action of individual zones of radiation.

BRITISH RED CROSS SOCIETY COOKERY AND CATERING MANUAL. No. 5. Second Edition. London: Cassell & Co., Ltd., 1930. pp. 232. Price 2s. net.

This handbook, edited by Mr. Herman Senn, O.B.E., F.R.H.S., first appeared in 1915. It is a practical guide to household cookery, and contains special sections dealing with invalid cookery, camp cookery, hospital rationing, and the dietetic value of foods. The wide range of simple recipes and the clear and comprehensive directions for the choice and preparation of meals for small or large numbers, for the healthy and for the invalid, make it invaluable to "V.A.D.'s" who undertake commissariat and kitchen duties. To health visitors also, whose duties often necessitate the giving of advice on the choice of methods of preparing food, it should prove useful and is strongly recommended.

In the Annual Reports.

VACCINATION AND SMALLPOX.—It is not worth while entering into the argument "Does vaccination prevent small-pox?" The fact remains, small-pox does not attack the recently successfully vaccinated. None of the public health staff (medical officers, inspectors, nurses, clerks, removal and disinfecting officers, porters, maids, etc.), contracted small-pox, although repeatedly exposed to infection over a long period.—*Dr. Stephen Rowland, Northampton.*

ICE CREAM STANDARDS.—The increased consumption of ice cream in this country in recent years, and the easy manner by which this commodity can be contaminated, compels attention to the need for maintaining a high standard of purity of this article. Compulsory registration of these premises marks a very definite advance on existing legislation relating to the conduct of this industry, but public health authorities should not feel satisfied that the measures of control of this commodity have been met until certain specifications and standards have been fixed which will ensure the same safeguards to the public which are at least comparable with those regulating the sale of milk.—*Dr. Howell W. Barnes, Camberwell.*

THE PROPER USE OF WELFARE CENTRES.—Voluntary workers have concentrated their attention on bringing the infant welfare centres and ante-natal clinics up to a high state of efficiency; they have been very successful, but these institutions are not being used to the best advantage. Many of the mothers attending are women who, from regular attendances over long periods and a careful study of the rules of health, can well be left to take care of their

children and be relied upon to seek medical aid when signs of illness appear. We can afford to pay less attention to these and to concentrate our efforts in inducing those mothers who are not so enlightened on matters of health and mothercraft to attend the centres regularly with their infants.—*Dr. James Fenton, Kensington.*

THE MILK SITUATION: PASTEURISATION.—The position taken up in Holborn is that pasteurisation is a half-way measure at best useful for the conservation of milk, and radically useless for the eradication of tuberculosis among bovines and consequently human tuberculosis of bovine origin. It stops the way to radical reform bringing in its train the prevention of the large losses to the British meat industry from the enforced destruction of tuberculous meat. Conscientious tackling of the problem of tuberculosis in bovines would reinstate British agriculture in its original position.—*Dr. C. W. Hutt, Holborn.*

DR. G. H. ORMSBY has resigned his appointment as Medical Officer of Health for the Standish Urban District, owing to ill-health.

A SCIENTIFIC Advisory Committee on Medical Administration and Investigation has been appointed by the Secretary of State for Scotland. The reference to the Committee is "to assist the Department of Health for Scotland in applying the results of scientific research to the details of public health administration and in promoting such medical investigations as come within the sphere of the Department or of the local authorities in Scotland." Dr. J. Parlange Kinloch, Chief Medical Officer, Department of Health for Scotland, is Chairman of the Committee, and included among the members are Dr. A. S. M. Macgregor, Medical Officer of Health, Glasgow; Professor E. P. Cathcart, C.B.E., Professor of Physiology, Glasgow University; and Professor F. A. E. Crew, Professor of Animal Genetics, Edinburgh University, and Director of the Animal Breeding Research Department. The appointment of the Committee follows on the conference of research organisations which was held in Edinburgh in November, 1929, at which a more intensive use of Scottish research material and the correlation of work in the biological sciences, having a bearing on medical as well as on agricultural, fishery or other fields, were urged. The conference also expressed the hope that a Scientific Advisory Committee would secure for community health purposes the application of the most recent results of medical research.

PUBLIC HEALTH

THE JOURNAL OF THE SOCIETY OF MEDICAL OFFICERS OF HEALTH.

No. 5. Vol. XLIV. FEBRUARY, 1931.

PUBLIC HEALTH, the Official Organ of the Society of Medical Officers of Health, is prepared to receive a certain number of approved advertisements. Application should be made to the Executive Secretary of the Society, at 1, Upper Montague Street, Russell Square, London, W.C.1. Subscription price 31s. 6d. per annum, post free in advance. Single Copies, 2s. 6d. post free.

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Editorial.

The Health of the School Child.

UNFAILINGLY attractive, the report of Sir George Newman, as Chief Medical Officer of the Board of Education, for 1929* gives the impression of being more attractive than ever. The press it has received, and is still receiving, is an excellent one, the points seized upon by the writers being, most of them, such as it is satisfactory to all concerned with the health and school medical service to see brought prominently before the public. For the increased attractiveness of the report, as for the close and useful attention it has received, it is safe to claim the method of arrangement and setting out of the material as responsible. On this occasion these are new, and definitely it has paid to depart from

* H.M. Stationery Office. Price 2s. net.

the old method of presentation of the data of the work of the school medical service, and to confine the report itself to four brief chapters dealing with the principal facts and tendencies of the service, and to make an appendix of the statistical tables and of special notes on particular subjects. In this way the general reader is given what Sir George Newman is right in supposing he wants—a bird's eye view of the work and the trend of the service, while the specialist can turn to the appendix for the more technical details which it may be presumed he desires. With regard to the contents of the appendix, it may be claimed for them that they are intensely practical, and that the subjects discussed are those on which the specialist who is serious in his desire to see and help progress would wish to have further information. Appendix A, containing the

story of the school medical service, tells of real and steady progress, and is as well worth study by those who have recently joined the service as by those who have seen and helped in its growth. In it there is reference to the need for health education, a subject on which a great deal is said in the report proper, and in respect of which Sir George Newman has one of the few complaints he finds it necessary to make. Other special notes deal with nursery schools; infective diseases and mortality in school children; rheumatism in childhood, and external eye diseases, all of them matters upon which information and guidance and the experience of others are desired by medical officers. The chapter on the provision of school meals is good and practical and deserves study, as does the appendix in which a detailed list of the special inquiries and investigations is given. Sir George Newman's suggestion that every school medical officer should study it with great care and meticulous criticism is sound, and having regard to the contents of the list there is every reason why the advice should be italicized. The four chapters of what is named the report proper are titled in such a way as to bring before the general reader the matters that Sir George Newman, with his great and intimate knowledge of the people, thinks should claim his attention. In the first, "The School Medical Service in 1929," a quick, sweeping glance of the field generally is given: methods of investigation and general schemes are described, as well as certain special inquiries and special methods of treatment. To find the information he desires to put before his general reader, Sir George does not limit himself to reports submitted by members of the service to their authorities, but picks out contributions by these officers to the medical press or at meetings of societies. The subject of child guidance clinics, for example, is dealt with in such a way as to bring in references to discussions at the Royal Sanitary Institute Congress, taken part in by Dr. Letitia Fairfield and others, and to reports on the question by the Jewish Health Organisation of Great Britain. The second and third chapters in the report deal with the teaching of hygiene in schools and the school dental service. Each of these has provided a fruitful field for reference by writers in the specialist and general press. The disappointment of Sir George Newman at the response to the very strong desire, evinced by himself and the Board of

Education, to see local education authorities throughout the country undertake health teaching seriously is very obvious and real. It is well founded, too, and it may be hoped that this chapter will be one very widely read by the general public, and that it may induce in many a desire to see that the advantages such education offers are provided in their own area. The most important part of the chapter on the school dental service is concerned with a discussion of the findings of Mr. A. T. Pitts in the detailed inspection carried out by him of the arrangements for dental inspection and treatment in the areas of ten representative local education authorities. The fact that the dental scheme at present in existence covers less than half the ground is one that has caused a considerable amount of perturbation in many minds; secondary only to that aroused by the suggestion that to obtain a complete service might involve an immediate additional cost of £680,000, rising steadily to about £1,400,000. The discussion of the possibility of taking steps with a view to preventing dental disease, with the references to the work of Mrs. Mellanby, is such as will be certain to interest the general reader. Of the whole of the report proper this, indeed, may be said, as it may be said also that it is doubtful if the general reader anywhere at any time has had put before him so clearly and so attractively the results of investigations and inquiries by any section of the health service, or so readably discussed the problems that these inquiries and investigations have shown to call for solution. Sir George Newman has earned the gratitude of, and deserves to be congratulated by, every member of the school medical service on account of his "Health of the School Child" for 1929.

Tuberculosis in Man and the Lower Animals.

ANY treatise on tuberculosis, whether it be in man or in animals, must be of particular and absorbing interest to members of the public health service, for despite a great accumulation of facts about the disease and the considerable extent of the knowledge with regard to it, it must be admitted that there are many phenomena as yet unexplained, and still much to be learnt concerning the condition. For these reasons the essay of Dr. H. Harold Scott discussing the question of tuberculosis in man and the lower animals, recently pub-

lished by the Medical Research Council,* is of special interest.

Essentially the work is a carefully considered review of the *post-mortem* findings on some 300 cases of human tuberculosis which occurred in native Chinese, on 70 mammals, 41 birds and 9 reptiles, all of which died from the disease. In addition, Dr. Scott discusses mycosis in mammals and birds, and gives an account of the *post-mortem* examination on subjects suffering from the double infection of tuberculosis and mycosis. As Dr. Scott has worked as a pathologist in the Far East, and was for a time pathologist to the Zoological Society of London, he can speak with a first-hand knowledge of the pathology of the disease in native races and in animals in captivity.

The title of the thesis is to an extent misleading, since, as regards animals, Dr. Scott only describes the disease in any detail in certain wild animals in captivity, and of these the majority are primates and birds. The important subject of tuberculosis in cattle is dismissed in a brief summary occupying little more than one page, and it is not easy to agree with him when he says that tuberculosis in the bovidæ may only "in rare instances remain localised," nor is it easy to accept, as he suggests, that mammary tuberculosis among cows reacting to tuberculin reaches quite so high a figure as two to four per cent.

It has been known for some years that native races living under what may be termed natural conditions do not suffer from tuberculosis, but that when such people come to live under modern conditions and are exposed to infection, they are found to be highly susceptible and not only contract the disease in great numbers, but show no natural resistance, and the disease usually runs a rapid and fatal course. Dr. Scott's researches amongst wild animals in captivity show that very much the same thing applies, for while, so far as is known, they rarely if ever suffer from tuberculosis in their wild state, under artificial conditions they are easily infected and the disease then runs a rapidly fatal course; so rapid, indeed, that the lesions are often found to be extensive and generalised, and yet death supervenes before emaciation has had time to occur.

Dr. Scott has studied the disease from a comparative standpoint—a method now recognised as being of great importance—for in

many conditions a reference to veterinary pathology has facilitated the study of disease in mankind.

Dr. Scott's work is divided into seven parts, the first of which deals with tuberculosis in wild animals in captivity, and gives the detailed lesions in 51 primates and 19 other animals, chiefly ungulates. The second part was written by the author in conjunction with Professor J. Beattie, and is a reproduction of a paper published by them in the *Journal of Pathology and Bacteriology*. In this, a comparison of the distribution of the tuberculous lesions in man and other primates is made, and a careful anatomical description of the lymphatic system is included, showing the part the lymphatics play in the distribution of tubercle bacilli through the body. This section is most interesting, for the rôle of the lymphatic system is too often overlooked in the study of disease. Part III includes details of lesions found in the 300 human cases of which about three-quarters were children under ten years of age. The cases in children, as in the monkeys, were what are termed "natural tuberculosis." By this is implied a "disease caused by the tubercle bacillus in an animal or a race of man not immunised in any way racially by the toxin of the bacillus." The cases are most carefully analysed and classified according to the origin of infection. In discussing the greater vulnerability of the respiratory as compared with the alimentary tract for infection, an example is quoted of 687 persons of whom 280 were children who drank milk from cows with tuberculous udders for a long period. Of these, only two children became infected and they had taken this milk for a year and a year-and-a-half respectively. In view of the general present-day campaign against tuberculous milk, it is felt that this example requires fuller investigation before it can be accepted as likely to be the rule. Part IV of the Report deals with the *post-mortem* findings in 41 tuberculous birds from the Zoological Gardens; Part V gives a most interesting account of nine cases of tuberculosis in reptiles, and Parts VI and VII deal respectively with a double infection of mycosis and tuberculosis in 42 captive birds and 9 primates.

The whole thesis, which is produced with meticulous care in regard to detail, is a contribution of deep interest and importance to the literature on tuberculosis and one deserving of wide study by those engaged in the practice of preventive medicine particularly.

* Special Report Series, No. 149. H.M. Stationery Office, 1930. pp. 270. Price 4s. net.

Post-Vaccinal Encephalitis.

THE report recently issued by the Committee on Vaccination* still relates to a period when it was customary to make four lymph insertions, and is supplementary to the original report issued in 1928.

In essence it consists mainly of an account of ninety cases of post-vaccinal encephalitis, twenty-five of which proved fatal. The cases have been investigated with meticulous care, and though the notes on clinical findings and pathology may add nothing new to the information already available, as a record the report has extreme value.

A feature of great interest is an account of the treatment of cases of post-vaccinal encephalitis with the serum of convalescents after vaccination. The evidence at present available is not extensive, but the cases described give great hope for the use of anti-vaccinal serum, which may be administered intrathecally or intravenously. The usual dosage is 5 c.c. intrathecally or 10 c.c. intravenously. In Holland the intravenous method has been used with success, particularly in cases in which it has been given sufficiently early in the disease.

Dr. Ledingham of the Lister Institute has prepared, by the immunisation of a horse, a supply of anti-vaccinal serum which is available for trial, and it is to be hoped that it will prove successful.

The dilution of lymph is also discussed, and observations have been made in cases of vaccination with lymph in greater dilution than is ordinarily used.

This report is a valuable addition to the literature of vaccination, and gives promise that from the work of the Committee real benefit may come to the people.

"The Truth About Cancer."

THE recently issued publication under this title, of the British Empire Cancer Campaign† is an authoritative statement containing the gist of our knowledge of cancer. It is clearly written in fairly simple language, and should be understood by the educated public. It can be read with advantage by medical men—even those actually engaged in

* H.M. Stationery Office, 1930. Cmd. 3738. Price 2s. 6d. net

† THE TRUTH ABOUT CANCER. With a Preface by the Marquis of Reading. Published for the British Empire Cancer Campaign by John Murray, Albemarle Street, London, W.1. pp. 124. Price 2s. 6d. net.

cancer research. If the medical officer of health wishes to disseminate knowledge of cancer among the doctors of his district, he might well send a copy to each medical practitioner.

That, however, does not appear to be the object of the book, which is stated to be to "present the known facts about cancer to the general public" in such a fashion that it will "not be looked at with something approaching terror." This latter wish, it is to be feared, has not been fulfilled. For whilst the pages state that "cancer is usually painless in its early stages" and "the early stages of cancer are those at which treatment is most likely to be successful," yet the impression which remains is that of the terrible tale of the late stages, told in dramatic detail for each site of cancer. The book may be scientifically well-balanced, but to the sufferer from cancer its psychological effect will be one of despair and not of hope. For it is the dramatic tale that will be remembered, as any teacher of experience well knows.

This opinion will be confirmed by the study of the statistics of after-life time of cancer, treated and untreated. There is some hesitation therefore, in recommending this book to the general public; its perusal by those suffering from cancer would surely cause much distress.

On the other hand, the summary of the main facts concerning cancer, given on pages 119 and 120, is admirable and might suitably be reproduced and hung up in every clinic. The book is well printed, and the only misleading error noticed is on page 63, where the word "skins" should obviously be read "shins."

The British Social Hygiene Council.

THE report of the British Social Hygiene Council for 1929-30 is a reminder of what is being accomplished in the direction of dealing with venereal disease, and of the importance of further developments in the future. It is an unfortunate fact, but a fact all the same, that the work of the Council is so little understood. Everyone has a more or less vague idea that venereal disease is responsible for a very large amount of sickness throughout the world and that it is a cause of severe disability and grave financial loss. Yet, though this be so, most people are content to leave its consideration to those whose function it is to deal with it, and to go on their way hoping that it is being dealt with satisfactorily, and that the

public interest is receiving proper consideration. The report just issued* therefore comes as an awakening. It is a full and complete record of the work done, but it is more than this: it shows how the work of the Council, both at home and throughout the Empire, is suffering in a financial sense, and how, owing to the alteration in the payment of grant from the Ministry, it is threatened with even greater difficulties in the immediate future.

Under the new arrangements, the funds hitherto supplied by the Ministry for the educational and propaganda work of the Council have been thrown into the block grant "and the Council was dependent for the return of its quota on the goodwill and the sense of equity of the local authorities." Unhappily, the response has not been altogether satisfactory, and at the time of issue of the report no less than six English counties had not returned their quota, and five county boroughs had definitely refused to do so. This leaves the Council in a very unsatisfactory position, as a considerable portion of the income which it had received from the Ministry in the past does not, at least at present, seem likely to materialize.

As regards the incidence of venereal disease, tables are given which show that fewer new cases of syphilis were treated than in the previous year, though new cases of gonorrhœa increased considerably, while what is perhaps one of the most satisfactory features is that the number of attendances increased by nearly 200,000.

The report is prefaced by a presidential address by Sir Basil Blackett, which deals in a masterly manner with the results achieved and the difficulties to be surmounted, a perusal of which is commended to all who are interested in this vital branch of public health work.

The President.

THE absence of the President from the meeting of the Society on January 16th was generally noted and sincerely regretted, particularly when it was learned that it was the result of indisposition. The attack of lumbago from which Professor Kerr was found to be

* Fifteenth Annual Report of the British Social Hygiene Council (Incorporated), formerly the National Council for Combating Venereal Diseases (Incorporated). June 1st, 1929, to May 31st, 1930. The British Social Hygiene Council (Incorporated), Carteret House, Carteret Street, London, S.W.1.

suffering when he attended the Council meeting held in December, and of which he made light, appears to have been less trivial than he and his friends believed, and necessitated his remaining off duty for a few weeks. Towards the end of January he had sufficiently recovered to be able to proceed to the South of France for convalescence, and there he is followed by all the good wishes of every member of the Society that recovery will be complete and rapid, and that very soon he may be able to resume the activity, that he has always shown in Society matters, and his place, from which he has been so much missed, in the chair both at Council and ordinary meetings.

A Profession for the Blind.

A STORY of progress in the face of the present financial depression is told in the sixty-first annual report of the National Institute for the Blind (Headquarters—224-8, Great Portland Street, London, W.1), to which nearly all the local societies throughout England and Wales are affiliated. One striking example of the Institute's general efficiency is shown by the department responsible for the training of selected blind persons as masseurs. Started in 1915, the school has had considerable success, one reason for which is that the men and women chosen are of the right type, possessing not only the requisite delicacy of touch, but also intelligence and tact above the average. It is recognised by the Chartered Society of Massage and Medical Gymnastics (for whose examinations the students are prepared), and is approved by the Board of Education.

Obituary.

WITH great regret the death of Dr. Frederick Meadows Turner, for thirty-four years Medical Superintendent of the South-Eastern Fever Hospital, London, is recorded. Dr. Turner joined the staff of the Metropolitan Asylums Board, which then controlled the hospital, in 1892, and first served as Assistant Medical Officer at the North-Eastern Hospital. He was actively associated with the Fever Hospital Medical Service Group of the Society from its inception, and prior to that date was frequently seen at the meetings of the Metropolitan Branch. He was also a valued member of several medical societies, and the author of a number of articles on scarlet fever and other infectious diseases.

The Society is indebted to Dr. F. H. Thomson (Chief Medical Officer of the Infectious

Hospitals Service of the London County Council), an almost life-long associate of Dr. Turner, for the following personal tribute:—

"It came as a great shock to many to hear of the death of Dr. Turner, and to his colleagues in the Infectious Hospitals Service of the London County Council his loss leaves a blank none can fill.

He was the kindest and most considerate of men, full of thought for others and ever prepared to defend a friend. Indeed, I have never seen him irritated except in the defence of a friend. Even to his own detriment, it seemed natural to him to think of others before himself.

All those who knew Dr. Turner well, held him in admiration for his high qualities of mind and for his ambition to be kind and just to all with whom he came in contact. As a consequence of this, he was trusted and indeed loved by the staff of his hospital and will be sadly missed by them as by us.

He was full of graciousness, and it was always his peculiar care to choose his words lest he might give offence to or hurt the feelings of anyone. I well remember an instance of this when a new form of isolation was about to be proceeded with at his hospital, and which I discussed with him in the most amicable way. When it was completed and in use he told me he had hoped that this form of isolation would not be finished before he retired, because he had not thought it would be a success; but, now, he said, when he saw it in use, he wished to express his pleasure at the result. There are few who are as gracious as this, and it makes us feel all the more what a sterling man we have lost.

It is perhaps not generally known that he was a man to whom fear was unknown. Indeed, his end was an instance for he decided with the utmost composure to undergo the severe operation which resulted in his death.

Dr. Turner has made a number of valuable contributions to the literature of the infectious diseases, and his accurate statistical work will remain a monument to his memory.

The deepest sympathy will go out to Mrs. Turner in her great loss. May she be given health and strength to bear it."

The Society also mourns the untimely death of Miss Amy Hodgson, M.D., M.R.C.P., D.P.H. Appointed as Assistant Medical Officer of Health at Huddersfield in 1921, Dr. Hodgson was called upon to con-

duct a special intensive scheme of work for the reduction of infant mortality in Huddersfield. For a time she was on the staff of the Infants' Hospital, Vincent Square, London, and afterwards went into practice as a consultant paediatrician and in addition to making contributions to medical literature, carried out various investigations in connection with her specialty. Dr. Hodgson, who was forty-five years of age, was a Fellow of the Society of Medical Officers of Health, attached to the North-Western Branch.

THE Royal Sanitary Institute announce the holding of a sessional meeting at the Institute, 90, Buckingham Palace Road, London, S.W.1, on Tuesday, February 10th, 1931. Discussion will be opened on "Recent Methods of Sewage Treatment," by Lieut.-Colonel William Butler, M.B., C.M., D.P.H., Senior Medical Officer, London County Council. The chair will be taken at 6 p.m. by Professor A. Bostock Hill, M.Sc., M.D., D.P.H., F.I.C., Deputy Chairman of the Council of the Institute.

THE Seventeenth Annual Conference of the National Association for the Prevention of Tuberculosis, to be held at Margate on June 25th, 26th and 27th, 1931, will be devoted to an all-round discussion on "The Protection of the Child from Tuberculosis." The Conference is open to all persons interested in tuberculosis, on payment of a fee of one guinea, which includes a copy of the report of proceedings. Full particulars may be obtained from the Secretary of the Association at Tavistock House North, Tavistock Square, London, W.C.1.

THE Minister of Health has appointed an Advisory Committee to advise him on the practical application of modern advances in the knowledge of nutrition. The Committee comprises the following members:—Professor Major Greenwood, F.R.C.P., F.R.S. (Chairman); Professor E. P. Cathcart, C.B.E., M.D., F.R.S.; Sir F. Gowland Hopkins, F.R.C.P., F.R.S.; Miss Jessie Lindsay; Professor E. Mellanby, M.D., F.R.C.P., F.R.S. and Professor V. H. Mottram, M.A. The members will hold office until December 31st, 1933, and will be eligible for re-appointment. The Secretary to the Committee will be Mr. F. R. Hudson, of the Ministry of Health.

Undulant Fever.

By D. S. RABAGLIATI, O.B.E., B.Sc., F.R.C.V.S., D.V.S.M., Chief Veterinary Officer, West Riding (Yorkshire) County Council; and Sir WELDON DALRYMPLE-CHAMPNEYS, BART., M.A., M.D., M.R.C.P., D.P.H., a Medical Officer of the Ministry of Health.

These two papers were submitted at an ordinary meeting held in London on December 19th, 1930, by two of the foremost authorities on the subject of undulant fever in this country. They contain the most recent information with regard to the condition, and aroused a great deal of interest and led to a most useful discussion.

MAJOR RABAGLIATI.

THE old adage that "It is an ill wind that blows nobody any good" is well exemplified in the case of undulant fever, for, despite the serious possibilities that recent discoveries on its incidence and its etiology have brought to light, one most useful feature has evolved and that is that it gives the veterinarian an excellent opportunity of collaborating with his medical colleague in its further elucidation and, let us hope, its means of control. The term undulant fever is, I take it, used to describe the syndrome observed in man as the result of an infection with certain organisms of the brucella type. The genus brucella is a new one, the name being suggested by Meyer and Shaw in 1920, and includes, amongst others, the organisms which were originally known as the micrococcus melitensis, responsible for Malta fever, and the bacillus abortus or bacillus of Bang. The nomenclature is still somewhat confused, but it would appear that the varieties with which we are concerned are now commonly spoken of as brucella melitensis var. melitensis, *i.e.*, the type occurring in the goat, and brucella melitensis var. abortus, *i.e.*, the type associated with contagious abortion in cattle. To these may be added the brucella melitensis var. suis found in the pig. This last-named, although from a purely veterinary standpoint is not thought to be responsible for very serious losses to pig breeders, has been shown to be transmissible to cattle and to be very virulent for man, and may thus well become the most important from a public health aspect in the future. There can be no doubt that what we to-day call undulant fever is nothing else than what used to be known as Malta or Mediterranean fever, although perhaps of a less virulent form.

As long ago as 1886, Bruce isolated the organism from human cases of fever which led

to the discovery of Zammit in 1905 that it was enzootic in the goats of Malta. This again led on to the classic work done by the British Commission on Malta fever, and to the practically wiping out of the disease from amongst our forces stationed in Malta by the order forbidding the use of unboiled goats' milk. When it was seen that the disease still persisted in the civil population, who were not bound by the order, the discovery of the transmission of the disease from goat to man by means of the milk was well proved.

In 1887, Bang discovered the bacillus abortus as the causal organism of contagious or epizootic abortion of cattle. This most serious disease has been, and still is, responsible for enormous losses to agriculturists all over the world, and a great deal of work has been carried out by veterinarians with a view to minimising its losses with, on the whole, only a limited success. For many years, owing to a difference in nomenclature and from the fact that no cases of abortion or other condition thought to be in any way connected with it had occurred in the human race, its relationship to Malta fever in the goat was never even suspected. It was, however, realised that the so-called micrococcus melitensis could also occur both in sheep and cattle as well as in the goat, but its presence in cattle was not recognised as being similar to an infection with the bacillus of Bang, and in the Near East, where at one time the disease was thought only to occur, the cow was ruled out as a practical proposition in relation to the disease in man. It was left to Alice Evans to point out the similarity of the two causal organisms in 1918, and I think it was she who wrote: "It was as if two brothers had been adopted by different families and given different surnames and for twenty years no one recognised the similarity in the boys because they were seen at different times and in different places." She

pointed out that the two organisms were morphologically, culturally and bio-chemically indistinguishable, and serologically very closely related.

Although, as has been seen, it is now many years since undulant fever or, as it was then called, Malta fever, was known to occur in man, it is only since about 1923-24 that the human disease has been associated with epizootic abortion in cattle. Probably the first authentic cases to be described were those noted by Orpen and Bevan in Rhodesia and Keefer in the United States of America in 1924, although as long ago as 1914 Kennedy drew attention to agglutinins to brucella melitensis in the milk and blood of cows in London, and this was confirmed by others. It was not till 1927, however, that the possibility of cows' milk transmitting undulant fever to man was taken seriously, since when cases have been reported running almost into thousands from such countries as America, Sweden, Italy, France, Germany, Austria, Denmark, Holland, and, what concerns us most, from Great Britain.

It is not necessary for me to go into details about the numerous cases described; sufficient is it to say that I think it must be conceded by all that from the facts laid before us there can be no reasonable doubt that undulant fever can be produced under certain circumstances by the consumption of cows' milk and also by the association with or handling of cattle and pigs, and that this danger is present in this country as well as abroad. It behoves us as veterinarians to accept this fact until at least we can disprove it, so that we must take stock of the present position and see what can reasonably be done to lessen, if not altogether eliminate the danger. Happily the cases so far described in man are rare and mild, so that there appears to be no need for panic in consideration of the matter, nor on the other hand from its apparent rarity should we ignore its danger.

Brucella infection occurs in the following animals as well as in man; the goat, cattle, sheep, pig, horse, mule, cat, dog, rabbit, guinea-pig, rats, mice, and it is even stated by some authorities that it occurs in the domestic fowl. For all practical purposes, at least until our knowledge of the disease is greatly augmented, we need only consider it in the goat, cattle, and perhaps the pig.

The Disease in the Goat.—As a general rule goats show no signs at all, with the exception

that abortions are common in an infected herd, although many goats act as carriers and even excrete the organisms in their milk without ever aborting. Dubois reports occasional induration of the udder and even inflammation of joints with now and then sub-acute or chronic bronchitis. Personally, from my observation on goats, including many Maltese goats, in Egypt, with which I had considerable experience, I would suggest that these complications had nothing whatever to do with these brucella infections, but were due to caseous lymphadenitis which was extremely common in goats in that country. The milk of infected goats contains the organisms and is liable to infect mankind both by its consumption and even also, it is said, through the skin. The urine is also infective and is liable to transmit the disease by contact with the skin or otherwise. Kids born of infected goats appear to enjoy an immunity while sucking, but are liable to contract the disease when weaned. I know of a case where a goat was slaughtered as the result of her blood giving a positive reaction to the agglutination test and when killed two live foetuses were removed, both of which survived. One of these I had for many years, and although I had her blood tested at frequent intervals the result was always negative and she produced many gallons of milk for my household with no dire results.

The Disease in Cattle.—How common contagious abortion of cattle is in this country no one can tell, but that at least 50 per cent. of our herds contain infected cows is a very conservative estimate. He who would make a guess at the number of cattle actually contaminated would indeed be a rash man, for before any such figure can be given vastly more cattle must be tested for the disease than have ever been done up to now.

I hardly need to detail the symptoms of the disease as they are so well known, and a few remarks will suffice. There is no general alteration in the health of the affected cow and the condition is more often unsuspected until the cow aborts. Abortion most commonly takes place between the fourth and seventh months of pregnancy, although it may occur earlier. When abortion is late in the period of pregnancy there are often premonitory signs of approaching parturition; when early, there are frequently none. There is often a tendency to retain the foetal membranes and a dirty vaginal discharge is liable to occur

for a month or so after the abortion. The calf is usually born dead, but, if not, usually dies, although a few may be reared. Infection is brought about by contact with the affected placenta or discharges. Calves which live are liable also to carry infection to other premises through the contaminated matter in their intestines. The commonest method, however, of introducing infection into a herd is the bringing of an infected cow to clean premises. Infection usually enters the body by the mouth, though it has been said that discharges may contaminate the genital passages and so cause the disease. The bull is not now considered to be so serious a cause of spread of the disease as was at one time supposed.

Cows rarely abort twice, more rarely three times, even though they are still capable of conveying infection. Some cows harbouring the organism carry their calves to full time and are thus often unsuspected by their owners, with the result that they are the most dangerous. The disease is practically non-existent in sucking calves, even although the milk they are fed on is contaminated, but after weaning they are easily infected. The most important point about the disease which concerns us at present is the fact that a percentage of affected cows excrete the organisms in their milk, and it is of course these animals which are the greatest source of danger to mankind. Roughly speaking, about 30 per cent. of infected cows excrete the brucella in their milk for shorter or longer periods so that when we consider the extent of the disease at any time, very many thousands of our milking cows must be a potential danger. Strangely enough, cases are found where the bacilli are only present in the milk from one or two quarters of the cow's udder, but from a practical standpoint this makes but little difference to the danger. There would seem to be no rule as to the length of time the milk remains infective; sometimes it is only for a short time, while in other cases it remains so for years. It is usually necessary to resort to cultural tests or guinea-pig inoculation to ascertain whether or not milk is infective.

Diagnosis of the disease in cattle can be made by an examination of the foetal membranes of an aborting cow or even from the foetus and the finding of the bacilli, but by far the most important method is serological. The agglutination test is the most used and probably gives the best results, but in America the complement fixation test is said to be about

equal in its efficacy. The latter is, however, much more complicated to carry out. Attempts have been made to produce a substance called "Abortin" which is analogous to tuberculin. This has been used both subcutaneously and intradermally, though so far no very satisfactory or reliable results have been obtained with it, so that it has for all intents and purposes been given up. Possibly further experiments may result in the preparation of a reliable product. In this country the usual test employed is thus the agglutination test. Blood or milk may be used, but blood is the better and the more reliable. The agglutination test, despite its reliability, has certain limitations. The question as to what dilution is required to assert that the reaction is positive has given rise to considerable differences of opinion. It is generally conceded that an agglutination in a dilution of 1-80 or more may be considered to denote infection but that 1-40 is suspicious. Below this dilution positive results need not be considered. The use of a standardised and reliable antigen is also of the utmost importance. It is estimated that in testing a herd by this means anything from 1 to 10 per cent. of positive cows may be missed, but if frequent and repeated testing is adopted these errors become almost negligible. A cow which once reacts usually continues to do so for years, although the reaction gradually gets less pronounced, but the cow may have ceased to be a source of danger long before her blood ceases to react. The length of time after infection takes place before the blood reacts is not constant, and a cow may be a danger before she can be detected. Cotton states that the reaction usually makes its appearance within three to four weeks after infection, but it may be delayed from three to four months, and in occasional instances may not appear until after the termination of pregnancy either by abortion or parturition. Moreover, a cow which has recently aborted may not react to the test until 14 to 21 days have elapsed since her abortion. Despite these and other difficulties, the agglutination test, when all is said and done, is an extremely useful one and when carefully and frequently carried out is a most reliable method of picking out reactors from a herd. Cotton shows that in America, of cows whose blood agglutinated to a titre of 1-200 or above, 80 per cent. were found to be eliminating the bacilli in their milk, while those whose sera reacted to a titre of 1-100 or less were rarely found

to be doing so. Given a uniform standard of test, the matter might be investigated further so that if this can be confirmed we might possess a method of knowing which cows are likely to be dangerous for the spread of undulant fever and which are not.

Herds may be divided into the following categories:—

(a) Clean or uninfected herds, probably rare.

(b) Herds which harbour a percentage of reactors, but where the disease is more or less stationary, although at any time it may recrudescence. Such herds are suitable for the elimination of reactors.

(c) Herds in which the abortions are numerous and the disease progressive and liable to result in what are known in America as "abortion storms."

Preventive Measures.—(1) General measures of control may be adopted, such as isolation of any cow which shows signs of abortion or, if no signs are noted, immediately she aborts. Such cows should be isolated for two months after abortion. There must, of course, be a thorough disinfection of the contaminated stalls, destruction of the foetal membranes, discharges and so on. Calves born alive are better destroyed, but if not, should be isolated for two months, but then should not be allowed to associate with mature heifers. Care must be taken of the bull, such as the avoidance of promiscuous services; disinfection of his sheath should be carried out after serving any cows not known to be clean, and other general measures are all of use in limiting the extent of the disease, but from a public health standpoint are of little or no use in the prevention of infected milk.

(2) Prevention of the disease by vaccination is of two kinds (a) the use of dead vaccines; (b) the use of a living vaccine. The use of the dead vaccine can be resorted to for pregnant animals, but although certain authorities claim success for it, it is a method which has by no means found favour with the veterinary profession as a whole. From a public health point of view it can hardly be taken exception to as there does not seem to be any chance of its causing the milk to become infective.

The use of live vaccines is widely practised but is only to be recommended in herds where infection is widespread. It consists in the inoculation of a live virus, but can only be given to non-pregnant cows or heifers, and no inoculated animal must be put to the bull for

a period of at least two months following the vaccination. Great difference of opinion exists as to its efficacy, and its use is exhorted by some, but condemned by others. There seems to be no doubt that it has met with great success in reducing the losses from abortion. The chief point to be considered about it from a public health aspect is that in America it has been said to give rise to an elimination of the causal organism in the milk. If this is the case I fear it will not find favour in the eyes of the medical profession. Undoubtedly the most careful experiments are necessary to either prove or disprove this assertion. It must be remembered, however, that the live vaccine is usually only used in already badly affected herds, many cows of which are no doubt excreting bacilli in their milk without the use of any vaccine.

On some premises, however, where the live vaccine is used it has been the practice to vaccinate all heifers admitted to the herd. The Ministry of Agriculture have recently circularised all veterinary surgeons using their vaccine, and will not issue any more unless a declaration is signed which reads as follows:—

"I, ———, hereby declare that I will administer the anti-abortion vaccine supplied by the Ministry of Agriculture and Fisheries only in seriously affected herds in which the presence of *b. abortus* infection has been established by definite laboratory tests, and from which it is not practicable to eradicate the disease by the method of isolation.

Signed....., M.R.C.V.S."

I am informed that at the laboratory of the Ministry of Agriculture at Weybridge, where the vaccine is prepared, no laboratory assistant or other person has ever contracted undulant fever, and moreover, certain experiments have been carried out on vaccinated cows and on no occasion were bacilli demonstrated in their milk. As these experiments have not as yet been published it is not possible to pass judgment on them, but it is a point which certainly should be cleared up once and for all. Eradication of the disease by the use of the agglutination test and the disposal or segregation of reactors is no doubt the ideal method of dealing with the condition, but on a large scale it does not appear to be a method for practical politics, at least not at present. There is plenty of proof that the method of frequent agglutination tests and the separation of the reactors from the non-reactors, with

suitable care of the calves, can achieve considerable success even on one farm. If reactors are disposed of, the vexed question arises as to what should be done with those got rid of. Who is to bear the cost of eradication measures, and what can be done in the case of farms where isolation is not possible, are questions to be solved in the near future.

Abortion in the Pig.—It is definitely known that a brucella infection does occur in the pig, but the losses from it are small and pale into insignificance when compared with those caused by abortion in the cow. In this country it is not a condition which has so far troubled either the pig breeder or the veterinary profession. It is certainly now important that its extent should be ascertained, and it may well be found that it is a much commoner trouble and perhaps causes greater loss than is generally believed. Only further investigation can show this.

Undulant Fever in Man.—It is not for me to even attempt to describe the disease as it occurs in man, for we are looking forward to hear this side of the question from the next speaker, but there are certain observations I would like to make.

(1) There can be no doubt that a brucella infection can occur in man other than that associated with the goat, and that the cow has been pretty well proved to be responsible. We know that the organisms are excreted in milk and that milk and milk products, especially the cream and butter, are liable to be dangerous. Cheese, probably from the acidity associated with its manufacture, is said not to be nearly so liable to infect.

(2) Evidence is also ample to show that undulant fever can be contracted other than from drinking infected milk or consuming foods made from infected milk. Contact with cattle and pigs is in itself sufficient to bring about the disease in man, and many cases have been described in America amongst employes in stockyards, butchers, farmers, and even in veterinary surgeons. I recently received the particulars of a case occurring in a member of the veterinary profession who put it down to infection from the removal of placentas from affected cows.

(3) Children are but rarely affected, though I heard of one instance in which two children who had never drunk anything but "Certified" milk contracted the disease. The case was somewhat complicated by the fact that they had been associated with workers in a

laboratory where brucella cultures were being dealt with. How much this may have had to do with their infection I cannot say. Although accounts differ, it is generally found that males are affected more than females in the proportion of two to one. Altogether the infection seems to be a very selective one, and the age limit is of some importance too.

(4) There can also be no doubt that sufficient cases have occurred in this country to warrant a sharp outlook being kept on all cases of indefinite fevers and steps being taken to try to arrive at a diagnosis lest the case be one of undulant fever.

(5) It is undoubtedly necessary to discover how many normal people's blood will react to the agglutination test for brucella, for out of justice to the cow this is called for.

Lentze in investigating the disease near Breslau, after submitting the blood of several persons to the agglutination test, both those in contact with cattle and those known to have drunk milk containing *br. abortus*, concludes that the danger of infection from milk is very much less than from contact with aborting animals.

In the routine examination of milk by the biological test for tubercle bacilli, it might be advisable to examine for *br. abortus* by the agglutination test of their blood or culturally, all guinea-pigs used. This would at least give some idea as to how much milk is infected.

The question as to why so few cases have been recorded when the possible source of infection appears to be so common, has not been satisfactorily answered as yet. It is said, no doubt with truth, that no one has looked for them, but even admitting this, if all cows' milk containing the infection was certain to infect, the cases could not have escaped notice so long. It is known also that the porcine type is more virulent for monkeys than is the bovine, and so probably also for man. It is proved that the porcine type may occur in cattle; therefore is it not a possibility that the infections transmitted to man from the cow are due to the porcine strain passed in cow's milk, and not to the true bovine? This is a point which must not be lost sight of and until we have more definite information available, it would seem to be foolish to come to any definite conclusions or to endeavour to pass measures against the disease.

There can be no doubt that the total eradication of contagious abortion from our herds is the ideal way of approaching the matter, but

we have already seen that it is not practicable at the present time. We have not even made any serious attempt to get rid of bovine tuberculosis, a more simple problem fraught for man with much more serious consequences than abortion, so there does not appear to be much hope that official steps, which would necessarily cost the nation vast sums, are likely to be embarked on in the meantime. Probably before very long, steps will be taken to insist on all cows in "Certified" and Grade A (T.T.) herds being free from abortion as well as tuberculosis.

American opinion seems to fly to pasteurisation as the great desideratum. Personally, I have never been one of those who advocated universal pasteurisation—frankly I look upon it as an admission of defeat in our campaign for safe milk—but I cannot now deny that there is much to be said for it if we come to the conclusion, which fortunately we have not so far, that the average milk is to be considered dangerous for the transmission of undulant fever to man. It must be remembered, however, by those in favour of universal pasteurisation that there are other and possibly more potent means of mankind contracting the disease from animals, and also that universal pasteurisation is not a practical possibility in this country. I am glad to see from a published discussion on this disease that Sir Weldon Dalrymple-Champneys takes this view. We have a long way to go before the small amount of pasteurisation that is carried out to-day is sufficiently controlled and inspected to be reliable, without embarking on more extensive schemes.

I would like to mention the old-established practice both in this and in many other countries of keeping a goat amongst a herd of cows for the express purpose of preventing abortion. It is a very old custom and I am not going to venture to explain its origin. Is it merely a belief, is there any possibility of a sort of cross-immunisation taking place between the Malta fever of the goat and the abortion of the cow, or is it due to the pungent smell of certain male goats frightening away the somewhat susceptible brucella?

Not long ago I was talking to a farmer who said that when he took over the farm, his neighbours told him he could not breed cattle owing to abortion always having existed on the farm. He got some geese to run about in the farm-yard and of late has had no abortion

—which he attributes to the presence of the geese.

A phenomenon but little known is that certain persons, as far as I know chiefly veterinary surgeons, suffer from a condition which I think has been termed a "brucellosis." This condition is evidenced by a profuse skin eruption being brought about on the arms and hands when it has been necessary to remove the after-birth from a cow. Whether it is only specific for those cases where the retained after-birth is the result of contagious abortion or whether it is brought about in any case, I am not prepared to say, but it would be interesting to find out if the blood of those liable to this phenomenon would in all cases give a positive reaction to the agglutination test for brucella. One must realise, however, that the vast majority of retained placentas are the result of abortion.

Let us look for a moment at what statutory power we possess in investigating the source of a reported outbreak in man. On several occasions I have been informed by a medical officer of health that a patient has been diagnosed as suffering from undulant fever and that he or she gets milk from such and such a dairy. It is necessary to find out what farm or farms are involved and then to make enquiries from the farmers as to any cases of abortion that have taken place during the last few months. It is also a great help to communicate with the veterinary surgeon attending the farm if any exists. There is power under Article 9 of the Milk and Dairies Order of 1926 to take samples of milk from any cow or cows, but none at all to sample the blood of the cows for agglutination purposes, and, should the owner object, this cannot be done. There is no provision under any enactment to prohibit the use of milk from a cow even if the milk in question is proved to contain the brucella. The only clause which might be considered applicable is that contained in Article 11 of the Order referred to, in which milk can be prohibited for the food of man for a period of five days from any cow which is suffering from "any infection of the udder or teats, which is likely to convey disease." It is to my mind very doubtful if this can be termed an "infection of the udder," for it is a general condition in which the organisms are merely excreted in the milk, without the udder itself being in an actually diseased condition. Under the same Article the milk can be withheld from human consumption for a

like period of five days in the case of a retained placenta or when there is any septic condition of the uterus present. The only other ordinance which refers to contagious abortion in cattle is the Epizootic Abortion Order of 1922, made under the Diseases of Animals Acts. In this Order, the only restrictions applied are those making it an offence to expose in a sale or market any cow or heifer which is known to have calved prematurely within two months of the sale, or to sell privately such an animal without giving notice of the fact to the purchaser in writing, or to send such an animal to a bull without notifying the owner of the bull in writing of the premature calving within the prescribed period of two months, or to put such an animal in a public pasture, or to allow it in any way to be placed where it can get in contact with cattle belonging to another owner.

Certainly some further powers are required to deal with the disease, both from the public health and the agriculturist's point of view, for the Order just mentioned is most difficult to work and for all intents and purposes is a dead letter.

As I said previously, if my efforts to draw attention to this disease succeed in creating further interest, and if that interest helps in any way to bring to light more facts than we possess at present, the discussion will not have been in vain. It is absolutely necessary to elucidate more facts, and to get a much clearer idea as to the incidence of undulant fever, before we can hope to have our suggestions listened to and regulations for its control framed.

SIR WELDON DALRYMPLE-CHAMPNEYS.

It is not, I take it, my function, even if it were within my powers, to give you an equally comprehensive survey of the human, as Major Rabagliati has given of the animal, form of brucelliasis (as some of our American friends have termed it), especially as I have already produced something of the kind in my report to the Ministry of Health.* I shall, therefore, confine myself to a few remarks about undulant fever in man, especially as occurring in this country.

* UNDULANT FEVER. With special reference to Animal Sources of Infection and the possibility of its Prevalence in England and Wales. Reports on Public Health and Medical Subjects, No. 56. H.M. Stationery Office, 1929. Price 1s. 6d. net.

Extension.—It is, perhaps, hardly necessary now, as it was when I wrote my report, to insist that undulant fever can no longer be regarded as a tropical or sub-tropical disease, but that it has invaded one northern country after another, some of them our close neighbours, in which it was unknown or its nature at any rate quite unsuspected, and that even this country is far from being immune from its ravages.

English and Welsh Cases.—In August, 1929, an exhaustive examination of the literature revealed that only 14 English cases of endemic origin had been reported up to that time, but, as I remarked in my report, "one should be very cautious of assuming that this represents the true incidence of the disease in this country," and again, "there no longer appear to be any sound reasons for expecting a continuance of the former (though perhaps only apparent) immunity of this country."

I think I can now claim without exaggeration that subsequent events have proved these views to be correct.

The attention which I and others interested have drawn to this disease, and the wider, though by no means universal adoption of the measures which I recommended for its detection, namely:—

(1) the careful investigation and report to the local or central health authority of all obscure cases of continued or intermittent fever with symptoms and signs suggestive of undulant fever in which no other definite diagnosis could be made; and

(2) the routine examination by the agglutination test, whenever possible, of samples of blood sent for diagnosis in cases of continued fever, or even those submitted for the Wassermann reaction; have resulted in the discovery of 20 additional cases in which the agglutination titre was sufficiently high to render a diagnosis of undulant fever inevitable. Unfortunately, only 8 of these cases have been reported in the medical press, but accounts of some of the others will, I hope, appear shortly.

Thus 34 cases of undulant fever originating in England and Wales have either been published or have been privately notified to me, and other cases are very likely known to you. This number is, I admit, very small, compared with the steady stream of 300-500 cases per annum discovered in Denmark since Kristensen started his systematic investigations, but

it must be remembered that no such investigation has been carried out here nor, unfortunately, do we possess such splendid facilities for this purpose as our Danish neighbours. I hope, however, that this discussion may so stimulate interest in the subject, that a more thorough search may be made. I should like to take this opportunity of urging all those who come across cases of undulant fever to publish accounts of them, even if these cannot be complete, in order that the extent of human brucella infection in this country may be ascertained as soon as possible.

Characters of the Disease in this Country.—I am often asked, by those who consult me about possible cases of the disease, what guise it usually assumes in this country. In view of its notoriously protean manifestations wherever found and the small number of cases so far reported, an adequate reply is at present impossible. A few general observations are, however, justified by the evidence available and these may perhaps help some of you to suspect the disease, though a definite diagnosis in the absence of a positive blood culture or agglutination to a titre of about 1 in 80 would be rather rash.

Perhaps the best way to illustrate these points will be to tell you about four cases which I recently saw all in one day in the same town. The ages of the patients ranged from ten to forty-four.

Two of them were medical men, another a clerk and the remaining one a school-boy. Two of them were in the habit of drinking large quantities of milk, and one other had done so at an interval before the onset corresponding roughly to the incubation period of the disease, but the remaining patient (a young medical man) expressed horror at the mention of this excellent food, not, I fancy, the horror naturally resulting from a profound knowledge of its bacteriology!

The mode of onset and subsequent course of the disease in these cases is also of interest, and shows the extraordinary variations met with in undulant fever, even where one might expect a single strain of the organism to be at work. One patient had a sudden onset with a sudden rise of temperature to 103° F., but this came down to near the normal line in about four days and had stayed there for a fortnight when I saw him. The other three patients all had gradual onsets, but the subsequent course of their disease has so far varied considerably. One has had what I would describe (though none of my blood comes

from the Emerald Isle) as a "typically atypical" temperature, in other words, a completely irregular chart except for two characteristic features seldom absent in this disease—the evening rise and the big daily swing. This patient's temperature when I saw him had fallen to about 99° F. in the evening, after 4 weeks' pyrexia, but I should not be surprised to hear that it has since risen again.

Another patient with an equally gradual onset had had ten weeks of pyrexia with only one afebrile period lasting four days. His temperature chart was of the classical undulant type, to which Hughes first drew attention, the peaks being moderately high and one over 104° F. The last patient with a gradual onset had had very little fever at all and what there was showed considerable irregularity and a small swing, but practically every day the evening temperature was higher than the morning one.

A question which I am sure some of you want to ask me is: "What are the chief symptoms in this disease?" Well, they are extraordinarily varied, but the commonest symptoms in the English cases—and the four I have just described are not exceptional in this respect—are extreme lassitude (in cases with a gradual onset), headache, constipation (which is not usually as obstinate as in melitensis infections), anorexia, furred tongue, mental depression and heavy sweats, which are often of the classical drenching, sour-smelling variety, accompanying the fall of temperature which usually occurs during the night or in the small hours of the morning. These sweats, by the way, are often attributed to the taking of aspirin, but occur quite independently of any drug treatment.

Another question, of great importance for the medical attendant, is: "How long will the illness last?"

Of the English cases of which the complete history is known to me the duration has varied from three to 32 weeks, averaging 10 weeks, but in an extremely interesting case which will, I hope, soon be published, the disease has apparently lasted from 1886 until the present day, or to put it more accurately, the patient has been ill with precisely the same symptoms, except for comparatively short intervals, during the last 44 years and is still so suffering.

The English cases are, however, few, and a better guide is perhaps the series of 95 recovered cases reported by Hardy from Iowa in which the duration ranged from two weeks to 11 months and averaged 15½ weeks.

Treatment.—You will, I expect, want me to say a word here about treatment. I have no time to give you an account of the numerous medicaments which have been employed in the treatment of this disease, but in my opinion the intravenous injection of solutions of disinfectants such as mercurochrome, trypanflavine, Bayer 205, the salvarsan compounds, colloidal solutions of heavy metals, etc., is not free from danger, and good results have not been obtained with any of these substances in a sufficiently high proportion of cases to make their general recommendation justifiable. This does not, of course, mean that in skilled hands further research may not establish one of these substances as a valuable weapon in our armoury.

What about vaccines? Well, there is no doubt that vaccines prepared from melitensis and abortus strains have in certain cases given excellent results, and it is a method well worth trying, especially in cases which have shown a number of relapses or in which the temperature, though never high, refuses to stay at normal. Should the vaccines be live or killed? Notwithstanding the inefficacy of killed vaccines in veterinary cases, I feel strongly that the use of live vaccines in human cases would be quite unjustifiable, and appears to be quite unnecessary.

A last word with regard to drugs. There can be no objection to the administration of such drugs as salol by the mouth (and salol itself has produced happy results in some cases), but the regular use of antipyretics, such as aspirin, is strongly contra indicated, as their only beneficial action is to bring down the temperature during their exhibition and they add considerably to the depression which is such a common and marked feature of this disease.

There are many other interesting sides of this subject on which I should have liked to have said something; for instance, the danger of infection from milk and the extraordinary disproportion between the large percentage of untreated milk in this country which is certainly infected and the small number of human cases so far discovered; the possibility of infection in English sheep and goats; the evidence collected by Lafenêtre and other workers in France, pointing to the important part probably played by the urine and infected litter of sheep and goats in the spread of the disease in that country; the puzzling differences in virulence and cultural requirements of abortus strains in different countries, etc., etc. I have

thought it well to confine what I had to say, however, to the clinical aspects of undulant fever in man as likely to be of especial interest, because the recognition of the numerous cases which I feel sure are occurring in this country is of such urgent importance.

DISCUSSION.

The President (Professor Harold Kerr, O.B.E.) spoke of the universality of the distribution of undulant fever, and suggested that in view of the extreme commonness of the disease, particularly in Denmark and the United States, it was probable that much was to be gained by universal pasteurisation. That course had been advocated in America, where in certain areas all milk had to be pasteurised, the prevalence of undulant fever being given as one of the reasons. Neither Major Rabagliati nor Sir Weldon Dalrymple-Champneys had referred to the prospect of ridding infected persons of the organisms; if that could be done it would be a considerable advantage. The whole question of undulant fever was becoming a serious one, and was likely to constitute a pressing problem in the future.

Dr. R. P. Garrow (Medical Officer of Health, Hornsey) referred to his experiences with the disease and allied conditions in South Africa, Egypt and the Mediterranean. Twenty-one years ago Malta fever had been prevalent in South Africa in connection with the mohair industry, and after a drought of three or four years' duration, goats had died in hundreds and large numbers of the people had suffered from brucella infection. Rheumatism appeared to be the commonest complication of the disease, and, after that, orchitis. Dr. Garrow mentioned that although he was familiar with brucella infection clinically, in only a single instance had he ever considered an undiagnosed pyrexia to be due to undulant fever, and he doubted if the infection was really common in man in this country.

Dr. M. A. C. Buckell (Pathologist and Bacteriologist, County Borough of Bradford) instanced a number of cases that had occurred in Bradford. Marked sweating had been a constant symptom, while in the case of two children, lassitude and mental depression had been outstanding features of the attack. In several of the Bradford cases the duration of the illness appeared to be somewhat longer than that mentioned by the principal speakers.

Major-General Sir John Moore, K.C.M.G., F.R.C.V.S. (formerly Director of Veterinary Services, India), said that he did not recollect having seen, during his Army career of thirty-two years, a case of undulant fever in the horse. In India, Malta fever, as it was termed, was prevalent in goats and in human beings, and the subject was engaging much attention when he left some nine years ago. There was a feeling in medical and other circles that the question of undulant fever ought to be thrashed out, and it was to be hoped that some good would come out of the present discussion.

Sir James Dundas-Grant, K.B.E. (Hon. Consultant in Aural Diseases, Ministry of Pensions), referred to

the case of a young man who had formerly been in South Africa and also in Malta and had lately been consuming raw milk on the Norfolk Broads. A fortnight after his return to London he developed an attack of Malta or abortus fever, proved by an agglutination test. The complications included complete nerve-deafness of the left ear. He wished to know whether such deafness was recognised as a result of this infection, as it was of mumps in which orchitis occurred as in undulant fever.

Major Rabagliati, in the course of his reply, said that the injection of carbolic acid solution into cattle had been tried, but, like many other drug treatments, had been found to be useless. With regard to the use of vaccines as a preventive in man, a French veterinary surgeon had used a mixed vaccine of different strains of *melitensis*, and had held that it was a necessary procedure in the case of people who handled animals. Sir Weldon Dalrymple-Champneys, however, did not appear to agree on the efficacy of vaccines. In any case, vaccination was not called for in this country owing to the few cases reported. Major Rabagliati did not consider the flesh of cattle, proved to be suffering from the disease, to be harmful, more particularly as it was cooked before consumption. In the majority of cases there was nothing to see when the cattle were killed. Replying to a previous speaker, he said that an enormous amount of meat from cattle affected by tuberculosis could also, in his opinion, be considered fit for human consumption. Under the laws of meat inspection, each carcase had to be judged on its merits.

The British Fishing Industry and the Public Health.—At the Universal Cookery and Food Exhibition at Olympia, London, on January 15th, some sixty medical officers of health from various parts of the country inspected the spacious and attractively arranged fish section of the exhibition on the invitation of the British Trawlers' Federation, organisers of a national fish frying competition to encourage the use of improved hygienic methods and appliances used in fish frying. At the luncheon which followed, Sir John D. Marsden, Bart., J.P., Chairman of the Federation, proposing the toast of the guests, said that last year in British ports 15,000,000 cwt. of fish were landed, over half of which reached the public through the fried fish trade. Dr. Charles Porter (St. Marylebone), replying in the unavoidable absence of the President of the Society (Professor Harold Kerr), referred to the importance of fish as a food, and to the valuable work being done by the fried fish industry, particularly among the poorer sections of the community. Professor A. Bostock Hill, who also responded, said that the dietary of the people needed improving in many ways, and nothing was more important at present than to impress upon the people the value of

Sir Weldon Dalrymple-Champneys, replying, said that he had been struck with the few complications met with in the English cases. He remembered no case of orchitis; there had been rheumatic pains in one or two instances, but no definitely swollen joints. With regard to the danger from certified and other graded milks generally, the first case he had seen in this country had been that of a man who had always taken particular care to obtain Grade A (Tuberculin tested) milk, and there was little doubt that he was infected by milk. Though it had always been stated that the disease was very uncommon in young children, it was perhaps not quite so uncommon as was generally believed, for he had himself seen cases in children aged $3\frac{1}{2}$ years, $4\frac{1}{2}$ years and ten years. The question of inter-human infection was a difficult one, but it had been said that such infection had occurred in hospital, where nurses were infected by patients. Sir Percy Bassett-Smith, on the other hand, had stated that no case had ever been reported amongst the medical or nursing staffs of the naval hospitals, where hundreds of cases of Malta fever had been treated. Deafness, or at any rate slight impairment of hearing, had been noted in connection with cases of undulant fever; indeed, apparently all the special senses could be affected by the disease.

A cordial vote of thanks, proposed by Dr. Charles Sanders and seconded by Dr. G. H. Pearce, was accorded to Major Rabagliati and Sir Weldon Dalrymple-Champneys for their most interesting and instructive papers.

fish as an article of food. Dr. D. H. Geffen (Enfield), proposing the toast of the "Eat More Fish" Campaign, said that invariably a patient was put on a diet of steamed fish, but, he asked, why wait until a man was ill before dieting him? Mr. F. R. Sainty, replying for the Campaign, to which the British Trawlers' Federation, representing the trawler owners of the chief ports in Great Britain, devotes over £40,000 a year, said that an outstanding problem was to open up additional channels of distribution to the public so that they could take fuller advantage of the fish brought to the country. A cordial vote of thanks to the Chairman was accorded on the proposition of Dr. W. M. Willoughby (City of London).

The Food Education Society have arranged three lectures on "Food and Food Habits and their connection with Rheumatism, Cancer and other Chronic Diseases," which will be given by Dr. R. Ackerley at the rooms of the Society, 29, Gordon Square, London, W.C.1, on February 11th, 18th and 25th, 1931, at 5.30 p.m. Admission to the lectures is free.

Ut Ita Dicam.

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

Talk of Neuroses.

The President, on account of indisposition, being unable to be present, and in any case there being little that was urgent in the shape of business, it was determined to abandon the Council meeting due to be held on Friday, January 16th. The General Purposes Committee met, however, and attended to certain matters in the afternoon, and at 5 p.m. there was the ordinary meeting. This was not too well attended, and sympathy is extended to those who were unable to be present. The paper presented by Dr. Millais Culpin, on "Neuroses and the Public Health," was one of the most fascinating ever submitted to the Society, and led to a retailing of experiences by several members of the audience, and a most interesting and fruitful discussion. Long before it closed, any who might have been inclined to wonder exactly what connection there could be between neuroses and the public health, and what concern officers whose work is so very largely administrative possibly could have with the conditions referred to by Dr. Culpin, were convinced that there was a connection and that it was to their advantage to know something of the subject. The views expressed by the speaker on the relation of occupation to the occurrence of the disturbances he described were particularly illuminating. His reasons for recommending laundry work as one least liable to lead to upset, even in the case of the "neurotic child," though unexpected, were eminently reasonable, and more than one member made a note to the effect that it was not only a trade in which occupation was sure, but there was money in it. The name of Dr. Millais Culpin, already known to members of the service, is destined to become better known, the series of lectures he delivers at the London School of Hygiene being regarded as amongst the most attractive and highly appreciated of the course.

Talk of Birth Control.

The Council meeting of December, which I only mention now because I must see that the impression is given that the Council does meet occasionally, I refrained from referring to because my very real innate sense of decency inclines me to avoid reference to certain subjects unless driven to do so. Amongst

these subjects are birth control and drains and sanitary fittings, both of which, I regret, received a certain amount—rather too much to many minds—of attention and discussion. Not that we got very far with either; but it did disturb me, and must, I am sure, have distressed many others, that a body constituted as is the Council of the Society of medical officers, whose ideals are so notoriously high above such things, should be compelled to give ear and thought to such matters as the propriety of teaching birth control methods at maternity and child welfare clinics, and the possibility of operating the byelaws relating to sanitation in such a way as to secure for the people of this country arrangements more or less comparable with those available in more hygienically progressive countries on the other side of the Atlantic. As I have said, we did not get very far with either of the matters. On birth control teaching we refused to express any opinion at all, and the sanitation business it was more or less agreed to refer to the General Purposes Committee. I do not know that definite instructions were given on the point, but I was very interested to find that in the published report of the proceedings no reference was made to the fact even that the drain matter had been raised.

Talk Also (Alas!) About Drains.

The responsibility for bringing it up at all was entirely Sir Eustace Hill's. He, as is well known, was one of those who represented the Society at the meeting of the British Medical Association in Canada. One of the things that struck him, as it strikes any visitor from this side, was that provision was made for the sanitary convenience of the individual over there in the shape of fittings, baths, lavatory basins and so on, in a manner and on a scale hitherto unknown here, but obviously quite proper and reasonable. Like a certain number of visiting Britons, Sir Eustace on his return was anxious to express his surprise at the astonishing backwardness of this country in this regard, and to find out why it existed and what could be done about it. I am not at all surprised at his anxiety; only I am quite sure that there were many whose feelings were harrowed that at this time of day he should have thought proper to voice it in a gathering of medical officers of health. The only possible

explanation is that he had forgotten that, while it was in order for a medical officer of health to know the law with regard to slaughter-houses, and to be interested in and hold views upon matters of such importance as humane methods of slaughter, milk bottling machines, gas cookers, defective roofs, and the washing of flannels, he must make no pretence to knowledge of or interest in the provisions relating to sanitation. Any sign of a desire to see progress or improvement made in a matter of this sort, in which only such things as comfort, convenience and cleanliness, individual and general, are involved, is all that is necessary to cause a loss of all claims to be regarded as an "administrator," or even a medical officer of health, indeed. That being the position, it was rather astonishing to find Sir Eustace Hill's questions so calmly received by the Council, and any present sufficiently adroit to suggest that the matter was one that might suitably be referred to the General Purposes Committee. That there will be any member there prepared to give himself away to the extent of admitting ability to provide information is difficult to say. A special brand of heroism is called for in a case of this sort. That there will be found anyone brave enough to stand side by side with Sir Eustace Hill, who, to my mind, as a hero, ranks second only to the man who rang the bell in the tea-shop, I very much doubt.

Mr. Thomas Crew and "Health First."

I drag in a reference here to Mr. Crew's Book, "Health First: In Verse, Prose and Epigram,"* because I want to have a chance of saying what I have never said before about a book: the author obviously has had so much entertainment in preparing this book that he may be regarded as already sufficiently rewarded. Credit, of course, he deserves; but the situation being such as I have described, it is unnecessary for me to go out of my way in recording the fact. The reasons for granting credit are that the book is really and truly one of which it might be said that a copy should be on the table of every medical officer of health. If it is there, it will very, very often be consulted, sometimes for a quotation appropriate for a particular occasion or piece of

* By T. Crew, F.I.U., F.F.I., Clerk to the Leicestershire Insurance Committee, and Organiser to the Central Council for Health Education of the Society of Medical Officers of Health. The Publisher, "Health First," 144, London Road, Leicester. Price 2s.

propaganda, sometimes for amusement. Nowhere, it may be claimed, does there exist so complete a collection of saws and sayings and educational propaganda tit-bits on the subject of health. The researches of Mr. Crew must have carried him over a tremendous field, and though it may have been a labour of love and amusing, it was, none the less, work. And as it was undertaken primarily, it may be believed, for the benefit of the health officer teacher, it is meet that he should express appreciation. There are exceptions, of course, but the majority of the quotations, whether verse, prose or epigram, have definite and close relation to health. All of them do not bear too close examination, naturally, but that makes little difference. Few of these quick-fire bits of advice of the slogan variety—not even those of the Safety First people—do bear examination. I was interested to note how often Mr. Crew found himself in a position to give the name of the author of the dicta and so on quoted. I was pleased, too, to note how many of the names quoted were those of persons known to me: Hippocrates (even though Mr. Crew spells him with a "y"); Bacon; Seneca; Edison, and Bostock Hill. The last-named, by the way, provides an interesting foreword to the book. In addition also, however, he is represented by a poem aimed at the house fly and designed to encourage in youth the practice of "obsquatulation" of this insect. It is certainly a great advantage to have things of this sort so readily available as Mr. Crew has made them, and I think it unlikely that anybody will hesitate to accord him a full meed of praise and appreciation. In spite of what I have said, I am prepared to accord praise and appreciation myself; I like the book very much.

P.

DR. R. A. DUNN is resigning his appointment as Medical Officer of Health for the East Herts. and Essex Combined Districts as from March, 1931.

THE Staff of Charing Cross Hospital have arranged a post-graduate course to take place on consecutive Sunday mornings up to and including March 22nd, 1931. The fee for the complete course, which commenced on January 18th, is one guinea, payable in advance. For further particulars apply to the Secretary, Charing Cross Hospital Medical School, 62, Chandos Street, London, W.C.2.

Health Propaganda Methods.

By JOHN MACMILLAN, D.S.O., M.C., M.B., CH.B., GLAS., D.P.H., Medical Officer of Health, Metropolitan Borough of Woolwich.

The subject, appropriately, with which Dr. Macmillan dealt in his Address as President of the Metropolitan Branch, is one to which he has devoted much attention. Drawing upon his experience, he offers in his paper advice and suggestions with regard to the practice of publicity that are certain to prove of real value.

MY task is rendered all the more difficult because public health propaganda, or what is sometimes termed health education, is still in its infancy in this country. I do not intend to deal exhaustively with the subject, but merely to treat certain aspects in such a manner as to arouse a keener interest and to stimulate a few ideas, none of them new in themselves but which, by appropriate adaptation, may possibly be invested with a freshness of application.

Health propaganda involves three main considerations, which have been described as (1) stimulation of interest; (2) impartation of knowledge; and (3) application to daily life. I propose to deal mainly with the first consideration, and only incidentally refer to the other two.

The synonym in the commercial world for what is called stimulation of interest in health matters is publicity. Publicity is not advertising, although the two are sometimes confused. This confusion of thought, unfortunately, blinds some of our die-hards to the legitimate uses of publicity in health work.

Publicity is the effort to direct a favourable and intelligent public opinion towards some particular object. It is a specialised effort possessing a technique peculiar to itself. The main object of health week, for example, is to create and sustain an interest in health matters and to encourage the gospel of self-help in health. It therefore clearly falls within the category of publicity.

Let us now look at publicity from another angle and discuss the relationship between publicity and news. The most powerful organ for attracting attention, stimulating and spreading interest, is the press, and it must also be our principal avenue of approach to the public, since compulsory education is only possible in our schools, and perhaps, in our prisons. Newspapers must publish such matters as the public demand—in other words, news. As far as the press is concerned, pub-

licity is what the propagandist thinks the public ought to get. When, as a result of forceful publicity the public are sufficiently interested in health matters to insist upon that interest being sustained by news, we have largely solved the problem of health education.

Any successful appeal to the public must be preceded by a suitable and efficient internal organisation, which comprises five essentials.

The first is a realisation of individual limitation. No provision is made for the study of publicity in our general or public health education, although it is to be noted that, at the last July examination, candidates for a Diploma in Public Health were asked, for the first time, a question on health propaganda organisation—a sign of the times. With the stimulation of the health conscience of the public and the growing interest shown by municipal authorities, due recognition by official teaching and examining bodies is inevitable. Until health publicity has been established on a scientific basis the methods of the commercial publicity expert must be studied privately, and those which seem appropriate must be adopted, even although such methods do not appear to some as ideally suitable. The purpose is so vital that it may even be advisable to utilise the actual services of the skilled publicity agent. It is very important to note that the extent to which these temporary expedients may be successful depends entirely on the views and activities of medical officers who must themselves produce the necessary favourable atmosphere in their departments.

The second essential is a staff in full sympathy with the medical officer's outlook. Any apathy on their part will soon become apparent to the public and will be a heavy drag on one's efforts. It is advisable to make each member of the staff a specialist in some particular branch of publicity work. He should continually be studying his work throughout the year and not in a haphazard manner on special occasions. Opportunities will arise and should

be created from time to time to enable him to see the practical outcome of his work. In this way, in time, one may reasonably expect to have a staff capable of dealing efficiently with all branches of health propaganda. In addition to this individual efficiency it is also necessary to create the team spirit. There must be active co-operation. A medical officer cannot run a successful campaign on health propaganda by himself or with the aid of the chief sanitary inspector, chief clerk or senior health visitor.

A third point is to secure the co-operation of other departments of a local authority. Unfortunately, there is a tendency to regard such a suggestion from a parochial view-point, limiting one's activities to those directly concerning the health department. The object of health propaganda work is not to enhance the prestige of a particular medical officer, but to attract the attention of the public to the value of the general public health work of a local authority with a view to creating interest and imparting instruction in health laws. It is essential, therefore, that this task should be approached from the general point of view of the local authority whose public health work is not confined to one department. Every health activity, irrespective of department, should be utilised in the general scheme.

The fourth point may appear commonplace. The work should be so organised that it becomes an integral part of the ordinary work of a health department, capable of suitable expansion as the necessity arises. Medical officers are not experts in this matter and they are still experimenting. Much can be learned from previous mistakes; and if, during these periods of non-expansion, an attempt is made to retrieve past blunders and quietly devise methods for overcoming difficulties, it will be possible to move more rapidly and more effectively than by simply concentrating on a hurried preparation at the eleventh hour. Such a system will eliminate the grounds for the objection sometimes raised that special efforts disorganise the ordinary duties of health departments.

The last point with regard to internal organisation is the necessity of keeping a permanent record, documentary, photographic and otherwise. It is surprising how crude and inferior initial efforts—which at the time seemed so supremely wonderful—appear when compared with those of later date. If such improvements arouse more public interest it

may reasonably be inferred that one's technique is improving. This is the crucial test of all publicity methods, namely, attracting the attention of the public and the stimulation of their interest.

The most important aspect of the problem has now to be dealt with—the approach to the public. Their attention must be attracted, their interest aroused and sustained, and a desire created for instruction.

It is notorious that the man in the street is least interested in what concerns him most, and nowhere is this truer than in matters relative to health. The public really are indifferent. The view has been expressed on many occasions that there is a widespread demand for education in health matters, but such a view is based very largely on the number of people who attend maternity and child welfare centres and other institutions provided by local authorities for the care and comfort of certain classes of the community, parents naturally enough desiring to take advantage of these facilities to protect the health of their children. There is little evidence, except possibly in the case of the expectant mother, that healthy adults desire education in health matters. The notable exceptions are the converted, relatively few, and those anticipating ill-health. Full credit must be given to those organisations in this country who attempt to acquire knowledge in this way, but it is to be noted that such organisations generally consist of women. It is significant also that legislative activity in this connection rests on a permissive and not an obligatory basis.

The publicity agent, in his appeal to the public, endeavours to ascertain that which interests the majority of his public, and an endeavour must be made in this way to approach the unconverted in health matters. The counter-attractions in London make this task more difficult than in the provinces, and realising this we must not be discouraged by the achievements that provincial medical officers seem to have accomplished.

Apart from the press, the most effective method of appeal is the well-organised health exhibition which hits the town. Such a gathering attracts more representative sections of the public than any other, giving as it does an opportunity not only of acquiring a general interest in health matters, but also providing an occasion for a particular discussion of special points of individual concern. It also creates a desire to spread such know-

ledge and leads to a recommendation to others to attend the exhibition. Health exhibitions, however, soon lose their appeal if held too frequently, and they should only be held at such intervals as will enable the public to be continually interested. Having regard to present publicity technique, the available material is so limited that great care must be taken in this respect. Once every three or four years is ample. Further, trade exhibits should not be used to cover up deficiencies in technique, but an attempt should be made to devise more varied and attractive means of demonstration.

For educational purposes lectures are necessary, but they have, in addition, a subsidiary importance in creating interest in health matters. It is said that only the converted attend such lectures, but that is not my experience. Different lectures attract different types of audiences. A lecture on cancer attracts the middle-aged; a lecture on venereal disease the young. The tuberculosis audience is totally different from the psychological audience. A lecture on diet exercises a fascination for the dyspeptic, while one on sunshine attracts a representative but, unfortunately, less numerous audience than any of the others mentioned. It follows, therefore, that various sections of the community respond to different stimuli, and it may be that if we are persistent in developing such stimuli so as to attract all classes of the community, this subsidiary importance of lectures will be invaluable. If the public are interested in disease, it seems unreasonable to decry such method of approach, but it is important that the lecturer should explain why people get the disease, how it could have been prevented, and the importance of securing early treatment. The present methods of stimulating interest are so few that none of them can be neglected.

The chief value of the film in health publicity is its attraction for the public. It has an educational value which is much over-rated. One associates films with amusement, and consequently the educational value is greatly diminished by the fact that the mental exertion involved in watching them is so slight as to prevent any lasting impression on the mind. They are excellent as an adjunct to a lecture on a particular subject, either during or immediately afterwards. Films certainly, however, stimulate interest in health propaganda.

Some authorities on health education regard the giving of systematic courses of lectures to ready-made audiences as a valuable means of

securing public interest in health. The scope of such an appeal is so limited that it does not seem likely to be of much value as a general stimulus without a specially large staff.

With regard to printing and posters, an advance has certainly been made since the days of Caxton, but, curiously enough, much of the printing used to-day closely resembles early efforts. Cheap printing is sheer waste of money. In the appeal to the public, competition is enormous, and if posters and circulars are to be effective, they must be outstanding in character, variety and design. These are the chief characteristics of the expert advertising agent's methods, and he has convinced the business man of his value. To make our appeal attractive, whether advertising or otherwise, his methods must be copied, and such appeals should not be rendered ineffective by being presented in cheap and nasty ways. Such work should be carried out by one member of the staff, and the variety of knowledge gained by a specialist of this sort will enable him to make the best use of the limited ideas and type of the local printer.

It is impossible to conclude this paper without a special reference to the child, who is not only particularly accessible and receptive to special instruction and training but is a very good medium for spreading knowledge, particularly in the home. In addition to teaching him sound habits of health, every effort should be made to explain the reasons underlying them. The proper instruction of the child in this way might eventually create that desire for further health instruction which medical officers are so willing to give.

Dr. W. L. Burgess, Medical Officer of Health for Dundee, has been appointed Reader in Public Health in the University of St. Andrews.

Dr. Herbert Peck will shortly retire from the post of Medical Officer of Health for the Chesterfield rural district, under the superannuation scheme.

The estate of the late Dr. John Thomson Wilson, formerly Medical Officer of Health for the County of Lanark, a Past-President of the Scottish Branch of the Society of Medical Officers of Health and Examiner in Public Health in the Universities of Aberdeen and Edinburgh, has been valued for probate at £7,070.

The Society. Reports, Proceedings and Announcements.

ORDINARY MEETING.

An Ordinary Meeting was held at the house of the Society on Friday, January 16th, 1931. In the regretted absence of the President (Professor H. Kerr) through illness, Dr. T. W. Naylor Barlow (Past-President) took the chair.

The minutes of the last meeting having been approved and signed, the following, who had been duly nominated and seconded, were elected as Fellows of the Society:—

Buchanan, George Gilbert, M.B., Ch.B. (St. And.), D.P.H.; Cox, Ursula, M.R.C.S., L.R.C.P., D.P.H.; Cripps, Francis Roy, M.D. (Edin.), D.P.H.; Gordon, Isabel Robertson, M.B., Ch.B. (Aberd.), D.P.H.; Harlan, George Pillans, M.D., Ch.B. (Glasg.), B.Hy., D.P.H.; Milne, Isabella Agnes, M.B., Ch.B. (Glasg.).

A number of nominations were received for the February election.

There followed a discussion on "Neuroses and the Public Health," opened by Dr. Millais Culpin, Lecturer in Psychoneuroses, the London Hospital. Dr. Barlow thanked Dr. Culpin for his unusual and interesting paper, and there also spoke Drs. G. A. Auden, G. S. Parkinson, T. W. Hill, W. G. Booth, W. W. Jameson and P. A. Galpin.

A full report of the discussion will appear in a later issue of PUBLIC HEALTH.

Note.—The following paragraph should have been included in the Proceedings of Council, December 19th:—

Employment of Tuberculous Nursing and Domestic Staffs in Sanatoria.—The Council considered a memorandum on the above submitted by the Tuberculosis Group. While agreeing with this in principle, the Council decided to request the Group to submit definite recommendations for their approval.

THE METROPOLITAN BRANCH.

President: Dr. John Macmillan, D.S.O., M.C., M.O.H., Woolwich.

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 12th, 1930, the President occupying the chair. Thirteen other members of the Council were present.

The Hon. Secretary read a letter from the

London County Council to the Metropolitan Boroughs' Standing Joint Committee, in which it was stated that the tentative proposals of the Transfer of Powers Sub-Committee of the General Purposes Committee of the County Council with regard to action which might be taken by the County Council under the Local Government Act, 1929, were still under consideration by certain committees. The letter further stated that it was unlikely that the Transfer of Powers Sub-Committee would be in a position to report until the early part of the New Year.

The Branch Council gave consideration to the draft reply of the Sub-Committee (appointed at the Branch Council meeting on November 21st, 1930) to the Metropolitan Boroughs' Standing Joint Committee in regard to the joint circular of the Ministry of Health (1054) and the Board of Education (1405) relative to children under school age. The Hon. Secretary read a letter from Dr. Shinnie which raised certain objections to points in the draft reply, and after a full discussion it was decided that a reply on the following lines should be sent to the Standing Joint Committee:—

1. Health Visiting.

The provision now made in the metropolis for the purpose of regularly visiting children between the ages of one and five years is inadequate. In the past the efforts of maternity and child welfare authorities have been directed more to the care of infants who are more exposed to risk and more susceptible to adverse environmental conditions than to children between one and five years for whose welfare considerably less regard has hitherto been paid.

The Branch Council are of the opinion that the metropolitan borough councils should provide such additional health visitors as may be found necessary to enable an adequate number of visits to be paid to the homes of children from one to five every year. Conditions, however, differ so widely in the various districts that no hard and fast rule can be made regarding either the number of visits per child which ought to be paid or the number of additional staff needed for the purpose.

2. Medical Examination.

The routine medical examination of children under the age of five years can be carried out at welfare centres on lines similar to the school medical inspection of an education authority. It is not done to any large extent in London, and it appears desirable that it should be arranged, and the medical records sent to the school medical officer when the child first attends school.

3. Medical Treatment.

In the poorer districts parents cannot afford to call in their private doctor for any but serious illness. For the more trivial complaints which can very well be treated in clinics, no doubt much could be done at the welfare centres were it not for the provisions of the Maternity and Child Welfare Act, 1918, and the Maternity and Child Welfare Circular of the same year, in which it is laid down that "cases . . . found . . . to need anything beyond minor treatment should be referred to their own medical attendant . . . or to a hospital." A treatment centre may be provided under the Act to cope with the cases referred from a number of welfare centres and, if so, may be combined with a school treatment centre.

The Branch Council are of the opinion that the provision of additional facilities for the treatment of minor ailments is necessary, but whether through hospitals, maternity and child welfare clinics or school clinics can be decided only by each individual authority, owing to the diverse conditions and circumstances in each case. Improved facilities for the treatment of dental and ocular cases in particular are the most urgent.

4. Day Nurseries.

With regard to the provision of day nurseries, there is at the moment only one municipal crèche in London established under the Maternity and Child Welfare Act, 1918; the remainder are voluntary institutions, some of which do not receive assistance from the local authorities.

The Branch Council are of the opinion that each local authority should survey its district and inaugurate such additional facilities on the above lines as may be found necessary.

A meeting of the Branch followed the Branch Council meeting. The President occupied the chair, and twenty-four other members were present.

The Hon. Secretary read a letter from the West of England Branch, putting forward the name of Dr. Ernest Ward for the office of President of the Society for the session 1931-32 and asking the Metropolitan Branch to support his candidature. It was decided to adjourn consideration of the matter for one month.

The Branch had before them correspondence from the Metropolitan Boroughs' Standing Joint Committee, asking for the views of the Branch on the question of promoting legislation in respect of underground rooms. This matter is dealt with in an extract from the agenda of the Metropolitan Boroughs' Standing Joint Committee, which is as follows:—

(d) We have now had before us a letter, dated October 24th, from the London County Council, referring to a letter received by them from the Kensington Borough Council, relating to basement rooms and overcrowding. The Borough Council urged the London County Council to insert a clause in a

General Powers Bill providing that the Borough Council shall

- (i) make a survey of all underground rooms;
- (ii) make a schedule of those which they think are unfit for living or sleeping purposes;
- (iii) notify the owner of any room so scheduled; and providing also for
- (iv) the owner to be allowed twenty-one days within which to appeal to the Ministry of Health against the Council's decision;
- (v) in the absence of any appeal, or if any appeal is dismissed, the room to be closed for living or sleeping purposes when the tenant of the underground room ceases to occupy it;
- (vi) the infliction of a penalty for re-letting or for re-occupying a scheduled basement room; and
- (vii) a definition of the word "tenant" as the person who occupies the basement room or rooms in a scheduled house.

After discussion, the Branch resolved to support the views of the Kensington Borough Council set out above.

THE NORTH-WESTERN BRANCH.

President: Dr. C. O. Stallybrass, Asst. M.O.H., Liverpool.
Hon. Secretary: Dr. G. W. N. Joseph, M.O.H., Warrington.

A meeting of this Branch was held in Liverpool on December 12th, 1930, the President occupying the chair. Eleven members were present. The President introduced to the members a visitor from Greece who is attending various courses of work in this country under the auspices of the League of Nations.

The Hon. Secretary reported that Dr. Joseph Beard, formerly Medical Officer of Health of Carlisle, who had tendered his resignation of membership of the Branch, had been invited by the Society to accept election as an honorary life member, to which he had agreed, and the Hon. Secretary was instructed to write to Dr. Beard expressing the pleasure of the Branch that he had accepted the invitation.

A letter was received from the West of England Branch asking for support for the candidature of Dr. Ernest Ward for the Presidency of the Society for the session 1931-32. It was resolved that the matter be deferred until the February meeting of the Council.

Dr. A. O. Ross, Venereal Disease Officer, Liverpool, read a most interesting paper on "Venereal Diseases and the General Community." Amongst other measures he advocated the provision of all-day clinics, routine Wassermann testing at ante-natal clinics, homes for unmarried mothers, health visitors attached to the clinics, and post-graduate courses for practitioners.

Dr. Sharpe, in proposing a vote of thanks, said that venereal disease schemes caused a great deal of concern, for while the technical capacity of venereal disease officers left nothing to be desired, there was failure to reach large numbers who required treatment. Better correlation of the various health services with the work was required, but the difficulty went deeper; it was principally sociological due to shame on the part of patients preventing attendance. With regard to the poor attendance of women suffering from gonorrhoea, he thought that unadvertised clinics staffed by the ante-natal officers would help to improve matters. Another great difficulty was the reluctance of women to undergo the Wassermann test, without which ante-natal treatment was not complete. The transfer of a venereal disease centre to an *ad hoc* clinic had produced a greatly increased attendance of new cases.

Dr. F. T. H. Wood seconded, and said that the subject did not lend itself to statistical presentation because there could be so many quibbles about the figures of attendances, etc. There were, however, very definite facts reported in the Registrar-General's Review which went to show an actual reduction in these diseases. He commented on the fact that in Bootle the ratio of males to females affected was nothing like that of the country as a whole. They had a very high proportion of expectant mothers attending the ante-natal centres and he would hesitate before insisting on routine Wassermann testing. With regard to *ad hoc* clinics, he still felt it was not so much the premises as the personality of the venereal diseases officer that counted.

Dr. Pearce thought that the adoption of a routine Wassermann test would decrease the popularity of the ante-natal clinics.

Dr. Stallybrass, in conveying the vote of thanks, mentioned how the venereal disease problem presented a number of facets. Undoubtedly prevention was better than cure and the possibility must not be forgotten—was venereal disease being prevented? The work of Ehrlich was thought to be going to abolish venereal diseases and to some extent that dream of Ehrlich was becoming a fact. Clinics were leading to a diminution in actual number of cases. Dr. Ross was not dealing with a self-centred community but with a seaport. If other countries were dealing with syphilis then there would be some reduction here. It was still doubtful if all that could be done to prevent these diseases was being done. Was not the ban on the sale of preventive substances

hindering the work? Prophylaxis was certainly used with success during the War. With regard to hereditary transmission and taking of samples of blood, he foresaw difficulties if done at the clinics, but at time of confinement or in hospitals every endeavour should be made to facilitate the taking of specimens. The establishment of *ad hoc* clinics had amply justified itself.

Dr. Ross, in replying, referred to the importance of the personality of the orderlies and attendants, and thought this probably was the reason of the popularity of the *ad hoc* clinic, because it was impossible to expect the ordinary hospital porter employed in this work for a small part only of his duties to take the necessary interest in it. He advocated all-day clinics as they were necessary for such classes as commercial travellers, motor haulage employees, barmen, etc. A new blood test for syphilis, necessitating only a small sample from the finger or ear, would be published in the January number of the *British Journal of Venereal Diseases*.

The Annual Dinner of the Branch was held the same evening at the Exchange Station Hotel, Liverpool, at which the Lord Mayor (Alderman Edwin Thompson, J.P.), Keith Monsarrat, Esq. (President of the Liverpool Medical Institution), Samuel Brighouse, Esq. (Coroner for South-West Lancashire), Alderman Muirhead (Chairman of the Health Committee) and many other important guests attended. After the loyal toasts, proposed by the President (Dr. C. O. Stallybrass), the toast of "The City and Corporation of Liverpool" was proposed by Dr. R. Veitch Clark, who mentioned that it was the first of the great cities of this country to possess a full-time medical officer of health, and had long been in the forefront in its health activities.

The Lord Mayor, in reply, said he was afraid that the public did not realise what they owed to medical officers of health. There were two directions in which he hoped greater steps would be taken to educate the public, namely, in the value of inoculation against diphtheria and in the necessity for better cleanliness in our streets and the discouragement of the habit of throwing litter about.

Mr. K. W. Monsarrat proposed the toast of "The Society" and referred to the new duties of medical officers under the Local Government Act, 1929. He thought that help might be obtained by getting into closer touch not only with consultants but the general practitioner.

They had to see that institutional medical services were as complete as they could be made, and the one thing that was essential—and it was one thing in which the old poor law failed conspicuously—was the choosing of personnel.

The health of "Our Guests" was proposed by Dr. T. W. Naylor Barlow in his own inimitable way, and responded to by Alderman Muirhead, Dr. J. Murray Bligh and Mr. Samuel Brighouse, who, although now in his eighty-second year, is still actively engaged in his duties as coroner.

Dr. Stallybrass, in responding, pointed out the varied character of the information that the medical officer of health was expected to possess and considered that in the future his training might be overburdened with details. The passing of the Local Government Act, 1929, created both a great opportunity and a real danger—that of being overwhelmed with a mass of administrative detail in controlling which he might lose sight of the real object of preventive medicine; namely, prevention. The opportunity was that of imbuing with the ideals of our forerunners not only the elected representatives but also the medical and nursing professions as a whole. He especially welcomed the opportunity of co-operation with those who taught in the medical schools. The pioneers of public health believed that the mass of disease and consequent destitution which they saw around them could be prevented by changing the environment, and so by imbuing the engineers and others with this sanitary conception, there had resulted the great progress of the nineteenth century. Notification and isolation had heralded the era of personal hygiene carried out through clinics and medical and nursing inspection, which had been equally effectual in this century. The opportunity was now afforded of preventing heart disease and insanity and of reducing maternal and cancer mortality by providing earlier diagnosis and treatment and more effective medical aid. Preventive medicine had a great future as well as a great past.

A further meeting of the North-Western Branch was held in Manchester on January 9th, 1931, the President occupying the chair. Fourteen members were present.

A letter was read from the General Secretary of the Central Council for Health Education, offering to send delegates to attend a meeting of the Branch to explain the services

rendered by the Council and methods of public education in health. It was resolved to refer the matter to the President and the Hon. Secretary to make arrangements if a suitable date could be found.

The question of attracting to membership of the Society, medical officers transferred to local authorities under the Local Government Act, 1929, was considered and referred to the Committee to take any action that was thought advisable after consulting, if necessary, representatives of the officers concerned.

A letter was received from Dr. Ratner asking that a certain number of evening meetings should be held, to afford members who were neither medical officers of health nor heads of departments an opportunity of attending. It was decided to refer this question to the Committee to see whether one or two such meetings could be held each session, possibly combined with a hotpot supper.

The Hon. Secretary notified an alteration in the session's programme in that the visit of the Branch to the Margarine Works at Irlam would take place on Friday, February 13th, instead of March 13th as published.

Dr. Veitch Clark opened a discussion on "The Housing Act, 1930, and Slum Clearance." He first referred to certain general aspects of the new housing legislation. The principle underlying the change is that the new Act and Memorandum envisage a sustained programme of action, so that ultimately the whole of the insanitary housing of a district may be dealt with. This Act is also the first piece of legislation which makes a specific endeavour to deal with overcrowding. It is likewise noteworthy that the term "working classes" is omitted from the title of the Act. After reference to the general outlines of the Act, many detailed points, illustrating new powers and the ways in which the practical work is effected, were referred to. In clearance areas no formal scheme is now required. The other great change is that purchase of a site by a local authority is not necessary, but clearance may be required of the owners. The local authority has power to purchase for specific purposes, e.g., re-housing, additional areas not included in the clearance area, etc. Compensation to tenants for removal of, or damage to, business is a just and necessary addition to the law. There is no real change in the medical officer of health's practical duties except that the information as to family incomes and constitution of families will have

to be somewhat more extensive and very exact for the purpose of re-housing and grant to be earned. The lay-out of the cleared areas should be done with full regard to town planning of the built-up area concerned. An important administrative point is that when improvement areas are projected, a provisional statement must be sent to the Minister before the resolution of the local council is passed, as well as a full statement of the case after such resolution. This differs from the procedure in connection with clearance areas. The general lines of action in improvement areas were referred to. It would appear that overcrowded families can be re-housed and the grant earned before any actual structural work is commenced in the area. The importance attached to the bye-laws in the administration of the area subsequent to complete action shows the real, practical spirit which characterises this new Act. As far as individual unfit houses are concerned little new arises, apart from the re-housing and the provision of Government grant for this purpose. The question of grant was not entered into in detail. It was noted, however, that smaller houses for old people now qualify for housing grants. It was unfortunate in the speaker's opinion that Government grant was restricted to re-housing. Land in cleared areas is as a rule very costly, and the use of such land for public health purposes, *e.g.*, recreation grounds, as well as directly for housing, might reasonably have received support from national finance. The standard of housing also is a matter which is of specific interest to medical officers of health. In the bye-laws for improvement areas this standard is rather a low one, quite properly so, inasmuch as the bye-laws have to deal with old housing property. The standard, however, for re-housing is inclined to be high. Illustrations were given of this statement, and it was explained that the Act permits local authorities to make application to the Minister for approval of the standard desired by the local authority.

Dr. A. G. Glass, in proposing a vote of thanks to Dr. Veitch Clark, detailed some of his experience at the recent inquiry in the Farnworth Urban District in regard to two clearance areas—the first inquiry of its kind in the country under the new Act. After describing some of the features of the areas, he dealt with the question of re-housing and grants. With regard to unfitness of the houses, he stressed two important points,

namely, how far they failed to comply with local bye-laws, and to what extent they fell below the general standard of the district.

Dr. Clay Beckitt seconded, and said he had been somewhat puzzled as to the amount of re-housing necessary, but evidently it was more a matter of pooling than endeavouring to provide houses both for the tenants and for any lodgers.

Dr. Whitehead asked whether it was reasonable to demand separate yards for every house when re-conditioning an improvement area. He thought there might be some difficulty in dealing with back-to-back houses, and suggested that if the five years' programme had been deferred until the new census, it would have given authorities a better opportunity of assessing their requirements.

Dr. Stallybrass stated that this Housing Act for the first time dealt definitely with overcrowding and not only with defects in houses. He mentioned that a large scheme under the old Act had been held up in Liverpool because of the technical point that no formal scheme had been included in the official representation. He thought this might be the reason that the memorandum in the new Act, in order to overcome this technicality, stated that no formal scheme was required. It had been held in some quarters that an area must be defined by a continuous line, and although this could cross a private street it could not cross a public street.

Dr. Veitch Clark, alluded to Dr. Glass's valuable experience, and said that the real difficulty in all schemes was not getting together material so much as in standing up to the cross-examination at inquiries. He agreed that every house ought to have a separate yard, and the size and arrangement of yards must always be important. He had based his five years' programme largely on the age of the houses and arrangement of the streets.

THE WELSH BRANCH.

President: Dr. E. I. L. Parry-Edwards, County M.O.H., Carnarvonshire.

Hon. Secretary: Dr. D. J. Thomas, Deputy M.O.H., Rhondda.

The inaugural meeting of the session of this Branch was held at Chester on November 28th, 1930, when Dr. Parry-Edwards was formally installed as President. Owing to the small attendance it was decided to postpone the delivery of the Presidential Address to a future meeting.

A further meeting of the Branch was held at the City Hall, Cardiff, on December 12th, 1930, when nine members attended. In the unavoidable absence of the President, Dr. Howard-Jones (Newport) took the chair. Letters regretting inability to attend were read from the President and Dr. Colston Williams.

As a result of a communication from the Tuberculosis Group, it was decided that Dr. D. A. Powell, Principal Medical Officer, Welsh National Memorial Association, be nominated as a representative of the Branch on the Committee of the Tuberculosis Group, and that the medical staff of the Memorial Association be requested to nominate a second representative.

The meeting decided that the support of the Branch to a nomination for the Presidency of the Society could not definitely be pledged at that juncture.

In response to a letter from the Executive Secretary relating to the recruitment into the Society of Medical Officers employed in municipal health services under the Local Government Act, 1929, it was decided to extend an invitation to all such medical officers within the area of the Branch to become members.

Dr. Pole (Llanelly) introduced a discussion on the Housing Act, 1930. A detailed review of the provisions of the Act was given, and some of the administrative advantages and difficulties arising therefrom were emphasised. Among the latter it was noted that the resolution declaring an area to be an improvement area was permissive, though an authority might be satisfied that the area was such; certain difficulties might also arise in determining whether a house was fit for human habitation in accordance with Section 62 of the Act. In regard to the service of notices requiring the repair of an individual house, the speaker advised that notices be served on all persons having an interest in the property, and also that the assistance of a surveyor be obtained, prior to proceeding with the issue of notices in connection with the demolition of individual houses which were on the borderline as regards being repairable at a reasonable cost. The disadvantage of accepting an undertaking that a house shall not be used for human habitation as prescribed in Section 19 (2) was also noted.

Dr. Severn (Pontypridd), continuing the discussion, dealt in an interesting manner with the history of housing legislation, but the reading of his paper was interrupted by the

attendance of a deputation representing the South Wales and Monmouthshire Meat Traders' Council. It was decided, therefore, that the points raised by the opening speakers be discussed at a future meeting of the Branch.

The Meat Traders' deputation sought the co-operation of the members of the Branch in obtaining a more uniform system of administration of the Meat Regulations in the South Wales area, particularly in relation to the abolition of illicit slaughtering of unfit animals, which was alleged to occur in some districts, and the supervision of the sale of meat by hawkers and on stalls in open places. The deputation submitted proposals for the registration of persons carrying on the business of meat traders, for the registration of premises occupied by persons thus registered, and for the technical training of all persons engaged in the meat trade. The members present signified their general agreement with the views put forward by the deputation, but at the same time indicated the incidental difficulties in administration which might arise if the proposals were legalised.

Two meetings of the Sub-group confined to assistant medical officers and school dentists, of which Dr. C. J. McSweeney, Deputy Medical Officer of Health, Cardiff, is chairman, and Dr. W. E. Crosbie, Glamorgan County Council, is Hon. Secretary, were held during the session.

The first meeting was held at the City Hall, Cardiff, on October 3rd, 1930, when seventeen members were present.

Dr. Holmes, Assistant Medical Officer, Glamorgan County Council, read a short paper on "Diseases of Animals transmissible to Man." The different modes of transmission were enumerated, and each disease was classified according to its mode of infection. Those diseases of special public health interest were described at length, and among them were plague, anthrax, tuberculosis, and Malta fever. Dr. Holmes mentioned that in several cases of favus the infection had been traced to mice. The danger of infection with the commoner exanthems from domestic pets was discussed and dismissed as of little importance. The Chairman and Drs. H. Jones and Betenson, took part in the discussion, and amongst the conditions mentioned were spirochaetal jaundice; foot-and-mouth disease, brucella abortus infections and psittacosis.

A hearty vote of thanks was accorded to Dr. Holmes for his interesting paper.

The second meeting was held in the Municipal Buildings, Pontypridd, on November 6th, 1930, when thirteen members were present.

Dr. G. E. Harries, Assistant Medical Officer of Health, Rhondda, read a paper on "Mental Deficiency." Dr. Harries mentioned the legal enactments which dealt with mentally defective children, and dwelt on the definition of mental deficiency as set out in the 1927 Act. He pointed out that according to this definition, the onset of mental deficiency might occur at any time before the age of eighteen years, whereas formerly the condition had to be present at birth or at an early age before it could be legally classified as mental deficiency. The various types of mentally deficient children were fully described, and the obligations imposed upon, and the methods employed by local authorities for dealing with these children were outlined. The Binet Simon and the Stanford Revision Tests were discussed. A classification of mental defectives according to the intelligence quotient was given, and the inadequacy of mental ratios in assessing the different types of defect, more particularly moral deficiency, was mentioned. In conclusion, Dr. Harries discussed the difference between the dull child and the backward child.

In the discussion which followed, the Chairman and Drs. Lewis, Holmes, Lawrence and Crosbie took part. The term "moral defective" received particular attention, and other points included the intellectual levels rendering children suitable for education in special schools, the fallacies which beset too rigid an interpretation of intelligence tests, and the "post-encephalitic" state.

Mr. J. Young, Senior Dentist, Glamorgan County Council, read a short paper on "Teeth and their relationship to Health." Pyorrhœa and caries, he said, affect the general health, but a suppurating root was far more insidious in its mode of action, and therefore required more attention. The importance of X-rays in diagnosis was emphasised. The spread of infection from the diseased tooth was described, and the various conditions arising from such infection were enumerated. Dental decay was more common in children than adults, but the school dental clinic had materially lessened the amount of school time lost from dental causes.

The Chairman and Drs. Lawrence, Holmes and Harries took part in the discussion which followed.

The proceedings closed with a vote of thanks to Dr. Harries and Mr. Young for their interesting papers.

THE HOME COUNTIES BRANCH.

President: Dr. K. E. Tapper, O.B.E., M.O.H., Bromley, Kent.

Hon. Secretary: Dr. A. A. Turner, M.C., M.O.H., Finchley.

A meeting of this Branch was held at the house of the Society on January 2nd, 1931. In the absence of the President, Dr. W. A. Muir took the chair. Apologies for absence were notified from eight members.

A letter was read from the Executive Secretary, asking for the co-operation of the Branch in recruiting medical officers transferred under the Local Government Act, 1929. Everyone present undertook to make an effort to induce such officers in his area to join the Society, but the meeting was of the opinion that the formation of special groups should be undertaken by the Council of the Society.

Dr. D. J. Thomas (Acton) opened a discussion on Death Certification. He asserted that in not more than 40 per cent. of certificates was the correct cause of death given; this was due to idiosyncrasies, carelessness and ignorance of doctors, and the fact that the contents of certificates were not secret. The present state of affairs, he held, could be improved if medical officers of health were made the registrars, and death certificates regarded as strictly confidential.

A discussion followed in which Drs. Adamson, Garrow, Harding, Nash, E. W. C. Thomas, and the Chairman took part. At the conclusion, Dr. Thomas was warmly thanked for his interesting paper.

THE EAST MIDLAND BRANCH.

President: Dr. C. Killick Millard, M.O.H., Leicester.

Hon. Secretary: Dr. J. A. Stirling, M.O.H., Chesterfield.

A meeting of this Branch was held at the Guildhall, Lincoln, on December 11th, 1930, the President occupying the chair. Nineteen members were present. Apologies for absence were received from eight members.

Draft byelaws for the Branch were considered, and it was resolved that these be suit-

ably modified and circulated to the members for confirmation at the next meeting.

Dr. Newth read a very illuminating and instructive paper on "The School Medical Officer and Mental Retardation." Drs. Millard, Tibbits, Davies, Stevens, Lamont, Jennings, and Barker took part in the discussion which followed, and at the conclusion Dr. Newth was accorded a hearty vote of thanks on the proposal of Dr. Cyril Banks, seconded by Dr. Millard.

The President extended the congratulations of the Branch to Dr. Lamont on his appointment as Medical Officer of Health for Burnley, and Dr. Lamont suitably replied.

A meeting of the Council of the Branch preceded that of the Branch.

THE TUBERCULOSIS GROUP.

President: Dr. F. J. C. Blackmore, T.O., Woolwich.
Hon. Secretary: Dr. Ernest Ward, T.O., South Devon.

A meeting of the Group Committee was held at the house of the Society on January 16th, 1931, the President occupying the chair. Twelve members were present.

(1) The Council representative announced:

(a) That the Group's memorandum on contact examination had been accepted by the Council of the Society after discussion, and published in *PUBLIC HEALTH*.

(b) That the memorandum on the employment of tuberculous nursing and domestic staffs had been referred back for amendment, and members of the Council of the Society had expressed the hope that the Group would also make reference to the employment of tuberculous doctors, and to the question of superannuation. Later during the meeting the Hon. Secretary was asked to present to the next Committee meeting a revised memorandum for discussion.

(c) That the question of a tuberculosis library had been referred to the Tuberculosis Association, who would consider it at their next meeting.

(d) That clerical help for tuberculosis officers had been discussed by the Council of the Society, and the Group had been asked to present a memorandum on the subject, suggesting how clerical work could be made lighter for tuberculosis officers. The Hon. Secretary

was later asked to prepare such a memorandum, with the assistance of members of this Committee, for discussion at the next meeting.

(e) That the question of advertising of posts in the public health service would be considered that afternoon by the General Purposes Committee, together with evidence to be given before the Departmental Committee on the Qualifications, Recruitment, Training and Promotion of Local Government Officers. (The General Purposes Committee decided that it would serve no useful purpose to include reference to this point).

(f) That the question of asking the General Nursing Council to open a register for nurses trained in tuberculosis would also be considered by the General Purposes Committee. (The General Purposes Committee decided that it was undesirable at present to increase the number of special registers).

(2) The Hon. Secretary announced that the Welsh Branch had appointed Drs. D. A. Powell and J. L. Thomas to represent them on this Committee. Dr. Blackmore, on behalf of the Group, welcomed these two new members, both of whom were present.

(3) It was reported that the Advisory Education Committee of the Labour Party had asked for evidence on the prevention of tuberculosis in children. The matter was referred to the Joint Tuberculosis Council.

(4) A resolution, brought forward by Dr. Jessel, on the designation of tuberculosis officers and their dispensaries was amended and passed as follows:—"Inasmuch as officers in the tuberculosis service are actively concerned in the diagnosis and disposal of chest diseases generally, and also with non-pulmonary diseases allied to tuberculosis, this position should be recognised by adopting more appropriate designations than at present."

The Hon. Secretary was asked to bring the matter to the notice of the Joint Tuberculosis Council.

(5) The surgical treatment of pulmonary tuberculosis was discussed. It was stated that in the London area but few dispensary patients receive artificial pneumothorax treatment. As the Joint Tuberculosis Council has an Artificial Pneumothorax Committee it was decided to leave this question to them.

(6) The utilisation of sanatoria was discussed, and on this subject Dr. Blackmore promised to prepare a memorandum for submission to the next Committee meeting.

The Literature of Preventive Medicine.

THE DIAGNOSIS OF MENTAL DEFICIENCY. By HENRY HERD, M.A., M.B., CH.B. (Edin.), Senior Assistant School Medical Officer, Manchester Education Committee; Certifying Medical Officer, Lancashire Mental Deficiency Authority. London: Hodder & Stoughton, Ltd., 1930. pp. 272. Price 12s. 6d. net.

This excellent volume satisfies a long-felt want. It is now no longer necessary for those who wish to obtain a working knowledge of mental deficiency to secure a number of large and expensive books, and wade through reams of purely academic matter before being able to discover and piece together the information necessary for the practical understanding of the problems of mental deficiency. The author has gathered together concisely, yet comprehensively, the vital facts relating to mental deficiency and its diagnosis, and presents them in a readable form without any padding. He steers a clear course between conflicting currents of rival psychologists and presents his facts as a calm and judicious observer rather than as a partisan.

The psychology of mental deficiency is lucidly explained without going too deeply into the subject, and the important difference between feeble-mindedness, as viewed by the Education Act of 1921 and the Mental Deficiency Acts of 1913 and 1927, is clearly expressed.

The various methods of estimating a child's mental possibilities from both educational and social standpoints are described in sufficient detail. The particular value of performance tests is rightly stressed, and the Porteous Maze Test, which estimates capacity for constructively thinking ahead, is rightly considered by the author as amongst the best tests of social possibilities. It might, however, have been expected that some mention would have been made of Kohs' Block-design test, which claims to estimate "analysis-synthetic" ability, for analysis and synthesis probably play no inconsiderable part in the life of the community. It is questionable whether the author is not taking too much for granted in assuming that Burt's contributions to the elucidation of cases of word-blindness are already well known, and therefore something more than two paragraphs on this subject would have been helpful to readers, but the author's

contention that these are matters more for educational psychologists than for certifying medical officers explains why word-blindness has not been given more space. These are only minor points, and Dr. Herd has undoubtedly achieved his object, namely, the compilation of a concise and practical guide to the recognition of mental deficiency on modern lines. The book evinces both wide reading and considerable practical experience of the subject on the part of the author, and cannot fail to be of great value to all who wish to interest themselves in mental deficiency, particularly from the point of view of certifying officers.

EPIDEMIOLOGICAL ESSAYS. By F. G. CROOKSHANK, M.D., F.R.C.P. London: Kegan Paul, Trench, Trubner & Co., Ltd., 1930. pp. 136. Price 7s. 6d. net.

Books on this subject in the past were mainly historical, while latterly they have been dominated by bacteriology and statistics. Dr. Crookshank would take a wider view. He would like to see utilised the work of observers in many fields of science, including the astronomer, the meteorologist, the biologist, the horticulturist and others. He takes as his text the writings of Hippocrates, especially those on Airs, Waters and Places. In these times the quaint conceits of the astrologer are commonly laughed at, but do we know much more than did the ancients as to the reasons for cycles and variations in disease? Was there some truth in their belief in the influence of the stars? It has been held that there is a constant breaking up of matter and radiation into space from all the stellar bodies. An astronomer has recently stated that when two of the planets of our system are in conjunction, the rays from them are sufficient to cause a disturbance in the sun. If these radiations are sufficient to do this, it is not unlikely they have some effect on our atmosphere and on the inhabitants of the earth. Dr. Crookshank instances a number of observations in support of his contention, but there are many more. A comprehensive work on Epidemiology on the lines indicated would be of great interest and value. All who read these essays may not agree with the author's reasoning, but they will find them interesting and suggestive.

A COMPENDIUM OF AIDS TO FIRST-AID. By N. CORBET FLETCHER, M.A., M.B., M.R.C.S. London: John Bale, Sons and Danielsson, Ltd., 1930. Seventh edition (revised). 20th thousand. pp. 70. Price 1s. net.

ACCIDENTS AND EMERGENCIES—THEIR SIGNS, SYMPTOMS AND "FIRST-AID" TREATMENT. By A. T. GOODING. London: John Bale, Sons and Danielsson, Ltd., 1930. pp. 62. Price 1s. net.

These two volumes, which are of the nature of reference books, cover much the same ground. The first imparts its instruction mainly in the form of artificial aids to memory, whereas in the second the matter is arranged alphabetically with signs and treatment set down opposite each condition dealt with. The first would probably be regarded as the better for examination purposes, and the second as easier for quick reference. Neither, wisely, claims to be a substitute for regular study and practice of first aid. By those for whom they are primarily intended, both books will doubtless be found extremely useful.

HOME NURSING IN FEW WORDS. By J. M. CARVELL, M.R.C.S.L.S.A., Lond. London: John Bale, Sons & Danielsson, Ltd., 1930. pp. 13 (folder). Price twopence. 56th thousand (revised).

The revised edition of this publication, already well known to the public, sets out the main points in home nursing. The information it contains is comprehensive, easy to read, and well arranged, and the folder may be recommended as a useful reminder to the professional nurse or doctor, and as a handy guide for the lay person.

MANUAL OF MODERN COOKERY. By JESSIE LINDSAY, Head of the Household Arts Department, King's College of Household and Social Science, University of London, etc.; and V. H. MOTTRAM, M.A., Professor of Physiology, University of London, etc. University of London Press, Ltd., 1930. pp. 316. Price 4s. 6d. net.

When this book first appeared in 1927 it received a warm welcome and high commendation in this journal. The fact that in so short a time as three years a new edition has been called for is evidence that the praise offered was deserved. For this new and revised edition no less of praise and no less strong a recommendation than were offered to the first can be given. All who have used the earlier

edition will desire to have this new one, which is very certain to make additional friends.

In the Annual Reports.

THE CONSUMPTION OF MILK.—An opinion has been expressed that the development of milk production for sale as liquid milk has almost reached saturation point, but the consumption of liquid milk in this country is very little more than a quarter-pint per head per day. In far too many households milk is used not as a food but as a colouring agent for tea. To reach saturation point the daily consumption should be in the neighbourhood of one pint per head per day. We preach this doctrine day in and day out whenever a suitable opportunity arises.—*Dr. C. W. Hutt, Holborn.*

THE CAUSE OF THE FALL IN INFANT MORTALITY.—The greatest advance in preventive medicine in this country during the past thirty years has been in the preservation of infantile life, and much as we may desire, it is doubtful if we shall advance much farther in this direction for some little time. It is not possible to put a finger on any one factor and say this is the cause of the fall in infant mortality. There are so many agencies at work, viz., better education and housing, shorter hours of labour, more attention to the cleanliness of food for infants, the work of the infant welfare bodies, and last, but perhaps not least, the reduction of flies due to a large extent to mechanical transport having displaced horses. All these factors have played a part in saving the lives of infants.—*Dr. Stephen Rowland, Northampton.*

EMPLOYMENT OF THE TUBERCULOUS.—No tuberculous person, able to work, should lead a life of idleness. Occupation suited to the medical needs of the case is far more beneficial than any medicine known to medical science, but these people are not in a position to compete with healthy labour, and in order to make their labour self-sufficient some form of endowment or protection is necessary. A condition of the reception of sickness benefit is that the recipient does no work of any kind; this rule in the case of the tuberculous condemns them to months of idleness which is an encouragement to pauperism and helpless dependency.—*Dr. Oscar M. Holden, Croydon.*

PHARAON'S ANT.—A complaint was received of the occurrence in large numbers of a minute insect in loaves of bread and baker's rolls. The insect was found to be a species of ant, known commonly as Pharaoh's Ant (*Monomorium Pharaonis*). This species is rather widespread throughout London and from its persistent foraging habits is met with in food-stuffs. It nests in the walls of houses, or near the foundations, and may often be dealt with by repairing some structural defect, or by altering or cementing in details which go from floor to floor, such as hot water piping. The insects may be removed by:—

1. Trapping in sponges soaked in a solution of sugar in water or by greased papers, or bands such as are used for fruit trees.
2. Spraying with insecticide.
3. Disinfection by sulphur fumes.

—*Dr. A. E. Thomas, Finsbury.*

Correspondence.

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

SAFE MILK.

To the Editor of PUBLIC HEALTH.

SIR,—The ideal "safe milk" is free from pathogenic organisms and retains its nutritional values. It can be obtained from healthy, tubercle-free cattle, and is drawn under hygienic conditions and protected from contamination in transport from the source to the consumer.

Mr. T. B. Macaulay has proved that this can be done on a small scale; at his experimental farm near Montreal, Canada, there is a herd of Frisian cattle; each animal is tuberculin tested at regular intervals, and for the seventh year in succession the tests have been negative; procedures are adopted for ensuring the purity of the milk, these having proved successful in reducing the bacterial content considerably.

The Federal Government of Canada offered free tuberculin testing to live stock owners in 1897, and plans for eradicating tuberculosis in cattle have been evolved as the result of experience during the succeeding years. It is estimated that the average percentage of tubercle in cattle is less than five at the present time.

The incidence of tuberculosis in cattle in England is estimated at a much higher figure, and there is evidence of a large amount of infection in pooled raw market milk.

Dr. R. Marguerite Price, Bacteriologist, Toronto University, in her studies on "Bovine Tuberculosis and its Relation to Infection in Children" in the Toronto area, has come to the conclusion that pasteurisation of, or boiling, milk prevents bovine tuberculosis in children, and Dr. Harold Parsons produces clinical evidence in support of this conclusion.

Statistical evidence in favour of pasteurisation has been produced by the Commissioner of Health for New York (Dr. Charles Wyne) and by the health officer of large American cities.

The question of pasteurisation—in view of the large amount of infection in this country—should be adopted generally?

In Canada and the United States the generally accepted opinion appears to be that pas-

teurisation does not materially impair the nutritional properties of the milk. There is evidence, however, that heating milk reduces the amount of vitamin D and available calcium; it also destroys certain organisms which may aid digestion in infancy.

As milk is an essential article of diet in infants and young children, and as there is a possibility of pasteurisation impairing the nutritional qualities, would it not be safer to give Certified or Grade A (T.T.) milk to infants and young children, and reserve pasteurised milk for older children and adults?

Should not pasteurisation of milk even for these individuals be regarded as a "temporary expedient" only, and efforts be directed towards obtaining a general supply of milk free from pathogenic organisms with its nutritional qualities unimpaired?

I am,

Yours faithfully,

HAROLD VALLOW,

Tuberculosis Officer.

Anti-Tuberculosis Centre,
City of Bradford,
January 22nd, 1931.

Dr. M. L. Bery has been appointed Medical Officer of Health for the City of Lincoln, in succession to Dr. D. C. Lamont.

After twenty-five years' service, Dr. A. E. Porter has resigned his appointment as Medical Officer of Health for Borough of Reigate.

A COURSE of two lectures on "The National Diet" will be given at the London School of Hygiene and Tropical Medicine, Keppel Street, Gower Street, London, W.C.1, by Professor E. P. Cathcart, C.B.E., F.R.S. (Regius Professor of Physiology in the University of Glasgow), at 6 p.m. on Monday and Tuesday, February 23rd and 24th, 1931. The lectures will be illustrated by lantern slides and are addressed to students of London University and to others interested in the subject. Admission free, with ticket.

PUBLIC HEALTH

THE JOURNAL OF
THE SOCIETY OF MEDICAL OFFICERS OF HEALTH.

No. 6. Vol. XLIV. MARCH, 1931.

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

Application should be made to the Executive Secretary of the Society, at 1, Upper Montague Street, Russell Square, London, W.C.1.

Subscription price 31s. 6d. per annum, post free in advance. Single Copies, 2s. 6d. post free.

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Editorial.

A Full-time Public Health Service.

QUITE often it is claimed that so far as the organisation and administration of public health in this country are concerned, one of the most important provisions in the Public Health Act of 1875 was that directing every urban authority to appoint a medical officer of health. If this is so, it is perhaps not out of place to claim that in this same connection there are in the Local Government Act of 1929 few sections containing provisions of greater moment than section 58. Described in the Act as containing "provisions as to medical officers of health," it in fact, and in the main, seeks to provide a means whereby every district in every county shall be assured of the services of a health officer who devotes his time exclusively to the interests of the district

and the health interests of the people. To this end, every county council is required, after consultation with the councils of districts wholly or partly in the county, to formulate arrangements for securing that every medical officer of health subsequently appointed for a district shall be restricted by the terms of his employment from engaging in private practice as a medical practitioner. As to the details of the arrangements, section 58 itself merely indicates that the formulation may be by means of a committee of districts or otherwise. For the counties in which the councils the Minister of Health exercises two particular powers under the section, of formulating schemes in default of a county council and of dispensing with the requirement in particular instances, has issued a memorandum

(L.G.A. 41) in which he has indicated broadly the main principles on which arrangements may be based. The memorandum quite obviously has been most carefully prepared and, setting out the various alternatives that may be followed in order to secure the services of officers devoting their whole time to public duties, gives a fair and reasoned and informed criticism of the advantages and disadvantages that have been expressed in regard to each. No attempt is made to press any particular form of arrangement upon the councils. Having regard to the differences in circumstances in different counties and different areas, indeed, it would not be possible to do so. In discussing particularly the important question of what is to be regarded as a suitable unit of administration for one medical officer of health, this point is very definitely made. In respect of this, for example, it is explained that while population must certainly be taken into consideration, it is not mere numbers alone that must be regarded, but also the degree of concentration or the extent of scattering. And so in discussing the various forms of combination, attention is directed to the need for inspecting each of the suggestions from all sides and in relation to the peculiar circumstances of each particular type of area. Especially in suggesting the possibility of combining the posts of district medical officer of health and assistant county medical officer of health, the need is pressed for seeing that there shall not be undue difficulty in obtaining a properly qualified officer. As an alternative to this method the memorandum discusses the possibility of combining districts to make an area suitable in size and so on as a charge for one full-time officer. To this, which in general to the medical officer of health is the method that appears more free from defects than any other, it may seem to members of the health service less space is given than it deserves. Also it may appear that in omitting from amongst the disadvantages to the other method, reference to difficulties associated with the giving of full security of tenure and of providing openings for promotion for assistant officers, members of the service may be inclined to consider that the memorandum has overlooked points of real moment. These, however, are perhaps objections less likely to occur to the Ministry of Health than to officers actually in the health service. These, nevertheless, on the whole, will be prepared to accept the memorandum as fair and just and certain to be extremely useful to county and

district councils met to discuss how best and most advantageously to make use of the vastly important provisions of section 58.

* * * * *

Health Education in Primary Schools.

IN his Report on "The Health of the School Child" for 1929, Sir George Newman made a very prominent feature of a special enquiry, carried out by the Board of Education into the action taken by local education authorities, with regard to the teaching of hygiene in schools. That the results caused him extreme disappointment was very obvious from what he had to say. In the Report of the Consultative Committee on the Primary School, recently issued by the Board of Education,* it is interesting to find that special reference is made to the subject of health education, and that this body, which, it may be noted, is exclusively non-medical, gives the strongest possible support to Sir George Newman in the efforts which he is making to ensure that the training in health is definitely made part of the curriculum in the education of every child. What the Committee found was that the majority of their witnesses were with them also, expressing the opinion that health education must for the most part, so far as regards the primary school, in which provision is made for the education of children up to the age of eleven, be given indirectly as an integral part of the daily life of the school. "It is most important," says the Report, "that the school premises and equipment should provide a civilising environment favourable to the foundation and practice of healthy habits; for example, roomy classrooms with abundant sunlight and ventilation, well arranged and properly equipped offices and lavatories with a supply of hot water, suitable cloakrooms, facilities for drying clothes and boots, and adequate playgrounds are essential. Dining-rooms and kitchens are of great importance, and proper facilities must also be provided for exercise and for rest within the school hours. The witnesses agreed that formal lessons on hygiene for children between the ages of seven and eleven are of minor importance compared with the formation of right habits through training in those practices which are the foundation of a healthy life.

* H.M. Stationery Office, 1931. pp. 290. Price 2s. 6d. net.

Such training may include, among other activities, the practice of cleanliness of the hands and face, hair and teeth, appropriate breathing exercises, periods of rest and quiet, keeping clean and tidy the classroom and its equipment, e.g., the cupboards, and the ventilation of the classroom. Suitable subject matter for health practice and health talks for young children up to the age of eleven are set out in the Handbook of Suggestions on Health Education issued by the Board of Education in 1928. It is urged that throughout the whole primary school stage an effort should be made to develop in the children a sense of responsibility in matters relating to hygiene, and the Committee agree generally with the view expressed in the Board's Handbook of Suggestions (1927) to the effect that the study and practice of health must form, from the first, part of the everyday life of the school."

* * * * *

The Prevalence of Cerebro-Spinal Fever.

IN view of the public notice which recent reports of cerebro-spinal fever have received (particularly those relating to cases in Army and Air Force stations), it is well that it should be understood that periodical increases in the occurrence of this relatively rare disease are not unusual. Cerebro-spinal fever has been recognised and studied in this country for over sixty years, particularly when, as has been the case, it has occurred intensively in particular areas or, as is the more general rule, when its prevalence is made up of small numbers of cases scattered through the whole country. In every year there is a certain amount of cerebro-spinal fever in the country, but in particular years or series of years its occurrence is sometimes considerably above the average. There appears to be no one outstanding cause for these increases, though a variety of different circumstances have appeared at one time or another to have influenced their occurrence.

Cerebro-spinal fever was made generally notifiable in this country in 1912, and some 200 to 300 cases were reported annually until the war years, when mass concentrations of men were frequent, and housing accommodation for both civilian and soldier was strained to the utmost. In 1915-1917 there was an annual incidence on the civil population of from 1,300 to 2,500. From that time the annual figures decreased to a minimum of 301 in 1923, but

since that year their tendency, though irregular, has been upward. The total of notified cases in England and Wales in 1929 was 650 and in 1930, 666. Since the present year began, approximately 230 cases among civilians have been notified in England and Wales. In general they have shown the usual scattered distribution, and have occurred in as many as thirty-six counties. There has, however, been some concentration in the West Riding of Yorkshire, where 79 cases have occurred since the beginning of the year in 20 different sanitary districts.

The case mortality from cerebro-spinal fever varies with the epidemic and with the phases of an epidemic, and, naturally, with the extent to which the milder cases are diagnosed and reported. Of the cases at present occurring and reported, approximately half have proved fatal.

The wide diffusion of cases, with its occasional concentration here and there, is a characteristic of cerebro-spinal fever not only in this country, but all over the world. This has been the case in practically all European countries and also in the United States, where the disease is, relatively speaking, more common. More severe and concentrated outbreaks from time to time occur in the East, probably associated with conditions parallel to those of the war years in England. The epidemic behaviour of this disease depends largely on the fact that in times of prevalence the responsible micro-organism (the meningococcus) is to be found in the nose and throat passages of a very large number of persons who are, and who remain, quite well. Contact with such persons is unavoidable and little in the way of preventive measures can in the circumstances be taken except those which are usually adopted or enjoyed to prevent the spread of ordinary catarrhs from person to person. Isolation of the individual case of cerebro-spinal fever is, on the whole, desirable, but however effectively it is done its influence on the spread of meningococcus infection can never be considerable. Infants, children and young persons (especially when newly entrant to a large community, e.g., recruits) are especially liable to the disease. One circumstance has been shown conclusively to favour local outbreaks, namely, overcrowding in barracks, schools and other residential institutions and in club premises for young people. It was found, particularly during the war years, that when the individual was given more room in which to live and sleep the incidence fell greatly

This point is of special importance in the prevention of outbreaks of the disease in these institutions, in which no approach to overcrowding should be permitted. This applies particularly to dormitories, where insistence on sufficient space between the edges of adjacent beds (which should never be less than three feet clear) and the maintenance of thorough ventilation are of the greatest importance in preventing cerebro-spinal fever.

No vaccine or serum effective for the prevention of an attack of cerebro-spinal fever is known. There is, however, an important specific curative treatment by the administration of anti-meningococcus serum, but its efficacy is by no means constant and depends to a large extent on the particular type or types of meningococcus used in its preparation. Serum therapy thus sometimes yields brilliant results, but at other times they are disappointing, even when the serum has been recently produced and has been derived from the organisms responsible for the current type of disease. The continued identification of types, the appropriate modification of serums, and the laboratory methods of determining the therapeutic potency of any given batch of serum, are among matters which are receiving close attention from many research workers and bacteriologists in this and other countries, in the hope of enabling serums to be prepared which promise greater success than those which are at present in use.

* * * * *

The Housing Act, 1930.

FOR the convenience of medical officers of health undertaking slum clearance work, the forms set out below have been suggested as suitable for making representations and summarising records with respect to clearance areas. These forms are intended only for the guidance of medical officers of health and indicate the points to which attention should be paid.

The first gives a convenient form of official representation to be made under Section 1 (1) of the Act, and the second gives a summary of the facts upon which the medical officer can give his evidence when it comes to an inquiry being held into a clearance order or a compulsory purchase order made in a clearance area.

The forms have been devised by the Housing Department of the Ministry of Health on

repeated requests of medical officers for suggestions in this matter, and while the forms may be made subject to variations, as they have no statutory force, it is felt that they will be of use to medical officers of health generally as models which can be varied for their requirements.

HOUSING ACT, 1930.

Name of Local Authority.....
Designation of Area.....
To the Council of.....
I,....., Medical Officer of Health for the District of in pursuance of Section 51 (2) of the Housing Act, 1930, hereby make official representation to the Council as regards the area described in the Schedule hereto (which area is coloured pink on the map marked.....) as follows:—

(a) that the dwelling-houses in that area are by reason of disrepair or sanitary defects unfit for human habitation, or are by reason of their bad arrangement or the narrowness or bad arrangement of the streets, dangerous or injurious to the health of the inhabitants of the area (*and that the other buildings in the area are for a like reason dangerous or injurious to the health of the said inhabitants); (†and

(b) that the most satisfactory method of dealing with the conditions in the area is the demolition of all the buildings in the area.)

Dated this.....day of.....19.....
(Signature)
Medical Officer of Health.

SCHEDULE.

Use one or other of the alternative forms (a), (b), (c), in Schedule of Form No. 14 on page 17 of the Housing (England) Provisional Regulations, dated August 19th, 1930, made by the Minister of Health under Section 57 of the Housing Act, 1930.

Reference Number on Map.....
Council of Clearance Area
Dwelling-house known as.....

PARTICULARS OF DISREPAIR AND SANITARY DEFECTS.

Condition of Walls..... Roof
Floors Staircase
Woodwork Plasterwork
Air Space
Ventilation
Darkness

* Delete bracketed part if there are no buildings other than dwelling houses.

† It is not necessary, though it may be convenient, that the bracketed words should be included in the official representation. The point is one for the decision of the local authority.

Dampness:

Relation of floor to street level.....
Rising damp
Defective roof, gutters, spouts
Water supply
Sanitary accommodation
Sink
Washing accommodation
Cooking facilities
Food storage
Paving or drainage of court, yard or passage.....

Is the dwelling-house dangerous or injurious to the health of the inhabitants of the area by reason of the bad arrangement of the houses or the narrowness or bad arrangement of the streets in the area?
Medical Officer of Health's Summary.

* * * * *

Paratyphoid Fever in Essex.

THE total number of known cases of paratyphoid occurring in Essex between February 1st and 14th, 1931, reached 172, the districts mainly affected being Epping urban, Epping rural, Loughton urban and the borough of Walthamstow. The disease in all cases was enteric (or typhoid) fever of paratyphoid B type. The illness in many cases has been severe, but the fatality has been relatively low and only four deaths have occurred up to the present time. By arrangement with the London County Council, the majority of the patients have been treated in that Council's infectious diseases hospitals, but others have been admitted to the London Fever Hospital, the Connaught Hospital at Walthamstow and the Ilford Isolation Hospital.

Enquiries made by Dr. W. V. Shaw, a Medical Officer of the Ministry, in consultation with the medical officers of health of the county and of the districts concerned, appear to have shown that the origin of the epidemic was the infection of a particular milk supply at a dairy farm in the Epping rural district. The infection seems to have been introduced by one of the employees on the farm who, unknown to himself, was suffering from a mild attack of paratyphoid while at work and handling the milk before its distribution. For several days the milk thus infected was consumed by a considerable number of persons in surrounding districts, some of whom have suffered from the disease. At the farm in question all the employees have been examined and all those suspected of possibly carrying infection, including the man considered to have been the source of infection, have been removed to hospital and their place at the farm

taken by other workers kept under close medical supervision. The distribution of milk from the farm was discontinued for the time necessary for the premises, milk utensils, etc., to be thoroughly cleansed and disinfected to the satisfaction of the medical officer of health, and there is now no reason to apprehend further infection of the milk at this farm.

* * * * *

The Registrar-General's Statistical Review, 1929.

THE final of the three annual volumes constituting the Statistical Review for 1929, recently issued,* contains the official analysis of the vital statistics contained in Parts I (Medical) and II (Civil). It is a commentary on, and supplement to, these statistics, with many extra tables, and special sections are devoted to births, marriages, deaths, stillbirths, estimates of population, vital statistics of Great Britain and Ireland, and meteorology.

The birth, death and marriage rates for the year 1929, are as follows:—

	1929.	1928.
Marriage-rate per 1,000 population	15·8 ...	15·4
Birth-rate per 1,000 population ...	16·3 ...	16·7
Death-rate per 1,000 population ...	13·4 ...	11·7
Deaths of infants under one year per 1,000 births ...	74 ...	65
Deaths of mothers from childbirth per 1,000 births ...	4·33 ...	4·42

The population at the middle of the year is estimated at 39,607,000 persons (18,969,000 males and 20,638,000 females). The total is in excess of the 1921 census figure by some 1,720,000 persons, an arithmetical increase of 0·56 per cent. per annum as compared with 0·49 per cent. per annum during the decade 1911-21. The figures indicate a higher growth amongst males, and the sex inequality expressed as 1,096 females per 1,000 males in 1921 is thereby assumed to have been reduced to 1,088 females per 1,000 males at the mid-year.

The marriage rate was 15·8, or 0·4 per 1,000 population higher than in 1928, and was the highest recorded since 1921 notwithstanding the prevailing economic depression.

The birth-rate was 16·3, or 0·4 per 1,000 less than in 1928, and was the lowest recorded in this country since the establishment of civil registration.

* The Registrar-General's Statistical Review, 1929—"Text" Volume. H.M. Stationery Office. Price 2s. 6d., instead of 5s. as in previous years.

The death-rate was equal to 13·4, or 1·7 above that recorded in 1928, and was higher than in any year since the great influenza pandemic of 1918-19. The increase was greatest at the two extremes of life, and lowest among young adults. The first quarter of the year was marked by a period of severe weather—the coldest experienced since 1895—and a serious outbreak of influenza which, with an increase in the deaths from cardiac and respiratory diseases, was chiefly responsible for the high death-rate during the quarter. These adverse conditions were also responsible for the increase in the infantile death-rate, which rose from 65 in 1926—the lowest hitherto recorded—to 74 per 1,000 live births.

A new table first published for 1928 shows the deaths and death-rates during the first thirty minutes of life from various causes. Attention is drawn to the excessive mortality of illegitimate children at this age, the rate per million live births being 9,691 against 1,288 for legitimate infants, while the rates from violence and neglect at birth were 6,312 and 98 respectively.

The mortality from influenza was the highest experienced in any year since the great epidemic of 1918-19.

The deaths ascribed to cancer during 1929 numbered 56,896, the highest number yet recorded for any one year. A table, continued from the previous year, shows the chief sites of cancer in order of frequency and the proportions of deaths for each site.

A table shows the reduction in the mortality from diabetes at ages under 55 years since the introduction of insulin in 1923. At the later ages the mortality continues to increase, especially among females.

Mortality from pernicious anæmia at various age groups from 1921 onwards shows the effects on death-rates of the introduction of the new treatment with liver, the mortality being decidedly lower.

A table and diagram comparing the consumption of alcohol with death-rates from alcoholism and other allied causes from 1871 onwards, exhibits the marked decrease of mortality both from alcoholism and from cirrhosis of the liver co-incidental with the decline in the consumption of alcohol.

An analysis, continuing that first published in the 1928 Text, shows the extent to which death registration and burial take place on the strength of the certificate of a medical attendant who has seen the body of the deceased after death.

A classification of marriages by method of solemnisation, continuing the quinquennial series last published for 1924, shows the continued increase in the number of civil marriages.

A summary for the whole country of the first register compiled under the Representation of the People (Equal Franchise) Act of 1928, shows in conjunction with the figures of previous registers made since 1918, the increase in the female electorate, the actual figure being 13,228,999 against 11,866,794 for the male electorate.

The whole volume and its many special features constitute a public document of absorbing interest and outstanding value.

* * * * *

Special Lectures at the London School of Hygiene.

THE concluding series of special lectures arranged by Professor W. W. Jameson at the London School of Hygiene and Tropical Medicine (University of London), Keppel Street, Gower Street, W.C.1, in connection with the course of study for the Diploma in Public Health, Session 1930-31, is set out below. These lectures are open, not only to the D.P.H. students at the School, but also to any member of the public health service, and, indeed, to all interested members of the general public.

SUMMER TERM. 1931.

April 23th, 5 p.m.—“Laws of Inheritance.” Professor F. A. E. Crew, Edinburgh University.

April 29th, 5 p.m.—“Laws of Inheritance.” Professor F. A. E. Crew, Edinburgh University.

April 30th, 5 p.m.—“Laws of Inheritance.” Professor F. A. E. Crew, Edinburgh University.

May 1st, 5 p.m.—“Laws of Inheritance.” Professor F. A. E. Crew, Edinburgh University.

May 5th, 2 p.m.—“Port Work.” C. F. White, M.B., D.P.H., D.T.M., M.O.H., Port of London.

May 8th, 2 p.m.—“Industrial Hygiene.” J. J. Buchan, M.D., M.O.H., Bradford.

May 11th, 5 p.m.—“Port Work.” C. F. White, M.B., D.P.H., D.T.M., M.O.H., Port of London.

May 13th, 5 p.m.—“Mental Hygiene.” Bernard Hart, M.D., University College Hospital.

May 15th, 5 p.m.—“Industrial Hygiene: Respiratory Diseases.” Professor E. L. Collis, Medical School, Cardiff.

May 20th, 5 p.m.—“Mental Hygiene.” Bernard Hart, M.D., University College Hospital.

May 22nd, 5 p.m.—“Industrial Hygiene: Respiratory Diseases.” Professor E. L. Collis, Medical School, Cardiff.

May 27th, 5 p.m.—“Child Guidance.” R. H. Crowley, M.D., Board of Education.

May 28th, 5 p.m.—“Mental Deficiency from the Social, Legal and Educational Aspects.” F. C. Shrubsall, M.D., London County Council.

May 29th, 5 p.m.—“Industrial Welfare Schemes”—N. Howard-Mummary, M.R.C.S., L.R.C.P., Medical Officer, J. Lyons & Co.

June 1st, 5 p.m.—“Mental Deficiency from the Social, Legal and Educational Aspects.” F. C. Shrubsall, M.D., London County Council.

June 2nd, 5 p.m.—“Physically Defective Children.” C. J. Thomas, M.B., London County Council.

June 4th, 5 p.m.—“Physically Defective Children.” C. J. Thomas, M.B., London County Council.

June 5th, 5 p.m.—“Industrial Hygiene.” R. R. Hyde, Director, Industrial Welfare Society.

June 9th, 5 p.m.—“International Hygiene.” Sir George Buchanan, C.B., Ministry of Health.

June 10th, 5 p.m.—“Town Planning.” A. T. Pike, Secretary, Garden Cities and Town Planning Association.

June 12th, 5 p.m.—“Industrial Poisonings.” Sir Thomas Legge, C.B.E., M.D., late H.M. Senior Medical Inspector of Factories.

June 16th, 5 p.m.—“International Hygiene.” Sir George Buchanan, C.B., Ministry of Health.

June 19th, 5 p.m.—“Industrial Poisonings.” Sir Thomas Legge, C.B.E., M.D., late H.M. Senior Medical Inspector of Factories.

June 26th, 5 p.m.—“Industrial Poisonings.” Sir Thomas Legge, C.B.E., M.D., late H.M. Senior Medical Inspector of Factories.

* * * * *

Obituary.

SIR ANDREW BALFOUR, K.C.M.G., C.B., M.D., D.Sc., LL.D., F.R.C.P., D.P.H., Director of the London School of Hygiene and Tropical Medicine, died on Friday, January 30th, 1931, at the age of fifty-seven years, and it is with the utmost regret the fact of his death is here recorded.

With his passing the public health service suffers grievous loss. Full of enthusiasm, tireless in work, a man of transparent honesty, he had the faculty of inspiring confidence and affection in everyone he met, and his influence was felt in every corner of the British Empire.

Early in his professional career, Balfour decided that, preventive medicine offered greater attractions to him than did practice as a physician or surgeon, and he became one of a small group of Edinburgh students who have done much for public health both at home and abroad. His active mind and adventurous

spirit made him seek service in lands where pioneer work had yet to be done, and in 1902 he eagerly accepted the opportunity presented to him of becoming Medical Officer of Health of Khartoum and Director of the Wellcome Research Laboratories in that city. There he spent some of the happiest and most useful years of his life, and earned a well-deserved reputation as a sound sanitarian and a scientific worker of the first rank.

During the war, Balfour's services were sought after on most of the fronts and his coming was eagerly anticipated in many a R.A.M.C. mess. When peace came he resumed a task he had commenced in 1913—the development of the Wellcome Bureau of Scientific Research. The work of this Bureau is known now all over the world, and one of its most interesting features is the medical museum which, conceived originally by Balfour, has been so ably organised by Dr. Daukes and which has served as a model for many similar undertakings in this country and elsewhere. It was just about this time that steps were taken to establish in London a great imperial and international School of Hygiene and Tropical Medicine, and in 1924 Balfour became its first Director. From the day of his appointment till the opening of the School in 1929, every minute of his time was spent in planning the new School, in watching over its growth and in thinking out the countless details upon which the efficiency of a scientific institution depends. The whole building is an enduring monument to Balfour's forethought and industry.

Others have told of his distinction as a writer of medical books, as a novelist and as a sportsman and of the various honours from time to time bestowed upon him. All these happenings left him unalterably modest and unassuming. His tastes were simple, and he found his pleasures in his work, his books and an open-air life, when he could get it. He has died just when he might reasonably have been expected to enjoy the fruits of a life full of interest and of service to others. Those who were privileged to have his friendship are the better for having known him and must mourn his passing as a great personal loss.

The funeral service at Golders Green on Wednesday, February 4th, was attended by a very large number of Sir Andrew's friends and colleagues, including many members of the public health service and representatives of the Society. The interment took place at Edinburgh on the following day.

The Society also mourns the loss of Mr. Alexander Grant Russell Foulerton, O.B.E., F.R.C.S., L.R.C.P., D.P.H., whose death took place rather suddenly at his residence in London on February 2nd, 1931, at the age of sixty-seven years. After studying medicine at St. Bartholomew's, he was appointed bacteriologist to the Middlesex Hospital in 1899, and later became director of the cancer research and clinical laboratories there. In 1901 he was appointed medical officer of health for East Sussex, from which post he retired under the age limit in 1928; when the county council showed its appreciation of his services by appointing him honorary consulting medical officer. During the Great War he was appointed D.A.D.M.S. to the principal sanitary officer of the British Expeditionary Force in France, afterwards being transferred to the hygiene department of the Royal Army Medical College, and serving as sanitary adviser to the War Office. Here, except for a brief period with the U.S. Expeditionary Force in Alsace, he continued until his retirement from the Army in 1919 with the rank of major. Foulerton's authority and experience in bacteriology were widely appreciated, and he held various teaching appointments. He contributed a number of papers on pathological and public health subjects to text-books and medical journals, and was joint editor of the *Review of Bacteriology*. He was one of the first members of the London and Counties Medical Protection Society, and served that body for many years in various capacities. In 1905 he became its financial secretary and vice-president, and was re-appointed year after year until his death. He was a Fellow of the Society of Medical Officers of Health, attached to the Home Counties Branch.

The death is recorded, with sincere regret, of Dr. Albert Henry Bygott, County Medical Officer of Health for West Suffolk for nearly twenty years. Previously he had been Medical Officer of Health of Barking, and until middle life had been in general practice and in the poor law service in the Birmingham district.

The Society is indebted to Dr. E. Colston Williams (County Medical Officer of Health, Glamorganshire) for the following personal tribute:—

"Dr. Bygott's interest in social matters was always very active, and led him, at much personal sacrifice, and with the odds against him,

into the public health service, where he began as an Assistant Medical Officer with Dr. R. A. Lyster in Hampshire. Those who enjoyed the privilege of an intimate association with Bygott could not fail to be impressed with his unselfish zeal for the public welfare, to which he gave all his attention and energy. With all his wide and varied social and professional experience he yet continued to be a student, always in search of new knowledge for application to his work. A deeply but unostentatiously religious man, he gave an example of personal asceticism and devotion to duty that did honour to his profession. His friends and the community he served are the poorer by his loss."

THE Second International Health Congress and Exhibition of Sanitary Engineering and Municipal Hygiene will be held, under the patronage of H.M. the King of Italy, at Milan, in connection with Milan Fair, from April 20th to 26th, 1931. The Royal Italian Government has issued an official invitation to all foreign governments, and it is anticipated that many countries, states and cities in Europe and elsewhere will be strongly represented at the Congress and the Exhibition. Full particulars may be obtained from the General Secretary of the Congress, Piazza del Duomo 17, Milan.

THE Royal Sanitary Institute announce the holding of two sessional meetings during March, 1931. At Swansea, on the 6th and 7th, there will be discussions on "The Rheumatic Child" (to be opened by Dr. H. R. Tighe, Deputy Medical Officer of Health, Swansea) and on "Housing" (to be opened by Dr. J. M. Morris and Mr. Ernest Morgan, A.R.I.B.A.). The chair will be taken by Dr. Charles Porter. At Lincoln, on the 20th and 21st, a discussion on "Houseboats on Inland Waterways" will be opened by Mr. L. O. Need, Town Clerk, and on "Refuse Collection and Disposal," by Mr. S. G. Baggott, Borough Engineer. Mr. Edward Willis will occupy the chair on this occasion. Visits to buildings and works of public health interest have been arranged in connection with each meeting. Full particulars of the programmes may be obtained of the Secretary of the Institute, 90, Buckingham Palace Road, London, S.W.1.

Neuroses and the Public Health.

By MILLAIS CULPIN, M.D., F.R.C.S., Lecturer in Psychoneuroses, The London Hospital.

Dr. Culpin, who read this paper at an ordinary meeting of the Society held in London on January 16th, 1931, appeared to have no doubt that the subjects with which he dealt were well within the field of the preventive medical officer. Whether or not his view is accepted, what he has to tell of the neuroses he discusses and of their causation will be found intensely interesting and stimulating.

THE object of this talk is to show the important part played, in sickness figures, by the psychoneuroses; to indicate the vagaries of their distribution, and to impress the need for recognition of their nature in relation to occupational neuroses. The view now gaining ground, that these troubles are best studied as a reaction of the man as a whole, is handicapped by a terminology based upon the conception of undemonstrated changes in the central nervous system. This conception involves a practical difference of outlook, which hinders attempts to estimate the prevalence of the psychoneuroses and makes it necessary to go through sickness reports case by case before such an estimation can be reached. As an example, I quote from a Report upon an investigation into the Sickness Experience of Printers, by A. Bradford Hill,* where on page 62 it is stated that: "In long period illness the diseases grouped under the nervous system are the most consistently important. They produce throughout insured life between 30 and 40 per cent. of all the days of disablement, and approximately a quarter of all the claims." And on page 60, classified among "diseases of the nervous system," are such conditions as thrombosis, embolism, neurasthenia, hysteria, nervous debility, tabes and cerebral hæmorrhage.

The investigator here was bound to accept this classification and base his statistics upon it; its absurdity is apparent, and it rests upon a conception that made its way into medicine by a curious route, and is often defended with the vigour that marks beliefs irrationally and unquestioningly accepted. By understanding the origin of this conception and of the pseudo-neurological terminology by which it is expressed, we can arm ourselves for the

effort to improve the classification of morbidity returns.

This terminology cannot be avoided. Presumably a listener or reader will know what the title of this paper means, although it does not say what it means nor mean what it says. I had plenty of alternatives; in an official report on telegraphists' cramp in 1911 there occur "nervous instability," "neurasthenic temperament," "nervous disposition," "permanent nervous weakness," "nervousness of temperament," and "nervous type." Other variants are neuropath, psychoneurosis and neuropsychosis, neurosis and neurotic, nervous debility, nervous exhaustion, nervous breakdown, and less well-known gems such as neuro-mimesis and cerebro-cardiac neuropathy. The growing popularity of "neuritis"—a comparatively rare disease in out-patient practice—introduces another disturbing element into the nomenclature.

Here, then, is a terminology of inexactitudes, and I propose to trace the history of it and the underlying mental attitude.

In Galen's temperaments, the sanguine, choleric, phlegmatic and melancholic, we see an attempt to express disease and character traits in terms of known physiology; we may smile at its simplicity, but there is a craving in us to continue this attempt, a craving so urgent that we again and again invent hypotheses whose only use is to satisfy it. There is no question of pragmatic value; the function of the hypothesis is not to guide, or to subsume knowledge under a formula, but to satisfy the craving for an answer to the question: "What makes the wheels go round?" The answer has always been one of two general types. Hippocrates exemplified one type when he postulated the *physis* (the origin of the word *physiology*) as something behind the organism as a whole, to which all the actions of its parts are subordinated. Galen showed a like tendency

* Industrial Health Research Board Report, No. 51. H.M. Stationery Office.

when he wrote: "There is a creative power of nature that shapes parts according to the disposition of the mind." Asclepiades was of the opposite school and believed that all vital functions resulted from the movements of atoms. Throughout medical history the pendulum has swung between animists and iatro-physicists, nominalists and realists, vitalists and mechanists, and now it is swinging again, though in a narrower arc. Faced with a case of hysteria, one physician will regard the symptom as something the man is doing and will seek to know why he is doing it; another will see it as a "functional nervous disorder" and seek to understand it as a derangement of physiological mechanism. The difference is fundamental, and not to be smoothed away by hopes that some day we shall be able to explain hysterical behaviour, disordered hopes and fears, political opinions and gastronomic likes and dislikes, by reference to the central nervous system.

With the revival of learning, every advance in natural science was seized upon as the key to the temperaments, and one *primum mobile* after another served to satisfy the eternal craving. Sometimes the new force was hailed as superseding animism or vitalism, sometimes it was an expression of it. Van Helmont used fermentation to account for the functions of the *archæus*; Sylvius favoured distillation of vital spirits in the brain and ascribed most illnesses to acids. Stahl took hold of Harvey's discovery and accounted for temperamental differences by the ease with which the blood flowed through its channels. Hoffman made the brain secrete an etherial fluid from the blood and distribute it through the nerves. Then Haller, a scientific pioneer of physiology, discovered the function of nerve in conveying irritability to muscle, and formed the reasonable hypothesis of a fluid that passed down the nerves. This was quickly converted into a nervous force, from which resulted all the movements of the solids and the mixture of the humours, and all the diseases that appeared to have as a cause an alteration of the humours were said to depend upon the affection of the nervous system; Sprengel, the medical historian (1803) raised a song of triumph over this final defeat of animism; Cullen, the Edinburgh physician, had introduced (1780) a word whose subsequent history is important, and divided diseases into pyrexia and neuroses, the latter including apoplexy and palsy, syncope, dyspepsia, hypochondriasis, tetanus, epilepsy, chorea,

palpitation, dyspnoea, asthma, whooping cough, pyrosis, colic, cholera, diarrhoea, diabetes, hysteria, and hydrophobia.

With some eliminations, these, the genuine and original neuroses, survived into the nineteenth century. In 1845 a writer, quoted in the Oxford English Dictionary, stated that "the diseases of function embrace the neuroses, hæmorrhages and dropsies."

In 1874, Maudsley broke new ground and described *neurosis spasmodica*, which he equated with the insane temperament; his craving found satisfaction in the definition of this neurosis as "a defective or unstable condition of nerve element, which is characterised by the disposition to sudden, singular and impulsive caprices of thought, feeling and conduct." This definition belongs to metaphysics rather than to physiology and had a short reign, for neurosis now means anything the speaker likes—except insanity. A man irrationally afraid to cross an open field, who acts accordingly, is suffering from a neurosis; so is a man with mucous colitis or miners' nystagmus, or a girl who whispers and thinks she has laryngitis; but a man who irrationally believes he is being persecuted, and acts upon that belief, suffers from a psychosis—not a neurosis. It is all very confusing.

The history of this episode ends, so far, with that final triumph of the nineteenth century, the word *neurotic*—an embodiment of pseudo-physiology, unsound metaphysics and moral condemnation. It means that, since the patient's symptoms do not accord with our hypothesis, he is not ill but only thinks he is.

Neurasthenia appeared in 1868, and Beard propounded as its pathology a weakened and unstable nerve force. This, however, is almost the last appearance of that old favourite, which has given place to an exhausted or weakened nervous system. This still survives with the newer conception of functional nervous disorder, which uses the latest knowledge of anatomical detail to make a last defence against anything that savours of the heresy of animism.

Possible rivals occasionally appear. Electricity ran nerve force close at one time, and one function of the laboratory physiologist is to prevent people taking seriously such extravaganzas as Berman's *Glands regulating Personality*, in which he writes: "These glandular preponderances are determining factors in the personality, creating genius and dullard, weakling and giant, Cavalier and Puritan. All human traits can be analysed

in terms of them, because they are expressed by them." The old craving showed up again when a recent film of Pawlow's experiments bore on its last picture the news that "man's behaviour is but a series of conditioned reflexes."

The theory of "nervous disorder" is a parasitic growth upon scientific medicine; hopes that it may some day find more legitimate connection are a hindrance when we treat them as present realities and, as Galen said of Sabinus and his sect, invent improbable explanations of things that do not happen. The theory is now limited to a narrower sphere than in the days of Cullen, but within that sphere we still give validity to speculative pathology. The acrimonious controversy in which Herbert Page proved that railway spine did not depend upon obscure lesions of the cord but was a reaction of the man as a whole, took place in the 'eighties. When the Great War produced a record crop of minor psychoses, there sprang up a theory of shell-shock, and men with hysterical conditions were given wound stripes for physical injury. We read about tiny hæmorrhages into the brain, of synapses separated by the force of high explosives, of the effect of gases upon the blood and the nerves. Our friends the enemy produced the same theories. Then, as Ferenczi wrote, "silence fell upon the mechanistic camp," the phrase shell-shock was prohibited, lest the war might end prematurely, and theories about it were buried with as little fuss as possible. After the war, Herbert Page, then an old man, wrote me a pathetic letter in which he said that all the symptoms of shell-shock would be found in his book on "Railway Spine," but that the lesson he had tried to teach had been forgotten.

Glenard's phantasies about enteroptosis as a cause of neurasthenia led to pexies innumerable. At one stage it was laid down that no neurasthenic patient should be told he had a movable kidney; he was furnished instead with X-ray films with arrows on them showing where his stomach and colon had slipped to. Only lately has it been discovered that "virginal visceroptosis" should not be operated upon, and the man afraid to walk across the open field is still likely to receive hopeful injections of vaccines prepared from the flora of his lower bowel.

I will now take a single disease, miners' nystagmus, and show how the "neurosis" conception has influenced our handling of a disorder that causes great suffering to its

victims, and costs us £700,000 per annum in compensation.

In a Report to the Medical Research Council some years ago is the suggestion—not peculiar to the report but expressing an orthodox view—that the disease is "... a general neurosis with special local manifestations in the oculo-motor apparatus." In this connection we might define neurosis as a derangement, the origin and nature of which are unknown, of nerve centres the location of which we can only surmise.*

The practical application of this use of the word is to believe that bad illumination has caused oscillation of the eyeballs, that this oscillation has now affected the anatomical nerves by some obscure mechanical or physiochemical process, and all the other symptoms arise from this spread of the physical trouble. These other symptoms are divided into ocular and psychoneurotic. The psychoneurotic we will accept as such, and consider the so-called ocular as set out in the report.

Defect of Visual Acuity.—"Men who eventually read the 6/9 line will hesitate over the 6/24 line." Another observer has described how men with no oscillation and no error of refraction will not admit they can read more than 6/60 or 6/36. Here is something the man is doing, not a defect of nerve. A typical hysteria.

Photophobia and Blepharospasm.—There are two photographs, one of a severe photophobia in miners' nystagmus, the other of a soldier with hysterical amblyopia and blepharospasm. If they were not labelled you could not tell one from the other. These symptoms were described by Hector Gavin in *Feigned Diseases in Soldiers and Sailors* (1843).

* As an attempt to facilitate the interchange of ideas I have proposed that *neurosis* should be confined to symptoms that can be recognised and usefully studied as disturbances of the physiological function of nerve tissue. Palpitation, emotional dyspepsia, mucous colitis, hysterical dermatographia or polyuria, the fine tremors of anxiety, would thus be neuroses. Hysterical deafness would not, for it is possible to demonstrate by the psycho-galvanometer that the nervous mechanism of hearing is functionally intact; the patient hears but behaves as if he did not.

Disorders of emotion and conation, commonly called psychoneuroses, I would call minor or benign psychoses, with a loose sub-classification into conversion hysteria and anxiety or obsessional states. These states are primary; the neuroses are accidents that occur in them.

Physical Signs.—"The disease can often be recognised at a glance by the backward or oblique inclination of the head, hesitating gait, shading of the eyes, and lack of facial expression." A photograph accompanies the description. The arms hanging listlessly, mouth half-open, shoulders dropped, chest sunken, abdomen sagging, are very remote results of oscillating eyeballs but familiar in what has been called "the stance of the neurasthenic pensioner." They are physical signs of the man's emotional state.

"The movements are often obscured by lid spasm, rolling up of the eyeballs under cover of the upper eyelids, strong convergence" This is from the nystagmus description.

" . . . hysterical spasm of convergence is often seen when the eyelids are forced open, in addition to the contraction of the superior recti, which tends to keep the pupils hidden under the upper lid." This is from an account of hysterical ocular symptoms in soldiers (Seale Hayne Neurological Studies, 1918).

Subjective Movements of Objects.—Nystagmus *per se* does not produce this movement, but can, if combined with a strong effort at accommodation ("spasm of accommodation"). I think this is the explanation here.

Night-blindness.—This symptom has a remarkable history. It may occur in retinitis pigmentosa or in some conditions like scurvy, and has been described in armies since the time of the crusades. Gavin described it in Rangoon and Egypt, and accepted some cases as "real" and others as malingering. He had no conception of "nervous disorders" as producing the symptom in physically healthy men. Lieut.-Colonel Eason observed 22 cases in Egypt (*Jour. of Ophth.*, 1917, i, 465-473) and I have private information of two other mild epidemics during the Great War. In all three examples the observers found no ocular lesions and regarded the condition as simulated, exaggerated, or psychoneurotic.

In the continental armies it was numerically serious, and the literature shows a comic collection of hypotheses produced in the attempt to put it on a physical basis. Exhaustion, irregular development of the eye, errors of refraction, defects of transparency in the cornea, cardiac fatigue with resulting circulatory disturbance acting on the visual purple of the retina, loss of pigmentation in the periphery of the fundus, peri-papillary oedema,

alcoholism and arterio-sclerosis, vitamin deficiency, were all confidently produced as causes and as emphatically denied. The nearest parallel to it in our medical history of the War is the collection of hypotheses to account for our own pet neurosis—disordered action of the heart.

Why did our psychoneurotic soldiers not develop night-blindness? I have examined thousands of "neurasthenic" soldiers and pensioners without once hearing of it. But the commonest symptom I did meet was fear of the dark, sometimes in an extreme form.

It is a truism of psychopathology that patients convert their mental symptoms into physical ones—they are then so much more respectable, people don't laugh at them, and we medical men are ready to invent hypotheses about them. If those who, like myself, treated these men psychologically, had laughed at fear of the dark and thought night-blindness a physical disease, it would have been as prevalent as it was in the continental armies. Every man with fear of the dark would have gone night-blind if epidemic night-blindness had been cultivated.

There is no occupation more likely than coal-mining to induce fear of the dark in a psychoneurotic subject, or exacerbate it if already present. But fear of the dark is absent from the nystagmic syndrome; night-blindness has taken its place, as it did in the continental armies.

Thus, if we free ourselves from the tyranny of "neurosis," every sign or symptom of miners' nystagmus, except the oscillation of the eyeballs, becomes typically a matter of emotion or behaviour. They are troubles of the man as a whole, and not of his nerves any more than of his bones or muscles.

As to the oscillation, I am not sure. It may be a true neurosis—like the "cardiac irritability" that is claimed to be an important symptom of the disease—affecting the organ most subject to stress. It may be a direct physiological result of bad illumination, though its vagaries make me doubt that. A strange thing is that though it gives the name to the disorder it is the one sign or symptom that does not matter. In some mines 35 per cent. of miners show nystagmus; few of them make any complaint, and the severity of the symptoms has no correlation with the degree of oscillation. Men with no oscillation show severe psychoneurotic symptoms, but in the absence of oscillation they are not diagnosed

as suffering from the scheduled disorder.* If we were starting on the subject with no preconceived notions, we might easily deduce that nystagmus was a harmless phenomenon upon which in some cases are grafted psychoneurotic symptoms.

Think of the working conditions of the miner. Deep in the bowels of the earth, with falls of roof and explosions as constant risks, in darkness made visible by safety lamps that emphasise danger, the easy way of escape for the man to whom these conditions become intolerable is by illness. (I will make one dogmatic statement about psychopathology: the intolerable nature of the conditions and the escape from them are not matters of consciousness.) Add a fear of economic disability, invite the man to believe himself afflicted with a physical disease for which medicine offers neither understanding nor treatment, and you have a collection of potent aetiological factors that are consistently neglected in every discussion of the disorder.

A general formula to cover the search for a physical basis of railway spine, shell-shock, the army disordered action of the heart, war night-blindness and miners' nystagmus will be found in the story of *The Hunting of the Snark*.

I must warn against the assumption that because I regard the disability as a reaction of the man as a whole, I therefore suggest malingering. It is a real disability of the kind that I am accustomed to treat in my own practice, and the man is often in a most pitiable state. Our false theory of "neurosis" has led us, the patients, and the public to regard it as a physical disease before which we are helpless and for which compensation is the only remedy. The first step out of this impasse is to recognise our error and attack the subject from a totally different standpoint.

I have gone into the arguments in this example not so much to convince you of the correctness of my opinions about it, which are still those of a minority, as to illustrate the difference that our mental attitude makes in approaching any case of this nature. The brochure of Miss May Smith and myself on *The Nervous Temperament*† is an attempt

* In spite of the definition in the schedule: "The disease known as miners' nystagmus, whether occurring in miners or others and whether oscillation of the eyeballs be present or not."

† Industrial Health Research Board Report, No. 61. H.M. Stationery Office. 1s.

to estimate the number of people in the working population who might be especially liable to the development of disabilities of the kind we are considering, to systematise a method of examination, and to set up standards so that those who may become interested will be able to communicate their ideas one to another. The importance of these conditions as influencing morbidity statistics is becoming more and more obvious; a general understanding of their nature is necessary for public health purposes, and a reform of our classificatory absurdities is long overdue.

DISCUSSION.

Dr. G. A. Auden (School Medical Officer, Birmingham) said he realised fully the truth of Dr. Culpin's statement with regard to the necessity of taking into consideration the whole personality with all its hopes and fears and aspirations, rather than any particular manifestation. It fell to his lot to see a large number of teachers and employees of an education committee who applied for leave of absence on medical grounds; in a large percentage of the cases the symptoms were due to a dissociation or maladjustment of the individual with something in his or her social environment. The idea of the practitioner frequently was three months' leave of absence. Nothing could be more disastrous; it only gave the person more time for the neurosis to develop. Referring to the difficulties of nomenclature, Dr. Auden said that at present there was no alternative but to use terms, however loose their real meaning might be. Even Dr. Culpin had found it necessary to employ the terms upon which he had poured a certain degree of scorn.

Dr. T. W. Hill (Deputy Medical Officer of Health, West Ham) said that, apart from war neuroses, he classified a neurosis as belonging to one of four main groups, which accounted for 80 per cent. of the neuroses seen in the consulting room—(1) money; (2) factors associated with work (fear of losing, or lack of employment), (3) disease in some form or other (tuberculosis, venereal disease and cancer most prominently, and, in women, the fear of pregnancy); (4) hidden sex complexes (instability in adolescence, disappointed love affairs, and so forth). The medical officer of health of the future, he held, would need to be, in addition to his work as an apostle of public health, more of a sociologist than he had been in the past.

Lieut.-Colonel G. S. Parkinson, D.S.O. (Assistant Director, Division of Public Health, London School of Hygiene and Tropical Medicine) enquired if Dr. Culpin had any definite views as to the causation of miners' nystagmus.

Dr. W. G. Booth (Assistant Medical Officer of Health, Finsbury) said that the condition of the nervous child rather corresponded with the description of miners' nystagmus. In many cases there was an environment of fear of a parent for a child, particularly an only child, who could often be cured by bringing

about a change of attitude in the parents towards the child.

Professor W. W. Jameson (Director, Division of Public Health, London School of Hygiene and Tropical Medicine) said that any problem which caused practically 30 to 40 per cent. of disability amongst large groups of people was one which intimately concerned the public health service, and in the future, instruction on the subject would be necessary in the medical schools. The short course of lectures given by Dr. Culpin at the School were proving extremely interesting, and the public health service were greatly indebted to him for his help in that direction.

Dr. P. A. Galpin (Tuberculosis Officer, West Ham) referred to the neurotic element in tuberculous patients, and quoted a number of cases in illustration.

Dr. T. W. Naylor Barlow, O.B.E. (Medical Officer of Health, Wallasey), who occupied the chair in the unavoidable absence of the President (Professor Harold Kerr, O.B.E.), said that at a recent conference on mental welfare the many speakers had strongly emphasised the vast amount of ignorance on nearly everyone's part, and the necessity for teaching and demonstrating the subject in the ordinary hospital. There ought to be no estrangement between the physicians dealing with mental disorders and those concerned with physical complaints, and probably co-operation would be secured as a result of the passing of the Mental Treatment Act of 1930, under which there would shortly be established in most towns a clinic staffed by an expert—if he could be secured—who would deal with the difficult cases which came to the notice of school medical officers. In that way it was to be hoped that much of the obscurity that at present existed would be cleared up.

Dr. Culpin, replying to points raised, said that security of tenure in employment carried with it rigidity of conditions, and the worker was apt to be regarded as part of a machine. In an occupation where that rigidity was absent, there was freedom to move about, more particularly if the industry were prosperous. The choice of work, therefore, was a most important matter, and, speaking from his own point of view, the occupation he would honestly recommend, in all seriousness, to nervous young people was the laundry trade, where great freedom of movement was possible. With regard to nystagmus, there was no one prime cause of the trouble, but any attempt to improve conditions, including the white-washing of mines, was to be welcomed. The suggested classification of neuroses was a sound one. If the stimulus of the neurosis could be ascertained, then it could be dealt with. The problem of the nervous child was vastly important. The foundations of a neurosis were laid in the first few years of life, and in many instances it was perhaps not so much a matter of fear as of affection. The only child should be got away from its parents as much as possible. One thing that the members of the public health service could turn their minds to, and exert their influence on, was the question of nomenclature and the proper classification of the various mental conditions. In conclusion, Dr. Culpin urged that a psycho-neurosis

should be diagnosed upon positive evidence like any other disease; and in most cases such evidence could be found.

THE Child-Study Society, London, announce that lectures and discussions will take place at the Royal Sanitary Institute, 90, Buckingham Palace Road, S.W.1, as follows:—April 16th, at 6 p.m.: "Does the Developing Mind Recapitulate Ancestral History?" by J. Norman Glaister, M.B., B.S.; May 7th, at 6 p.m.: "The Nursery School," by Miss E. Stevinson, Principal, Rachel McMillan Training College; and "The Nursery Class as it might be," by Mrs. Jessie White, D.Sc. An admission charge of one shilling for each lecture is payable by those who are not members or associate members of the Society.

THE Sixth Social Hygiene Summer School will be held at St. Hugh's College, Oxford, from July 29th to August 5th, 1931. The course is designed particularly to meet the needs of local authorities and national organisations at home and overseas, who wish to secure for their officers, speakers, health visitors, youth leaders and others a brief instructional course in the scientific foundations of social hygiene. Full particulars of the study programme, fees, etc., may be obtained from the Secretary, British Social Hygiene Council, Inc., Carteret House, Carteret Street, London, S.W.1.

At a meeting of the Central Midwives' Board for Scotland, held on February 5th, Dr. James Haig Ferguson (chair) reported that the following had been elected members of the Board for a period of five years in accordance with Section 3 of the Midwives (Scotland) Act, 1915:—Miss A. H. Turnbull, M.B.E., R.R.C.; Miss M. E. Cairns; Miss L. A. D. Wishart; Lord Polwarth, C.B.E.; Mrs. Ella Morison Millar, M.B.E.; Miss I. C. Dewar; Dr. A. K. Chalmers, LL.D., F.R.F.P. AND S.G.; Professor J. McGibbon, M.D., F.R.C.P.ED.; Professor R. G. McKerron, M.D.; Dr. J. H. Ferguson, LL.D., F.R.C.S.ED.; Dr. R. C. Buist, M.A.; and Dr. J. B. Miller, D.P.H., Dr. Haig Ferguson and Dr. Buist were unanimously elected chairman and deputy-chairman respectively. The meeting appointed other committees and examiners, and approved the list of recognised institutions for the training of pupil midwives.

Ut Ita Dicam.

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

The Society and the Nutrition Committee.

Nutrition, for a variety of reasons no doubt, is a question very much under discussion at the moment. Even it managed to find its way into the meeting of the Council on February 20th, coming up first on a letter from the Ministry of Health conveying an invitation to appoint a representative of the Society on the Special Committee recently set up by the Minister to keep him informed, and through him the people, on matters affecting nutrition, diet and such like. The invitation was one, naturally, that the Council did not hesitate to accept, recognising as sound the wisdom of having associated with the other experts one whose position entitles him to speak for the people and to explain what they require and how best it may be put before them. The representative selected was Dr. G. F. Buchan, of Willesden. One of the reasons for the choice was that the Ministry had stated that for reasons of accessibility (and, I suspect, economy), they would prefer a member whose district was in or near the metropolitan area. The other reasons had nothing to do with geography, and are so well known of Dr. Buchan that they need not be mentioned.

Milk Investigations at the London School of Hygiene.

Later at the meeting, after Dr. Orr, of Ealing, had been appointed the Society's representative on the National Milk Publicity Council, Professor Jameson told us that arrangements had been made for the carrying out, at the London School of Hygiene, of a full and searching investigation, largely bacteriological, into the milk supply; that a committee of which he was to be chairman had been set up to deal with the investigation; that it was desired to have a representative of the Society on that Committee, and that if the Council would nominate Dr. Orr, he would be regarded as an acceptable representative, and one likely to be extremely useful, not only because of his association with the National Milk Publicity Council, but because he is widely recognised as an authority on the subject of milk. Naturally, the Council decided to do as Professor Jameson asked, and thereafter we all felt free to battle over the other items on the agenda. Apart from making itself the institution at which the milk investigations

are to be carried out, the School of Hygiene is identifying itself with the other nutrition investigations that are proceeding, and placing its resources at the disposal of the new Committee and other bodies. This is not surprising, having regard to the fact that the chairman (Professor Greenwood) is a member of the staff, and that in the School there are wonderful facilities for work, and workers skilled in the class of investigations that most interest the committee.

Sir Andrew Balfour.

One can readily imagine how greatly delighted Sir Andrew Balfour would have been to be taking part in the activities in which these investigations have involved the School. All these evidences of forging ahead, in fact, serve but to intensify the feeling of regret at the loss of one whose heart and soul were in the work of the School, and whose thoughts and desires and efforts were all for its success. The extent of his own contribution to that success it is impossible to estimate, but there are none amongst those who knew him and the work he did, but would claim that it was vast. I have not heard that there is any proposal to erect anything in the shape of a memorial to Balfour in or about the School, but it seems to me that it would be proper to do so. To those who were his friends there could be nothing done that would be more pleasing. And what a throng of friends he had! Surely there never could have been anyone who made friends more readily. Having this capacity, he got about all over the world and amongst all sorts and conditions of men and women engaged in all sorts and kinds of activities, and wherever he went and whoever they were he made additions to the list of his friends. Since his death all of these are dating their friendship: one claiming to go back to days in South Africa; another to the time in Khartoum or Cambridge or the West Indies, or where not all over the face of the globe. Myself I claim to date further back than most: to the days when his Scottish cap still had a great deal of glitter about it; when his blue was still bright, and the sounding phrases that later were to form part of the dialogue of "By Stroke of Sword" formed part of our ordinary converse. A kindly, friendly, lovable

soul then, in his early manhood, all through his life he went kindly, friendly and lovable, and with all his simplicities and enthusiasms practically unchanged. Outstanding amongst his enthusiasms was that for work. Into everything he did he threw all that he had, and to it he gave every minute that there was. He had no belief in leaving things to chance. He had to make sure, and if time was needed, time must be made at the expense of everything else. A promise given was a sacred thing, and rarely have I seen him so distressed as at his inability to attend and take the chair of the Preventive Medicine Section of the Royal Sanitary Institute Congress at Margate last year. It was because he was a sick man that he could not appear, but just how sick few realised. Indeed, until word of his death came with such unexpectedness there was only incomplete realisation of how far health and strength had gone from him. To each one of those that came to see the last of him at Golders Green, his passing must have come with the suddenness of a blow. It was an interesting gathering, and in the mind of everyone that was there must have been a wonder that it could be Andrew Balfour of whom farewell was being taken, and a desire to cry out at the pity of it. So young at the end, and so many years that might have been devoted, as the many that had gone before had been devoted, to the service of mankind wiped clean out: so many years that those who were his own might have looked to to have him still there to lean upon and to love and to admire because of his greatness. I think I have rarely attended a ceremony that was more sad or left in his grave one of whom I felt it could be so truly said that his loss was well nigh irreparable; that the place he left could never be filled.

Chill, Clothing, Chilblains and Charlie Chaplin.

Two little books that I have liked have come into my hands lately, and I am going to tell you why, apart from the fact that they were small, I like them. First, there is one called "Chill—Its Dangers and Prevention," by Dr. Marian Thornett,* who, in addition to other things, conducted a squint training clinic in one of the poorer quarters of the metropolis. I like her book because it tells me so many things I know, but never have formulated, and lots of things I do not, but should know. Also, and this is a reason why others will like it just as much as I do, it is simply full of things to say in popular

*London: J. and A. Churchill, 1931. Price 3s. 6d. net.

lectures, particularly those in which references to clothing are in order. Dr. Thornett has a great deal to say on this subject, naturally, as she discusses heat loss at length. That does not prevent her or deprive her, thank goodness, of the opportunity of bringing in references to all sorts of other points more or less closely associated with personal hygiene: such as the reason why orientals never suffer from chilblains, fallen instep and flat foot, and rarely from varicose veins, and whence comes the comic gait that has led Charlie Chaplin to fame and fortune and popularity with the Press, the people and the Prime Minister. I never knew there was so much to be said about chilblains until I read this book, nor how simply they might be cured. Nor did I know how I might justify my dislike of draughts and my belief that it was possible to have too many polished and too few carpeted floors in the home. Dr. Thornett's book helps me by providing me with numbers of arguments in support of my contentions, and I am very grateful to the author. It is an exceptional kind of book, but, well and interestingly and clearly written, it contains so much information of a useful and practical kind that I find no difficulty whatever in recommending it.

Public Health in Germany.

The other little book I like, and am glad to have, is one called "Public Health and Social Welfare in Germany."* I like this because of its contents, but more because of the idea behind it. It is a collection of the papers contributed by medical and other experts in connection with the visit of the Women Public Health Officers' Association to Germany in May and June last year. Having translated these papers, the members of the Association have put them together into a little book, taking the opportunity at the same time of thanking their hosts and in particular Professor Rott and the staff of the Deutsche Gesundheitsfürsorgeschule, since it was through their co-operation that the visit was made possible. The papers give a most useful description of various of the more important public health and social welfare activities in Berlin and elsewhere, and should be of interest to many others than those who took part in the visit, though to these they will serve as a reminder of what from all accounts was an extremely interesting and valuable experience.

P.

* Women Public Health Officers' Association, 92, Victoria Street, London, S.W.1. Price 2s. 6d.

The Future of the District Medical Officer of Health.

By ARTHUR HAROLD WILSON, L.R.C.P., L.R.C.S., L.R.F.P.S., D.P.H., Medical Officer of Health, East Wiltshire Combined Sanitary District and Salisbury Rural District.

It is the view of Dr. Wilson, expressed in this, his Presidential Address to the West of England Branch, that the reason why the Government, in drafting the Local Government Act, 1929, which threatens the future of the district medical officer of health, did not go a step farther and wipe district councils completely out of existence was perhaps that "they were afraid that it would be the last straw which would upset the whole apple-cart, and the whole structure would crumble to the ground before it became a fact."

I HAVE decided to deal briefly with a subject which I think is very important to a large number of young practitioners who have recently entered the public health service, namely, the future of the district medical officer of health.

The public health administration of this country is carried on by local authorities, and the official responsible to that body is the medical officer of health.

In 1848, what was practically the first Public Health Act created local boards of health, and these were required to appoint surveyors and inspectors of nuisances, and were given the right to appoint a medical officer of health.

From this time onwards various Commissions sat, and Acts were passed, until in 1875 the great Public Health Act, which has been the foundation of our public health administration, was made law. The Act made it compulsory to appoint a medical officer of health for each sanitary authority, and this has remained the law to the present time.

The duties of the medical officer of health were those which were considered at that time to be for the advancement of the health of the community and the prevention of the spread of those diseases which were called infectious.

In 1888, the Local Government Act was passed. This gave the newly-formed county councils power to appoint medical officers if they so wished; but in 1909 the Housing, Town Planning, etc., Act made the appointment of these officers compulsory, and at the same time created public health and housing committees from the county councils.

From this time onwards public health has been attended to by two separate authorities, viz.: the county councils and the district councils, much to the confusion of the community at large. (For the purpose of my

remarks I am excluding councils of county boroughs and port sanitary authorities, as they do not materially affect the future of the district medical officer.)

At the moment the office of district medical officer of health (and I include among these medical officers of non-county boroughs, which, as a matter of fact, are governed as urban district councils so far as public health is concerned) is held by four kinds of individuals:—

(1) Whole-time medical officers of health doing only those duties which are assigned to them by the district councils they serve.

(2) Whole-time medical officers who, in addition to the work of the local sanitary authority, do school medical inspection under the county council.

(3) Assistant county medical officers who are primarily appointed by the county council, but who, in addition, act as medical officer of health for one or more local sanitary authorities.

(4) Part-time medical officers of health who, as a rule, are also in general practice.

These officers exist in varying proportions; at one time all were part-time officials who were usually in general practice, but gradually this has altered to some extent.

I have made enquiries from about thirty-four counties in England (I was unable to get figures for the whole country from the Ministry of Health), which have about the same character as this part of the South-West of England, leaving out the County of London and Surrey and Middlesex, and I find that still the great majority of district medical officers of health are part-time men who are in general practice.

The actual figures, so far as I have obtained them, are, for class (1), 51; for class (2), 13; for class (3), 38; for class (4), 594. Of course, the first three groups cover a much larger part of the country than appears at first sight,

because most of them are responsible for a number of districts each, while class (4), as a rule, has only one; but even so, the large proportion of rural England and small towns have still part-time medical officers of health.

The policy of the Ministry of Health and a large number of county councils seems to be to encourage the appointment of county assistants as district medical officers of health in addition to their county appointments. One never sees now the formation of a new combined sanitary district under a statutory committee.

Although the district council is still the local sanitary authority, the trend of the whole of public health legislation during the present century has been to put all new duties on to the county councils: to mention only a few, we have tuberculosis, venereal diseases, school medical inspection, while this trend has been still further expanded by the Local Government Act of 1929, and finally by the Housing Act of 1930.

Until these latter two Acts became law, the control and management of infectious diseases (except tuberculosis) and the housing of the community had been, for all practical purposes, left in the hands of the district councils, but these two measures now alter this.

Dr. Ralph Picken, in his presidential address to the Welsh Branch last year on "The Present State of Public Health," says: "Let us consider what has happened to our service during the last twenty years. Until practically the end of the first decade of this century, medical administrators were mainly concerned to prevent the acute communicable diseases, and record sanitary evils and their effects, and officially agitate for new means of alleviating them. What has happened since then?" He then proceeds to mention the new activities of the public health service, and *not one of them is a duty assigned to the district medical officer to carry out.*

This is only one of the many articles written on the subject, and all are in the like strain.

I have endeavoured to show that the district medical officer of health, who was the original health officer, has been left behind in the advance made in public health; he is now doing practically the same work which he was originally intended to do in 1875, and very few additions have been made to his usefulness, while through recent legislation all new work has been put in the hands of the county medical officer and his staff.

When the 1929 Act came into force, at one fell swoop the boards of guardians ceased to exist, and district councils lost their authority (if not their duties in all cases) as road menders; these two duties the individual members of the councils in most cases considered were their principal ones.

Why the Government in its wisdom did not go a step farther, and wipe the district councils completely out of existence at the same time, I cannot think, unless perhaps they were afraid that it would be the last straw which would upset the whole apple-cart, and the whole structure would crumble to the ground before it became a fact.

Nevertheless, this did not happen, and the district medical officer is still left for the time being to carry on his sanitary work. How long this will remain I cannot say, but my own personal view is that it will not be for long.

Whether this change in administration, which will divert the local sanitary authority from the district councils to the county councils, will be for the good of the community or not is not my intention to discuss to-day; whether the area of a county is too big and unwieldy an administrative area, or whether the administrative head will tend to become a machine rather than a medical man, are questions that can be left for the present, but how this change will affect the future of the district medical officer is of more importance to some of us at present.

I presume that it is the aim of most men who enter the public health service to become the possessor of a senior appointment of some sort, *i.e.*, an appointment where he is responsible directly to the council or councils which employ him.

There are approximately sixty-two administrative counties in England (apart from the seventy-nine county boroughs), which are divided up into county districts, each of which has a medical officer of health of its own. As I have shown, a large number of these are part-time medical men, who usually are in general practice. In the past, as these posts became vacant, either voluntarily or by compulsory orders, several districts were joined to appoint one whole-time officer, and if this policy had continued, there would have been, as time went on, a reasonable chance of several young practitioners who had entered the service getting a senior administrative appointment in each county; but if the county council becomes the local sanitary authority, then all these administrative appointments will cease to exist.

Professor Harold Kerr, the President of our Society, in writing in *The Medical Officer*, in the issue of September 6th, 1930, on "The Public Health Service as a Career," puts in very concise terms the disadvantages of the public health services, and also the advantages, and sums up the whole situation in the following words: "The salaries, therefore, are not munificent, and the chief reward of public health service is to be sought in the work itself." Now this is a very laudable state of affairs from a scientific or from a sentimental point of view, but, unfortunately, it will not provide for wives and families or old age.

To the lay mind a medical officer of health is a senior appointment, and deserves more pay, while an assistant medical officer is always an assistant, and should receive an assistant's pay accordingly, no matter how important that work may be; and so it follows that when the county becomes the local sanitary authority, as I believe it will soon, the number of senior posts will materially diminish, and it will become harder and harder for young men to obtain senior and more remunerative posts.

Even now, with this present prevalent policy of the Ministry and the counties of appointing assistant county medical officers as part-time district medical officers of health, there is a tendency to reduce salaries insidiously.

The assistant county medical officer is presumed to be a whole-time man, and as such to be wholly occupied; if he is appointed a district medical officer of health, it is presumed that the time occupied in his district work will be taken from the whole-time work of the county, and thus the county says in effect that they will deduct from his salary the equivalent that is paid by the district council, and the medical officer is no better off.

Assistant medical officers accept these posts because it gives them the necessary experience which will enable them to get a senior post later on, but if there are fewer senior posts to have, this will not benefit them much.

Again, since the Local Government Act became law, a whole army of medical officers who before held appointments directly responsible to their authorities now come under the administrative head of the county. Only recently the Brighton town council approved the following recommendations with reference to the position of the medical officer of health in relation to the work of the public assistance committee:—(1) To instruct the medical officer of health for the borough to assume and exercise

direct supervision of the administrative and medical services under the control of this committee, including the district medical officers and the medical institutions, it being understood that the medical officer of health will intervene as little as possible between any medical officer employed by the authority for clinical duties and the patient whom that medical officer is treating; (2) that in order to enable the medical officer of health fully to discharge these duties, the medical officers of institutions and the district medical officers be instructed to forward to the medical officer of health all reports . . . and he shall append thereto such comments or advice as he desires to make, and shall counter-sign the same.

I am aware that Brighton is a county borough, and not a county, but this is only an indication of what is going to happen in the future.

It will thus be seen that the future of the district medical officer of health is not particularly promising; that by his extinction the number of senior posts will be considerably diminished, and that consequently the prospect of people entering the public health service, obtaining senior posts eventually, is reduced proportionately.

The world is made up of ordinary people, and from what I have seen of the public health services, the personnel is no exception; now, with the number of senior posts diminishing, the likelihood of the ordinary person getting a senior post also diminishes, and therefore in my humble opinion, this change of administration which I foresee coming along will not be for the good of the district medical officer of health, and, by reflection, will not benefit the rank and file of new entrants into the service.

THE Sir Charles Hastings Lecture this year takes the form of a popular Lecture on "Diet and Health," to be given by Professor Edward Mellanby, F.R.C.P., F.R.S. (Professor of Pharmacology, University of Sheffield), in the Great Hall, British Medical Association House, Tavistock Square, London, W.C.1, on Friday, March 13th, 1931, at 8 p.m. The chair will be taken by the Right Hon. Lord Moynihan of Leeds, K.C.M.G., C.B., LL.D. (President, Royal College of Surgeons, England). Admission free, by ticket, obtainable on application to the Financial Secretary, British Medical Association House, Tavistock Square, London, W.C.1.

The Society.

Reports, Proceedings and Announcements.

NOTICE.

Maternity and Child Welfare Group.—A meeting of the Group will be held at 1, Upper Montague Street, W.C.1, on Friday, March 27th, at 8.30 p.m. Dr. Wm. Moodie, Medical Director of the Child Guidance Clinic, will give a paper on "Difficulties in Childhood with Special Reference to Enuresis."

A meeting of the Committee will be held at 8 p.m. before the General Meeting.—*Grace Calver, Hon. Secretary, 1, Holly Terrace, Highgate, N.6.*

COUNCIL MEETING.

A meeting of the Council was held at the house of the Society on Friday, February 20th, 1931. In the absence of the President (Professor H. Kerr) through illness, Dr. J. J. Buchan took the chair, and there were present Professors Bostock Hill, W. W. Jameson and J. J. Jervis, Sir Eustace Hill, and Drs. J. Howard-Jones, G. F. Buchan, E. H. Snell, T. W. N. Barlow, G. H. Pearce, J. Mair, H. Gibbons Ward, R. H. H. Jolly, Agnes H. Nicoll, D. J. Thomas, G. S. Parkinson, T. P. Puddicombe, P. H. Stirk, K. E. Tapper, A. B. McMaster, H. J. Milligan, A. A. Turner, R. H. Wilshaw, Charles Porter, H. B. Brackenbury, A. E. Baker, G. W. N. Joseph, E. Ward, G. C. M. M'Gonigle, J. A. Stirling, F. T. H. Wood, R. Veitch Clark, W. Paterson, and E. H. T. Nash.

The minutes of the last meeting having been approved and signed, apologies for absence were received from Drs. A. K. Chalmers, W. G. Willoughby, R. M. F. Picken, J. Fenton, E. G. Annis and Lieut.-Colonel Fremantle.

The Late Sir Andrew Balfour.—Before proceeding to business, the chairman referred to the loss recently sustained by the Society of one of its most distinguished Fellows, Sir Andrew Balfour, a pioneer of hygiene in the Sudan and the director of the great new centre of public health teaching in London since its inception. The Council stood in silence to

pass a resolution of sincere condolence with Lady Balfour and her sons in their bereavement.

Gift of a Florence Nightingale Letter.—The Council received the gift, presented to the Society by Dr. J. J. Paterson, of an autograph letter written by Miss Florence Nightingale in 1857 to Mr. R. Gullett Whitfield, M.S.A., resident medical officer of St. Thomas's Hospital (1832-1871), and first medical instructor at the Nightingale School of Nursing. The letter is as follows:—

29, Burlington Street, W.
June 12/57.

MY DEAR SIR,

I am truly obliged for your most kind offer to help us, which I am going to snatch as neither civil physicians nor surgeons, still less military ones, are, generally speaking, at all conversant with sanitary things, and I assure you that you yourself, with two or three other men, whom I could name, who have had large sanitary experience in London, are the only persons who have at all apprehended the real causes of our disaster in the East. Of course, I say this in private, as I have never animadverted on my masters, whatever may have been said as to my doing so.

I will tell you exactly what has been done about the Netley Hospital, and should extremely like to hear some portion of the large experience which you have been accumulating.

If you could come to me on Wednesday evening at 8 o'clock, and have a cup of tea—or, if you do not like to leave your charge at that hour, if you could come to me on Thursday at 4, or on Friday at one, I shall feel myself very much indebted to you. Both you and I are so driven with business that I will ask you to write one line to say "when."

Yours faithfully,

FLORENCE NIGHTINGALE.

The Council passed a hearty vote of thanks to Dr. Paterson for his interesting and valuable gift.

Representation of the Society.—The following were elected as representatives of the Society for the forthcoming year:—

Standing Advisory Committee on Nutrition.—Dr. G. F. Buchan.

Central Midwives Board.—Dr. J. J. Buchan.

National Baby Week Council.—Drs. J. Fenton and Agnes H. Nicoll.

National Milk Publicity Council.—Dr. T. Orr.

London School of Hygiene Committee on Bacteriological Examination of Milk.—Dr. T. Orr.

Library Association Sub-Committee on Co-operation of Public Libraries and the Red Cross Hospitals Library.—Dr. Charles Porter.

Industrial Health Education Society Executive Committee.—Dr. G. Clark Trotter.

Central Midwives Board.—The report of Dr. R. A. Lyster as the Society's representative on the Central Midwives Board for the year 1930-31 was submitted and adopted. The Council expressed cordial thanks to Dr. Lyster for his report and for his representation of the Society on the Board during past years.

Association of County Medical Officers.—Following the discussion of a recommendation of the General Purposes Committee, the Committee were empowered to make arrangements for a meeting with the Association to discuss the possibilities of closer co-operation.

Superannuation of Nurses Employed by Local Authorities.—The General Purposes Committee reported that a conference had been held with representatives of the College of Nursing and of the Women Public Health Officers' Association, and recommended that the Council again request the Minister of Health to receive a joint deputation of the Society, the Sanitary Inspectors' Association and the above bodies in regard to the memorandum on superannuation of public health officers submitted to the Minister in December, 1928; Drs. J. J. Buchan and Charles Porter would represent the Society. They also recommended the submission of the following representation:—

"That the Ministry of Health be urged to give the necessary sanction or to promote legislation to enable Local Authorities as the responsible employing authorities to adopt the Federated Superannuation Scheme for Nurses and Hospital Officers (contributory) for nurses and staff personnel employed in municipal and county council hospitals and institutions, other than those occupying designated posts."

It had been agreed at the Conference that nurses employed as health visitors and school nurses should continue to participate in the Superannuation of Local Government Officers scheme, and that the claims made on their behalf in the Society's 1928 Memorandum as to added years of service, optional retirement

at 55 and repayment of contributions with interest on resignation, be again put forward. The Council approved the above recommendations.

New Streets and Buildings By-Laws.—On a recommendation of the General Purposes Committee the Council passed the following resolution:—

"That the Council of the Society of Medical Officers of Health is satisfied that a revision of the Model By-Laws relating to New Streets and Buildings is desirable, and that greater latitude should be permitted in the By-Laws of Local Authorities in respect of the position and connection of lavatories, baths and W.C.'s, especially in their application to large buildings, hotels, etc., and that the Council will be pleased to co-operate with the B.M.A. in any representation to or interview with the Minister of Health on the matter."

Departmental Committee on Local Government Officers.—The General Purposes Committee submitted a memorandum of evidence, embodying the Society's views to be placed before the Departmental Committee. It was proposed that oral evidence should be given by Drs. James Fenton and F. T. H. Wood, and also by Dr. R. M. F. Picken. The Council approved the memorandum with certain minor amendments, and expressed thanks to those who had undertaken the drafting of the evidence.

Departmental Committee on Private Schools.—The Council appointed Drs. R. H. H. Jolly and A. E. L. Wear and a member to be nominated by the School Medical Service Group, as a special sub-committee to prepare evidence for submission to the above Departmental Committee.

The Council then adjourned.

ORDINARY MEETING.

An ordinary meeting was held at the house of the Society on Friday, February 20th, 1931. In the absence of the President, Dr. J. Howard-Jones occupied the chair.

The minutes of the last meeting having been approved and signed, the following were elected to membership of the Society:—

As Fellows:—

Aitchison, Katharine Hamilton, M.B., Ch.B. (Edin.), D.P.H.; Crosse, Victoria Mary, M.D. (Lond.), M.M.S.A., D.P.H.; Gompertz, Alexander, M.R.C.S., L.R.C.P.; Hill, Susie Eleanor, M.D., B.S. (Lond.); Jemson, Bessie Gorst, M.R.C.S.,

L.R.C.P., D.P.H.; Logan, James Stevenson, M.B., Ch.B. (Liv.), D.P.H.; Morton, Jean Hall, M.B., Ch.B. (St. And.), D.P.H.; Roberts, John Theodore Cyril, M.B., Ch.B. (Liv.), M.R.C.S., L.R.C.P., D.P.H.; Strathie, J. Margaret, M.B., Ch.B. (Glasg.), D.P.H.; Sutherland, Jean, M.B., Ch.B. (Edin.), D.P.H.

As Associate :—

Prosser, Mabel Eliza, M.B., Ch.B. (Birm.).

A number of nominations were received for the next election.

There followed a discussion on "Bacillary Dysentery in Great Britain," opened by Dr. J. A. Charles, Deputy Medical Officer of Health, Newcastle-upon-Tyne, who dealt with the clinical and epidemiological aspects of the subject, and by Dr. S. H. Warren, Director of the Public Health Laboratory, Durham University College of Medicine, who described the bacteriological points of interest. Dr. Howard-Jones, who thanked Drs. Charles and Warren for their interesting papers, and Dr. A. F. Adamson also spoke.

The meeting then adjourned.

A full report of the discussion will be published in a later issue of PUBLIC HEALTH.

THE METROPOLITAN BRANCH.

President : Dr. John Macmillan, D.S.O., M.C., M.O.H., Woolwich.

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 January 30th, 1931, the President occupying the chair. Twenty-one other members of the Council, and Dr. Crowe, who attended by request, were present.

The President formally welcomed Dr. H. A. Bulman, Assistant Medical Officer of Health, St. Marylebone, as a member of the Council of the Branch.

The Hon. Secretary presented the following programme of meetings of the Metropolitan Branch and Branch Council for the remainder of the year 1931, which was approved :—

March 13th.—Council Meeting, 3 p.m.
 April 10th.—Council Meeting, 3 p.m.; Branch Meeting, 3.30 p.m.
 April 24th.—Council Meeting, 3 p.m.
 May 22nd.—Council Meeting, 3 p.m.
 June 26th.—Council Meeting, 3 p.m.; Annual Branch Meeting, 3.30 p.m.
 July 10th.—Council Meeting, 3 p.m.
 October 9th.—Council Meeting, 3 p.m.
 October 23rd.—Council Meeting, 3 p.m.
 November 13th.—Council Meeting, 3 p.m.; Branch Meeting, 3.30 p.m.
 December 11th.—Council Meeting, 3 p.m.

The Branch Council had before them the report of the Sub-Committee which had been appointed to consider and report upon the unsatisfactory state of the law relating to unsound food. The deliberations of the Sub-Committee had been very materially assisted by the information furnished by Dr. Clark Trotter regarding the Conference on this subject held at Islington, on July 18th, 1922, the statement of Dr. Shinnie, City of Westminster, in respect of the existing practice at Covent Garden Market, and the observations of Dr. Willoughby, City of London, regarding the application of the Imported Food Regulations in his area. After careful consideration, the Branch Council felt that, whilst it does not appear advisable to ask for an amendment of section 47 of the Public Health (London) Act, 1891, further powers are needed for securing a more satisfactory examination of suspected foodstuffs. It was decided to recommend the Metropolitan Boroughs' Standing Joint Committee to urge the Minister of Health to make regulations under the Public Health Act, 1875, and the Public Health (Regulations as to Food) Act, 1907, to cover the undermentioned points :—

- (a) The medical officer of health, or other duly authorised person acting under his direction, to be empowered to prohibit for a reasonable period the removal, except to a place to which the medical officer of health may consent, of any food intended for human consumption, or food which the medical officer of health might reasonably expect to be intended for human consumption, or for the purposes of preparation for human consumption, and deposited in any market, store, shop or other premises.
- (b) The medical officer of health, or other duly authorised person acting under his direction, to have power to take samples of such food.
- (c) Any persons having custody of such food and the owners and occupiers of such premises to afford all reasonable facilities for the inspection of such food; such facilities to include such unpacking, uncovering and sorting of the food as the medical officer of health may deem requisite.

The Branch Council heard with pleasure that Professor A. Bostock Hill had consented to attend an early meeting of the Branch to give an address showing how the Central Council for Health Education can help officers of local authorities generally, and particularly in regard to public education in health.

The Branch Council had before them a further communication from the Metropolitan Boroughs' Standing Joint Committee in regard to the promotion of legislation to require owners of

all new and existing houses to provide at least one tap in each house for the supply of water direct from the rising main. In the view of the Branch Council, this provision is so obviously desirable on health and general grounds that it is not necessary to adduce special evidence in support thereof. Under section 78 of the London County Council (General Powers) Act, 1907, one borough council in London has secured the installation of an additional water tap in 1,810 tenement houses in the last eight years, and in practically every case this tap has been from the rising main. The average cost of installing the tap (generally on the half-landing between the ground and first floors or the first and second floors) may be said to be £2. Where a sink and waste pipe have to be installed under the tap (which is usually the case), the total cost is probably between £5 and £8. The Branch Council came to the conclusion that it would be an advantage if section 78 of the London County Council (General Powers) Act, 1907, could be so amended as to make it clear that "a proper and sufficient supply of water" means water drawn from a rising main and not from a cistern.

It was decided to inform the Metropolitan Boroughs' Standing Joint Committee that the Branch Council are not in favour of the Stepney Borough Council's proposal that the existing law should be amended so as to secure that the number of common lodging-houses in a particular borough or area may be restricted.

Dr. Clark Trotter called attention to the difficulties created owing to the Registrar-General making 1930 a year of fifty-three weeks, ending on January 3rd, 1931, and the Ministry of Health treating it as a year of fifty-two weeks, ending on December 27th, 1930. Dr. Trotter pointed out also that a double set of figures would be required for 1931 as well as for 1930.

Dr. Clark Trotter gave particulars of a case in which unwholesome chocolates had been given as a prize in exchange for a winning ticket at a stall at the recent World's Fair at Islington. He explained that, as the chocolates were not exposed for sale, deposited for the purpose of sale, or in preparation for sale, section 47 of the Public Health (London) Act, 1891, did not apply. The Branch Council decided that the facts of the case should be reported to the Metropolitan Boroughs' Standing Joint Committee, with a suggestion that that Committee should ask the Minister of Health to amend the existing legislation so as to provide that food given away

as prizes at fairs, exhibitions, etc., should, for the purposes of dealing with unsound and unwholesome food, be regarded as being exposed for sale.

The Branch Council came to the conclusion that the pink transfer card in use in London for supplying information from infant welfare centres to the school medical service when a child commences school attendance might be improved as a result of the experience gained in the years during which it has been in use, and a Sub-Committee, consisting of the President, the Hon. Secretary and Dr. Howell, was appointed to confer with Dr. C. J. Thomas, of the London County Council, with a view to the preparation of a more suitable card.

THE SCOTTISH BRANCH.

President : Dr. Thomas Adam, County Medical Officer of Health, Stirling.

Hon. Secretary : Dr. G. V. T. McMichael, Medical Officer of Health, Paisley.

A meeting of the Council of this Branch was held in the Sanitary Chambers, Glasgow, on January 16th, 1931. Seven members were present, and the President occupied the chair. Apologies for absence were intimated from five members.

The Hon. Secretary submitted a letter from the Department of Health for Scotland, requesting the Branch to nominate a representative to serve on the new Central Midwives Board for Scotland, which falls to be formed as from February 1st, 1931. On the motion of the President, seconded by Dr. Macgregor, it was unanimously agreed to nominate Dr. A. K. Chalmers.

Letters from the Executive Secretary were read, appealing to Branches to make a special effort to recruit new members for the Society, especially from the medical officers in the services transferred under the Local Government Acts. After some discussion, it was decided that the letters should be fully discussed at the next meeting of the Branch.

With reference to the remit from the Branch, the President proposed that Dr. W. G. Clark, Depute Medical Officer of Health, Glasgow, should be appointed Honorary Secretary and Treasurer, and the nomination was unanimously and cordially approved.

Dr. Arbuckle Brown pointed out that the annual reports of school medical officers dealt with the year ending July 31st, while the reports of medical officers of health dealt with

the year ending December 31st. In view of the unification of medical services effected by the Local Government (Scotland) Act, he suggested that the Department of Health for Scotland should be asked to arrange that in future reports of school medical officers should deal with the year ending December 31st, and the Hon. Secretary was instructed to bring the suggestion before the Department.

THE NORTHERN BRANCH.

President: Dr. Charles Franks, J.P., M.O.H., Durham C.C.

Hon. Secretary: Dr. J. A. Charles, Deputy M.O.H., Newcastle-upon-Tyne.

A meeting of this Branch was held at the Medical Institute, Windsor Terrace, Newcastle-upon-Tyne, on January 23rd, 1931, the President occupying the chair. Thirty-four members were present.

The President referred to the illness of Professor Harold Kerr, O.B.E., and the Hon. Secretary was instructed to write a letter to him expressing sincere wishes for a speedy recovery.

A letter was read from the West of England Branch asking for the support of the Northern Branch in the candidature of Dr. Ernest Ward for the office of President for 1931-32. It was agreed that the question be considered at a later meeting.

Dr. G. P. Harlan, Medical Superintendent, Newcastle General Hospital, was elected a member of the Branch.

Dr. A. S. Hebblethwaite raised the point with regard to general practitioners taking on ante-natal inspections at the municipal maternity and child welfare clinics. As it is proposed to have a discussion on maternal mortality at an early meeting of the Branch it was agreed that the question could be brought forward at that meeting.

Two communications from the Executive Secretary, relating to recruitment, were read. With regard to medical officers in the services transferred under the Local Government Act, 1929, a member asked to be informed as to the eligibility for Fellowship of the Society of doctors who had recently accepted posts as medical officers to public assistance committees, the official advertisements for which had not been accepted by the medical journals. It was agreed that the question be referred to the Council of the Society for consideration.

Dr. James Hudson moved the following resolution, and it was agreed that it be forwarded to the Executive Secretary:—"That

the Council of the Society be asked to consider whether the appointment by public assistance committees of whole-time medical officers for the purpose of carrying out domiciliary medical services is not against the ethics of the profession."

Dr. F. C. S. Bradbury, Medical Commissioner, National Association for the Prevention of Tuberculosis, read a paper dealing with his "Survey of Tuberculosis on Tyneside." Dr. Bradbury explained that he had been appointed to carry out a survey on the question by a Committee of the National Association for the Prevention of Tuberculosis, and that the survey was a sequel of the Conference of this Society held in Newcastle in 1929. He made it clear that his information was as yet very incomplete, because he had only been here three months and that, in any case, it was difficult to add to the statistics and reports already existing with regard to the area. His main scheme was to try to present the statistical evidence that he could collect in the best possible manner and also to see the evidence with the unbiased eyes of an outsider. The paper, which was mainly statistical, dealt with Tyneside, which was defined as Durham, Northumberland, Newcastle, Gateshead, South Shields and Tynemouth, and in his figures he made certain allowances for the difference between rural and urban populations in the counties of Durham and Northumberland. Dr. Bradbury concluded with some observations on food and housing, and pointed out that bad housing in itself did not cause an excess in tuberculosis.

Drs. Dickinson, Macrae, Hislop, Murray, Boleyn and Hurrell took part in the discussion which followed, and on the motion of the President a hearty vote of thanks was accorded to Dr. Bradbury for his interesting contribution.

A further meeting of the Branch was held at the Medical Institute, Windsor Terrace, Newcastle-upon-Tyne, on February 13th, 1931. The President, eighteen members and one visitor were present. Apologies for absence were received from four members.

The Honorary Secretary submitted a letter from the Executive Secretary with regard to (i) Recruitment; (ii) Dr. James Hudson's resolution relating to domiciliary medical attendance.

The following were elected as members of the Branch:—Annan, William Gillies, Clinical V.D.O., Durham C.C.; Bainbridge, Marion L.; Brown, Elsie E.; Jamieson, Janet

M.; Raw, Mary; Thompson, Vera, Asst. M. and C.W. Medical Officers, Durham C.C.

Mr. T. Crew, Organising Secretary, Central Council for Health Education, in the absence of Professor J. Johnstone Jervis of Leeds addressed the members on:—(1) Methods of Public Education in Health; (2) The Advisory Services of the Central Council for Health Education.

A short discussion followed, and on the motion of the President, seconded by Dr. Hebblethwaite, a cordial vote of thanks was accorded to Mr. Crew for his interesting address.

THE YORKSHIRE BRANCH.

President: Dr. L. Pickering-Pick, M.O.H., Spenborough.

Hon. Secretary: Dr. G. H. Pearce, M.O.H., Batley.

A meeting of this Branch was held at the Town Hall, Wakefield, on January 30th, 1931, the President occupying the chair. Twenty-five members and six visitors were present. Apologies for absence were received from three members.

It was decided that the March meeting should be held in Sheffield.

On the recommendation of the Council it was unanimously agreed that a hearty invitation be conveyed to Major D. S. Rabagliati, O.B.E., B.Sc., F.R.C.V.S., D.V.S.M., Chief Veterinary Officer, West Riding County Council, to act as the representative of the veterinary profession on the Council of the Branch. In conformity with the Articles of Association of the Society, Major Rabagliati will be precluded from voting, and his position on the Council will be unofficial. Notwithstanding this, the opinion of the Branch members is that this arrangement will be mutually advantageous.

Colonel A. E. L. Wear, C.M.G., M.D., was nominated as the Representative of the Branch at the National Safety First Congress to be held at Leeds in May, 1931.

A letter from the West of England Branch commending the candidature of Dr. Ernest Ward for the Presidency of the Society for the session 1931-32 was read, when it was decided that further consideration be adjourned to a later date.

Dr. W. Steven, Medical Officer of Health, Featherstone Urban District Council, a representative of the British Medical Association on the Council of the Branch and a general practitioner of extensive experience, referred to some difficulties met with in a panel practitioner's

life, as illustrated in an article by himself published in the *West Riding Panel Record*, No. 28, December, 1930. It was unanimously agreed that the suggestions made by Dr. Steven be considered at a special meeting of the Council to be called for that purpose before the next meeting in February.

Dr. T. Gibson, Medical Officer of Health, City of Wakefield, read a most interesting paper entitled "The General Practitioner and the Preventive Medicine of the Future," and was followed by Dr. G. B. Hillman, M.B.E., and Dr. W. Steven, who spoke as general practitioners and prominent members of the British Medical Association. The discussion was continued by Drs. Bates, Channon, Galloway, Macdonald, Pearce, and Potts, after which Dr. Gibson replied and was cordially thanked for his instructive contribution.

The Mayor of Wakefield, accompanied by the Town Clerk, welcomed those present and kindly provided tea, a courtesy which was much appreciated. A very successful meeting was brought to a close by a hearty vote of thanks to His Worship, proposed by the President.

THE MIDLAND BRANCH.

President: Dr. P. S. Blaker, M.O.H., Dudley.

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, 154, Great Charles Street, Birmingham, on February 5th, 1931. Twenty-six members were present. Apologies for unavoidable absence were received from seven members.

A communication was read from the Executive Secretary requesting the Branch to enlist the support of veterinary officers in the area by inviting them to become Associates.

A letter was read from Dr. J. A. Stirling in which he offered the thanks of the East Midland Branch for the donation of £10 which had been made to their funds by the Midland Branch.

The Branch Council recommended the Branch to nominate Dr. C. Killick Millard for the Presidency of the Society for the session 1931-32. This was unanimously agreed to.

Dr. G. A. Auden read a paper on "The York Guild of Barber Surgeons," and gave an account of the history of this Guild from the fourteenth to the eighteenth century. By means of references to the Corporation House Book and the Egerton MSS, he showed that

the York Barber Surgeons were a body with special privileges in the city and a large measure of self-government. No one could practise in York as a barber, a surgeon or a dentist unless he was approved by the Guild, and the citizens were forbidden, under penalties, to consult a person who was not a member of the Guild. The barber surgeon did not practise medicine, which was looked upon as a separate profession, but it was only in the seventeenth century that a distinction appears to have arisen between the barber and the surgeon. The York Guild of Barber Surgeons was stated to have gone out of existence in the eighteenth century.

A hearty vote of thanks was accorded to Dr. Auden for his most interesting paper.

THE SOUTHERN BRANCH.

President: Dr. R. H. Wilshaw, M.O.H., Worthing.
Hon. Secretary: Dr. H. D. Kelf, Assistant M.O.H., Hants. County Council.

A well-attended meeting of this Branch was held at East Park Terrace, Southampton, on February 6th, 1931. In the absence of the President, Dr. W. J. Hart occupied the chair. Apologies for non-attendance were received from four members.

Letters were read from the Executive Secretary asking the members of the Branch to enlist the support of medical officers in the services transferred under the Local Government Act, 1929, and veterinary officers in the service of local authorities.

Letters were also submitted from Lieut.-Colonel Parkinson, General Secretary of the Central Council for Health Education, offering to attend a meeting of the Branch to discuss methods of public education in health.

The Hon. Secretary reported that a meeting would be arranged next month.

Clinical notes on cases were contributed by Dr. Percy Moxey, Dr. W. Simpson and Mr. J. S. Roberts (Dental Officer).

A discussion on "Some Tuberculosis Problems" was opened by Drs. Moxey and W. J. Hart. A large number of every-day problems were referred to by both speakers, including contacts, X-ray diagnosis, tuberculin tests, sanatorium treatment, age and incidence of tuberculosis generally, and infection by cows' milk.

Many members took part in the discussion which followed, including Drs. H. L. Cronk,

A. E. Druitt, B. L. Lloyd, J. C. Lindsay and W. Simpson.

Drs. Moxey and Hart replied to various questions, and were accorded a hearty vote of thanks for their interesting papers.

THE WELSH BRANCH.

President: Dr. E. Ll. Parry-Edwards, County M.O.H., Carnarvonshire.
Hon. Secretary: Dr. D. J. Thomas, Deputy M.O.H., Rhondda.

A meeting of this Branch was held at the City Hall, Cardiff, on February 7th, 1931, when fourteen members were present. In the absence of the President, Dr. A. Duncan (Merthyr Tydvil) took the chair, and intimations regretting inability to attend were received from several members.

The nomination of Dr. J. L. Thomas as a representative of the Branch on the Committee of the Tuberculosis Group was endorsed.

Letters from the Executive Secretary in regard to the recruitment of medical officers transferred under the Local Government Act, 1929, and of veterinary officers, were considered.

As a result of the consideration of a letter from the General Secretary of the Central Council for Health Education, it was resolved that an invitation be extended to a representative of the Central Council to attend a meeting of the Branch at a convenient date.

Dr. T. Evans (Swansea) opened a discussion on Circular 1167 and Memorandum 156/M.C.W. The contents of the circular and memorandum were reviewed in detail and, in his comments thereon, Dr. Evans remarked that though examples of institutions, etc., where low maternal mortality existed, were quoted in the memorandum, there was no indication as to how this low mortality had been attained. The secret lay in the provision of a highly skilled midwifery staff with the co-operation of obstetric specialists when required, whilst the documents under discussion advocated the exact opposite to what these successful associations were now doing. The virtue of staffing ante-natal clinics by part-time practitioners could not be comprehended, especially in view of the fact that officers presiding at these clinics were required to possess special qualifications for this work, and the attendance of general practitioners at maternity homes or hospitals provided by local authorities would give rise to many administrative difficulties. The provision by local

authorities of facilities for dealing with difficult cases was essential, and the highest possible obstetric skill should always be available.

Dr. Murphy (Ogmore and Garw) drew attention to the doubtful significance of the figures relating to maternal mortalities in the institutions quoted in the memorandum for the purpose of comparison with maternal mortalities in large areas. Ante-natal work in semi-industrial or rural districts was not so easily administered as in large towns, and facilities for the reference of cases to consultants should always be available. The midwifery service, as now practised, in these districts provided a precarious mode of existence and most midwives were married women assisting to provide or increase the family income. The payment of subsidies to midwives would hardly meet the problem, whilst the compensation of a midwife for the loss of a case as a result of ante-natal advice was desirable. All practitioners were not equally skilled and the transfer of a patient from one doctor to another was not looked upon with favour. Maternity hospitals for county districts would be more economically provided by county councils.

Dr. Severn (Pontypridd) suggested that the supervision of midwives should be carried out by large urban district authorities in preference to the county authorities, and noted that in his district free midwifery service was provided to the poorer mothers who had been recommended this facility at the ante-natal centres. The services of a consultant obstetrician were also available, and it was found that the scheme had not been an extravagant one. Provision of dental treatment should be included in the ancillary services, and also a free supply of antitoxic sera for septic puerperal cases should be advocated. Certain aspects of the value of birth control clinics were mentioned, and the classification of hospitals into simple maternity hospitals, for cases which do not require special care, and special maternity hospitals, where more elaborate facilities are provided for the treatment of serious or complicated cases, was discussed.

Dr. Picken (Cardiff), continuing the discussion, reminded the members that local authorities were under an obligation to consider the circular and memorandum and to report to the Ministry on the action intended to be taken in relation to these services. In large towns the value of ante-natal clinics was being increasingly realised. At Cardiff, during 1921, 70 new cases per 1,000 births attended

the ante-natal clinics, whilst during the last year this figure had increased to approximately 369 per 1,000 births; these figures indicated that the present policy of providing municipally staffed clinics should be persevered with and extended by the provision of consultant services.

Dr. Colston Williams (Glamorgan) compared the circular and memorandum to the discharge of a shot-gun; one of the pellets would be sure to hit something. The speaker advocated the organisation of maternity hospitals of sufficient size to provide work for a highly skilled obstetric and pathological staff. Ante-natal clinics in semi-industrial or rural districts should serve to pick out the abnormal cases which could be referred to an obstetrician with a sufficient number of beds at his disposal. The number of practitioners of consultant status in South Wales was quite inadequate for the ultimate needs of a maternity scheme. The amount of relief or public assistance granted through the medium of maternity and child welfare schemes in many industrial districts was to be deprecated in view of the deviation of the skill and energy caused thereby from the other functions of maternity and child welfare.

Dr. Howard-Jones (Newport) foreboded that many administrative difficulties would arise on the transfer of the medical supervision of municipal ante-natal clinics to general practitioners. Ante-natal methods received scanty attention in most text-books of midwifery, and consequently the majority of practitioners had no special knowledge of or training in the work. A diploma in midwifery should be required, and the speaker was not prepared to advocate the handing over of ante-natal clinics. Dental treatment of ante-natal cases was most important, and dentures had been provided in suitable cases in Newport through the medium of a voluntary fund. Every maternity scheme should also provide for post-natal examinations.

In summing up the discussion, Dr. T. Evans stated that better results would be obtained by extensions of the present system of whole-time services provided by local authorities, but the advocacy of this policy to the responsible committees would be difficult to maintain in view of the terms of the circular and memorandum. A whole-time medical service could be instituted immediately if the medical officers attending the ante-natal clinics could be made available to answer the calls of

the midwives; the provision of highly skilled officers was, however, essential for the success of any scheme.

THE EAST MIDLAND BRANCH.

President: Dr. C. Killick Millard, M.O.H., Leicester.
Hon. Secretary: Dr. J. A. Stirling, M.O.H., Chesterfield.

A meeting of this Branch was held at the New City Hospital, Derby, on February 12th, 1931. In the absence of the President, Dr. Cyril Banks took the chair. Nineteen members and three guests were present. Apologies for absence were received from the President and eight members.

The Branch byelaws were submitted and confirmed.

A letter was read from the Midland Branch stating that the Midland Branch was nominating Dr. C. Killick Millard for the Presidency of the Society for the session 1931-32, and asking for the support of the East Midland Branch. It was unanimously resolved to support the nomination of Dr. Killick Millard.

Dr. P. Heffernan submitted an interesting and stimulating paper on "Impressions of Tuberculosis Work in Canada." That his paper was appreciated by all present was evidenced by the numerous questions which were asked at the conclusion of its reading. A hearty vote of thanks was accorded to Dr. Heffernan on the proposition of the Chairman.

A meeting of the Branch Council preceded that of the Branch.

THE NORTH-WESTERN BRANCH.

President: Dr. C. O. Stallybrass, Asst. M.O.H., Liverpool.
Hon. Secretary: Dr. G. W. N. Joseph, M.O.H., Warrington.

A meeting of this Branch was held at the Margarine Works of the Co-operative Wholesale Society, Higher Irlam, near Manchester, on February 13th, 1931, when Dr. F. A. Sharpe, Past-President, and fifteen other members were present.

The party was shown round the works by members of the staff, who explained the process of manufacture of margarine and the purification of lard. The chief impressions left after the visit were of the cleanliness of the whole factory and the workers; the use of automatic machinery to obviate all handling of the products; the interesting automatic packing and box-making machinery, and the laboratory supervision to ensure the production of uniform and wholesome commodities.

The business meeting was held in the welfare buildings attached to the works. The Hon. Secretary submitted apologies for absence from several members, and correspondence from Dr. Symonds, Medical Officer of Health, Shrewsbury, relating to the progress of the Wheatley Memorial, and from Dr. Brown, Medical Officer of Health, Bacup, concerning the appointment of a successor in that Borough.

The arrangements for the March meeting were considered, and on the proposal of Dr. F. T. H. Wood, seconded by Dr. R. Veitch Clark, it was resolved that the meeting be held in Manchester at 7 p.m. to enable junior members who are unable to attend afternoon meetings to be present. It was decided to have a hot pot supper at 7 p.m., followed by a business meeting at 8 p.m.

After the meeting the members were entertained to tea by the Co-operative Wholesale Society. On the proposition of Dr. Sharpe, a hearty vote of thanks was accorded to the Society for their kindness in arranging the visit and for their hospitality, and to members of the staff who had made the visit most interesting by their explanation of the various processes. In the absence of the Manager (Mr. Baldwin), Mr. Wadsworth responded on behalf of the Society and the staff.

THE MATERNITY AND CHILD WELFARE GROUP.

BIRMINGHAM AND MIDLAND SUB-GROUP.

President: Sir John Robertson, C.M.G., O.B.E.
Hon. Secretary: Dr. Jean Hall Morton, Asst. M.O. (M. & C. W.), Birmingham.

The first meeting of this Sub-Group was held at the City Sanatorium, Yardley Road, Small Heath, Birmingham, when a large number of members listened with interest to an extremely instructive paper (illustrated by excellent X-ray films) on "Tuberculosis in Young Children," read by Dr. G. B. Dixon, Chief Clinical Tuberculosis Officer for Birmingham. The paper will shortly be published.

THE MATERNITY AND CHILD WELFARE GROUP.

President: Dr. Ethel Cassie, Assistant M.O.H., Birmingham.
Hon. Secretary: Dr. Grace Calver, 1, Holly Terrace, Highgate, London, N.6.

A general meeting of this Group was held at the house of the Society on January 23rd,

1931, the President occupying the chair. Eighteen members were present.

Mr. J. Bright Banister, M.D., F.R.C.S., gave an address on "Post-natal conditions—what they mean, and how they should be dealt with." He described the general effects and local lesions which might arise, and emphasised the importance of regarding post-natal examination at about the sixth week as the final phase of a maternity clinic. A reduction of the high incidence of ailments directly

referable to childbirth could be ensured only by concerted effort.

The discussion was opened by Dr. W. H. F. Oxley, and subsequent speakers were the President and Drs. M. Back, S. Churchill, E. H. T. Nash, A. H. Nicoll and G. H. Wood.

A vote of thanks to Mr. Bright Banister, proposed by Dr. Nash and seconded by Dr. Nicoll, was accorded unanimously.

THE JOINT TUBERCULOSIS COUNCIL.

A meeting of the Joint Tuberculosis Council was held at the house of the Society of Medical Officers of Health on January 17th, 1931, Dr. Lissant Cox occupying the chair. Twenty-one members were present.

The Chairman, on behalf of the Council, congratulated Dr. Jane Walker on the honour recently conferred upon her. He also welcomed Professor Jameson, representing the Society of Medical Officers of Health, who was present for the first time.

Dr. Lissant Cox was elected Chairman for 1931; Dr. L. S. T. Burrell and Dr. S. Vere Pearson, Vice-Chairmen; Dr. Ernest Ward, Hon. Secretary; and Dr. G. Jessel, Hon. Treasurer.

A letter from Sir Henry Gauvain was read, and the following resolution was passed by acclamation, and the Hon. Secretary was asked to send a copy thereof to Sir Henry Gauvain: "That this Council desires to record its deep appreciation and gratitude for the services of Sir Henry Gauvain, who for over five years has been their Chairman, and whose work on behalf of Council, and especially his charming personality, have contributed in no small degree to the Council's reputation."

Sir Henry Gauvain, Drs. Roodhouse Gloyne, Lissant Cox, Neville Cox, L. S. T. Burrell, Peter Edwards, and Jane Walker were re-elected members of Council.

The questionnaire of the Association Professionnelle Internationale des Médecine and the answers thereto, a summary of which had been circulated, was next considered. The Hon. Secretary was thanked for his work, and was asked to convey the thanks of the Council to Dr. Alfred Cox for sending the account of the enquiry, and through him to convey to

the Association Professionnelle Internationale des Médecine an expression of appreciation of this work on behalf of the tuberculosis campaign in all countries.

The Hon. Secretary explained that the Education Advisory Committee of the Labour Party had appointed a Sub-Committee to consider tuberculosis in children, and a request to give evidence before this Committee had been referred to the Council by the Tuberculosis Group Committee of the Society of Medical Officers of Health. A form of evidence had been circulated as a basis for discussion and, after amendment, this was adopted, and Drs. Lissant Cox and Ernest Ward were asked to attend at the House of Commons on February 5th, to give evidence on behalf of the Council.

Dr. S. Vere Pearson, for the Artificial Pneumothorax Committee, said that their work was progressing, and that he hoped to circulate a written report for the next meeting.

A report was presented by Dr. Jessel on behalf of the Research Committee. This was approved and the Hon. Secretary was instructed heartily to thank Dr. Roodhouse Gloyne for the hard work entailed in drafting an approved memorandum. It was suggested that the Committee should early seek the advice of a statistician.

Saturday, May 16th, 1931, at 10 a.m., was the date and time fixed for the next meeting.

DR. CLEMENT DUNSCOMBE, Medical Officer of Health for Mansfield Woodhouse, and Assistant School Medical Officer, Nottinghamshire County Council, has been appointed Medical Officer of Health and School Medical Officer for the County Borough of Canterbury.

The Literature of Preventive Medicine.

COTTAGE HOSPITALS. By Major S. M. DUPLAT-TAYLOR, M.INST.C.E., M.I.MECH.E.; JOHN COLERIDGE, F.R.I.B.A.; and J. JOHNSTON ABRAHAM, C.B.E., D.S.O., M.D., F.R.C.S. London: Ernest Benn, Ltd., 1930. pp. 104, illustrated. Price 12s. 6d. net.

This book has been produced because the authors, rightly or wrongly, believe that there is a need for more cottage hospitals, if only in view of the increasing number of road accidents, and they hope that eventually every rural district will be supplied with one of these institutions. Hitherto, such hospitals have been erected in suburban districts around London and in small towns at a distance from a general hospital. Probably in the near future some of these will be found to be superfluous on account of the combining of county areas and by the appropriation by county councils of poor law institutions and their conversion into general hospitals. Further, the employment of motor ambulances has increased accessibility to the general hospitals. It is possible some may be utilised as health centres with various activities. With regard to the argument that cottage hospitals are required for road accidents, it must seem to some that what is wanted is rather a chain of first-aid or dressing stations, some of them with a couple or so of beds for emergency use until patients can be removed to the nearest hospital or to their homes. Such provision would be much more economical than the erection of cottage hospitals which, according to the authors, must be equipped as fully as a large general hospital, and therefore much more expensive to erect, furnish and maintain. The authors admit that the establishment of even a small hospital is a complex business. They have very successfully pooled their professional experience to show how a cottage hospital should be designed, constructed and equipped. They have obtained the assistance of well-known experts to deal with subjects which were outside their own sphere; thus, the chapter on hospital administration and finance is taken largely from the books of Captain Stone of St. Thomas's Hospital; Mr. R. J. Wright deals with X-ray apparatus; and Mrs. Carmalt-Jones with domestic equipment. Various firms have supplied illustrations of fittings, apparatus, etc., which the authors regard as suitable. Plans are appended of

Staines (6 beds) and Haslemere (30 beds) cottage hospitals, and of Tilbury Hospital (100 beds), by their respective architects. The last-named shows the development of a cottage hospital into a general one.

THE CARE AND NURSING OF THE INFANT. For Infant Welfare Workers and Nursery Nurses. By D. A. KENNEDY, S.R.N. (St. Thomas's Hospital). London: William Heinemann (Medical Books), Ltd., 1930. pp. 106. Price 3s. 6d. net.

The author of this book has had special experience of the nursing management of infants and slightly older children admitted to wards and hostels for dietetic disorders, and she writes specially for infant welfare workers, and nursery nurses, who are likely to have to deal with such conditions. All the details of nursing, feeding, and management are carefully and practically described, and although the directions are mainly concerned with ward or institutional arrangements, there is much that can, as the author points out, be used in the ordinary home care of the infant. The book, therefore, can be usefully studied, not only by those for whom it is primarily intended, but by all who are interested in the care of the delicate infant or toddler.

HYGIENE. By R. C. WHITMAN, A.B., M.D., Professor of Bacteriology and Lecturer in Hygiene, University of Colorado. London: Chapman & Hall, Ltd., 1930. pp. 327. Price 12s. 6d. net.

The author of this book, who is a professor in an American university, states in his preface that it is a "sort of jumble of the problems which come along in the daily life of a layman." The amount of ground covered is vast and many of the theories commonly accepted in medical circles are submitted to examination from a fresh angle and under a new light. Views on eugenics and the problem of the mentally deficient are interesting and worthy of attention. The chapters on "The Physical and Chemical Basis of Life" and "Light, Air, Ventilation and Food" make excellent reading and in these days, when voices crying "Eat more this" and "Drink more that" seem to be everywhere,

what he has to say on the subject of over-indulgence deserves consideration. The chapters on "Cleanliness and Sanitation" are also good, as is that in which vaccination and inoculation procedures are discussed.

The book is well written and may be recommended for the purpose for which it is intended, namely, a college text-book for non-medical students.

HEALTH IN THE NURSERY. By VICTORIA E. M. BENNETT, M.B., B.S. (Lond.), D.P.H. (Cantab.), Medical Officer, Ante-Natal and Child Welfare Clinics, Kensington and Brixton, etc. London: George Routledge & Sons, Ltd., 1930. pp. 75. Price 6d. net.

This little handbook gives a short account of the principles governing the hygiene of the infant and toddler from the ante-natal period up to the fifth year, and their practical application in the nursery. The book is sound throughout, and is obviously based upon adequate knowledge and experience of the subject. It may be recommended as a useful and readable book for the young educated mother or prospective mother.

DEEP X-RAY THERAPY IN MALIGNANT DISEASE.

A Report of an Investigation carried out from 1924-29 under the direction of the St. Bartholomew's Hospital Cancer Research Committee. By WALTER M. LEVITT, M.B., D.M.R.E., Medical Officer in Charge of the Radio-therapeutic Research Department. London: John Murray, 1930. pp. 128. Price 10s. 6d. net.

In the view of Sir Thomas Horder, who provides the introduction to this book, it "brings our knowledge of deep X-ray therapy in cancer to a state of precision not hitherto attained." That this opinion is correct may be accepted; in the volume are recorded the results of the work carried out in the radio-therapeutic clinic of St. Bartholomew's Hospital during the past five years.

After a study of these results, the impression left is that X-ray therapy has a definite place in any scheme of cancer treatment, municipal or other, and that no such scheme would be complete which did not make provision for it. Another impression is the importance of knowing—and knowledge is not yet complete—the causes which render some cancerous growths more susceptible to the action of a given agent,

be it radium, X-rays or lead, than are other apparently similar growths. A like variation occurs seemingly between person and person, so that the results from a given agent in a given person cannot be predicted with any certainty.

Altogether a valuable contribution to the knowledge of cancer.

WHAT WE DRINK. By VARIOUS AUTHORS. Edited by Hugh Wansey Bayly, M.C., M.R.C.S. Issued under the Authority of the Scientific Committee of the True Temperance Association. London: William Heinemann (Medical Books), Ltd., 1930. pp. 128. Price 1s. net.

The object of this book is to give correct and simple information on the subject of the beverages commonly used in this country. There is an introduction by Sir James Crichton-Browne, F.R.S., followed by a series of chapters by medical writers of repute, each dealing with one type of drink. The caffeine group is discussed first, then the alcoholic, then milk and water and the "soft drinks." The ingredients of the drink are described, together with its source or method of preparation and its physiological action. The effect is to enable the reader not only to choose his drinks more intelligently but to judge better as to the kind of regulations or restrictions that may be desirable in connection with their production and distribution. The book is full of valuable information and should be found interesting by others than medical officers of health.

A.B.C. OF CHILD HEALTH. By ALGERNON WEAR, C.M.G., M.D., B.S., D.P.H., Chief Medical Officer, Leeds Education Committee. Bristol: John Wright & Sons, Ltd., 1930. pp. 81. Price 1s. net.

This little book is intended to give to mothers in a simple form, such information on the health and ailments of their young children as will not only allay their fears, but will enable them to carry out home treatment and to avoid certain mistakes in management. As the name implies, it is arranged alphabetically and deals with all the commoner troubles of childhood. It is likely to be a comfort and of great use to the average middle-class mother.

In the Annual Reports.

THE TREATMENT OF DEFECTIVE VISION.—It is important that a medical officer, preferably the ophthalmic surgeon himself, should examine spectacles immediately after supply, in order to ascertain that the lenses conform with the prescription and that the frames are suitably fitted. In certain areas this important detail is overlooked and the correctness of the lenses is not checked until the medical officer next visits the school, after a period of perhaps some months. All children with glasses should have their visual acuity tested once a year, and if it is found there has been any change for the worse, they should be re-examined by refraction. All children suffering from myopia should be examined as a routine measure every six months or a year according to the severity or progressive nature of the defect.—*Sir George Newman, Chief Medical Officer, Board of Education.*

ASSISTED TRAVEL FACILITIES AND OVERCROWDING.—No apology is made for again referring to a proposal contained in a resolution of this council that free or assisted travel facilities should in certain cases be available for workers in overcrowded areas between their homes and work-places. We have in Shoreditch approximately 100,000 people living on a square mile. The density of population is 150 to the acre. A large number of families are living under conditions of bad overcrowding, and many more are living under conditions harmful to the health and well-being of young children. The parents of these children are in very many cases most anxious to move into less crowded districts, but are prevented from doing so because they cannot afford the cost of travel that would become necessary. Short of a great improvement in the economic condition of the families here referred to, it is not easy to believe that the general housing situation can be relieved without special legislation designed to give that freedom of movement that is now one of the necessities of health to those working in large cities.—*Dr. Maitland Radford, Shoreditch.*

THE TREATMENT OF MENTAL DEFICIENCY.—When it is pointed out that the proportion of the population mentally subnormal has been estimated at 10 per cent. by such a competent body as the Mental Deficiency Committee of the Board of Education and the Board of Control which reported last year, and that nearly 80 per cent. of these are feeble-minded only, it will be obvious that medical or psychiatric supervision and treatment can only be applicable to a limited number, and that the great mass offer a special field of activity for teachers specialising in this branch of pedagogics; and that such training requires to be carried in many cases well beyond the stage of life at which the average scholar leaves school. It is with this object in view that the committee have opened a new training centre during the past year, and it is in this connection that collaboration with the work of the education committee ought to become progressively closer. The ascertainment of defectives is practically impossible except through the educational organisation, and the increasing ascertainment of the less profound forms of mental retardation is opening up questions of training affecting the mental deficiency and education committees, which cannot be answered

successfully by either without the closest knowledge of what the other is doing.—*Dr. Ralph M. F. Picken, Cardiff.*

THE Annual Provincial Meeting of the Tuberculosis Association will be held at Oxford from March 26th to 28th, 1931. Medical tuberculosis workers, whether members of the Association or not, are invited to attend as delegates, and it is hoped that as many areas as possible may be represented. Full details of the programme, which includes subjects of clinical and administrative interest, may be obtained from the Hon. Secretary, Dr. G. T. Hebert, Tuberculosis Department, St. Thomas's Hospital, London, S.E.1.

A SERIES of eight lectures, with demonstrations, on "The Care of the Child," will be delivered at The Infants' Hospital, Vincent Square, Westminster, London, S.W.1, on Wednesday evenings at 6.30 p.m., commencing April 15th, 1931. The fee for the whole course, which is intended for nurses and health visitors and others interested, is five shillings; the fee for an individual lecture is one shilling. Applications for programmes and tickets should be made to the Medical Registrar at the Hospital.

THE Wellcome Foundation, Ltd., is about to erect a new medical and chemical research building at the corner of Gordon Street and Euston Road, London, W.C.1, on the site now partly occupied by their Bureau of Scientific Research. During many years the Foundation has maintained medical and chemical research laboratories, but recent developments have made it necessary to co-ordinate and extend these activities. The new building will furnish the additional accommodation required, and be provided with the most modern research equipment.

THE Second Biennial Conference of the National Council for Mental Hygiene will be held at the Central Hall, Westminster, London, S.W.1, from Wednesday to Friday, May 27th to 29th, 1931. The subjects to be discussed include the human factor in international problems; the human factor in relation to crime, to industry, to the social services and to education. Tickets (7s. 6d. each for all sessions; 2s. each for a single session) and all further particulars may be obtained from the Secretary of the National Council at 78, Chandos House, Palmer Street, London, S.W.1.

PUBLIC HEALTH 1931

THE JOURNAL OF
THE SOCIETY OF MEDICAL OFFICERS OF HEALTH.

No. 7. Vol. XLIV. APRIL, 1931.

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

Application should be made to the Executive Secretary of the Society, at 1, Upper Montague Street, Russell Square, London, W.C.1.

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Editorial.

Birth Control.

NO one who has been watching the trend of affairs in regard to birth control; who has read the Lambeth pronouncement, and has seen dragged into the home Press a statement by the church in the United States, will be surprised at the appearance of Ministry of Health Memorandum 153/M.C.W. Nor will those who have read what Sir George Newman wrote in his last annual report on the subject, be surprised at the line followed in advising the local authorities. In order that there may be no doubt whatever that the advice given is provided only on medical grounds, the fact is repeated over and over again, and italicised phrases stand out all over the document. No room for doubt also is left as to the places at which advice should be given. Particularly it is

made clear that even if the grounds for giving advice are definitely medical, and it is only cases where further pregnancy would be detrimental to health in which the advice is given and the ordinary centres are used, it should be at a separate session and under conditions such as will not disturb the normal and primary work of the centre. Unless the Minister is satisfied that these points are met, sanction will not be given to the setting up of the clinics under the Notification of Births (Extension) Act, 1915, which enables local authorities to exercise the powers of the Public Health Acts for the purpose of the care of expectant mothers and nursing mothers. This limitation of provision is particularly stressed, as is also the limitation of the power to establish clinics, specially provided under the Public Health

Acts, available for women suffering from gynaecological conditions. At these, it is pointed out, only sick persons may be dealt with, and sanction will only be given by the Department on condition (1) that the clinics will be available only for women who are in need of medical advice and treatment for gynaecological conditions, and (2) that advice on contraceptive methods will be given only to married women who attend the clinics for such medical advice and treatment, and in whose cases pregnancy would be detrimental to health. Judging from the clamour raised from time to time by certain authorities and representatives, it may be supposed that there will be a rush in a large number of areas to take advantage of the powers given in the memorandum. Medical officers of clinics will be instructed to give advice and supply contraceptive methods in some places, and in others the councils will be pressed by organisations outside to see that the instruction is given to the medical officers. In these latter cases, or many of them, the memorandum will be regarded as the outward and visible sign of a great triumph. That everybody will regard it as such may be doubted. Many there will be who will look upon it as rather less than half a loaf, and will feel that the fight is not after all completely won. This presumably should afford some satisfaction, since to have all demands met and nothing on earth to grumble about must mean a total loss of interest and the end of worlds to conquer. As matters stand it is still open to them to continue to demand quite a number of things, including the right to provide advice and apparatus freely anywhere to anybody.

* * * *

Great Britain's Milk.

IT is somewhat extraordinary how apt there are to occur in the neighbourhood of the opening of the tourist season, and particularly when this and other European countries are thinking about preparing a welcome for American visitors, things that might very readily suggest that from the health point of view there were resorts likely to prove more desirable. A year or two ago, it will be remembered, small-pox showed a threatening front, and France thought so badly of the position here that she practically closed her ports to cross-channel traffic. This year again, apparently with the object of assisting the overseas vacation-seeker to make up his mind to see his own country first and to avoid these islands, the

press and the peerage are indulging in a fling at the milk supply. That the American in general has a rather poor opinion of milk in this country is notorious, and most medical officers of health, in large centres, particularly, must have been called upon at some time or other to convince an anxious visitor from the United States that it was not really necessary to discontinue the consumption of milk till his return to God's own country. Steadily, as a result of the efforts of certain sections of the public health service and of the milk trade, and as an effect also of the health officer interchanges, it seemed as if views were changing and the American, of the type at any rate that travels, was beginning to accept that British milk was an article not so very different from that obtainable back there in the States. Judging from pronouncements now being made, there is in certain quarters an unwillingness to allow of the growth of these feelings of confidence, and a desire to induce the intending visitor to believe that if he must have milk, then this is no place for him. In respect both of character and source these pronouncements are calculated to leave no doubt in the mind of the traveller that Britain is a country best avoided. How can it be otherwise with a peer of the realm, and a medical peer at that, shouting "unclean: unclean" in the House of Lords: with one newspaper publishing as a startling revelation by a special commissioner a statement to the effect that in one pint of milk out of every ten lurks death and disease; and a journal of standing in the world of medicine following up with "if legislation can enable us to guarantee that milk shall always be food and never poison, we could advise people to drink it . . . But while we have the ever-present fear of tuberculosis, the intermittent danger of milk epidemics, the frequent admixture of cow-dung and similar sundries, and the appeal to the cow, which legally allows infants to be starved on dirty water, when it is supposed they are being fed on milk, we are somewhat chary of advertising this 'perfect' food." The "somewhat chary"—how delicious! As a fact, if things are so bad as the statement suggests, it would be criminal to recommend the article at all or to advise the intending visitor to adopt any other attitude than that of warning off. The obvious course, indeed, is to introduce prohibition in regard to milk, imitating the Americans, who, thus made aware of the parlous state so far as the milk supply is concerned, will readily understand why in this

country it has been found to be impossible to follow their lead as far as alcohol is concerned. Condemnatory as are the press and the peerage, both still see a possibility of securing safety, to an extent at least. By all, heat is the agent regarded as the saviour, and "boil" say the lords loudly and heartily, while the press rather less heartily suggests pasteurisation, though, of course, it has its drawbacks and there are many opponents. Fortunately, the milk trade—producers, distributors and retailers—has not in its entirety waited for the pronouncements and the advice here quoted. Up and down the country in very many places they have acted and are acting. As a fact, than the milk trade there is not, throughout the entire group of food caterers, on the whole any one that has more definitely recognised its responsibilities, more strenuously endeavoured to make the article supplied safe for the consumer, and more anxiously sought to co-operate with those officially charged with safeguarding the food of the people. For this, more credit and less of the type of talk in regard to milk, of which there has been too much of late, in which it appears that the best that can be said of milk is that it is a poison in disguise and of the milk dealer that he is a million times more dangerous than Herod.

* * * *

Encephalitis Lethargica.

IN spite of the lowered incidence in the last few years, encephalitis lethargica has caused no little anxiety to public health authorities and those members of the medical profession who have been associated with the difficult problems which the disease has presented since 1917, and the recent issue of a brochure on the subject* is not without justification. The reports contained in the booklet include a comprehensive survey of the subject by Dr. G. A. Borthwick, Medical Superintendent of the Northern Hospital, Winchmore Hill, N., and is a valuable contribution to modern knowledge of the aetiology, diagnosis, prognosis and treatment of the disease. In addition, there is presented a report by Dr. F. L. Golla, Director of the Central Pathological Laboratory of the Mental Hospitals Department. This provides a clear and informative synopsis of the treatment and care of these unfortunate sufferers in the mental hospitals, and adds to the value of the publication as

* P. S. King and Son, Ltd., 1931. London County Council Publication No. 2811. pp. 19. Price 6d.

part of the literature on a subject of real moment and importance.

The Central Public Health Committee of the London County Council have done well to order the publication of the reports and to make them available to medical officers of health and others concerned in dealing with cases of this disease.

* * * *

The Hygiene of the Mercantile Marine.

NO medical officer of health has devoted more attention to the housing of the seaman afloat than has Dr. Howard-Jones of Newport, and the three lectures which he delivered at the University of London, and which have now been published as a brochure, show clearly and convincingly that we, who once led the way in marine hygiene, are definitely falling behind other European nations in this respect.

It is true that many ship-owners do voluntarily provide excellent accommodation for the crews of their ships, but there are others who never exceed the minimum standards required by the Merchant Shipping Act and the Regulations of the Board of Trade. Everyone realises that space aboard ship is valuable, that ships are built primarily to carry passengers and cargo and that they must be made to pay, but even with these hard facts before them it is surely not beyond the wit of the ship-designer, the ship-builder and the ship-owner to provide reasonably healthy and comfortable quarters for the crews. Dr. Howard-Jones deals largely with tramp steamers and fully realises the limitations imposed by international competition and such periods of depression as the shipping industry is at present struggling to survive. But his contention is that from lack of appreciation by the Board of Trade of what are the reasonable requirements of hygiene, and from lack of interest on the part of those responsible for the designing and construction of ships, the best use is not being made of the money spent on living accommodation for the crew. If the Board of Trade devoted to the hygiene of crew quarters a fraction of the attention they have devoted to the sea-worthiness of ships and the safety of life at sea, and if ship-designers devoted to this question a fraction of the attention they have given to cargo-carrying capacity, speed and passenger accommodation, conditions of life afloat for seamen might be vastly improved without handicapping our ships in competition with other

nations. Indeed, he shows that some of our keenest competitors insist on standards of marine hygiene which are far in advance of ours.

It seems incredible but is none the less true that crew quarters do not come under the supervision of anybody with special knowledge of hygiene until ships are actually in commission. The Board of Trade have no medical officer engaged in this work; their surveyors have no special training in hygiene, and no plans are submitted to expert examination in this respect. Port medical officers of health are responsible for the sanitary supervision of ships in their districts, but by the time they have the opportunity of inspecting ships it is too late to do more than require the remedy of conditions which are sufficiently bad to be classed as nuisances, and to point out that the Board of Trade instructions have not been complied with.

It must be repeated that many ship-owners do provide accommodation far in excess of the present minimum Board of Trade requirements, but there are and always will be a number who will do no more than they are obliged to do, and therefore the compulsory standards must be raised sufficiently to ensure that the crew of every British ship live under reasonably hygienic conditions.

Thanks to the persistent efforts of Dr. Howard-Jones and a few other port medical officers of health, assisted by the Association of Port Sanitary Authorities and by resolutions from the Society of Medical Officers of Health and the Royal Sanitary Institute, the Board of Trade have at last sought the assistance of the Ministry of Health, and a Standing Joint Committee of these two Government Departments has now been appointed to deal with marine hygiene. But, quite independently, the ship-owners themselves have taken up the question of officers' and crew accommodation on cargo ships, and the Manning Committee of the Shipping Federation have already issued three valuable reports which show that practical men engaged in the handling, management and building of ships have views in regard to crew accommodation very closely in accord with those of the medical officers of health who have devoted so much attention to the subject.

Whether the tramp steamship builder who has turned out the same stock type of indifferent quarters for a generation will adopt these recommendations without being compelled to do so is another question. The acknowledg-

ment by the ship-owners' own Committee that the standards which Dr. Howard-Jones and other medical officers have been advocating for years are not the impossible ideals of cranks but are both reasonable and practicable is very satisfactory. Is it too much to hope that the Board of Trade will be encouraged to raise their standards accordingly?

Atmospheric Pollution.

AS from April 1st, 1927, the Department of Scientific and Industrial Research, at the request of a number of local authorities, undertook the responsibility for co-ordinating the observations of atmospheric pollution which for some years have been made by local authorities and other bodies, and for seeing to the conduct of research into the nature of pollution and the best method of measuring it. The cost of this work is met by contributions from co-operating bodies, which consist for the most part of local authorities, supplemented by a grant from the Department. The Department has appointed an Atmospheric Pollution Research Committee to advise on the work, and in order to maintain touch between the central organisation and the co-operating authorities, and to promote the application of the results of the research, an autonomous body known as the Standing Conference of Co-operating Bodies has been established. Reports by both the Standing Conference and the Research Committee as well as a report by the Superintendent of Observations are included in the Sixteenth Report recently issued.*

The Standing Conference mention that in the year of report (1929-30) they caused enquiries to be made of the co-operating authorities as to steps they had taken to abate the smoke nuisance, since it was felt that knowledge of action taken and experience gained by different authorities might be useful to others. The summary of the replies given in the report indicates that quite apart from the powers given to them under the Public Health (Smoke Abatement) Act of 1926, a number of authorities are taking active steps by enlisting the co-operation of house dwellers and factory owners in dealing with the domestic smoke and factory smoke problems respectively. Domestic smoke is now well recognised to be the principal

* THE INVESTIGATION OF ATMOSPHERIC POLLUTION. Report on observations in the year ended March 31st, 1930. Department of Scientific and Industrial Research. H.M. Stationery Office, 1931. pp. 74. Price 4s. net.

contributory cause of the smoke nuisance in many of our large towns. Estimates for London have shown that smoke is $2\frac{1}{2}$ domestic to 1 industrial, while in Glasgow it is $3\frac{1}{2}$ domestic to 1 industrial. The burning of every ton of raw coal in a domestic open grate has further been estimated to cause 10s. worth of damage in many areas. Evidently the town dweller must sacrifice his cheerful coal fire if he is to gain the benefit of a clear atmosphere, and many local authorities, the report indicates, are doing what they can to induce this necessary spirit of self-sacrifice. As regards smoke from industrial furnaces or public premises, the summary refers by way of example to steps taken by local authorities at Wakefield, Dewsbury, Glasgow, Sheffield and Edinburgh.

The Research Committee in their report describe a new investigation. That smoke from densely populated districts affects the clearness of the atmosphere throughout wide areas has been shown by the fact that visibility at Valentia on the south-west of Ireland has been found to be affected by smoke from industrial areas 350 miles away. The Committee have set out to get more information about the spread of pollution by an investigation in progress at Norwich in which daily observations are made of the spread of pollution down wind from the City. The Committee also refer to the development of an apparatus, a description of which is about to be issued, for measuring sulphur, the most actively destructive element of pollution in the air. The interest of sulphur measurement may be illustrated by reference to the various estimates of the damage to buildings caused by that element of pollution, the most recent being by Sir Frank Baines who estimated that in the last 25 years sulphur has caused damage to buildings to the extent of £55,000,000 to £60,000,000. The apparatus has been specially designed to be simple in operation and suitable for routine measurements.

A comparison of the annual records of pollution from 1915 to 1928 showed that while there was a progressive improvement down to 1921-22, if the evidence for London and Glasgow applies at all generally, little, if any, advance has been made since. The year 1929-30, however, indicates a trend in the right direction, according to the conclusion recorded by the Superintendent of Observations (Dr. J. S. Owens) in his report. Nevertheless, Dr. Owens adds further evidence, if it be needed, of the injury suffered from smoke by loss of

daylight and of ultra-violet light. Records of ultra-violet light taken at Sheffield show that in November and December of 1929, no ultra-violet light at all was received in the middle of the city. The question of ultra-violet light is also discussed in an appendix dealing with Rochdale, contributed by Dr. J. R. Ashworth, which indicates that even by comparison with a station only a mile away, the centre of Rochdale loses as much as 29 per cent. of ultra-violet light during the first half of the year.

The report of the Superintendent of Observations contains the usual detailed tables of the deposits recorded at the various observation stations throughout the year. A table showing the mean monthly deposits at about 70 stations indicates that at 25 there were deposits at the rate of 300 tons or over per square mile during the year, while even the lowest deposits recorded are of the order of 100 tons per square mile per annum.

The London School of Hygiene and Tropical Medicine.

THE story of the first year of occupation by the London School of Hygiene and Tropical Medicine of the new premises in Gower Street is so interesting and full of promise that it merits a special telling.

During the year (1929-30) 217 students attended one or other of the professional courses of study, and over 70 members of the lay public attended for instruction in tropical hygiene before proceeding to appointments overseas. Investigations are being carried out in various of the divisions and departments on such subjects as the detection and measurement of deafness in school children, on the effects of vibration on the human organism, on the biological aspects of the activated sludge process of sewage purification, and on the bacterial flora of the nose and throat of a sample of the London population. In addition, a very considerable amount of research of a more academic character is being undertaken.

One of the most promising developments of the School is to be found in the field of medical psychology in its application to industry. Already a certain amount of teaching of an elementary nature in this connection is being provided in the public health curriculum, and it is expected that in the near future psychology will be given a very much more prominent place so far as advanced

teaching and research in the School are concerned.

A large and interesting collection of exhibits has already been got together for display in the museum, and the School acknowledges with gratitude a very great deal of assistance received from various bodies—scientific, educational and industrial.

Arrangements for the teaching of tropical medicine are keeping pace with the developments in the School itself, and much is to be said for combining in one institution the instruction of those intending to enter the home public health services with the training of persons destined to practise preventive medicine in the far corners of the world.

The School is to be congratulated on successfully overcoming the obvious difficulties of its first year of work, and on laying so surely the foundations upon which the whole of its future usefulness will be based.

* * * * *

A Study in Nutrition.

THE object of the inquiry described in this report* is stated to have been "to approach to more accurate quantitative knowledge of the normal diets actually used by inhabitants of this country." Almost all the data hitherto available for the guidance either of the medical profession or of national policy have been drawn from inhabitants of foreign countries, under different climatic and other conditions of environment. Most of the available dietary studies, moreover, deal with one class of worker at one economic level. The data given here are drawn from a small population, but they represent all classes at the normal standards of living within a single community. The field of study under the organisation described in the report allowed intensive inquiry of a kind not usually attainable.

The discovery of the accessory food factors, or vitamins, less than twenty years ago, has led to an immense development of studies applied to the qualitative aspects of nutrition. Important as this work has been, it has perhaps tended to throw the study of nutrition as a whole somewhat out of perspective. Indispensable as the accessory substances may

be—and we are still far from knowing their full significance—they are factors which, though vital, are accessory. Before their study came to correct it, it is true, perhaps, that too much stress had been laid on the purely "energy" aspects of nutrition, and so much so that it might almost be inferred from medical literature that some particular virtue resides in "calories." The calorie is only a convenient unit of measurement, well adapted for the assessment of exchanges of energy in the living body. Although it gives no index of nutritive value, the determination of the calorie value of a diet is the only present mode of estimating in gross the quantitative factors of nutrition. When this gross value has been found, the percentage distribution of the calories derived from the three proximate principles of food—protein, fat and carbohydrate—can then be ascertained. The qualitative and quantitative aspects of nutrition have equally vital importance. They are inseparable aspects of the same problem. The exchange of matter involves the exchange of energy just as the exchange of energy involves that of matter.

Knowledge of normal quantitative standards of diet at different ages and under different conditions of work and environment, has obvious practical importance. It is needed for the guidance of life both in health and disease. It is needed by those responsible for the feeding of communities, whether in institutions as various as prisons, asylums, and schools, or in national Services, whether civil or military. Above all, it is needed in times of grave national emergency when, as in the last war, rations for the whole nation may have to be calculated and imposed.

The hope is expressed that the details of the methods used and of the data collected are given in such detail that criticism may be brought fully into play and the results obtained receive only the weight to which they are entitled upon the evidence. One of the main conclusions reached was that, for the population examined, the consumption of protein was definitely below, that of carbohydrate below, but that of fat much above, the standard values hitherto laid down by accepted authorities. The consumption of those food-stuffs deviated quite definitely also, and in the same directions, from the standards recommended by the Royal Society (Food) War Committee, that were adopted as the basis of the practical measures by H.M. Government during the late emergencies of war.

The further studies upon national diets now being made under the supervision of Professor Cathcart, which the Medical Research Council hope soon to publish, will be looked for with real interest.

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The Causation and Source of Infection in Puerperal Fever.

IN 1928, the Scottish Board of Health published a report by Drs. J. Parlange Kinloch, J. Smith and J. A. Stephen on *Maternal Mortality in Aberdeen, 1918-1927, with Special Reference to Puerperal Sepsis*. Recently the Department of Health for Scotland, on the recommendation of their Scientific Advisory Committee on Medical Administration and Investigation, have published a further paper* by Dr. Smith on aspects of the same subject under the above title.

In this report Dr. Smith supplements the earlier work and presents (1) a contribution to the study of the incidence of infections due to *streptococcus hæmolyticus*, based on a routine bacteriological investigation of 221 cases of puerperal fever and 25 cases of septic abortion occurring in Aberdeen over a period of eight years; and (2) an inquiry into the source of infection in 18 cases of puerperal fever and three cases of septic abortion, based on bacteriological examination of the secretions obtained from the patients and of materials—mainly throat and nose swabs—obtained from doctors, nurses and others in attendance on the patients.

The first part of the report confirms the importance of *streptococcus hæmolyticus* in the causation of puerperal fever. The results recorded in the second part point to the conclusion that in the majority of cases of puerperal fever the infecting organism is introduced from an extrinsic source and that a frequent source of infection is a streptococcal carrier associated with the confinement. The report suggests that the prophylaxis of puerperal fever cannot be effective unless rigid asepsis of hands and instruments is supplemented by the use of masks by attendants during examination and delivery. It also points to a new régime in maternity hospital practice designed to secure definite bed isolation in the wards and stringent aseptic surgical technique, including masking of the attendant personnel, during manipulative interference, delivery and treatment.

* H.M. Stationery Office, 1931. pp. 54. Price 1s. net.

In the preface, the report is commended to local authorities, hospital committees and others as a significant contribution to the control of puerperal sepsis. It is all that and excellently done, and the commendation is justified.

* * * * *

Adenoids and Enlarged Tonsils.

MUCH controversy has raged around the treatment of enlarged tonsils and adenoids, but scientific opinion has been less communicative about the cause of this common condition of childhood. It is possibly realised that the etiology is neither simple nor easily unravelled, but in spite of the lions in the way the Committee constituted by the Board of Education have carried out some well-organised research. Their second interim report* is very welcome, chiefly because of the even and balanced way in which the results are presented.

Early in 1927, consideration was given to a report by Dr. G. C. M. M'Gonigle, Medical Officer of Health for Stockton-on-Tees, on the association of rickets with enlarged tonsils and adenoids, which was regarded as very close, and the Committee decided to carry out an enquiry to put this conclusion to the test. For this purpose some 1,500 unselected five-year-old children were examined in respect of bony abnormalities, naso-pharyngeal condition and dental condition.

The conclusions show that if the signs which have been regarded in this investigation as an indication of a deficiency of vitamin D during some period of the child's life may be justly so regarded, then slight degrees of enlargement of the pharyngeal tonsil may occur as commonly among children showing no signs of such deficiency as among those in whom many such signs are present. But extensive enlargement occurs with somewhat greater frequency among children showing signs of rickets, dental disease and hypoplasia, than among those with no evidence of vitamin deficiency. The nature of the relationship is difficult to establish, for while the incidence of rickets and of caries is definitely affected

* BOARD OF EDUCATION.—Committee on Adenoids and Enlarged Tonsils. Second Interim Report. The Association of Rickets and Dental Disease with Adenoids and Enlarged Tonsils. H.M. Stationery Office, 1931. pp. 28. Price 6d. net.

* A STUDY IN NUTRITION. An inquiry into the diet of 154 families of St. Andrews. By E. P. CATHCART, F.R.S., and A. M. T. MURRAY, PH.D., assisted by Miss M. SHANKS (Institute of Physiology, University of Glasgow). Medical Research Council Special Report Series, No. 151. H.M. Stationery Office, 1931. pp. 60. Price 1s. net.

by social factors, the incidence of adenoids shows that it is no respecter of persons. It is possible that vitamin A deficiency (which is closely associated with vitamin D in the diet) is also connected with the etiology, especially as the maintenance of a healthy condition of the mucous membranes depends to some extent on an adequate amount of vitamin A, yet there must be further factors influencing adversely or counterbalancing the vitamins which affect all social classes alike, or which may even be more prevalent in the homes of the well-to-do.

If "the evidence on the whole suggests that a deficiency in the diet of the fat-soluble vitamins, though not predominant, is nevertheless one of the factors which tend to produce an overgrowth of adenoid tissue," then this conclusion is a challenge to go still further and assess with precision the effect of the dietetic and other habits of both rich and poor. The future holds much of promise for any worker able and willing to press on with patience, diligence and originality.

The Health and Cleanliness Council.

THE fifth annual general meeting of the Health and Cleanliness Council was held at the Holborn Restaurant, London, on March 26th, 1931. The meeting was preceded by a lunch at which Mrs. Leah Manning, M.P., J.P., Past-President of the National Union of Teachers, was the guest of honour. In proposing the health of the Council, Mrs. Manning congratulated the members on the valuable work carried out in collaboration with local education authorities and the teachers with the object of inculcating habits of health and cleanliness amongst the scholars. With its excellent series of posters, pamphlets, plays and other propaganda material, the Council had found the way to the hearts of the children and had aroused their interest. The habit of cleanliness once acquired, was one of the hardest to break, and children must therefore be given full opportunity to form cleanly habits in the school in order that they might carry them outside and into their after-life. The work carried out by the Council in that direction was its greatest work, but there was yet much to be done. Many children were still taught in unhygienic and badly ventilated buildings, where grubby roller towels and cracked and dirty lavatory basins were not uncommon. With such facilities it was difficult, if not impossible, for the teachers

to inculcate cleanly habits in their scholars. If the foundations of cleanliness could be laid in the schools; if the children were taught to take pride in their bodies, both within and without, then they would be well on the road to successful citizenship and be of real service to their day and their generation.

Dr. George F. Buchan, President of the Health and Cleanliness Council, in reply, said that the work of the Council had increased by 20 to 25 per cent. over the previous year. During the ensuing year it was hoped to concentrate upon the school child, and in that work, alongside the efforts of the school medical service and others, the importance of the teacher in the cleanliness campaign was fully appreciated. Of cleanliness generally there were two kinds—social cleanliness (soap and water cleanliness) and surgical cleanliness (germless cleanliness). While it was a counsel of perfection to ask that the people should be surgically clean, it was not beyond the bounds of possibility for them to be socially clean. The Council had kept the ideal of social cleanliness well before the children and also the adult population, for one of the strongest bulwarks which the medical officer of health possessed in the fight against disease was cleanliness of the person, of the surroundings and of life generally. The work of the Council in many other directions was also touched upon by Dr. Buchan, reference being made particularly to its activities in relation to cleanliness in the factory and especially of the food handler. Maternal mortality, it was shown, was linked up closely with the matter of cleanliness, and the number of deaths could, it was held, be halved almost immediately if thoroughly cleanly conditions could be secured at childbirth. Dr. Buchan concluded with a warm tribute to the work carried out by the Council's energetic secretary, Miss Norah March.

Those present included Alderman Sir William Jenkins, M.P. (Chairman, Education Committee, Glamorganshire County Council); Alderman Mrs. Foster Welch (Southampton); Miss Halford, O.B.E.; Dr. Eric Pritchard; Professor A. Bostock Hill; Professor H. R. Kenwood; Professor W. W. Jameson; Dr. W. G. Savage (Somerset); Dr. D. H. Geffen (Enfield); Dr. Charles Porter (St. Marylebone); Dr. G. C. M. M'Gonigle (Stockton-on-Tees); Dr. P. H. Stirk (Exeter), and many other representatives of the Society of Medical Officers of Health from all parts of the country.

The Trans-Atlantic Tuberculosis Tour.

By P. HEFFERNAN, M.D., Tuberculosis Officer, Derbyshire County Council.

Others than the members of the East Midland Branch, to whom this paper was read, will be grateful to Dr. Heffernan for collecting and putting together these very interesting and instructive notes upon the visit to Canada paid by certain of the tuberculosis officers in the mother country.

I do not propose to go, step by step, over the various stages of our tour in Canada, and of the three cities of the United States which honoured us with a welcome, nor do I propose to refer in detail to the discussions at the Tuberculosis Section of the British Medical Association Meeting at Winnipeg. Descriptive notes giving a general résumé of all these have already appeared in *Tubercle* for November and December, 1930, and in the *British Journal of Tuberculosis* for October, 1930. I propose merely to indicate our route and our halting places, and to give an impressionist sketch of some of the ideas, measures, institutions, and perhaps of one or two of the men, that we encountered on our high velocity tour.

Some General Statistics.—The total population of Canada in 1929 was 9,784,400. The number of deaths from all forms of tuberculosis in the same year was 7,770 or 0.79 per 1,000. The corresponding figures for England, for the same year are 36,773,430—total deaths 36,680 or 0.96 per 1,000. For Wales, 2,674,820, total deaths 2,755 or 1.03 per 1,000. For pulmonary tuberculosis alone the corresponding death-rates were Canada 0.67 per 1,000, England 0.79 per 1,000 and Wales 0.86 per 1,000. The difference between those

figures gives us the death-rate for non-pulmonary tuberculosis, and as will be pointed out later, excluding the province of Quebec, the death-rate from non-pulmonary tuberculosis in Canada is very low. The total number of beds available for the treatment of tuberculosis in Canada was, in 1929, 6,266 or 81 beds per 100 deaths during the year. The corresponding figure for England was 60 beds, and for Wales 52 beds. But another 1,000 beds were either under construction or had been financed during that year, so if these are included, the total becomes 7,266 beds for 7,770 deaths, or 94 beds per 100 deaths.

But that is not all the story. There are, as is known, two Canadas; French Canada, the Province of Quebec, with a population of 2,690,400, or approximately the same as that of Wales, and "British" Canada, with a population of 7,094,000. Of the 7,770 deaths from tuberculosis in 1929, 3,286 occurred in Quebec, a death-rate of 1.22 per 1,000, leaving only 4,484 deaths for "British" Canada, or a death-rate of 0.63 per 1,000. For these 4,484 fatalities, "British" Canada provides 5,236 beds, or 117 beds per 100 annual deaths from tuberculosis, a figure which makes us hide our heads in the old country. If, as Dr. David Stewart tells us in his address as President of

1929.	Popula- tion.	Deaths from Tuber- culosis (all forms).	Rate per 1,000.	Deaths from Pulmonary Tuber- culosis.	Rate per 1,000.	Deaths from Non- Pulmonary Tuber- culosis.	Rate per 1,000.	Beds Available per 100 Deaths (all forms of Tuber- culosis).	Beds Available per 100,000 Popula- tion.
England ...	36,773,430	36,680	0.96	30,185	0.79	6,495	0.165	60	59
Wales ...	2,674,820	2,755	1.03	2,300	0.86	455	0.175	52	54
Canada ...	9,784,400	7,770	0.79	6,443	0.67	1,327	0.135	81	64*
Province of Quebec.	2,690,400	3,286	1.22	2,688	0.999	598	0.222	48	62
Canada, without Quebec.	7,094,000	4,484	0.63	3,755	0.53	729	0.102	117	66
Saskatchewan...	866,700	376	0.43	308	0.355	68	0.078	181	78

* Including beds under construction and financed ... 74.

the Canadian Tuberculosis Association, "the very foundation of all anti-tuberculosis work is beds," then, verily, Canada is building on good foundations.

But even that is not all the story. The total deaths from non-pulmonary tuberculosis in "British" Canada in 1929 was 729, or a death-rate of 0.102 per 1,000, against 0.165 in England and 0.175 in Wales. Now we all know how non-pulmonary tuberculosis immobilises beds, so that relatively to England and Wales, more beds were available for pulmonary cases in Canada than the figures of 117 and 60 indicate; so that we shall not be much in error if we say that there are available for the treatment of pulmonary tuberculosis in Canada, per 100 annual fatal cases, double the number of beds that there are in England and Wales.

These figures, which are taken from the address given by Dr. R. E. Wodehouse, O.B.E., D.P.H., the Secretary of the Canadian Tuberculosis Association, at Winnipeg on August 29th, 1930, enabled us to understand what up to then had been a puzzle to us, *viz.*, how it was that in the Canadian sanatoria, the average length of stay per patient was from ten to fifteen months. We had been discussing this fact among ourselves and, I am afraid, inventing all sorts of explanations for it, such as that the absence of a health insurance scheme precluded patients from sick benefit and domiciliary treatment; the lack of dispensary supervision and after-care leading to the same result. It was suggested that patients remained in sanatoria because they had no visible means of support outside, neither State sickness benefit nor unemployment pay being available.

Dr. Wodehouse, however, made it quite clear that they, in Canada, believed in prolonged sanatorium treatment, and prided themselves on this ample provision of sanatorium beds, which they believe to be the most important feature of anti-tuberculosis work—that and their system of contact examination.

Canada has no counterpart to the British uniform tuberculosis service, and the organisation differs in different provinces. The local organisations usually pivot on the sanatorium or chest hospital, and not on the dispensary or the central health office. With the exception of one provincial sanatorium in Nova Scotia, and two or three small municipally-owned sanatoria, the institutions treating tuberculosis are not State-owned, and are not under the direction or control of government

or municipal departments. They are what we would call "voluntary hospitals." They have been built, organised and supported by voluntary tuberculosis societies. The provincial governments and the municipalities which do not maintain sanatoria contribute towards the cost of indigent patients from their areas, but the government and municipal contributions do not cover completely the cost of maintenance of these patients. The provincial governments have a number of representatives on the boards of management of the sanatoria, but the number of these representatives never exceeds one-third of the whole board. Both paying and non-paying patients are admitted to all these sanatoria, and the accommodation varies from a millionaire's suite down to a single bed in a ward, with corresponding differences in the tariff charged. The average cost per head works out at about three dollars a day.

In French Canada, the sanatoria are owned by religious communities. Those who received their medical education in Dublin will recall that many of the Dublin general hospitals are owned by religious communities. In these the discipline, and most of the nursing, is in the hands of the nuns. Our party visited two such sanatoria, *viz.*, the Laval hospital and sanatorium near Quebec, and the Sacred Heart hospital and sanatorium at Cartierville, near Montreal. I was unable to get to the Laval, so cannot describe it, but the Sacred Heart hospital has 645 beds, of which 375 are for tuberculosis. There are 50 private rooms, with sun balconies, at 5 dollars a day. Cases are admitted at all stages of the disease. The average stay for early cases is about 18 months; advanced cases have no limit set to their stay. The technical equipment is excellent. Stereoradiography is used as routine, and there are solariums on the roof.

The medical staff of the hospital is selected by the medical faculty of the Montreal universities. There are four physicians on the tuberculosis side. Clinics for university students are held every year, and also courses for the training of nurses.

The weakness in the tuberculosis work in French Canada would appear to be that there is no machinery for field work in early diagnosis and selection of cases outside the hospital, for contact examination, etc. This I will refer to later.

Going on to "British" Canada, we visited sanatoria, hospitals, clinics and institutions at Ottawa, Toronto, Muskoka Lake, London,

Hamilton and St. Catharine's—all in the Province of Ontario—and we spent a week-end at Ninette sanatorium, Manitoba, as guests of the medical superintendent (Dr. David Stewart) and of the board of trustees of the sanatorium. The annual meeting of the Canadian Tuberculosis Association was held at the sanatorium while we were there, and several guests from the United States, including Dr. Pottinger of California, were also in the party.

As all the sanatoria of "British" Canada are run on similar principles, although differing, of course, in details, a description of the methods at Ninette will serve for them all. The accompanying diagram shows the numbers, classification, methods of treatment, etc., of the patients as on August 10th, 1930.

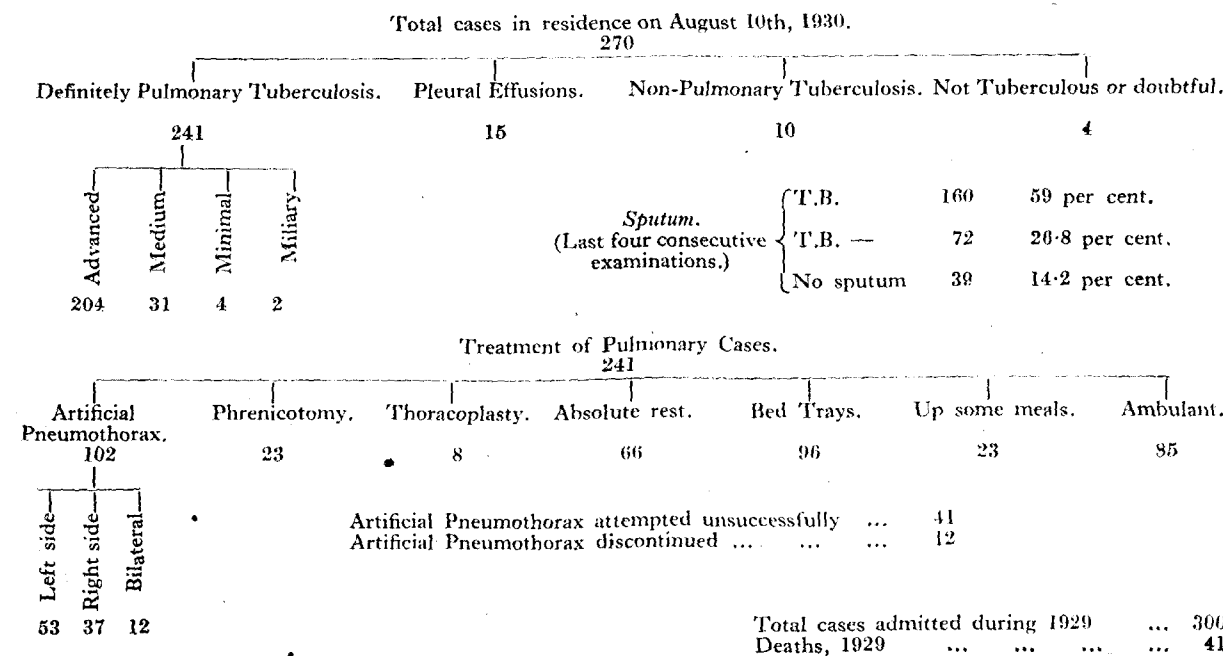
As will be seen, cases are admitted in all stages of the disease, and 41 patients had died during the previous year.

The staff consists of the medical superintendent, assistant superintendent, and five assistant medical officers who divide their time between the sanatorium and the travelling clinics, of which more anon. There are, in addition, a lady superintendent, a dietist, a chief radiographer, a steward, two secretaries, two teachers, and a visiting nurse. There are nineteen trained nurses and eighteen attendants. Students from the medical college of the University of Manitoba spend a

short time, a little over two weeks, in residence as internes—about 50 each year. The technical equipment is the last word in up-to-date-ness, including operating theatre, laboratories, and X-ray rooms equipped for stereo work, which is the routine practice. Every patient on admission is tested for tuberculous enterocolitis with barium meals. There are instruments for estimating basal metabolism, ultra-violet lamps, etc. The sanatorium has an out-patient department or clinic in which 960 patients, apart from those admitted, were examined during 1929, and the "travelling clinics" which go round the towns and centres of Manitoba are based on Ninette sanatorium. These "travelling clinics" visited 17 centres and examined 2,104 patients in 1929. In 1930 they had already visited 14 centres and examined 2,539 patients.

Before coming to the organisation of the "travelling clinics" there are certain peculiarities which characterise Ninette and all the Canadian sanatoria which must be noticed. The first is the prolonged period of treatment and the emphasis placed upon rest, and especially upon rest in bed, and physiological rest to the lung during that treatment. The second, perhaps a corollary of the first, is that graduated labour is not employed in any Canadian sanatorium. It was employed at one time, but has been dropped. At Byron sanatorium, Ontario, for example, there is a farm,

NINETTE SANATORIUM, MANITOBA.



designed originally to be worked by patients. It is still worked, but by paid hands. Occupational therapy, on the other hand, is provided at all Canadian sanatoria, but is invariably sedentary in type—wood carving, leather and raffia working, book-binding, rug-making, brush-making, lace and embroidery, etc. Much of it is done in bed. But perhaps the most remarkable form of occupational therapy in the Canadian sanatoria is that which reaches its highest state of development at Ninette, *viz.*, adult education. There are at Ninette sanatorium two full-time teachers whose salaries are paid by the provincial department of education, as well as three part-time teachers. "Ward" or "bedside" schools are formed, as well as morning schools in the schoolrooms. Here is a paragraph from Dr. Stewart's report:—

"In an average ward or "bedside" school of sixty, thirty worked last term on school grades one to twelve, one in second year arts, four with correspondence courses, several non-English students with English, and the remainder in various studies with practical or cultural aims. Three patients, themselves in bed, helped in this work."

Obviously, patients who enrol and settle down to such a school course are prepared to spend a prolonged period of time in the sanatorium.

Another peculiarity of the Canadian and United States sanatoria is that they do not make a fetish of open-air. All verandahs and windows are covered with wire mosquito gauze, which has a very appreciable blanket-ing effect on winds, not to say on the movement of air generally. They are comfortably heated in winter. Dr. Stewart is very frank about these points. In his presidential address he says:—

"So, in the past our patient endured hardness in all weathers in an open shack, and went on exercises rather steeply graded, but did not get better right away. . . . In Canada I think most of us have drifted away from spades and pruning hooks and wheelbarrows, and even from workshops, for the ordinary sanatorium population."

And again, in his *Manitoba Sanatorium Book* he writes:—

"As of faith, hope and charity it was said 'the greatest of these is charity,' so of the essentials of the cure of tuberculosis, be they three or thirty-three, the greatest emphatically is 'rest.' 'Rest' is more than the greatest; it is the cure, nothing else will do the job. A diseased joint is put in a cast, inflamed vocal chords are hushed, and a bad lung is splinted by the air cushion of an artificial pneumothorax."

That, I think, completes the picture of the

essentials of the Canadian sanatoria, so we can leave them and turn to the clinics.

There are two types of Canadian clinic, the fixed city clinic, as at the Gage Institute at Toronto, or the Central Tuberculosis Clinic at Winnipeg, and the travelling clinics, which tour the outlying towns. Some of the clinics are without beds of their own, some have beds, *e.g.*, the Manitoba Central Clinic which has 35, and some are practically out-patient departments of special hospitals. Perhaps the most interesting example of the fixed type we met with was Dr. Parson's children's chest clinic at the Toronto Hospital for Sick Children. This clinic automatically receives all child house contacts of open cases in Toronto and all children from school clinics who are suspected of tuberculosis. Dr. Parson's methods correspond closely to those of McPhedran of Philadelphia, whose routine is—a careful history, a minute examination, a tuberculin test (by the intradermal method) and if the test is positive, X-ray examinations, repeated at intervals during the treatment of the case. The "reactors" who show no active lesions are sent to the Toronto "Preventorium." All forms of chest diseases are dealt with at the clinic, and treated in the hospital. One of the most interesting exhibits was the postural treatment of children suffering from bronchiectasis on bed frames at an angle of 30° or so, in suspension cradles, head downwards. It is remarkable how quickly the children accommodated themselves to this position in which they are kept for weeks on end—with the necessary breaks for feeding, bathing, etc. Artificial pneumothorax is also extensively used for this condition. Dr. Parsons explained that practically all the tuberculosis in Toronto children was human in type, and that abdominal tuberculosis is now unknown. This is attributed to the pasteurisation of the Toronto milk supply under municipal supervision. Absolute reliance is placed in the intra-cutaneous tuberculin test as a diagnostic measure for infection in children. One fiftieth of a c.c. of a 1 in 400 dilution of Koch's old tuberculin is, or was, the standard routine, for of late a tuberculin made from cultures grown on synthetic media is coming more into use. The von Pirquet test was discarded long ago as unreliable.

A comparison of radiograms with post-mortem material showed an astonishing accuracy in the radiographic findings. Here, perhaps, one may say a word or two about Canadian chest radiography generally. To

many of us it was like a revelation. Too often in this country our chest skiagrams are, in the words of Bardswell, like "a myope's impression of a November fog." In Canada and the United States, three essential conditions are observed. Powerful currents are used, up to 100 milliamperes. What we would call tele-radiography is invariably practised. The usual distance between the target and plate is six feet. This is considered sufficient to eliminate all distortion; certainly the so-called "pleural rings" which trouble us so much in this country fail to appear on the American films, usually resolving themselves into small cavities. The third condition is that two films are invariably taken, with an automatic tube shift set proportional to the distance between target and plate, so that the stereo-vision is normal for the ordinary person at 18 or 24 inches.

It is the fashion in this country to pooh-poo stereo-radiography. Let me give one example of its value. In chest work we have all met with a type of case, usually in young adults, in which the symptoms and signs are slight, but the single X-ray plate shows soft mottling or clouding throughout the whole of one, or sometimes both lung fields, and we conclude the case is one of diffuse pulmonary tuberculosis, and marvel that there is so little toxæmic disturbance, and afterwards that the case gets well. A pair of stereoscopic films would have shown us that the shadows came, not from the parenchyma of the lung, but from its pleural covering.

Similarly, in controlling pneumothorax work, the information given by stereo-films is more accurate than that given by flat films. One can then see where the air has gone in three dimensions, not guess at it in two.

The work of Opie, McPhedran, Parsons, Küss, Chown, Ghon and Ranke on the stages of development of tuberculosis is entirely dependent upon efficient radiography. McPhedran writes: "The most important of these (diagnostic methods) in the recognition alike of early manifest, and of latent tuberculosis lesions, is the Röntgenograph." Dr. David Stewart characteristically puts it as follows:—

"One of the greatest of medical teachers of all time has been the X-ray plate, a teacher of early diagnosis, of pathology, of chronicity, and of classification, especially in children. . . . Tuberculosis . . . can be, like an iceberg, only one-tenth visible and nine-tenths invisible, and with occasional "growlers" scarcely visible at all. Human vision alone cannot always prevent a Titanic horror, but science is giving to ships under-water eyes and ears and senses that can. The

best eyes and ears so far devised for the submerged nine-tenths of tuberculosis is the X-ray plate. The Laennec of the twentieth century is Röntgen."

Stereo-skiagrams need expensive apparatus. But it is worth noting that, in his travelling tuberculosis clinic, Dr. Brink of Toronto, takes excellent stereo-skiagrams with an inexpensive outfit, changing his cassettes and shifting his tube by hand. In children, however, such methods would probably fail.

This brings me to the travelling clinics. In Manitoba, the travelling clinics are maintained by the Sanatorium Board of Manitoba, a "voluntary" organisation of which my Gaelic kinsman,* John McEachern, is chairman. In Ontario, they are maintained by the provincial government. In such matters, every province has its own ideas. As Dr. Wodehouse put it, "we in Canada have no counterpart of the British uniform arrangement, but I think we have examples of the other 56 varieties," and it may well be, as Kipling says, "that every single one of them is right," considering the varying circumstances.

The staff of a travelling clinic in Ontario consists of one to three physicians and a nurse. The equipment includes a portable X-ray unit. Films are taken of every case, and tuberculin tests are done on all children under 16 years of age. No case is admitted to the clinic unless referred by the family physician, to whom a typewritten report of the findings is sent. In Ontario the travelling or central clinics do not select cases for the sanatoria. In Manitoba they do. In Ontario the clinics are held at some 28 different centres in the province, annually or semi-annually as required. In Manitoba they are held at 17 centres, and 56 per cent. of the 7,947 persons examined were "contacts." The cost of the travelling clinics in Manitoba, excluding salaries, was in 1929-30, \$2,847.07.

Up to the present no "colonies" or village settlements for tuberculous persons have been organised in Canada. The primary aim of the prolonged sanatorium treatment which is favoured in that country has been, and is, to "cure" the patient, and fit him to return to the work or industry from which he came and in which he is skilled. With this object two years' institutional treatment, a great part of which is spent in bed, is considered none too long. Institutional treatment of illness is popular in Canada; everybody who is ill goes to hospital, and all the hospitals have private

* The names "McEachern" and "O'Heffernan" are modern variants of an old Gaelic patronymic.

wards. Dr. Wodehouse, in his contribution to the discussion at the joint session of Public Health and Tuberculosis at the British Medical Association Meeting at Winnipeg, on August 29th, 1930, said:—

"As to after-care or village settlements, we really are marking time in Canada; waiting to copy the most useful and economic practice evolved elsewhere, and incidentally making our present anti-tuberculous equipment as complete as to territory covered as we can, with the funds we are able to obtain."

Before attempting to sum up the Canadian position and compare it with ours, it may, I think, help us to understand certain aspects of Canadian anti-tuberculous organisation if we glance, briefly, at a different system in different surroundings, such as, for example, the organisation of anti-tuberculosis work in Chicago. Here the work is a municipal enterprise, implementing *ad hoc* legislation of the State of Illinois. The scheme is run by whole-time officers, holding office under the mayor and municipality on the usual terms of tenure for such offices in the United States. There is a municipal "sanitarium" of 1,200 beds (a small number for a population of 3,155,600), in addition to which the Cook County Hospital and the Oak Forest Tuberculosis Hospital admit cases. There are eight tuberculosis dispensaries in the city. The Chicago tuberculosis regulations are Draconian in their severity. Not only is notification of tuberculosis by the physician in charge of the case compulsory, but any "teacher, proprietor or manager of any business, hotel, lodging or boarding-house, parent, guardian, householder, or any other person having knowledge of a known or suspected case of tuberculosis shall immediately report such known or suspected case of tuberculosis in writing or by telephone to the local health authority. All open cases of tuberculosis, in the care of which the necessary precautions to prevent conveyance of infection to others directly or indirectly, as detailed in rule 4, are not being taken by the patients or attendant shall be hospitalized, if hospital facilities for this class of patients are available; or shall be effectively isolated from all persons except the necessary adult nurse or attendant, and the isolation quarters appropriately and conspicuously placarded with a red warning card, not less than 10½ inches by 12½ inches in size, on which shall be printed in black with boldfaced type at least the following:—"Tuberculosis" in type not less than 2 inches in height, and "Keep out" in similar type not less than 1½ inches in height. No child under the age of

16 years of age shall live in the same home, apartment or other place of abode or habitation occupied by a person suffering from active or open pulmonary tuberculosis."*

In the case of a patient "forcibly hospitalized" an ambulance is sent to the home and the patient removed, by force if necessary, to the Cook County Hospital, where, in a carefully guarded ward, the patient remains, willingly or unwillingly, until such time as home arrangements, complying with the provisions of the law, are made.

We are told, however, that "friendly adjustment" is usually successful, and that in only 26 instances during the entire year of 1927 was it necessary to have recourse to "forcible hospitalization."

I have taken you beyond my allotted area to Chicago, because it seems to me that Chicago throws some light upon a question which we all asked ourselves, and which, doubtless, you want to ask, *viz.*—Why is there no central control to unify and standardise the various Canadian tuberculosis schemes and activities, and why is tuberculosis work not blended with general public health organisation?

I think Chicago partly answers these questions. The remainder of the answer will probably be found in certain feelings which have their roots deep down in the soil of Canadian democracy, and indeed of North American democracy generally: feelings which we respect, if we do not share, and upon which we have no title to intrude.

And now to sum up, to contrast and evaluate in a few lines, Canadian and British methods. Comparisons are proverbially odious, and, in any case, merely matters of personal opinion, and are to be taken as such.

In the institutional treatment of established and advanced cases of pulmonary tuberculosis, I believe Canadian methods are sounder in principle than ours, more thorough, and more logical. Their sanatoria are better designed, better equipped, and the "hospital" spirit is more prevalent. In field work, home supervision, and in the public health aspects of tuberculosis, we are ahead of them, except in the control of bovine tuberculosis.

Although the proportion of tuberculin "reactors" is much lower amongst the cows in Canadian dairies than in ours, and the

* City of Chicago Municipal Tuberculosis Sanitarium Bulletin, Vol. 8, Nos. 9, 10, 11, 12. 1928.

"accredited herd" and "restricted area" plans bid fair to provide milk free from risk of tuberculosis at some future date, nevertheless the Canadian municipalities insist on effective pasteurisation under municipal supervision. The absence of bovine tuberculosis amongst city children, as demonstrated by Dr. Parsons and Dr. R. M. Price at the Winnipeg meeting, seems to justify this procedure. These observers maintain that no conditions suggesting harm through lack of vitamins or of assimilable calcium have become apparent. As regards the examination of contacts, there are definitely two schools of thought, the school of Sir Robert Philip, now developed into what we may call the "Lancashire School," and the school of McPhedran and Parsons. Nobody can question the scientific value of the work of the latter; they have changed our whole conception of tuberculosis

and pushed the frontiers of our knowledge far ahead. But from the practical aspect, do we gain very much by knowing the exact date at which child house contacts react to tuberculin if all are tuberculised by the age of sixteen?

We take off our hats in respect and admiration to Canadian chest radiography, and are convinced that by its means the early diagnosis of pulmonary tuberculosis is enormously facilitated. We only wish that we could afford similar methods and equipment. Meanwhile we are not yet prepared to scrap our stethoscopes.

For the rest, we are left with the remembrance of a fascinating country where everything is on a magnificent scale, of a wondrous hospitality, and a charming and vigorous people whose fresh and youthful outlook made us feel younger ourselves.

The Housing Act, 1930.

By L. W. POLE, M.B., CH.B., D.P.H., Medical Officer of Health, Llanelly.

In this short paper Dr. Pole provides a summary of many of the important provisions of the Housing Act, 1930, which is no less interesting to read than it was stimulating to discussion at the meeting of the Welsh Branch at which it was submitted.

THESE notes do not attempt to discuss all the numerous important provisions contained in this Act; reference is only made to a number of points of interest both to the local authority and the health official.

The Act requires careful study to appreciate points which it is necessary for the health officer to be completely conversant with so that he may be able to advise his authority.

A difference will be noted in the construction of sections 1 and 7, which relate to clearance and improvement areas respectively. In the former "disrepair or sanitary defects" provide a sufficient reason for deciding that a house is unfit for human habitation. The phrase "dangerous or injurious to health" applies to the bad arrangement of the houses and streets, and to other buildings, *e.g.*, obstructive buildings. In section 7, dealing with an improvement area, the expression "dangerous or injurious to health" applies to disrepair or sanitary defects as well as to bad arrangement of houses and streets, and also applies to over-crowding.

It will also be noticed that a local authority, before passing a resolution declaring an area to be a clearance area, must satisfy themselves that accommodation is or will be available for persons displaced and that their financial resources are sufficient.

In the case of an improvement order, the local authority must satisfy the Minister of Health as to rehousing in advance of requirements and that the size of the area is such that the housing conditions can be remedied within a reasonable period.

If a local authority are satisfied that an area should be declared to be a clearance area, a resolution to this effect must be made, but in the case of an improvement area there is no such obligation.

Whether a group of houses, say, a small street, should come under the category of an improvement area, or as individual houses, will depend upon the circumstances of the case, and upon the view taken by the health official and his authority. Probably the necessity for advising that an area should be defined

as a clearance area will be relatively infrequent.

The expression "sanitary defects" is defined generally in section 62. It may be noted that in the circular issued to medical officers of health for their guidance in preparing their annual reports for the year 1930, reference is made to the "Manual on Unfit Houses" issued by the Minister of Health in 1919 (paragraph 4, page 9). The conditions set out in that manual, which are to be taken into consideration in estimating whether a house should be judged to be unfit, deal with all the points referred to in the definition of sanitary defects given in section 62. This is the first time, so far as I am aware, for this manual to be taken as a definite guide in estimating the extent to which a house should be adjudged as unfit for human habitation.

The expression "fit for human habitation" is also defined in section 62, and it may possibly give rise to some doubt when estimating unfitness. In judging as to this (1) the extent to which the house falls short of the provisions of any local byelaws, and (2) the general standard of housing accommodation for the working classes in the district, must be taken into consideration. Some difficulty and difference of opinion will probably be experienced in deciding what is to be taken as the "general standard," and this might conceivably form the basis of an appeal against a notice requiring the execution of repairs to a house. The general standard may vary in the different parts of a town where older property exists in near proximity to more modern houses. A considerable amount of latitude may be necessary in coming to a decision.

Overcrowding is one of the conditions which render a house dangerous and injurious to health. In an improvement area provision must be made for its abatement. The Act provides that byelaws must be made for maintaining the general standard of housing conditions in the improvement area, including byelaws for the prevention of overcrowding in the area.

In the model byelaws recently issued by the Ministry of Health, floor space is substituted for cubic space when estimating the number of persons who should be permitted to occupy a sleeping apartment. It is further suggested that all persons of school age or more should be treated as adults in estimating accommodation, but that if this is immediately impracticable all persons of an age exceeding 10 years should be classed as adults. In suggesting

the first alternative the view taken by the Minister is that children who attend school may need as much space as adults.

Similar byelaws may already be in operation for houses let in lodgings but the model byelaws may be made to apply to any house in the improvement area.

It is suggested in a footnote to the model byelaws that any existing byelaws with respect to houses let in lodgings should be modified so as to agree with the model byelaws.

The standard of accommodation is also referred to in section 37. In houses built for the purpose of housing displaced persons, with the assistance of Government contributions, the standard taken is bedroom accommodation. The procedure hitherto adopted in estimating the number of persons who should be accommodated in a house has usually been based on the total number of rooms in the house. The new basis is more logical in its application.

Individual Houses.—The procedure in the former Housing Acts for dealing with unfit houses by means of closing and demolition orders is no longer employed.

Section 17 sets out the method now in operation for dealing with houses capable of repair at a reasonable expense. In determining what should be regarded as "reasonable expense" the estimated cost of the work necessary to make the house fit, and the value of the house when repaired, have to be taken into consideration.

A notice under this section must be served upon the person having control of the house, whether occupied or not, but no notice is required to be served upon the other persons having an interest in the house, e.g., mortgagee. In practice, however, it will be advisable to send a copy of the notice to such interested persons.

Appeals against notices, etc., must be made to the county court (not, as formerly, to the Minister of Health), and the decision of the judge is final, except upon any point of law, when an appeal lies before a higher court.

The county court judge, when allowing an appeal against a notice requiring work to be done, must, if requested by the local authority, include in his judgment a finding whether or not a house can or cannot be rendered fit at a reasonable expense. In the latter event the local authority may purchase the house by agreement or compulsorily. If purchased compulsorily the local authority must do all the work specified in the notice. The price

for a compulsorily purchased house is the site value cleared of all buildings.

If no appeal has been made against a notice requiring work to be done, or an appeal has not been upheld by the court, the local authority may do the work if the owner fails to do so within the time specified.

Section 18 would apparently give a local authority power to do the work, in default of the person having control of the house, after the expiration of the time specified in the notice, or such period after appeal as the court may fix. The local authority may, however, give to the person having control of the house and, if they think fit, to any other persons having an interest in the house, notice in writing of their intention to enter the house for the purpose of executing the works. If after the expiration of seven days from the service of the notice and while any workman, etc., of the local authority is carrying out the work, any person interested in the house who enters it for the purpose of doing any work shall be liable to prosecution.

There would appear to be no objection to an owner entering upon the premises before the expiration of the seven days, and he might enter the premises for the purpose of carrying out the work after the expiration of the seven days, provided no workman, etc., of the local authority had begun to do the work.

Section 19 deals with the procedure to be followed in the case of houses which cannot be rendered fit at a reasonable expense and for which demolition would probably be required.

In this case a notice stating the time and place where any person interested in the house may be heard must be served not only upon the person having control of the house but upon every other owner, mortgagee, etc. They are to be heard (1) in regard to any offer with respect to carrying out the work which will render the house fit for human habitation, or (2) in regard to any future use to which the house may be put. The local authority may accept an undertaking in either case.

It would appear that an owner may, if the local authority accept such an undertaking, have the alternative of allowing an unfit house to remain unoccupied so long as he does not again allow it to be used for human habitation. It might be possible for him to use it for some other purpose, e.g., a store.

If the local authority do not accept the above undertaking, or if an undertaking is accepted and the owner fails to carry out the

undertaking, the local authority must make a demolition order.

The making of closing orders is now restricted and in future will only be made (1) in the case of a part of a building unfit for habitation which, but for its forming part of a building, would be demolished, and (2) in the case of a cellar dwelling which does not comply with the statutory requirements.

When unfit houses are required to be repaired or demolished in an improvement area, notices must be served upon the owners in the same manner as for individual houses dealt with under sections 17 or 19.

THE London County Council announce that a course of lectures and demonstrations (three months) on clinical practice and in hospital administration, will be given at the North-Eastern Hospital, St. Ann's Road, Tottenham, N.15, by Dr. F. H. Thomson, Medical Superintendent, on Mondays and Wednesdays at 4.45 p.m., and alternate Saturdays at 11 a.m., beginning Wednesday, April 8th, 1931. This course complies with the requirements of the revised regulations of the General Medical Council. The fee is £4 4s. A course may, however, be taken under the old regulations, at a fee of £3 3s. Medical men desiring to attend the course of instruction are required, before attending at the hospital, to pay the requisite fee to the Medical Officer of Health, London County Council, Public Health Department (Special Hospitals), Victoria Embankment, E.C.4, giving their full name and address.

THE LONDON COUNTY COUNCIL announce that the following appointments in the hospital service have recently been made:—Miss R. Halperin, M.B., B.S. (Assistant Medical Officer, Fulham Hospital); Miss W. H. Reynolds, M.B., B.S., M.R.C.S., L.R.C.P. (Assistant Medical Officer, Queen Mary's Hospital, Carshalton); J. F. Wilde, M.B., B.Ch., B.A.O. (Assistant Medical Officer, St. Peter's Hospital); K. Lumsden, F.R.C.S., M.B., Ch.B., D.T.M. AND H. (Assistant Medical Officer, St. Charles' Hospital); J. M. Young, M.B., Ch.B. (Assistant Medical Officer, Brook Hospital); M. S. Purves, M.B., B.S. (Assistant Medical Officer, St. Olave's Hospital); A. Phillips, M.R.C.S., L.R.C.P. (Assistant Medical Officer, Bow Institution); and R. K. Ford, M.D., B.S., M.R.C.S., L.R.C.P. (Medical Superintendent, St. Olave's Hospital).

Ut Ita Dicam.

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

Press and other Health Weeks.

A communication received the other day informing me that Health Week this year would open on October 4th and extend until October 10th, must have been sent in error. The whole matter has already been dealt with; the national health has been attended to, and there is no need for further action. How the Empire Health Week Committee came to overlook the fact that the *Daily Express* had arranged with experts on whole-meal and what not to dispel ignorance and therefore disease, and to provide education on health matters and therefore health itself, is difficult to understand. Conceivably the *Daily Express*, with characteristic modesty, failed to announce sufficiently loudly exactly its intentions in the matter; or, possibly, deafened by the clamour of the journal on another subject, members of the Empire Health Week Committee did not hear what the *Daily Express* had to say about its Health Week. Perhaps it will make no difference, and before October and the official Health Week come, the people may have forgotten what the medical and hygienic stars of the *Daily Express* said on the middle page and the woman's page about rhythmic breathing and vitamins working away at full vigour in the tins of fruit, and will be prepared to receive instruction from medical officers of health and those selected by them to do the teaching. It is not unlikely that the instruction thus given will be less exciting and exclamatory than that hurled about by the *Daily Express* team; those who receive it, however, may be assured that its whole and sole object is to advertise the advantages of health and the safest, soundest and most reasonable methods of securing it.

Professor Frost of Hopkins.

Like myself, the many friends of Professor Wade Frost will note with interest and pleasure his appointment as Dean of the School of Public Health in Johns Hopkins University, Baltimore. For a variety of reasons the association between public health workers and teachers on this side has always been closer with Johns Hopkins than others of the schools in the United States, and great interest has been taken in appointments, promotions, successes and recognitions secured

by members of the staff whose names are as well known here as they are over there. Of them all none is better known or liked than Wade Frost. Though a member of the United States Public Health Service for years, he spent a very great part of his time at the School in Baltimore. As an epidemiologist, both in the field and as a teacher, he enjoys a very high and well-deserved reputation on both sides of the Atlantic. As an officer of the United States health service, he carried out a number of investigations of the first importance, and was regarded as one of the most distinguished members of that very select and capable body. His resignation of his commission must have been a wrench to himself and a source of real regret to his fellow officers; doubtless, however, it was a necessary step in order to permit of the giving of full time to teaching and other work he had in hand. During his visit recently to this country, he gave—and they were eagerly sought and seized—many opportunities to renew and strengthen friendships existing between himself and colleagues who had been privileged to meet him at Hopkins. Many new friends and admirers he made also by reason of his ability and the obvious sincerity of his desire to study rather than criticise the aims and methods explained and submitted to him. Largely it is because of the deep and extremely favourable impression he made that this word of his new appointment brings so much pleasure, and that the chorus of congratulation coming from us here is so strong and sincere. He may be assured that he has all our good wishes for his happiness and success in the new office, and that it is our belief that during the period of his tenure the Public Health School in Johns Hopkins will add even more to the very high reputation that it already enjoys.

Health and Physick.

That "every man at forty is a fool or physician" is a Scottish proverb is one of the many things that I suppose I ought to have known. As a fact, however, I did not, until I read it in an introduction by Sir Humphry Rolleston to one of the most fascinating and interesting books I have seen for some time, "Sixty Centuries of Health and Physick," by

S. G. Blaxland Stubbs and E. W. Bligh.* By the same token this was not the only thing that I did not know that I read in this remarkable book, nor the only thing that thrilled and interested me. For years I have been reading and hearing about and seeing pictures illustrating sanitary fitments and arrangements, not so very different from those now in existence, that were introduced and used by ancient Romans and who not. Seriously, however, I did not know how many instances there were hidden in the mists in which modern practice and appliances had been anticipated. To be frank, however, I do not know why I should not have taken it for granted that there were such instances. After all, necessity has always been the mother of invention, and the number of necessities, and therefore inventions, in relation to sanitation is comparatively small. As a matter of fact, is the number of necessities general to man, his life and his living, very large, and must there not always have been at any time somebody or something demanding that the need should be met and somebody capable of devising some method of meeting it? I should imagine so, and this book, covering a vast amount of most painstaking and thorough research, most attractively written and full of the most artistically displayed and fascinating illustrations, seems to show that I am right. What makes the volume so particularly attractive to me, and will to members of the public health service, is its remarkably definite preventive bent. It is, as Sir Humphry Rolleston puts it, the importance of the preventive idea that the authors have sought to bring out; medical and hygienic ideas that they have traced from the beginning of the sixty centuries to the days when they pass into the darkness of the thousand years when there seemed room for nothing but magic and superstition, emerging again to the light of the Renaissance, and so down to what the authors call the Golden Age of the nineteenth century. Concerning themselves mainly with the past, the authors find space also to speak of the present and the future. As a fact, however, it is the earlier and more historical portions that make the book so fascinating, so worth while recommending and reading and keeping.

Nuisances by Dogs.

It occurs from time to time in London and elsewhere that somebody or other is irritated

to the point of frenzy by the dog nuisance, and sets about stirring everybody up in the hope that something drastic will be done about it. Nothing, of course, of a drastic nature ever is done, and the original agitator, having his irritation over this matter driven from his mind by some other irritation, the income-tax man, or noisy milkmen, or too vehement cocks and hens, everybody settles down to wait for the next outburst. Having received a copy of a return on the subject of nuisances by dogs containing a summary of replies to a questionnaire sent out from one metropolitan borough to all the others, it would seem that somebody had been outbursting recently in the metropolitan area. The questions put to the various authorities were, amongst others, as to whether or not bye-laws had been adopted; how they were administered; the number of prosecutions, if any, and the mode of warning the public as to the existence of the byelaws, etc. The replies sent in indicate that byelaws operate in exactly half of the boroughs, but that there is a considerable amount of difference in the amount of activity displayed in relation to their enforcement. As a matter of fact, judging from the number of prosecutions, the anxiety to charge offending dog owners before the court, even if they are detected, is not, it seems, great. Not unnaturally, since it was the first six years or more ago to adopt the byelaw—and in any case members of the public health staff are paid overtime for special night and morning observations—Kensington heads the list with fifty convictions in all. Next to Kensington comes Hammersmith, with fourteen summonses and eleven convictions in 1929. The numbers in other boroughs are quite small—two or three up to six. Whether or not the byelaws or the prosecutions have done any good, apparently was not asked, since there is no reference to effect produced. That in any case the reply would have been in the affirmative may be doubted. Also it may be doubted if a byelaw—especially one so unsatisfactory and unpleasant to enforce as this—is likely ever to be very effective. I have myself opinions as to the proper method of dealing with dog nuisances, but as there are so many people who like to call themselves "dog lovers," perhaps the less I say about my views the better.

P.

DR. G. R. PAINTON, of the Devon County Health Department, has been appointed Deputy Medical Officer of Health for Bedfordshire.

* London: Sampson Low, Marston & Co., Ltd., 1931. pp. 253. Price 15s. net.

The Qualifications, Recruitment, Training and Promotion of Local Government Officers.

MEMORANDUM OF EVIDENCE SUBMITTED BY THE SOCIETY OF MEDICAL OFFICERS OF HEALTH TO THE DEPARTMENTAL COMMITTEE.

THE Society of Medical Officers of Health begs to submit its evidence on the qualifications, recruitment, training and promotion of Local Government Officers ordinarily employed in Health Departments.

The Society of Medical Officers of Health was founded in 1856. It has approximately 2,000 members and comprises Medical Officers of Health and other Medical Officers employed by Health Authorities, Dental Officers and Veterinary Officers. Medical Officers of Health, however, also have administrative control of Nurses working in Health Departments and of Sanitary Inspectors.

The evidence now submitted accordingly relates to Medical Officers (paras. 1-36), Dental Officers (paras. 37-42), Veterinary Officers (paras. 43-49), Nurses (paras. 50-65) and Sanitary Inspectors (paras. 66-74).

MEDICAL OFFICERS.

STATUTORY PROVISIONS IN REGARD TO THE APPOINTMENT OF MEDICAL OFFICERS OF HEALTH.

1. There are many statutory provisions in regard to the appointment of a Medical Officer of Health and it may be well to summarise these briefly.

(a) The Public Health Act, 1875 (sections 189 and 190), requires every Urban and Rural Sanitary Authority to appoint from time to time a fit and proper person to be Medical Officer of Health. Section 191 of this Act states that a person shall not be appointed as a Medical Officer of Health unless he is a legally qualified medical practitioner. If any part of his salary is to be paid out of moneys voted by Parliament, the Minister of Health requires to be satisfied in regard to the qualification, appointment, duties, salary and tenure of office of the person appointed. The Minister of Health may by Order prescribe the qualification and duties of those Medical Officers whose salary is not paid partly out of moneys voted by Parliament. One person may, with the sanction of the Minister of Health, be appointed Medical Officer of Health for two or more Districts.

(b) The Local Government Act, 1888 (section 17), empowers a County Council, if they see fit, to appoint a Medical Officer of Health.

(c) Section 18 of the Act of 1888 provides that, unless the Minister of Health otherwise sees fit, no person shall be appointed as a Medical Officer of Health unless he is legally qualified to practise medicine, surgery and midwifery. Under this section, it would appear that, with the consent of the Minister, a man without medical qualifications may hold the position of Medical Officer of Health; but to the best of our knowledge no such person has been appointed in any District. This section states that no person shall be appointed Medical Officer of Health of any County or of any District with a population of 50,000 or more unless he (a) is a legally qualified medical practitioner, and (b) is registered as the holder of a Diploma in Sanitary Science, Public Health or State Medicine, or has been during three consecutive years the Medical Officer of a District with a population of not less than 20,000, or has been for not less than three years a Medical Officer of the Local Government Board. Section 24 requires a County Council to pay to each District Council one-half of the salary of the District Medical Officer of Health if his qualification, appointment, salary and tenure of office are in accordance with Regulations made under the Public Health Act, 1875. If the Minister of Health certifies to the County Council that any Medical Officer of Health has failed to forward the necessary reports and returns, the contribution payable by the County Council shall be paid into His Majesty's Exchequer.

(d) The Housing, Town Planning, etc., Act, 1909 (section 68), requires every County Council to appoint a Medical Officer of Health, and states that his duties are to be such as may be prescribed by General Order of the Minister of Health, and such other duties as the County Council may specify. The County Medical Officer is prohibited from acting as a Medical Officer of Health of a District within the County, but this is without prejudice to any appointments made before the Act came into operation. The section gives a County

Medical Officer powers of entry to premises similar to those possessed by District Medical Officers. It provides that he shall be removable by the County Council, with the consent of the Minister of Health, and not otherwise; and that he must not be appointed for a limited period only. He must not engage in private practice or hold any other public appointment without the consent of the Minister of Health.

(e) The Public Health (London) Act, 1891 (section 106) requires every Metropolitan City and Borough Council to appoint one or more Medical Officers of Health. The person appointed can, with the consent of the Minister of Health, serve two or more districts; but there is no instance where use is made of this provision. Section 108 states that the Minister of Health must be satisfied in regard to the qualification, appointment, duties, salary and tenure of office of every Metropolitan Medical Officer of Health; and one-half of his salary must be paid by the County Council out of the Exchequer Contribution Account. A Metropolitan Medical Officer of Health (a) must be legally qualified to practise in medicine, surgery and midwifery, and (b) must also be a registered holder of a Diploma in Sanitary Science, Public Health or State Medicine, or have been, prior to 1892, a Medical Officer of Health of a District having a population of not less than 20,000, or have been, before 1888, a Medical Officer of the Local Government Board for three years. A London Medical Officer of Health is removable by the Sanitary Authority with the consent of the Minister of Health, or by the Minister, and not otherwise; he must not be appointed for a limited period only.

(f) The Public Health (Officers) Act, 1921, amends the law relating to the appointment and tenure of office of Medical Officers of Health. Section 1 applies (a) to a Medical Officer of Health of a County Borough where part of the salary of the Medical Officer was paid out of moneys voted by Parliament before it was constituted a County Borough, and (b) to a Medical Officer of Health of a County District any portion of whose salary is paid out of the County Fund and charged to the Exchequer Contribution Account. Such officers, provided that they are restricted from engaging in private practice, shall not be appointed for a limited period only, and shall be removable by the Local Authority with the consent of the Minister of Health, or by the Minister, but not otherwise.

The Medical Officers of Health of forty-two of the eighty-two County Boroughs in England and Wales are not covered under the Act.

2. The Society believes it is in the best interests of local government that all whole-time Medical Officers of Health should be given that protection in the discharge of their duties which is conferred on those towards whose salary the Government make a contribution.

3. The Sanitary Officers Order, 1926, relates to Medical Officers of Health and Sanitary Inspectors appointed by County Councils, Local Sanitary Authorities and Port Sanitary Authorities. From June 1st, 1926, the appointments of Medical Officers of Health in London, and similar appointments outside London, where it is desired that repayment of one-half of the salary should be charged to the Exchequer Contribution Account, must comply with the Order. If a Local Authority outside London does not desire to receive repayment of one-half of the Medical Officer of Health's salary, the only provisions in the Order which apply are those relating to the qualification and duties of the Medical Officer of Health. As regards County Medical Officers, the only provisions which apply are paragraphs one, three and four of Article 14, which prescribe the duties of these Officers. [The Order appeared as Appendix I to this memorandum of evidence.]

4. The following are extracts from Ministry of Health Circular 701, dated May 29th, 1926, relating to the Order:—

"Article 5 provides, like the Order of 1922, that a Medical Officer of Health must possess (in addition to any other qualification prescribed by statute) a registered Diploma in Sanitary Science, Public Health or State Medicine, or have had not less than three years' previous experience of the duties of a Medical Officer of Health. The Minister recognises, however, that in small districts it may not always be possible for the Authority to obtain the services of an officer thus qualified, and in Article 21 of the Order he has reserved to himself the right to dispense with this requirement. He will, however, expect Local Authorities to make every endeavour to appoint as Medical Officers of Health persons holding the prescribed qualifications, and he will be prepared to waive the requirement only

in cases where it is clearly shown that the Authority were not able to comply with it."

"Under Article 10, Medical Officers of Health . . . who do not give the whole of their time to public duties . . . must be appointed in the first place for a specified term ending March 31st next following the date of appointment. On the expiration of that term the officer (unless the Local Authority, not less than three months before the expiration of the term, give notice to the contrary) will continue to hold office from year to year, subject to the provisions of the Order, without further appointment by the Authority or approval by the Minister. Power is reserved, however, to the Authority themselves to determine the appointment on March 31st in any year by giving not less than three months' previous notice."

The time has now arrived when the statutory provisions in regard to the appointment of Medical Officers of Health should be unified, and the Society suggest that the law contained in the Public Health (London) Act, 1891, might well be adopted for general application, with such modifications in the case of County Medical Officers as appear in section 68 of the Housing, Town Planning, etc., Act, 1909.

QUALIFICATIONS.

5. As appointments are invariably open to competition, a medical qualification and the Diploma in Public Health are generally not sufficient to enable a man to obtain a position as Medical Officer of Health except in very small districts. It may, therefore, be desirable to set down a brief outline of the career a man must follow in order to be successful as a whole-time Medical Officer of Health in the local government service. After having passed a matriculation or preliminary examination approved by the General Medical Council, the student must devote not less than five years of full-time study at a University (or a Medical School attached thereto) and a recognised teaching hospital. Generally speaking, five years are found insufficient, and six must be regarded as the average length of time occupied by the medical student of average ability in securing his qualification to practise medicine, surgery and midwifery. On obtaining this qualification, which may be the degree

of M.B., Ch.B., or the diplomas granted by the Colleges of Physicians and Surgeons in England or Scotland, the student usually takes up a general hospital appointment for the purpose of gaining practical experience in the exercise of his profession. This appointment may be for a period of six or twelve months. Frequently, two or three of these appointments are held in succession. Board and lodging are generally provided in the hospital, and the salary may vary from nothing up to £100 a year. It is generally during this twelve or eighteen months that the young medical man decides upon the branch of the profession he will enter. If he resolves to take up public health work, he will be advised to commence at once the necessary course of lectures, laboratory classes, demonstrations, etc., prior to sitting for the statutory diploma in that subject. There are certain junior appointments in the public health service for which this diploma is not an essential requirement, but without it there is little prospect of obtaining a senior position; and when a man has once obtained a whole-time junior appointment he very rarely has the time and opportunity to attend the necessary lectures, etc.

6. Most of the Medical Schools provide a course of lectures, laboratory classes, etc., in public health work, and the various Universities and the Royal Colleges of Physicians and Surgeons hold examinations for the Diploma. As a minimum requirement for the Diploma, the General Medical Council have stipulated that one academic year must be devoted to the whole-time study of public health work; and the examination cannot be taken until the candidate has been a qualified medical man for two years. If, therefore, a young man commences his professional studies at the age of 18, he may secure his medical qualification at the age of 24, and obtain his Diploma in Public Health at the age of 26. If, however, he is anxious to improve his prospects, he may now decide to study for a higher medical qualification, such as the degree of M.D., or the Membership of the Royal College of Physicians. This will take another year or two. In some cases, the higher medical qualification is taken before the student works for the Diploma in Public Health. It will be seen that few are qualified to receive a medical appointment under a Local Authority before the age of 26 years; but the vast majority are not less than 27 or 28, and probably the average age at which a man secures his first

appointment in the local government service is round about 29 years.

7. The first position obtained may be that of Assistant School Medical Officer, Assistant Tuberculosis Officer, Assistant Maternity and Child Welfare Medical Officer, or Resident Medical Officer in a fever hospital. After one, two or three years in this position, the young officer may be appointed Assistant Medical Officer of Health in a larger area, and after having spent one, two or three years in such an appointment, he may move to a still higher assistant post. During this time, he is generally watching the medical periodicals for advertisements for Medical Officers of Health, and usually he will apply for vacancies occurring in smaller districts. The progress made by individuals varies considerably, but a man who is successful generally becomes a whole-time Medical Officer of Health at an age varying from 35 to 40.

METHODS OF APPOINTMENT.

8. Certain requirements are specified in the Sanitary Officers Order in regard to the appointment of Medical Officers of Health one-half of whose salary is to be paid by the County Council. When a vacancy occurs, the Local Authority must submit to the Minister of Health a statement showing the salary proposed to be offered, duties, and various other particulars. On receiving the approval of the Minister to the proposals contained in the statement, the Local Authority must invite applications by newspaper advertisement. Generally speaking, the age limit for senior posts is fixed at 40, but in a few of the most important appointments, applications may be accepted from candidates up to 45 years of age. The adoption of the L.G.O. (Superannuation) Act, 1922, has led many Local Authorities to adopt a resolution that only exceptionally will they appoint an officer to their service over the age of 40 years. Thus, the position a man reaches at the age of 40, or occasionally at the age of 45, is the highest he can hope to attain in the local government service. The Local Authority select from among the applicants several of those who appear to be the best qualified and experienced men, and make their choice after one or more interviews.

The experience of the Society is that Local Authorities generally take great care in making their selections.

PROMOTIONS WITHIN THE SERVICE.

9. Sometimes, in Counties or large towns, a junior Medical Officer receives promotion to a more highly paid assistant post under his own Authority. Occasionally, he may be promoted to the post of Medical Officer of Health on those rare occasions when his chief dies or retires from office at a time when he is at a suitable age for promotion; but, as a rule, advancement in the public health service is secured by applying for advertised appointments under other Local Authorities. It is unfortunate, however, that owing to the rapid growth of the public health service in recent years, with the consequent large increase in the number of Assistant Medical Officers employed, these junior officers have a poor prospect of obtaining a chief appointment. Not more than one out of ten medical men engaged on whole-time service at the present time will eventually become a Medical Officer of Health. The others must be content to fill subordinate positions throughout their official lives. This difficulty in securing senior appointments is rapidly becoming recognised by the profession, and there is a danger that the right type of man will cease to be attracted to the public health service unless the conditions of service are made sufficiently good. One of the unsatisfactory features in connection with promotion is that each Local Authority is an independent unit, with the result that loyal service to one Local Authority does not stand a man in such good stead as in the case of the Civil Service. The general lay-out of the form of application and the personal appearance and address of the candidate before the Selection Committee are often of far more value in obtaining promotion than the devotion of many years of steady and loyal work as an assistant under another Local Authority. In Ireland, there has recently been established an Appointments Board which nominates men for appointments under various Local Authorities; but this body has not yet been in operation sufficiently long to show whether it will be more successful than the present method of promotion in this country.

THE DUTIES OF A MEDICAL OFFICER OF HEALTH.

10. These are laid down in Article 14 of the Sanitary Officers Order of 1926.

In 1925, the Ministry of Health issued a Memorandum on the duties of Medical Officers

of Health in England and Wales, which gives a very clear guide to Local Authorities and their officers. [This appeared as Appendix II to this Memorandum.] The Memorandum does not apply to the London County Council Medical Officer of Health or to Port Medical Officers.

GENERAL OBSERVATIONS ON THE DUTIES OF MEDICAL OFFICERS OF HEALTH.

11. The Medical Officer of Health is the expert adviser to the Local Authority on all questions relating to health and sanitation, and the chief officer of the public health department.

His work varies considerably as to whether he is a part- or whole-time officer, and also as to whether he serves a County, a Town, or a County District.

The Part-Time Medical Officer.

12. A part-time Medical Officer is generally engaged in private practice within the area, and the time he can devote to his public work is limited. He thus does not possess the same opportunity as the whole-time officer to look into the many health questions which arise within his district. The routine work of the public health department is necessarily largely in the hands of the Sanitary Inspector and the clerk of the department.

13. The number of part-time Medical Officers of Health is gradually diminishing, for as vacancies arise there is a growing tendency, encouraged by the Minister of Health, for several Districts to combine for the purpose of appointing one man who will devote his whole time to the duties of Medical Officer of Health. This system has been in operation in various parts of the country for many years and has been found to work uniformly well.

14. In at least two Counties it is the custom for an Assistant County Medical Officer to be appointed to fill the post of Medical Officer of Health of a District within the County when a vacancy occurs. Experience of this scheme is not yet sufficient to show whether a Medical Officer's dependence on the County Council for a portion of his income (as Assistant County Medical Officer) and his subordination to the County Medical Officer in regard to some of his work will limit his initiative and authority as a District Medical Officer of Health. The Society, however, has already come to the conclusion that, if this policy of appointing one medical officer to serve both the County as an Assistant and a district with-

in the County as Medical Officer of Health is extended, the position as Medical Officer of Health of a County District should be regarded as the primary one, to be made by the local Sanitary Authority concerned, in accordance with the Sanitary Officers' Order, 1926.

With this qualification, it may be stated that the practice of filling Medical Officer of Health vacancies with whole-time men is one which is acceptable to the public health service and to the medical profession, for it is recognised that, with the ever-growing importance of preventive medicine and the widening of the scope of public health work, fully trained and experienced Medical Officers of Health devoting their whole time to the work are essential in order to secure the best results.

15. The growth of the public health work of Local Authorities has been such that a district of 20,000 population which would give but little work for a part-time Medical Officer of Health twenty-five years ago will now find full-time occupation for one man, if he acts as Medical Superintendent of the Fever Hospital and carries out in his area the duties in connection with the recently established maternity and child welfare and school medical services in addition to those of Medical Officer of Health. A salary of £200 per annum would have been considered adequate for a part-time man of twenty-five years ago in such a district, but to-day the work is sufficient to entitle the whole-time officer to a salary of £800 as a minimum.

Whole-Time Medical Officers.

16. *Medical Officers of Counties.*—It is only since 1907 that Counties generally have appointed Medical Officers of Health. Their appointment was first made mainly for the purpose of carrying out school medical work under the Education (Administrative Provisions) Act, 1907. Subsequently, the appointment became compulsory in all Counties by the Housing, Town Planning, etc., Act, 1909. Apart from school medical inspection and treatment, the duties of a Medical Officer of Health for a County are to keep a general watch over the County area; to see that public health matters are receiving proper attention; to act as chief officer of the authority under the Midwives Act, the Mental Deficiency Act, the Maternity and Child Welfare Act and the Blind Persons Act; to act as Chief Tuberculosis Officer to take charge of schemes introduced by his authority for the treatment of venereal disease;

to enforce the provisions of the Rivers Pollution Prevention Act, 1876; to make special investigations, for example, in connection with epidemics; and to prepare an annual report based largely upon the reports submitted by the Medical Officers of Health of the districts within the County.

As far as executive work is concerned, the field of the County Medical Officer has steadily widened and, though the administrative and supervisory duties are still prominent, the executive duties are becoming more and more extensive.

The passing of the Local Government Act, 1929, has greatly increased the responsibilities of County and County Borough Medical Officers of Health, particularly in connection with the transferred hospitals which have been put under their charge. This statute has also made these officers medical advisers to the Public Assistance Committees of their authorities.

17. *Medical Officers of Towns.*—In the smaller towns of 20,000 population, there is generally a whole-time Medical Officer of Health who finds it a heavy task to administer his department and carry out all the medical work which falls upon him. In addition to superintending the work of the clerks, sanitary inspectors and health visitors, he frequently undertakes the clinical work at maternity and child welfare centres and the medical inspection of school children. He generally acts also as visiting physician to the local fever hospital, of which he is in administrative charge. When the population exceeds 20,000, it is impossible for one whole-time man efficiently to administer his department, undertake the school medical work, maternity and child welfare, and fever hospital work without an Assistant Medical Officer. When we arrive at a population of 50,000, it may be said that there is ample work in connection with administrative and office routine to give whole-time occupation to the Medical Officer of Health. If he is required to attend clinics or to undertake school medical inspections, his administrative work is bound to suffer. In the case of a County Borough, the duties of a Medical Officer of Health include all those enumerated in paragraph 16. In the larger towns of 120,000 population, there is generally one assistant who is the resident physician at the fever hospital, one who acts as Tuberculosis Officer, one who acts as School Medical Inspector, one who acts as Maternity and Child Welfare Officer, and perhaps one other

for general purposes. These assistants multiply in number as the population increases.

18. *Medical Officers of County Districts.*—The majority of the appointments in Urban and Rural Districts are still held by part-time Medical Officers to whose duties reference has already been made; but there are many large Urban Districts, especially round London and near big towns, where whole-time Medical Officers of Health are appointed; their duties are largely similar to those of Medical Officers of Health towns.

19. In the cases where several areas are combined for the purposes of appointing a whole-time man, the work is very arduous owing to the wide area to be covered and the difficulties of supervising adequately the staffs in the various areas. As the recently established services (maternity and child welfare, school medical, and tuberculosis) and the more recently transferred poor law medical services are generally carried out by the County Council, the work of a combined district Medical Officer of Health is to a great extent limited to that of administering the Public Health Acts and the Acts relating to infectious disease.

20. In addition to the difficult nature of the work and its narrow scope compared with that of Medical Officers of towns and Counties, the combined area appointment has another great disadvantage from the officer's point of view, in that he rarely receives an increase of salary. His remuneration is usually fixed by the constituent Authorities of the combined area when the appointment is first advertised, and any future application for an increase must be submitted to each one of them. Experience proves that rarely can all the Authorities of the combined area be found to agree at one time that an increase is merited. This is a distinct hardship on combined district Medical Officers for which a remedy is desired.

Medical Officers of Port Sanitary Authorities.

21. The work of a Medical Officer of Health of a port is chiefly confined to (a) the visitation of ships coming from abroad for the purpose of detecting and isolating cases of infectious disease; (b) the routine inspection of shipping within the port from the point of view of hygiene and general sanitation; (c) the supervision of hospitals provided for the isolation of patients removed from ships; (d) the de-ratification of vessels, wharves and sheds and (e) the inspection of imported foodstuffs. At

ports "approved" by the Secretary of State, the medical inspection of aliens is, on the authority of the Minister of Health, carried out by, or under the supervision of, the Port Medical Officer of Health.

22. In recent years, the duties in connection with imported meat and other foods have greatly increased, and at the important ports one or more medical assistants and a staff of Sanitary Inspectors are required for this purpose. In the larger ports practically every ship coming from foreign ports is visited on arrival. In the smaller ports where the trade is mostly coastwise, the Medical Officer of Health seldom visits ships unless requested to do so, and such requests generally come from the Customs Officer. The general supervision of the sanitary condition of wharves, sheds, etc., within the area of the Port Sanitary Authority, is undertaken by the Port Medical Officer of Health and the Sanitary Inspectors working under him.

School Medical Officers.

23. The Education Act, 1921 (section 80), imposes on all Local Education Authorities the duty of providing for the medical inspection and treatment of school children. This work has added largely to the medical duties of Local Authorities, and perhaps no extension in public medical work has led to such an increase in the number of medical personnel serving Local Authorities. Every Local Education Authority must appoint a School Medical Officer, and the large majority of Authorities have invested the Medical Officer of Health with this appointment. This combination has been advocated by the Ministry of Health and the Board of Education, and this Society strongly supports their view.

In the larger districts the routine work is undertaken by assistants who may devote their whole time to school medical work or who may work partly in the school medical service and partly in some other branch of the public health department.

In a district of more than 20,000 inhabitants, the Medical Officer of Health cannot, with efficiency, undertake school medical work without medical assistance.

Assistant and Specialist Medical Officers.

24. It is only in the larger areas that assistants for general purposes are appointed, the usual procedure being to appoint a medical

man as a part-time or whole-time officer for maternity and child welfare work, tuberculosis work, school medical inspection, etc. If such an officer devotes his whole time to the service, he may receive the title of Assistant or Deputy Medical Officer of Health or Assistant School Medical Officer. Frequently, it is an essential requirement of appointment that he should possess the Diploma in Public Health. As a rule the best candidates do possess this Diploma, for they know that there is little prospect of becoming a Medical Officer of Health unless this qualification is held, and they know also that if the Local Authority have a choice of candidates, it is their usual practice to make a selection from amongst those possessing it. This policy of the Local Authority usually follows the recommendation of the Medical Officer of Health who desires his assistants to have what might be termed "the preventive outlook."

With the introduction of the Local Government Act, 1929, on April 1st, 1930, the number of Assistant Medical Officers working under the supervision of the medical officer of health of a district has been considerably increased by the transfer under the Act of those medical officers previously engaged as District Medical Officers and Medical Officers of Poor Law Institutions.

25. No part of the salaries of Assistant Medical Officers is recoverable from County funds; but Tuberculosis, Maternity and Child Welfare, and Venereal Disease Medical Officers are concerned in work in respect of which the Government make block grants to Local Authorities. Thus, it follows that a portion of the salaries of assistants is refunded to the Local Authority from Government funds.

Under the powers in Section 59 of the Local Government Act, 1929, the Minister of Health has recently issued the Local Government (Qualifications of Medical Officers and Health Visitors) Regulations, 1930, in which he specifies that a Tuberculosis Officer or Medical Superintendent of a sanatorium, in addition to being a registered medical practitioner, must (1) have had three years' experience of medical practice, (2) have spent in general clinical work a period of not less than eighteen months, of which not less than six months must have been in a hospital, and (3) have received special training for not less than six months in the diagnosis and treatment of

tuberculosis. Somewhat similar conditions apply to appointments of venereal disease pathologists, venereal disease officers, and senior maternity and child welfare officers. Section 59 of the Local Government Act, 1929, provides that no person shall be appointed as such a medical officer whose qualifications are not in accordance with the regulations.

The appointment of an Assistant Medical Officer of Health is not statutory, and the officer has no official position or duties under any Act or Order.

26. The Society desire the same security of tenure for all full-time Assistant Medical Officers as that possessed by Medical Officers of Health.

SALARIES.

27. The Public Health Service as we know it to-day is comparatively new; it has grown with such rapidity that local authorities have been faced with difficulties in arriving at a basis for fixing salaries which would give satisfaction. There has been an enormous increase since 1907 in the number of assistants, both whole time and part time, engaged in Public Health work.

Owing to the large number of part-time officers, it is difficult to say how many medical men and women are engaged in the work, but the number of whole-time assistant medical officers must be on a conservative estimate five or six times as great as it was in 1907. This extension has thrown additional cost on the rates, not only in respect of additional medical salaries, but also for offices, clinics, hospital bed accommodation, nursing assistance, etc. In these circumstances, it will be understood that many members of local authorities, who recognise that they are elected for the purpose of safeguarding the pockets as well as the health of the ratepayers, try to secure as cheap a service as possible; and it is unfortunate that in many areas cheapness has been placed in front of efficiency.

28. In 1924 the Society of Medical Officers of Health and the British Medical Association adopted a scale of salaries which was approved by the Ministry of Health, commended by the Association of Municipal Corporations and adopted by the vast majority of Local Authorities who had occasion, subsequent to its publication, to make appointments. Some authorities, particularly in the early days, did not see fit in the first place to offer salaries within the scale and in these cases the professional journals refused to accept advertise-

ments in respect of the vacancies, because they were satisfied that the salaries offered would not induce satisfactory candidates to apply. In these circumstances and generally in the absence of suitable candidates, there were only a few cases in which Local Authorities did not eventually resolve to offer a salary within the scale. In some instances where appointments were made below the scale, the Minister of Health refused to give his sanction, with the result that the Local Authority were called upon to pay the whole of the Medical Officer's salary out of the rates, whereas in respect of those appointments which came within the scale and received the Minister's approval, the Local Authority received back from Government Funds an appropriate percentage of the salary.

29. The scale, from the point of view of the Society, proved successful in that it was widely adopted, but certain modifications were desired which would enable Medical Officers to secure improvements in their salaries with length of service. Consequently, at conferences held at the Ministry of Health on several occasions in 1929, at which there were present delegates from the British Medical Association and the various associations representing Local Authorities, a series of recommendations was adopted [which appeared as Appendix III to this Memorandum.] These recommendations have now been approved by the Ministry of Health and the British Medical Association and adopted in their entirety by the Association of Municipal Corporations, the Urban District Councils' Association, the Rural District Councils' Association, the Association of Education Committees, the Mental Hospitals' Association, the Metropolitan Boroughs' Standing Joint Committee and a number of County Councils, including the London County Council. In adopting these recommendations, an authority does not merely undertake to advertise future vacancies within the specified scale, but also agrees that existing officers shall be placed in a position in the scale appropriate to their office.

30. The widespread acceptance of these new recommendations is evidence that the importance of the public health is being more and more recognised and shows a growing desire on every hand to have as Medical Officers of Local Authorities highly qualified men who are likely to be held in high esteem by the medical profession and the general public.

The Medical Officer who accepts an appointment which is not recognised by his colleagues

as offering a suitable remuneration is liable to forfeit the sympathy of the general medical practitioners of his district and his colleagues in the Service; thus he faces his new task with great disadvantages.

THE TYPE OF MAN ENTERING THE SERVICE.

31. Unlike other branches of the local government service, the type of man entering the public health branch is fairly well defined, for he must be a medical man. In spite of the low remuneration offered, the public health service, in pre-war days, attracted highly qualified medical men.

32. It is interesting to note that the public health branch of the medical profession is the only one in which it is a legal requirement to have a special qualification in addition to the ordinary qualification to practise medicine, surgery and midwifery. A consulting surgeon, a consulting physician, a consulting obstetrician or an oculist may practise his speciality without possessing any qualification other than that which enables him to practise in medicine generally. It is true that his prestige will suffer in many cases if he does not take a higher degree or diploma in his particular branch of work, but nevertheless this is not essential. In the public health service however, a man cannot secure a post as Medical Officer of Health unless he takes the Diploma in that subject. But, in addition to taking that Diploma, most of the men who entered the service as whole-time officers in pre-war days took the higher degree of doctor of medicine, some obtained the membership of the Royal College of Physicians, and not a few became barristers-at-law.

33. From an academic point of view, it may be said that the highest officers in the public health service to-day possess the same mental calibre, ability and high devotion to duty as is possessed by the leading consultant physicians and surgeons in the country. There is, however, an enormous difference in their respective remunerations, and the probable explanation of the attractiveness of the public health service in the past lies in (a) the certainty of an income, even though low, (b) the great interest found in the work, and (c) the security of tenure. Unfortunately, there has been since the war a growth of evidence that unless the service is made more attractive from the point of view of remuneration, the type of medical man entering will fall below that of pre-war years. The comparatively small and diminishing number of men

who now apply for advertised posts supports this view.

ORGANIZATION OF WORK IN THE PUBLIC HEALTH DEPARTMENT.

34. This is a matter which depends very largely on the recommendations of the Medical Officer of Health and the policy adopted by the Public Health Committee.

In some departments, it is customary to detail Officers, both medical and other, for one special branch of work, and to confine their labours thereto. For example, one medical man may be engaged entirely in school medical inspection duties, whilst another may be occupied whole-time in tuberculosis dispensary work. From the point of view of administration, this is a simple course to adopt; on the other hand, however, this scheme of specializing does not enable the officers concerned to gain that wide experience which will assist them to become efficient chief officers. With a view to the training of future chief officers, it is in many areas considered desirable that tuberculosis work, maternity and child welfare work, and other branches of medical work, should be divided amongst all available assistants, so that each may obtain a varied experience.

SUPERANNUATION.

35. Town Clerks, Borough Treasurers and Engineers may serve their articles in the employment of a Local Authority, and in many cases their years of studentship are added to the period served for the purpose of calculating pensions to be paid under superannuation schemes. As medical men are unable, owing to the special training they have to undertake, to enter the local government service until they have reached an age when other officers may have served ten years or so under a Local Authority, the Society consider it reasonable to ask that officers with medical qualifications should have the right to add the time taken to qualify (not exceeding ten years) to their period of service for superannuation purposes.

36. It is a grievance with the public health service, as with all other branches of the local government service, that there is no general adoption of superannuation schemes by Local Authorities. This question should receive the early attention of Parliament; and new legislation should provide that previous service should be allowed to count for superannuation when an officer transfers to another appointment.

DENTAL OFFICERS.

37. Local Government Dental Officers are, for the most part, School Dental Officers appointed by Local Education Authorities, and in general hold whole-time appointments. Their main function is to inspect and treat the teeth of elementary school children and, in some areas, to inspect, and in certain cases to treat, scholars in secondary schools. With this function is combined, to an extent varying in different areas, educative work directed to convincing parents that dental disease is of high importance and can be controlled by early systematic inspection and treatment.

38. In most areas the dental work called for by other Committees of the Local Authority, e.g., the Maternity and Child Welfare Committee in respect of nursing and expectant mothers and children under five years of age, and the Health Committee in respect of tuberculosis patients, is also allotted to these officers, a proportion of the officer's salary being charged to the Committee concerned. In a few instances this enlargement of duties has been sufficiently great to justify the appointment of a Public Dental Officer with assistants whose time is divided up between various Committees of the Local Authority.

39. There are at the present time about 400 whole-time dentists actually engaged in school dental work, together with part-time dentists equivalent to another 100 whole-time officers. It is, however, generally agreed that having regard to its importance the dental service is the least fully developed of all the activities of the School Medical Service, and the Chief Medical Officer of the Board of Education estimates that a "complete" School Dental Service would necessitate at the present time a total staff of about 1,300 dentists and that this number would steadily increase to 2,100 as educative measures succeeded and the work developed.

40. All candidates for these posts should hold the L.D.S. qualification or a University degree in dental surgery, and should have had two or three years' experience of dental practice in the case of a School Dental Officer, and five years' experience in the case of dental officers undertaking Maternity and Child Welfare work.

41. The following is the salary scale for school dental officers framed by the British Dental Association as a guide to Local Education Authorities:—

Chief Dental Officer, with eight or more

Assistant Dental Officers, £800 p.a., rising to £1,000, within a period of not more than eight years.

Chief Dental Officer, with three to seven Assistant Dental Officers, £700 p.a., rising to £900, within a period of not more than eight years.

Chief Dental Officer, with one or two Assistant Dental Officers, £600 p.a., rising to £900, within a period of not more than eight years.

Single-handed Dental Officer, £500 p.a., rising to £700, within a period of not more than eight years.

Assistant Dental Officer, £450 p.a., rising to £650, within a period of not more than eight years.

As regards the minimum commencing salaries it may be stated that the above scale is generally adopted by Local Authorities, although there is no security that increments for approved service will be awarded. In view of the importance of this branch of Public Health work and of the necessity of attracting and retaining a good type of practitioner it is desirable that a salary scale showing increments and recognising different degrees of responsibility should be agreed upon by representatives of Local Authorities and the dental profession.

42. To obtain full value from dental services established by Local Authorities there should be full co-ordination with the other branches of the Public Health Service, and the Dental Officer, like the Tuberculosis Officer or the Maternity and Child Welfare Officer, should be regarded as the head of a branch in the Department of the Medical Officer of Health and, like them, should practise his profession under the administrative supervision of that officer.

VETERINARY OFFICERS.

43. In public health work, an increased amount of attention is being given generally to the safeguarding of the people from diseases communicable from animals. The greatest single source of danger from this cause is through the milk and food supply, and in order to secure a sufficient degree of protection of the public, local authorities generally are providing an increased amount of veterinary supervision and inspection in their public health departments.

44. The duties of these officers include (a) the inspection of living animals so far as it has relation to the health of the community. This implies all duties in relation to dairy herds and

tuberculosis and other diseases; the administration of such Orders as the Tuberculosis Order and other Orders under the Diseases of Animals Acts; (b) the supervision of the food supply, especially that portion of the food supply comprised in the terms "meat" and "milk"; (c) the supervision of all structural matters affecting (a) and (b). This implies the supervision by the veterinary officer of cow-sheds, dairies, milk shops, slaughterhouses, meat shops, and the like.

45. Much of the legislation affecting public health has, in the past, entirely ignored the need for expert officers in relation to living animals and food, and such duties are frequently thrown upon officers who are unlikely to be able to discharge them properly. In the Public Health Act, 1875, the Inspector of Nuisances as therein described, now the Sanitary Inspector, is an officer mentioned as endowed with special powers which have relation to the inspection of (inter alia) live animals, but the veterinary officer is not mentioned. In order that the veterinary officer to the authority should be in a position to discharge those functions for which he is specially qualified, he should be invested with a power similar to that given to Medical Officers of Health in Section 191 of this Act whereby he may exercise any of the powers with which the Inspector of Nuisances is invested by the Act. Legislation for this would, of course, be required, and should go further so as to enable the veterinary officer to discharge appropriate duties under other Acts than those known as the Public Health Acts, for example: The Milk and Dairies Act, the Food and Drugs Adulteration Act, 1928, and other allied Acts.

46. Veterinary surgeons appointed as veterinary officers to local authorities should be required to produce evidence of a sound training and experience in veterinary medicine and surgery, and also of a special knowledge and experience of veterinary hygiene in its relation to public health such as is indicated by the possession of a special diploma or certificate in this subject. In bringing about this reform, it would be necessary to safeguard the interests of men who are qualified by experience in similar appointments in the past. The appointment of a veterinary officer to a local authority should be in all cases subject to the approval of the Minister of Health and Minister of Agriculture, and for this purpose there should be some understanding between

these Central Departments so that the same suitable officers should be appointed to discharge locally the veterinary duties falling upon local authorities, of which centrally the supervision is vested in the Minister of Health or the Minister of Agriculture as the case may be. In order that the Ministry of Health might be in a position to discharge duties of a veterinary character in an efficient fashion, the expert staff of the Ministry should be strengthened by the appointment of a veterinary officer or officers.

47. The aim of local authorities should definitely be towards the consolidation of their veterinary work, and this end will be best accomplished by the appointment, as far as possible, of whole-time officers doing veterinary work where the population of the area is sufficient to justify it. As a measure of protecting the health of the people, the routine inspection of dairy cattle is of the greatest importance. It would appear that the time has now come when much more definite steps should be taken to secure the freedom of dairy animals from tuberculosis.

48. On the question of recruitment and promotion of veterinary officers, it should be said that local authorities should offer such inducements in the terms of the appointment of these officers that they would attract the best type of veterinary surgeon who would be prepared to devote his life's work to this branch of his profession. In the past the need of expert veterinary duties has not been sufficiently realised by local authorities, and as a result, the veterinary staff of local authorities have not had the value of their services sufficiently recognised. This is a matter of great importance, because the work can only develop properly where highly trained officers are employed for long periods in responsible posts, exercising with increasing years an increasing influence on the work of their authority.

49. To get the full value of the services of this organisation, it is necessary that an intimate co-operation and understanding should be maintained with the other officers and departments of the public health organisation of the community. Veterinary work of this character forms an integral part of the work of public health, and the veterinary officer should be regarded as the head of a branch department in the department of the Medical Officer of Health, and he should be provided with the necessary assistance, professional and lay, in order to carry out his work. The

amount of this assistance, of course, depends upon the character and population of the community which he serves.

NURSES EMPLOYED BY LOCAL AUTHORITIES.

50. Since Local Authorities were enabled to establish hospitals in the second quarter of last century, and the institutional activities of the poor law were expanded under the boards of guardians formed about the same time, there has been a steady increase in the number of nurses employed in the local government service. Until the end of the first decade of the present century these nurses were mostly employed in institutions, but the growth since then of maternity and child welfare work, the school medical service, tuberculosis and venereal diseases schemes and the care of mental defectives has created a new field of public service which may broadly be described as "public health nursing." The nurses so employed have increased in number rapidly during the last 20 years, and have come to form a very important part of the personnel of a modern public health department. Taken altogether the nurses employed by local authorities are probably approaching in number all those employed in other capacities. It should be noted that the unification of the health services brought about by the Local Government Act, 1929, has resulted in the county, county borough, borough and district councils becoming together responsible for the training of a very large proportion of all the nurses entering the profession. In the Society's opinion the question of training cannot be dissociated from other conditions of service, where nurses are concerned.

51. The nurses engaged in the health service may be classified in relation to their type of employment as follows:—

52. *Nurses employed in institutions, (e.g., General Hospitals, hospitals for acute communicable disease, tuberculosis, maternity, mental diseases, etc.).*

(i) Nurses holding administrative positions, e.g., matrons, assistant matrons, home sisters, sister tutors, etc.

(ii) Ward sisters, theatre sisters and sisters in charge of special departments.

(iii) Staff nurses.

(iv) Probationers, i.e., nurses not yet professionally qualified.

53. *Nurses employed in Out-patient Clinics, Home Visiting, etc.*

- (i) Health visitors.
- (ii) School Nurses.
- (iii) Orthopædic Nurses.
- (iv) Tuberculosis visitors.
- (v) Nurses in Welfare Centres and Day Nurseries.
- (vi) Nurses employed at Venereal Diseases Clinics.
- (vii) Visitors of the mentally defectives and the mentally diseased.
- (viii) Epidemic and Sanitary Inspectors.
- (ix) Midwives.
- (x) Nurse inspectors of midwives.

54. *Nurses Employed in Institutions.*—These institutions, together with the voluntary hospitals, provide in addition to the treatment of disease which is their primary function, the only means whereby women are trained in the nursing of the sick and the care of maternity. It is essential, therefore, not only for the maintenance of the efficiency of such institutions, but also in the interests of the sick of all classes of the community that they should attract the best possible type of probationers. In recent years the recruitment of nurses, at least to certain types of hospital, has presented serious difficulties, owing to the attractions of other avenues of employment. Moreover, as most of the senior public appointments are restricted to women who are fully trained nurses, the local authorities are directly interested not only in the class of entrants to the profession, but also in the result of the training they are given.

55. The training of probationer nurses is governed by conditions laid down by the General Nursing Council. The Council keep a register of trained nurses and no woman may be registered unless she has undergone a specified period of training in a hospital which is a training school recognised by the Council, and has satisfied examiners appointed by the Council at a preliminary and a final examination as to her competency. The register is divided into a general part for nurses trained in general hospitals and a supplementary part for nurses holding other registrable qualifications, this part being subdivided into five parts for (1) male nurses; (2) mental nurses; (3) nurses for mental defectives; (4) sick children's nurses and (5) fever nurses. Certain types of training in which local authorities are concerned, such as the nursing of tuberculosis, are not recognised for admission to any part of the register, although they may afford qualification for entry to a higher branch of

local government service (vid. Local Government (Qualifications of Medical Officers and Health Visitors) Regulations, 1930*).

56. For employment as a private nurse and for most appointments as sisters or administrative officers in all the various types of institution general training is considered necessary, so that admission to the other parts of the register affords a nurse a very limited opportunity for advancement in her profession. This means that a large proportion of the women qualified in a special branch of nursing find it necessary to undergo a further course of general training and to take the examination for admission to the general part of the register. A large proportion of the Council hospitals are of this special character.

57. The minimum period of general training is three years, but this is often prolonged by hospital authorities for a fourth year, which may or may not afford an opportunity for obtaining special experience and certificates such as that issued to trained midwives by the Central Midwives Board. For the supplementary parts of the register a minimum period of training of three years is also enforced except in the case of fever nurses, whose training lasts two years, but here again it is not unusual for authorities of fever hospitals to ask their probationers on appointment to agree to stay for three years because of the disorganisation of the hospital work associated with a too frequent turn-over of staff. Although the General Nursing Council permit the authorities of a general hospital to credit a female probationer entering their institution with one year in recognition of any training she may have had which has led to her registration in a supplementary branch of nursing, many voluntary hospitals have refused to make such an arrangement, and in any case a nurse who enters the profession through one of these branches and goes on to general training must spend at least four years in hospital and, if she elects to take her training in some of the best training institutions this period may be extended to six or seven years before she is eligible for a higher post. A nurse does not commence training until she is 18 years of age and may not be registered till she is 21 years old, except in the case of fever nurses who may be registered at 20. It will be readily understood that the hiatus between school-leaving age, even for secondary school girls,

* Not reprinted. Appeared as Appendix IV to this memorandum.

and commencement of training is an obstacle to recruitment.

58. The Society of Medical Officers of Health is concerned about the period of combined training partly because it forces the authorities whom its members serve to accept girls for training in special hospitals at the lowest possible age and often before they are sufficiently mature; partly because the material, as distinct from the educational, advantages to the nurses of such special training before entering a general hospital are so inconsiderable that the field of selection of nurses for special hospitals is greatly restricted; and because they are not satisfied that the best use is being made of the opportunity to provide probationers with experience of every aspect of nursing while they are being trained. They consider, for instance, that the training in observation and in the nursing of the acute sick and the mentally diseased which well managed fever and mental hospitals afford is as essential to the education of a nurse as the years of general training devoted to surgical procedure and the care of sub-acute and chronic medical conditions, and that the time has come to ask the General Nursing Council to consider radical alterations in the training of nurses which would involve an extension of the training of general nurses and a reduction of the disabilities of nurses in special hospitals. They consider that the general hospitals are not turning out nurses who really have a general training unless they have had previous training elsewhere, and that a comprehensive general training could be given without any undue extension of its duration beyond that which is already necessary, say, for a fever nurse who wishes to qualify for the general part of the Register. Such a readjustment would be facilitated by the elimination of some of the menial duties which still devolve upon probationer nurses. The institutions now managed by local authorities might be used in such a way as to enable all their nurses to obtain experience of different branches of nursing without relegation of the special hospitals to an inferior position.

59. For the reasons stated above, the Society is not in favour of sub-division of the Register of Nurses into various parts, but if such differentiation is to continue they are of opinion that the disability under which the large body of nurses trained in hospitals and sanatoria for tuberculosis suffer ought to be removed. It has already been mentioned that

they are not admitted to any part of the register in the virtue of this training, although it is statutorily recognised as a qualification for appointment as a tuberculosis visitor. A national register of nurses which is divided into parts should therefore include a part for tuberculosis nurses.

60. The Society further consider that recruitment of the right class of entrant depends partly upon the conditions under which nurses in institutions have to live and work. They believe that the extremely rigid discipline outside of working hours and the lack of recreational facilities in hospitals so common in the past are not necessary or in conformity with modern public opinion and should be discontinued in all institutions as they have already been in most. Moreover, the reduction of hours of work which has been carried out to a certain extent has not yet gone far enough, and such reduction as has taken place has involved overcrowding of the residential quarters for nurses which is a problem not yet faced by many authorities. Further, as nurse probationers are not generally recognised as designated officers for purposes of superannuation, local authorities should afford them facilities for joining the federated scheme to which the majority of voluntary hospitals are now attached. The Society also believe that recruitment depends upon the remuneration, security and position ultimately attainable in the profession and they consider that the salaries paid by local authorities for higher posts in hospitals, although they have greatly improved during the past ten years, are not yet comparable in many areas with those offered for similarly responsible posts in other branches of public work.

61. *Nurses Employed at Out-Patients Clinics, etc.*—These, as already indicated, consist of nurses employed as health visitors, school nurses, tuberculosis visitors, nurses in day-nurseries, welfare centres and clinics for venereal diseases, home visitors under the Mental Deficiency or Mental Treatment Acts, epidemic or sanitary inspectors and midwives. The duties of a health visitor entail visitation of mothers shortly after confinement in order to advise them as to the care of their own health and that of the newly-born baby; the continuance of home visits until the child reaches the age of five years or goes to school; the visitation of pregnant women to help and advise them; attendance at child welfare and ante-natal consultations where women and children call for medical and nursing guid-

ance; and sometimes the supervision of midwives. School nurses attend medical inspections at schools and clinics; follow up defective, diseased or debilitated children to their homes in order to ensure that appropriate advice is obtained and followed; assist the medical staff at treatment clinics; themselves administer day-to-day treatment of minor ailments; and carry out inspections and treatment for verminous conditions and infective skin diseases. Tuberculosis visitors are engaged in the visitation of notified or suspected cases of tuberculosis in order to advise as to the care of the patient both from the point of view of their personal welfare and that of the persons exposed to infection from them, and also to report upon those environmental conditions which may be beyond the control of the family; in attendance with the tuberculosis officers at clinics and in keeping patients in touch with these clinics.

Nurses in day nurseries are usually in charge of such institutions or employed in senior posts. They are responsible for the general care and management of infants and toddlers during the day-time while the mothers are out at work, and often for the training of girls and young women who intend to become domestic nurses. Nurses in welfare centres, in so far as they are not health visitors acting in this capacity, have duties similar to those of a school nurse on clinic duty. Nurses engaged in connection with venereal diseases schemes are chiefly employed at clinics, assisting the venereal diseases officers, administering routine treatment not requiring direct medical supervision. Visitors under the Mental Deficiency Acts are mainly employed in the supervision, voluntary or statutory, of defectives in their own homes, keeping them in touch with occupation centres, reporting upon the personal characteristics, occupations and home conditions of cases which may be suitable for institutional care or guardianship, reporting on the suitability of homes to which institutional cases may be returned and generally arranging details of the admission and discharge of defectives. Visitors under the Mental Treatment Act will be somewhat similarly employed. Women epidemic and sanitary inspectors are chiefly employed in visiting homes where communicable diseases have occurred, in order to trace the origin of infection, to advise as to the prevention of serious complications, to prevent the spread of infection and to report on patients who ought to be removed to

hospital; in some areas they have been successfully engaged in the supervision of families occupying houses erected by the local authority, especially those built for rehousing slum-dwellers. Midwives employed by Local Authorities are responsible for the confinement of the poorer women and the care of such women and their new-born infants for a short period after the birth has taken place. The supervision of midwives is done by trained nurses, who are also certified midwives and also, usually, health visitors, acting under a medical officer. It is desirable that such women should have had practising experience in midwifery.

62. Although there is a good deal of diversity in these several branches of public health nursing, a certain basis of social training is desirable for persons engaged in all of them over and above the ordinary institutional experience of a trained nurse. The Minister of Health has laid down in Circular 557 of February 9th, 1925, and the Local Government (Qualifications of Medical Officers and Health Visitors) Regulations, 1930, the qualifications which women must hold before they may be appointed as health visitors or tuberculosis nurses, and the Society are generally in agreement with these conditions. It should be noted, however, that the qualifications demanded for health visitors involve extension of their period of training as nurses for at least a year so that they may qualify as certified midwives and health visitors, and an expenditure of money, which are not obligatory upon candidates for other similar posts under local authorities. Notably, school nurses, some of whose duties resemble those of health visitors, are not required to hold any special qualification. Administratively it is often convenient for nurses to be engaged in more than one of the capacities mentioned above, and, in principle, it is desirable that there should be continuity of contact with children from infancy to the end of school life. Moreover, the employment of nurses at different scales of salaries in a department is sometimes awkward. The tendency, therefore, is to establish uniform scales of salary and conditions of service throughout the departments or divisions of departments under a local authority, and for the more highly qualified health visitors to be engaged on conditions originally adopted as applicable to those who have not had to obtain a special qualification.

63. The Society do not favour multiplication of the post-registration qualifications for

nurses engaged in the outdoor health services, but they think it desirable that all such officers should present some evidence of special training. This object might be attained by broadening the basis of the existing courses of training approved by the Minister of Health and the examination of the Royal Sanitary Institute, which is the portal of entry for health visitors into the service. They believe that this can be done without extending the period of training or increasing its cost. The Society desires to call the attention of the Departmental Committee to the scheme introduced by the City Council of Bradford for the training of Health Visitors. [Appeared as Appendix V to this Memorandum.]

64. Experience has shown that the growth of the public health nursing services has provided trained nurses with a field of work which, permitting home life, and carrying with it security and the prospect of a pension, has proved attractive. For this reason many women have been prepared to take such appointments at salaries so low as to be out of all proportion to the length of their training or the importance of the work. The Minister of Health on March 29th, 1928 (Circular 879*), circularised local authorities drawing their attention to the inadequacy of salaries in many areas, and more recently (Circular 1117, May, 1930†), he has circulated among them a document showing the rates of salaries and the conditions of service provided for health visitors and school nurses by various authorities. A perusal of this statement reveals the fact that many authorities are not paying salaries sufficient to maintain in reasonable comfort women of the class and attainment required for this work. The enforcement, however, of the above-mentioned Regulations as to appointment appears to be creating a certain shortage of candidates for posts as health visitors which may soon react upon the scales of salaries offered. It should be noted that these conditions apply only to health visitors, and the Society wish to emphasise again the equal importance of the other branches of the health nursing services and the need for attracting into them the very best class of women. They also wish to repeat that the conditions of service for these senior posts have a definite reaction upon the type of woman entering the profession as probationer nurses in hospitals, and therefore

* Appendix VI. Not reprinted.

† Appendix VII. Not reprinted.

influence indirectly recruitment to the nursing profession, which is a matter of general public interest.

65. The desirability of general adoption by Local Authorities of superannuation schemes, referred to above in the evidence dealing with Medical Officers (see paragraph 36) extends, of course, to all officers in the Local Government Service, but in the case of women Public Health Officers of the categories enumerated in paragraph 53 (in particular those whose duties entail advisory home visiting) another consideration, viz., age at retirement, arises. As the first appointment of Health Visitors dates from only 20 or 25 years ago it has not yet been often demonstrated in practice that the average woman of 60 years or over is unfitted physically and mentally for the work of health visiting, but it is the Society's opinion, based on the experience of those members who supervise such staffs, that this is in fact the case. Although this difficulty may possibly be partly solved in some areas by arranging indoor clinic duties for elderly members of Health Visiting staffs, yet the only general solution is the recognition of an earlier retiring age than the statutory age of 65 years laid down in the Local Government and other Officers Superannuation Act; no new principle is involved in such recognition, for members of Fire Brigades and Police Forces have compulsory retirement at 60, with optional retirement, under certain conditions, at earlier ages, and it is submitted that the interests of the public and of the Local Government Service coincide in seeking a similar concession for women Public Health Officers. The consequent diminution in the amount of pension might be dealt with by the addition of a number of years to the period of service in recognition of the fact that, as in the case of Medical Officers, the length of studentship and professional training postpones entry to the Local Government Service to well beyond the usual age.

SANITARY INSPECTORS.

66. *Recruitment.*—Formerly Sanitary Inspectors were generally recruited from men who had completed an apprenticeship or had had experience in connection with the building trade. More recently recruitment has come increasingly from men who have acted in some capacity in a Health Department or have joined such a Department with the specific intention of training or being trained as a Sanitary Inspector.

67. *Training.*—The training demanded of

a candidate for the Sanitary Inspectors' qualifying certificates is now more or less standardised by the Regulations of the Royal Sanitary Institute and Sanitary Inspectors' Examination Joint Board (Appendix VIII*). Sanitary Inspectors can now be appointed as a general rule only if they have obtained by examination the Sanitary Inspectors' certificate of the Royal Sanitary Institute and Sanitary Inspectors' Examination Joint Board. The Ministry of Health have power to waive this requirement in cases in which the Ministry contribute to the officer's salary, but this Society is of opinion that it should be made compulsory. This requirement again is not binding upon Local Authorities in cases where no contribution from the Ministry of Health is required.

68. The course of training prescribed by the Royal Sanitary Institute and Sanitary Inspector's Examination Joint Board requires—

(1) That the candidate before entering upon training shall have acquired such general and technical knowledge as may be approved by the Board.

(2) That the candidate shall attend an approved six months' course of lectures and demonstrations at a recognised training institution.

(3) That the candidate shall undergo practical training in the work and duties of a Sanitary Inspector.

69. *Numbers Employed.*—According to the evidence submitted by the Secretary of the Ministry of Health to the Royal Commission on Local Government there are approximately 3,000 Sanitary Inspectors employed in England and Wales. As the population of England and Wales is approximately 39,000,000, the ratio of Sanitary Inspectors employed is 1 to 13,000 of population. It should be observed, however, that the whole of the 3,000 Sanitary Inspectors referred to are not whole-time sanitary inspectors, some of them combining the duties of Surveyor, especially in rural and small urban areas.

In 1910 the Local Government Board recommended that there should be one Sanitary Inspector to every 10,000 of the population. It will accordingly be seen that on the average the country as a whole does not come up to this standard. Since 1910 additional duties have been placed upon Sanitary Inspectors.

70. *Pay.*—The pay of a Sanitary Inspector varies widely. The scale generally in operation in London is £285 by £15 per annum to £450.

71. *Superannuation.*—This largely depends upon whether or not the Local Government

* Not reprinted.

and other Officers' Superannuation Act, 1922, has been adopted. The provisions of this Act are on the whole satisfactory. An appreciable number of authorities have not yet adopted the Act.

72. *Promotion*.—Appointments are usually made by local authorities after public advertisement. Indeed, it is a condition of the Sanitary Officers Order, 1926, Article 8 (2) that such appointments shall be advertised after their terms have been approved by the Minister of Health.

After appointment promotion may occur—

(1) Within the authority itself if the authority is a large one. Promotion in such case may be from a District Sanitary Inspector to a Divisional Sanitary Inspector or to a Chief Sanitary Inspector; or

(2) As the result of a successful application in answer to an advertisement for the post of Sanitary Inspector in another area where the salary is better or the position is better, or both are better.

73. *Status*.—The Sanitary Inspector is a statutory officer of the local authority whom the local authority is required to appoint.

In country areas where there is a part-time Medical Officer of Health and a whole-time Sanitary Inspector the Sanitary Inspector is for all practical purposes the organising head of the Health Department, but where there is a whole-time Medical Officer of Health the Sanitary Department is usually a sub-department within the Health Department.

In some cases, however, where there is a whole-time Medical Officer of Health, the Department of Sanitary Inspectors is a separate department reporting usually through a Chief Sanitary Inspector separately to the Local Authority.

The general trend of legislation, however, and the general recommendations of the Ministry of Health are that the Department of Sanitary Inspectors shall be a sub-department of the Health Department which is under the administrative control of the Medical Officer of Health.

Observations.

74. The increasing complications of Local Government and the increased knowledge which Sanitary Inspectors must have in order effectively to carry out the duties imposed upon them would suggest that the following points relative to the reference of the Departmental Committee on Local Government Officers should receive particular consideration.

(1) The standard of general education for a Sanitary Inspector should be matriculation

standard or its equivalent. A high standard of general education is an essential qualification for a Chief Sanitary Inspector.

(2) The technical training laid down in the Regulations of the Royal Sanitary Institute and Sanitary Inspectors' Examination Joint Board should be regarded as a minimum. This course of training extends over a period of from 6 to 12 months and the Sanitary Inspector cannot receive his certificate until he is 21 years of age.

A boy who passes his matriculation examination at 16 or 17 years and elects to become a Sanitary Inspector has thus a waiting period of some three or four years before he enters upon the prescribed course of training. During this period it is highly desirable that the intending Sanitary Inspector should obtain a post in a health department, in a contractor's office or an architect's office, or in a land agent's office, or act in some other capacity which has association with the work of a Sanitary Inspector. He should also take up evening classes in connection with building construction and elementary chemistry, elementary physics, elementary physiology and hygiene.

It appears to the Society of Medical Officers of Health that such should be the normal course of training for a Sanitary Inspector if suitable men are to be obtained for the service.

Such a course involves considerable expenditure of time and money, which unfortunately is not recognised by the salaries offered by many Local Authorities.

It is the opinion of the Society of Medical Officers of Health that it is highly desirable that Local Authorities should take an interest in and give some help towards the training of Sanitary Inspectors. Such action has been taken by one or two authorities, and the Society submit herewith the general conditions of the Willesden Scholarship Scheme for Pupil Sanitary Inspectors (Appendix IX) as an illustration of what has been done in one instance by a Local Authority.

(3) The number of Sanitary Inspectors employed by any Local Authority should be sufficient. It has already been stated that on the whole the number employed is insufficient and it should be noted that constant arrears of work make for unsatisfactory and unattractive service.

(4) The pay is usually inadequate and the salary of Sanitary Inspectors should be based on the London standard, namely, £285 by £15 per annum to £450. Such action would improve the supply of candidates.

(5) The Local Government and other Officers' Superannuation Act, 1922, should be applied compulsorily to all local authorities.

(6) The system of promotion is an important matter, and together with pay and superannuation affects the number of candidates entering upon training. It must be understood that although there are some 3,000 Sanitary Inspectors in the employ of local authorities in England and Wales there is no scheme for promotion, no matter how satisfactory the service of a Sanitary Inspector may be. In addition, it should be observed that at the present time with the Local Government and other Officers' Superannuation Act, 1922, in operation in the areas of some authorities and not in the areas of others, promotion is as a rule barred to men over 40. It is highly desirable that some means should be devised whereby a local authority may have before them for selection the names of all suitable candidates for better appointments.

(7) The Society of Medical Officers of Health are of opinion that the department of Sanitary Inspectors should be in charge of a Chief Sanitary Inspector whose status is recognised and should be a sub-department of the Health Department under the general direction of the Medical Officer of Health. So many of the matters relative to the work of a Sanitary Inspector depend on questions of health that the Society do not think any other arrangement reasonably possible or satisfactory. In addition, Local Government now covers so wide a field—which is constantly increasing—that it is impossible for local authorities to have separate departments for each section of the work which they are required to administer. In these circumstances allied work must necessarily be relegated to one department.

APPENDIX IX.

WILLESDEN URBAN DISTRICT COUNCIL.

SANITARY INSPECTORS SCHOLARSHIP SCHEME.

The Royal Sanitary Institute and Sanitary Inspectors' Examination Joint Board has been established by the Ministry of Health to control the certification of sanitary inspectors. The Regulations of the Board generally mean that the course of training for a sanitary inspector shall extend over a period of one year before he can sit for his certificate.

The Willesden Council have established a

scholarship scheme whereby a student in training for a sanitary inspector can be attached to the Health Department. Under the scheme the student is able to comply with the regulations of the Royal Sanitary Institute and Sanitary Inspectors' Examination Joint Board for the training of candidates and at the same time be utilised by the Council in work which does not really require the services of a fully trained and certificated Sanitary and Meat Inspector, such as:—

(a) Visiting premises on which a Notice has been served in order to ascertain whether the work required has been started or the Notice complied with.

(b) Making daily visits to premises where work of construction or amendment is in operation, reporting progress daily to the district inspector and intimating to him when a personal visit by him is necessary.

(c) Making enquiries into complaints which to the district inspector appear *prima facie* to be not of a serious nature.

(d) Measuring up rooms, workshops and workplaces in cases of suspected overcrowding or for purposes of the Factory Acts and working out subsequently the capacity.

(e) Routine visitation of outworkers' premises, small workshops, bakehouses, milkshops, laundries, and other miscellaneous premises where from previous experience the district sanitary inspector knows the conditions are likely to be in order.

(f) Inspecting canal boats; and

(g) Generally assisting with work of a routine character.

During the first three months a scholar appointed under the scheme is not of any great service, but with the completion of his course of lectures at the end of the first six months he should be of considerable use in the Health Department, and the Council reckon on the average that they should have 12-18 months good service out of the two years during which he is in Willesden.

The Willesden Council therefore offer a scholarship for award to a student training as a Sanitary Inspector.

The scholarship to be for two years, only tenable in Willesden.

The annual value of the scholarship is £100.

The student will not be allowed to apply for an appointment elsewhere until he has completed one year and nine months' service in Willesden.

October 13th, 1930.

The Society.

Reports, Proceedings and Announcements.

THE METROPOLITAN BRANCH.

President : Dr. John Macmillan, D.S.O., M.C., M.O.H., Woolwich.

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 February 27th, 1931, the President occupying the chair. Nineteen other members of the Council were present.

The President welcomed Dr. Grace Calver as the new representative of the Maternity and Child Welfare Group; and was able to report that Dr. Lennane was making a satisfactory recovery from his recent illness.

The Branch Council gave consideration to correspondence between the Boroughs of Poplar and Shoreditch on the one hand, and the Ministry of Health on the other, concerning administrative procedure in regard to mild small-pox in London. After careful consideration it was decided to recommend all metropolitan medical officers of health to adopt the proposals outlined in the letters from Poplar and Shoreditch in so far as they are approved by the Ministry. These proposals are to the effect that close contacts should be kept under observation by officers of public health departments for a period of eighteen days by means of visits at their homes and enquiries from responsible persons as to their health; but unless circumstances are exceptional, visits to the homes of contacts are to be confined to the usual office hours. The surveillance of contacts at their workplaces will be discontinued, and information that an individual living in one borough and working in another is a contact will not, in future, be sent to the medical officer of health of the district in which the individual works; but information that an individual has developed small-pox will still be given to his employer or, if the patient works outside the borough in which he lives, to the medical officer of health of the district in which he works. The general effect of the modifications will be that mild small-pox will be dealt with in much the same way as scarlet fever; the loss of employment amongst small-pox contacts will be reduced to a minimum; and the staffs of public health departments will, apart from exceptional cases, be able to limit their duties to the usual office hours.

The Branch Council expressed the opinion that, as far as is practicable, all cases of small-pox reported or notified by general medical practitioners should be seen by the medical officer of health or, where this is impossible, by one of the London County Council's small-pox consultants, with a view to securing confirmation of the diagnosis before removal to hospital is arranged; but if neither of these officers is available the cases should be removed to hospital without delay.

The Branch Council decided to ask the Metropolitan Boroughs' Standing Joint Committee to make recommendations in favour of a clause being inserted in a London County Council General Powers Bill to provide that no building intended for use for human habitation should be occupied until the local authority have issued a certificate that such building is in all respects fit for human habitation.

The Metropolitan Tuberculosis Sub-Group submitted an advice pamphlet for issue to patients attending tuberculosis dispensaries in the metropolitan area, and the Branch Council decided to recommend its general adoption.

It was decided to communicate with all veterinary surgeons in London who are engaged, or known to be interested, in work undertaken by public health departments, and invite them to become associate members of the Society. There are many persons engaged in various branches of public health work who are not qualified medical practitioners, dental surgeons or veterinary surgeons, and who would probably welcome the opportunity of closer co-operation with the Society. It was pointed out that the varied experience of such persons would be very valuable to the Society, and the Branch Council decided to bring these facts to the notice of the Council of the Society and to ask whether it would be possible to open the associate membership of the Society to such of these persons who may be approved by the Society.

The quarterly meeting of the Branch followed the Branch Council meeting. The President occupied the chair, and twenty-three other members were present. Mr. T. Crew, Organising Secretary of the Central Council for Health Education, attended by invitation.

In the absence of Professor Bostock Hill,

owing to indisposition, Lieut.-Col. G. S. Parkinson delivered an extremely interesting address on the activities of the Central Council for Health Education and their value to borough health authorities. Col. Parkinson gave a comprehensive outline of the various methods employed by the Central Council in the dissemination of health propaganda. He drew particular attention to the monthly publication, *Better Health*; the printing of articles on health topics in the daily press, and the showing of lantern-slides, films, posters, etc. He concluded his remarks with an appeal for subscriptions from local authorities.

Mr. Crew also addressed the meeting, and stressed the importance of the method of presentation to the public of health propaganda, dealing specially with the type, size and colouring of posters and other material, and the need for a variation of methods to suit differing social environments. Mr. Crew expressed the willingness of the Central Council to assist medical officers of health at all times in their health propaganda activities. The Branch passed a unanimous vote of thanks to Col. Parkinson and Mr. Crew for their interesting addresses.

The Branch had before them a letter from the Midland Branch, putting forward the name of Dr. C. Killick Millard for the office of President of the Society during the session 1931-32. Consideration of this matter was deferred for a month, when the letter from the West of England Branch submitting the name of Dr. Ernest Ward will also receive attention.

The Branch heard with regret of the death of Sir Andrew Balfour, one of their members, and passed an appropriate resolution of sympathy with Lady Balfour.

THE YORKSHIRE BRANCH.

President : Dr. L. Pickering-Pick, M.O.H., Spenborough.
Hon. Secretary : Dr. G. H. Pearce, M.O.H., Batley.

A meeting of this Branch was held at the Education Offices, Calverley Street, Leeds, on February 27th, 1931, the President occupying the chair. Seventeen members and seven visitors were present. Apologies for absence were received from ten members.

It was reported that Dr. Thomas Gibson, Medical Officer of Health, City of Wakefield, was indisposed, and the hope was expressed that he would soon be restored to his customary health.

On behalf of the Branch, the President wel-

comed Major Rabagliati on his first appearance in the new capacity as representative for Yorkshire of those members of the veterinary profession within the Society of Medical Officers of Health; Dr. J. M. Gibson, the recently appointed Medical Officer of Health for Huddersfield, on his first appearance at a meeting of the Branch; and Dr. R. Lee Bolton, a visitor.

Regret was expressed at the forthcoming departure of Dr. Hilda A. Channon, a member of the Branch Council, whose husband has been appointed Professor of Bio-Chemistry in the University of Liverpool as from April 1st, 1931.

An instructive paper was read by Col. A. E. L. Wear, C.M.G., M.D., D.P.H., Chief School Medical Officer, City of Leeds, on "The Exceptional Child." An interesting discussion followed, the speakers being Drs. Bates, Lee Bolton, J. M. Gibson, Holt, Mair, Potts, Stockwell, Williamson and Pearce.

Dr. Pearce, in response to some remarks by Dr. Stockwell, pointed out that in Yorkshire it was possible for the youngest Fellow of the Society to be elected President of the Branch, if he could obtain the support of his colleagues, because at the annual elections all voting is by ballot and it is impossible for any particular section of members to dominate the Branch provided the others will use their votes. He also reminded those present that on various occasions attempts had been made to form a School Medical Service Group within the Branch but, unfortunately, up to the present, so few members of that section of the service in Yorkshire were members of the Society, notwithstanding repeated invitations to them to accept nomination, that no real progress had been made. Should the members of the School Medical Service in the area express the desire, the Council of the Branch is both willing and anxious to arrange meetings at times to be fixed solely to meet the convenience of these, or any of the other sections of the public health service comprised within the area of the Yorkshire Branch.

On the proposition of the President, Colonel Wear was heartily thanked for his paper, which will be forwarded to the Editor of *PUBLIC HEALTH* with a view to publication.

Colonel Wear having replied, an adjournment was made for an inspection of the various departments of the Leeds School Clinic, particular attention being given to the ultra-violet and X-ray installations.

The Council of the Branch met earlier the

same day to give special consideration to the views expressed at the last meeting by Dr. W. Steven, respecting tuberculosis, and an article contributed by him to *The West Riding Panel Record*. Dr. Steven elaborated his previous remarks, and after discussion it was finally decided that the object aimed at by Dr. Steven, with which the members of the Council of the Yorkshire Branch heartily concurred, could be best attained if the West Riding Panel Committee approached the University of Leeds with the request that a post-graduate course in tuberculosis specially arranged for general practitioners engaged in National Health Insurance work should be instituted.

The Council, with other members of the Branch and visitors to the number of twenty-five, dined together at the Hotel Metropole, after which the company proceeded to the Education Offices for the ordinary meeting.

THE NORTH-WESTERN BRANCH.

President: Dr. C. O. Stallybrass, Asst. M.O.H., Liverpool.

Hon. Secretary: Dr. G. W. N. Joseph, M.O.H., Warrington.

A meeting of this Branch was held at Parker's Restaurant, Manchester, on March 13th, 1931, the President occupying the chair. Thirty-one members were present. Before the meeting the members partook of a "hot-pot supper."

The President reported that Dr. Ernest Ward had been nominated for the Presidency of the Society for the session 1931-32 by the West of England Branch, and Dr. Killick Millard by the Midland Branch.

Dr. R. Veitch Clark moved that the Branch support the nomination of Dr. Killick Millard, and Dr. Dearden seconded the proposition.

Dr. Lissant Cox moved that the Branch support the nomination of Dr. Ernest Ward, and Dr. Trayer seconded.

After some discussion, in which Drs. T. W. Naylor Barlow, Bennett, Jessel, and Wood took part, the President proposed that the members ballot on the two nominations, and the ballot proved to be in favour of supporting the nomination of Dr. Killick Millard.

A discussion on "Where the Society fails to attract Junior Members of the Service" was opened by Dr. Andrew Topping (Rochdale), who gave a *résumé* of his experiences as a junior member of the Society. He suggested that the meetings would be more popular if they were arranged for the evenings and chiefs would

encourage juniors to attend; that a better welcome should be extended to new members; and that the Society's journal, *PUBLIC HEALTH*, should be made more interesting by giving details of appointments and lists of selected candidates.

Dr. Ratner (Stockport), in supporting Dr. Topping, gave three reasons for joining a medical society: (1) the necessity for meeting colleagues, exchanging views and combating provincialism; (2) the necessity for concerted action on some occasions; (3) the value of its transactions or journal. In the course of his remarks he asserted that the Society had failed in these matters. The juniors were unable to attend the afternoon meetings; the Society had failed in its negotiations on the salary scale; and the journal was not interesting, and did not assist in keeping the members abreast of the times in public health matters.

Dr. Jean MacIntosh supported Drs. Topping and Ratner on behalf of the women members present, and stated that the juniors should have more interest in the management of the Society.

Dr. F. T. H. Wood (Bootle) complained that there was a lack of interest of junior members in the Society, and lack of desire on the part of juniors to attend meetings, even when arrangements were made for them to do so. He pointed out that this was the case not only in our own Society, but also in other medical societies, and that the societies had difficulty in finding enough members sufficiently interested in its welfare to carry on. Reference had been made to the Departmental Committee on Local Government Officers, and he described the method by which the evidence the Society would present to this Departmental Committee had been obtained in order that it should be fully representative of the views of the members of the profession.

Dr. Veitch Clark (Manchester) pointed out that there was an earnest desire to make the Society representative of all members of the profession, junior and senior. He stated that no society could live unless it has the vital force of its junior members behind it. He pointed out that the Society had been reconstructed seven years ago with a view to obtaining a Council representative of all sections of the members. He was strongly of the opinion that the Society should always cater for its junior members, but also that the junior members should assist in this effort by attending the meetings in greater numbers. He stated also that *PUBLIC HEALTH* was not supported by contributed articles from

the members, who preferred to submit them to other medical journals, and the Society had not the necessary income to obtain a professional editor able to devote his whole time to the arduous duties of producing a larger publication. He felt that the Society should be able in its journal to give the views of its members who are experts in their own line, and to lead public opinion on public health matters. Until this was done the Society would fail to exert any influence on national public opinion.

Dr. T. W. Naylor Barlow (Wallasey) deplored the lack of interest shown by juniors by their small attendance, and agreed that there was need for improvement in the journal. He pointed out that, with the changing conditions consequent on the operation of the Local Government Act, it may again be necessary to alter the constitution of the Society. He also dealt with the negotiations which had taken place over the salary scale, and stated that the Society had to accept less than was desired. All that the local authorities could be persuaded to concede had been obtained; uniformity had been secured, and the position of juniors had been improved.

Drs. Topping and Ratner replied to the debate, and Dr. Ratner moved that in future half of the meetings of the Branch be held in the evenings. This was seconded by Dr. Tallant (Ashton-under-Lyne), and carried unanimously.

THE WEST OF ENGLAND BRANCH.

President: Dr. A. H. Wilson, M.O.H., E. Wilts. C.S.D., and Salisbury R.D.

Hon. Secretary: Dr. P. H. Stirk, M.O.H., Exeter.

A meeting of this Branch was held at Trowbridge, on March 6th, 1931.

The President and members lunched together at the George Hotel, and a business meeting followed in the Board Room of Messrs. Ushers Brewery, Trowbridge. Eight members were present. Apologies were received from five members.

The Hon. Secretary read the reply received from the Executive Secretary on the action taken by the General Purposes Committee in connection with the correspondence between Dr. Tangye and Dr. Cox, Secretary of the British Medical Association, the reply being to the effect that the Society could only endorse the ruling of the British Medical Association in the matter, and could not afford to make any exceptions where the principles of the new scale were concerned.

The Hon. Secretary reported replies received from the various Branches and Groups regarding the nomination of Dr. Ward for the Presidency of the Society.

An invitation from Messrs. Cow & Gate, Ltd., offering hospitality to the Branch at their Factory at Wincanton, was considered. It was decided that the Branch were unable to avail themselves of the offer during the present session, but would bear it in mind at a future date. The Hon. Secretary was instructed to inform the firm accordingly.

A communication from the Central Council for Health Education offering to send a representative to attend a meeting of the Branch to place before the members (1) the advisory services of the Central Council, and (2) methods of public education in health, was also considered. The acceptance of the offer was postponed to a future meeting.

It was decided that the next meeting of the Branch should, if possible, be held at Quantock Lodge (Somerset County Council's Sanatorium) on either May 22nd or June 5th next, and the Hon. Secretary was instructed to make the necessary arrangements.

The Branch discussed the British Medical Association questionnaire on the work and salaries of whole-time public health officers, and the meeting was divided in opinion as to the practicability of replying to the questions raised without some disloyalty to the employing authority.

Dr. J. B. Lowe raised the question of secrecy with regard to notified tuberculous cases and venereal disease cases, and asked particularly if it was competent for a medical officer of health to use the knowledge in his possession in order that tuberculous cases might obtain increased sanitary provisions (such as extra windows, etc.) to be made by the landlord. The general opinion of the meeting was that the notification of a case of tuberculosis, or the knowledge of a case of venereal disease should not be disclosed, unless it was done entirely in the interest of the patient, and that the permission of the patient should first be obtained.

The members were then conducted over the Brewery of Messrs. Ushers. The manufacture of malt and beer, and laboratory work in connection with the Brewery, were fully explained by Mr. Parnall, a member of the firm, and was followed with interest by the visitors, who were much impressed by the steps taken to ensure that all the ingredients in the manufacture were free from poisonous substances, and by the efforts which were made to render the whole

plant, barrelling, and bottling free from contamination.

The party was subsequently entertained at tea by Mr. Parnall, and a hearty vote of thanks was passed to Messrs. Ushers for the use of the Board Room, and for the extremely interesting and instructive visit.

THE MIDLAND BRANCH.

President: Dr. P. S. Blaker, M.O.H., Dudley.

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

The fifth meeting of the Session of this Branch was held at the University, Edmund Street, Birmingham, on March 5th, 1931. Twenty-six members were present. Apologies for absence were received from five members.

The Hon. Secretary read a letter from Dr. C. Killick Millard, thanking the Midland Branch for their action in nominating him for the Presidency of the Society and stating that he would be willing to allow his name to go forward. The Hon. Secretary further reported that he had notified the nomination made by the Midland Branch to the other Branches, and asked for their support.

A letter was read from Professor A. Bostock Hill, who was to have addressed the meeting on behalf of the Central Council for Health Education, in which he regretted his inability to be present owing to indisposition. The writer recalled his lengthy association with the Midland Branch, of which he was the first President, in 1888. It was agreed that a message of sympathy be sent to Professor Bostock Hill on behalf of the Branch.

The President called upon Lieut.-Colonel G. S. Parkinson, who had kindly taken Professor Bostock Hill's place at short notice, to address the members on the work of the Central Council for Health Education. After dealing with the circumstances in which this body had been founded, the speaker referred to the monthly magazine *Better Health*, to the distribution of signed articles to the Press, and to the Council's official seal of approval given to films and articles. He also mentioned the room set aside at the London School of Hygiene and Tropical Medicine for the purpose of demonstrating the various methods of health propaganda.

At the conclusion of Colonel Parkinson's address, the Organising Secretary, Mr. T. Crew, dealt with the psychology of health propaganda. Mr. Crew gave examples of slogans and produced various types of coloured

posters to illustrate his theories on the effect of colours in advertising. He also referred to the use of small cinematograph projectors for use in country districts, and stated that a certain firm were now producing a large number of health propaganda films in miniature in order that they would fit projectors of this size.

On the motion of the President, seconded by the Hon. Secretary, and supported by Dr. E. H. Snell, Colonel Parkinson and Mr. Crew were warmly thanked for attending the meeting and for their interesting remarks.

THE WELSH BRANCH.

ASSISTANT MEDICAL OFFICERS' AND SCHOOL DENTISTS' SUB-GROUP.

Chairman: Dr. C. J. McSweeney, Deputy M.O.H., Cardiff.

Hon. Secretary: Dr. W. E. Crosbie, M.O., Glamorgan C.C.

The third meeting of this Sub-Group was held at the Allt-yr-yn-Hospital, Newport, on January 16th, 1931. The Chairman presided, and there were eleven members present.

Dr. Andrewina Laird (Maternity and Child Welfare Medical Officer, Newport) read a paper on "Maternal Mortality." A copy of the paper has been sent to the Editor of *PUBLIC HEALTH* with a view to publication.

The subsequent discussion was opened by the Chairman, who drew attention to Memorandum 156/M.C.W. recently issued by the Minister of Health. The question of admission of private practitioners to ante-natal centres was fully discussed, and the feeling of the meeting was that any arrangements made to further the ideal of medical continuity in the medical supervision of the pregnant woman should not adversely affect the existing ante-natal schemes of local authorities—schemes which were of proved utility. The discussion included almost every aspect of the problem of maternal mortality and there was a free exchange of views on such subjects as the training and supervision of midwives, obstetric training of medical students, provision of obstetric consultants, &c.

Mr. G. E. Saxon (School Dentist, Monmouthshire County Council) submitted a paper on "Pyorrhœa Alveolaris—its Causes and Prevention." A description of the anatomy of the jaws and teeth was followed by an account of the pathology of the disease. The underlying cause of pyorrhœa was stated to be due to lowered resistance of the periodontal membrane from bacterial or mechanical injury. Bacterial injury could be due to direct spread from a

dead or infected pulp or to indirect spread from systemic disease; mechanical injury might be due to blows, ill-fitting dentures, impacted food particles, &c. A very frequent cause was malposition of the teeth or disuse following extraction of the opposite teeth. The various preventive measures were enumerated, and proper feeding during infancy and childhood was stressed as being of particular importance. The treatment of the condition was then outlined.

In the discussion which followed, Messrs. Tiplady and Young, and Misses Manton and Owen Jones took part. The influence of untreated pyorrhœa on pregnancy was raised and discussed.

A hearty vote of thanks was accorded to Dr. Laird and Mr. Saxon for their interesting papers.

The members were subsequently entertained to tea by the Matron of the Hospital, and the proceedings terminated with a cordial vote of thanks to Dr. Howard-Jones, Medical Officer of Health, Newport, for allowing the use of the Hospital, and to the Matron for her hospitality.

THE SOUTHERN BRANCH.

President: Dr. R. H. Wilshaw, M.O.H., Worthing.

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

A meeting of this Branch was held at Trafalgar House, Winchester, on March 6th, 1931, the President occupying the chair. There was an excellent attendance, the numbers present exceeding those of previous meetings. Apologies for absence were received from three members.

Consideration of a letter from the Midland Branch, asking the Southern Branch to support the nomination of Dr. C. Killick Millard for the Presidency of the Society for 1931-1932, was adjourned to a later meeting.

It had been arranged that Dr. Charles Porter and Mr. T. Crew (Organising Secretary) should attend to address the members on the activities of the Central Council for Health Education. In their unavoidable absence, Lieut.-Col. G. S. Parkinson made an excellent deputy, speaking on (1) the advisory services of the Central Council, and (2) methods of public education in health.

Col. Parkinson dealt with the history of the Central Council, its constitution, aims and the value of its conferences with other bodies. He referred in detail to its very successful monthly journal, *Better Health*, and the methods of

circulation by many local authorities, and newspaper articles, films, lectures, pamphlets, etc., were also discussed by him as means of propaganda.

His address was listened to with much interest, and a general discussion followed, many questions being asked and answered. Dr. Cronk held that more teaching on health subjects could be done by teachers, and suggested the co-operation of the National Union of Teachers. Several of the dental officers suggested more assistance by the Dental Board in propaganda on the care of the teeth. Reference was also made to other societies engaged in health education and propaganda in relation to tuberculosis, food and diet, cancer, etc.

On the proposition of the President, seconded by Dr. W. J. Hart, a very cordial vote of thanks was accorded to Colonel Parkinson for coming to Winchester and giving a most interesting address.

THE MATERNITY AND CHILD WELFARE GROUP.

President: Dr. Ethel Cassie, Assistant M.O.H., Birmingham.

Hon. Secretary: Dr. Grace Calver, 1, Holly Terrace, Highgate, London, N.6.

The annual provincial meeting, held at Birmingham, on February 12th, 13th and 14th, 1931, was one of the most successful, interesting and well-organised conferences of this Group, and over eighty members were present.

Maternity and child welfare activities in Birmingham are carried out on a comprehensive scale, and members had an opportunity of seeing the work in all its aspects.

The new welfare clinics at Northfield, Stirchley, and Tyburn Road, are model centres, built specially for their purpose, and where full use is made of the educative effect of beauty, comfort and cleanliness on the mothers attending. Many members regretted that in their areas money is more difficult to acquire, and therefore that centres can seldom be so lavishly equipped, but there is no doubt that such centres are an inspiration and an ideal to strive after, and play a great part in raising the standard of the mothers in regard to health and cleanliness.

The same thoroughness and efficiency were seen in the maternity home, where a converted house includes a special ward for premature and delicate infants. The arrangement of the cots and the infants' belongings were excellent. The home has a resident woman medical officer, who

is one of the maternity and child welfare officers on the public health department staff.

A convalescent home for mothers at Pye Hayes Hall, and one for babies at Canwell Hall, a beautiful building standing in charming surroundings, were also visited by the Group.

A paper on "Minor Orthopædic Deformities" was given by Dr. Brodie, and Miss Schipper demonstrated, with a class of small children (all under five years), the methods used to correct these early defects. This is a side of child welfare work which is of the utmost importance, and again Birmingham has given a lead by running a clinic where remedial exercises are taught, the children attending the class once a week and the parents, who are present, carry on with the exercises during the week.

At the Children's Hospital, Professor Leonard Parsons gave a paper and demonstration on "Bone Changes—their Causes and Significance in Rickets, Celiac Disease, and Chronic Nephritis." This was one of the most interesting and illuminating papers to which the Group has ever been privileged to listen. Professor Parsons showed how the different types of rickets were due to changes in the calcium and phosphorus content of the blood, in ordinary rickets the phosphorus content being low, the calcium being unaltered or only slightly diminished, whereas in Celiac rickets the blood calcium is low, while the phosphorus content is unchanged or only slightly lowered.

Dr. A. V. Neale demonstrated cases of bronchiectasis and the medical and surgical methods used to relieve the symptoms. The members afterwards made a tour of the hospital, which is an excellent building in construction and arrangement.

At the Fever Hospital, Dr. F. H. R. Harries, the Medical Superintendent, read a paper on "The Present Position of Modern Methods of Prophylaxis in Diphtheria, Measles, and Scarlet Fever." Dr. Harries raised a violent discussion by saying that swabs from throats in cases of diphtheria were useless. He held that the diagnosis should be made from the clinical signs in the patient and not from the bacteriological report.

One of the most interesting meetings was that held at the Maternity Hospital, where members of the staff demonstrated cases in turn.

Mr. Hewetson dealt with cases of bicornuate uteri, and showed a specimen from a case where a pregnancy had occurred in a cornua attached by a pedicle to the normal uterus, but

having no outlet either into the normal uterus or into the vagina. This blind cornua contained a three months' fetus, and was removed from the patient on account of internal hæmorrhage from a ruptured vein on the surface of the pregnant uterine cornua.

Mr. McMillan demonstrated a type of forceps for use in cases of placenta præxia to pull down the child's head to act as pressure and stop the hæmorrhage. He also showed a case of fetal disproportion due to an old tubercular lesion in the lower lumbar vertebræ with deformity resulting.

Miss Hilda Shufflebotham showed charts of the growth and development of infants in cases of induction of labour at various stages before term. The development and survival rate compared favourably with full-term infants, and on the whole by the tenth or twelfth month the premature infant surpassed the normal infant. This was probably partly due to the extra care and attention usually given to premature infants by their mothers.

Mr. Danby followed with a paper on "Causes of Abdominal Pain in Pregnancy."

At the close of the meeting the delegates were entertained at lunch by the Hospital Committee.

During the conference a discussion took place regarding a resolution on the policy of the Group with regard to birth control instruction.

The following resolution was carried by a majority vote of 38 to 8: "That the Maternity and Child Welfare Group believes that the teaching of birth control methods at maternity and child welfare clinics, or on the same premises, is undesirable, as they are convinced that such teaching, in these circumstances, will materially hinder and detrimentally affect the work of these clinics. If it is determined by the local authority that birth control methods shall be taught, it should be done on premises quite apart from the maternity and child welfare clinics by a special staff appointed for the purpose."

It was agreed that this resolution should be submitted to the Council of the Society for approval, with a view to its adoption as the policy of the Society, and for circulation to the Ministry of Health and local authorities.

Besides the serious side of the conference there were several social events. A most enjoyable evening was spent at the Council House, where a reception and dance were given by the Lord Mayor of Birmingham (Alderman Saunders), who welcomed the delegates.

A Group Dinner was held at the Three Counties Club, where expressions of appreciation for the success of the arrangements, and the great hospitality at the various meetings, were made to Dr. Ethel Cassie, to whom a basket of flowers was also presented. After the dinner an entertainment arranged by Dr. Ursula Cox was greatly enjoyed.

THE HOME COUNTIES BRANCH.

President: Dr. K. E. Tapper, O.B.E., M.O.H., Bromley, Kent.

Hon. Secretary: Dr. A. A. Turner, M.C., M.O.H., Finchley.

A meeting of this Branch was held at the London School of Hygiene and Tropical Medicine, on February 6th, 1931. Forty members were present.

Dr. Buxton, Reader in Entomology, discussed the problem of British mosquitoes and showed that accurate identification was necessary if satisfactory means of prevention were to be adopted. He instanced several areas where, by the practice of suitable preventive measures, mosquitoes, which had been a source of annoyance for years, had been easily and rapidly eradicated, and he drew attention to the publications of the Natural History Section of the British Museum and of the British Mosquito Control Institute, Hayling Island. He stated also that his own department would be delighted to assist in the identification of any mosquitoes sent to the School by members of the Society of Medical Officers of Health.

After tea, the Branch were given a demonstration in one of the laboratories in the Division of Medical Zoology, and members of the staff were present to answer any questions put to them.

Professor Bostock Hill proposed a vote of thanks to the School authorities for an interesting and instructive afternoon.

A further meeting of the Branch was held at the house of the Society on March 6th, 1931, when the President and seventeen members were present.

A communication from the Executive Secretary called attention to the small number of Veterinary Officers who had become Associate members of the Society, and it was agreed that members should endeavour to induce all such officers in their areas to join the Society.

Dr. R. P. Garrow (Hornsey) opened a discussion on Table III, Board of Education Medical Inspection Returns. In contrasting the new form of this table with the old one, Dr. Garrow maintained that it was a very difficult table to fill up accurately, on account of the large number of groups of children dealt with, namely, 85, and the voluminous foot notes. The new table was an improvement on the old in that it gave a clearer classification of tubercular children; it abolished the category of pre-tubercular children and separated children suffering from heart disease from cripples. On the other hand, the definition of delicate children was not as clear as it might be. He made suggestions as to how the records of all the children contained in this table should be kept.

From the lively discussion which ensued it was apparent that many agreed with Dr. Garrow as to the difficulty of accurately completing Table III.

Dr. Langdon of the Board of Education, cleared up many points in a most lucid manner, and was cordially thanked by the President for attending the meeting.

Dr. Garrow briefly replied, and was thanked for opening a most interesting discussion.

THE SECRETARY OF STATE FOR SCOTLAND has appointed Professor D. P. D. Wilkie, O.B.E., F.R.C.S., M.D., Professor of Surgery at Edinburgh University, to be a member of the Scientific Advisory Committee on Medical Administration and Investigation. This Committee was constituted last year to advise the Department of Health for Scotland in applying the results of scientific research to the details of public health administration and in promoting medical investigations in the sphere of the Department and the Scottish Local authorities.

"NURSING HOMES AND THEIR MANAGEMENT" is the title of a little book by Miss M. M. Winstanley, based on her experience as matron of a nursing home in the West End of London for a period of ten years. To those in need of guidance with regard to the registration and management of nursing establishments, the information it contains will prove exceedingly useful. The book is published by Messrs. Faber and Faber, Ltd., London, at sixpence net.

The Literature of Preventive Medicine.

THE PRINCIPLES OF EPIDEMIOLOGY AND THE PROCESS OF INFECTION. By C. O. STALLYBRASS, M.D. (State Medicine), D.P.H., Chief Assistant Medical Officer of Health, City and Port of Liverpool; Lecturer on Public Health Administration, University of Liverpool; Lecturer on Vital Statistics and Epidemiology, Liverpool School of Tropical Medicine; President, North-Western Branch, Society of Medical Officers of Health; Neech Prize-man, 1922-23. London: George Routledge & Son, Ltd., 1931. pp. 696. Price 30s. net.

Dr. Stallybrass, widely known as one of the most industrious of the more literary inclined members of the service, presents in this volume a wonderfully comprehensive survey of every aspect of epidemiology, which he defines as "the science of infective diseases—their prime causes, propagation and prevention." In discussing the development of the idea of contagion, he traces the history of thought on this fundamental aspect of epidemiology from the earliest times down to the most modern discoveries relating to modes of transmission of disease.

The specificity of infectious disease, which he claims as the first principle of epidemiology, is one that could, with advantage, be carried further than he pursues it, since though he is content to define such diseases as tuberculosis and typhoid fever as specific entities, he does not discuss the bearing of the principle he enunciates on the sub-division in recent years of certain infectious diseases into groups of specific entities.

The second principle laid down declares the three primary factors in the spread of disease to be the seed, the sower and the soil. In this connection the author submits an excellent dissertation on statistical methods, followed by an exhaustive study of the infective agent, its toxins, antitoxins, mutations, variations, etc., the whole constituting a veritable text-book of immunology. Equally informative are the chapters dealing with sources and modes of infection.

Theoretical considerations are discussed under dispersability, the epidemic wave, experimental epidemiology, genesis of epidemics, periodicity, seasonal intrinsic and secular variations, aggradation and degradation.

The principles of prophylaxis of epidemic diseases receive full attention also, and as a further aid to readers there is provided an exhaustive bibliography and a good index.

It is doubtful if there is in English another single volume dealing with so many aspects of epidemiology as this, and Dr. Stallybrass is deserving of congratulation on having produced a book which is certain to be found of value for reference by all interested and concerned in any of the multitude of subjects the author discusses so fully and knowledgeably.

WAR AGAINST SLUMS. VOLUNTARY HOUSING SOCIETIES IN THE FRONT LINE. By T. SPEAKE, F.S.I.A., Chief Sanitary Inspector, Shrewsbury. Shrewsbury: Adnitt & Naunton, Ltd., 1930. pp. 156, illustrated. Price 2s.

A proposal for a great national crusade on voluntary lines, to abolish slums and provide houses for the poorest people was made by Mr. Speake at the Conference of Sanitary Inspectors held at Whitley Bay in 1924. Bodies composed of officials do not, as a rule, provide "crusaders"; therefore Mr. Speake turned to the leaders of the churches with the result that at least sixty public utility societies or similar bodies have been formed throughout the country to undertake the repair and re-construction of insanitary properties. Mr. Neville Chamberlain early recognised the possibilities of such a scheme, and incorporated in the 1925 Housing Act, provisions giving powers to local authorities to co-operate with and assist such societies. Section 29 of the Housing Act of 1930 marks a further step towards securing such co-operation, and contemplates grants being made to those societies which undertake to provide new houses. Mr. Speake gives a summary of this Act, and in the last section of his book includes full particulars of most of the existing societies, from which valuable information as to the methods adopted, and useful hints on publicity and propaganda work, may be gained. Cambridge, Chelsea and Shrewsbury are good examples of the benefits which can be achieved by close co-operation between the local authority and the voluntary society. Nearly everywhere the supervision of houses re-conditioned or newly built is on the Octavia Hill principle.

In the Annual Reports.

BOTTLING OF MILK.—Article 31 of the Milk and Dairies Order, 1926, requires milk bottles to be filled and closed on registered premises; and makes it illegal for any person to 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 customer. During the year two offenders against this article were prosecuted. Proceedings were taken and fines and costs were imposed. It was pointed out that it is not sufficient evidence for the sampling officer merely to see milk bottles filled in the street, but that he must in addition keep the milkman under observation until he sees the roundsman actually deliver the bottle. The council drew the attention of the Ministry to the need for such an amendment to be made to the Milk and Dairies Order as shall make it an offence simply to fill a bottle of milk in the street, since in the case referred to the milkman proceeded out of the borough retaining on his barrow the milk bottles that had been filled in the street, and presumably delivered them in another district.—*Dr. Frank E. Scrase, Hampstead.*

MEDICAL OFFICERS OF HEALTH AND PROBLEMS OF NUTRITION.—There is little doubt that medical officers of health could contribute a great deal to the elucidation of many nutritional problems by careful systematic study of and inquiry into the dietetic habits of the people in their area, endeavouring to ascertain in what respects, if any, these are faulty. Those engaged in the ante-natal aspects of maternity and child welfare work and school medical inspection have unusual opportunities for observations of this kind. The whole vast field of malnutrition and its relation to impaired health or physical incapacity is a much neglected yet fertile field of study. Deficiency diseases and rickets, in their grosser manifestations are now fortunately comparatively rare conditions in this country, but there is evidence to show that minor deficiency of the factors which are important in such diseases as rickets may have effects of a less obvious character, possibly including impairment of intelligence. It would be interesting to inquire whether any correlation can be established between mental backwardness and improper diet. Whatever facts emerge, some such investigation is an essential preliminary to any local educational campaign in this field, for it is only by grafting on to existing practice such modifications as are necessary that improvement can be hoped for.—*Sir George Newman, Chief Medical Officer, Ministry of Health.*

THE VALUE OF THE SCHOOL MEDICAL SERVICE.—The value of the school medical service is not now a matter for argument; it has, I venture to believe, established this fully. The health of a child is, perhaps, a more important consideration than scholastic ability, and, at this time of life, health teaching, precept and practice, will have a lasting effect, shown in a higher standard of life and a greater regard for the principles of everyday personal and communal hygiene. The systematic teaching of hygiene as an integral part of the curriculum in schools, has not yet been attained, and I suggest that, with the extended period of school life, a prominent place might be given to this subject during the last year of atten-

dance at school. Without desiring, in the smallest degree, to minimise the great beneficial influence the teachers exert, I consider a more lasting impression would be made on the adolescent mind if the subject could be dealt with by medical men and women. A modified course in hygiene, theoretical and practical, personal and communal, on the lines of the courses now given by certain well-known voluntary organisations, during the last year of school life, would, I believe, yield results of practical value both to the community as a whole, and to the individual family. There is still a surprising lack of knowledge on matters of everyday practical hygiene.—*Dr. Oscar M. Holden, Croydon.*

THE death is recorded, with great regret, of Dr. Charles J. Hastings, for many years Medical Officer of Health for Toronto, and a senior Fellow of the Society of Medical Officers of Health. Dr. Hastings was held in high esteem as a health administrator both in Canada and the United States, and he took an active part in the work of the American Public Health Association.

THE BRITISH MOSQUITO CONTROL INSTITUTE, Hayling Island, Hampshire, records substantial progress during the year 1930 in the advisory, research and educational work on which the institution is engaged. Disappointment is expressed, however, at the meagre support given to the short instructional courses in mosquito control work initiated chiefly for men and women without medical or entomological training who are desirous of acquiring an elementary knowledge of the theoretical and practical aspects of the subject. It is hoped that better results will follow when the facilities become more widely known. Information with regard to the Institute and its activities may be obtained from the Director, Mr. J. F. Marshall, M.A., F.L.S., F.E.S.

THE LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE, Keppel Street, W.C.1, has recently set up an experimental room for the purpose of reproducing by means of an air-conditioning plant, very varied climatic conditions and any temperature, humidity or air movement which may be met with in factories or mines. Experimental subjects rest or work under the conditions to be investigated, and by observation of the pulse, body temperature, skin temperature, loss of weight due to sweating, and expenditure of energy by measuring the air breathed and oxygen used, it is possible to study the effect of such air conditions on the human body, and determine what are good or bad conditions for the particular type of work involved.

Correspondence.

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

DENTAL PROPAGANDA.

To the Editor of PUBLIC HEALTH.

SIR,—The Dental Board, in connection with the educational work they are carrying out, have addressed the accompanying letter to health and education authorities. The information may prove of interest to your readers, who can obtain further particulars by applying to the Board.

I am, Yours faithfully,
HUGH S. BOMPAS.

*Secretary for Education,
Dental Board of the United Kingdom.
44, Hallam Street,
London, W.1.
March 11th, 1931.*

*Communication addressed to Local
Authorities by the Secretary for Education:—*

The Dental Board of the United Kingdom have recently made arrangements to provide the services of trained demonstrators in order that fuller use may be made of the portable dental exhibit. They are now prepared to place the services of a demonstrator, together with the exhibit, at the disposal of any health or education authority or other organisation concerned with health work, and to bear all expenditure in connection with this activity except such as is purely local, *e.g.*, the transport of the exhibit from one centre to another, hire of halls, etc.

The exhibit, as is well known, consists of a series of models showing the development and eruption of the teeth, their structure, and the diseases to which they are liable. The whole constitutes an excellent object lesson, and when accompanied and explained by a lady demonstrator who has been specially trained for the purpose, should prove a most interesting and valuable method of instruction in dental health.

The exhibit can be readily set up, taken down, and moved from one centre to another. In any one district it could be used for the purpose of giving a series of short talks and demonstrations in succession to the children in several schools, or at meetings of societies

arranged in halls or other suitable centres.

I am accordingly directed to invite you, should you think that this service would be of value to the work of your authority, to make application for it to the Dental Board. You will realise that at this early (and somewhat experimental) stage it is not possible to provide in advance for a very wide demand, but the Board are prepared to increase the number both of their exhibits and of their demonstrators should it become necessary. In the meantime they would be glad to know if you desire to take advantage of this offer, and if so, for how long a period: they anticipate that the duration of a visit might vary from one day to one week or possibly longer in special circumstances. You may wish at the same time to indicate an approximate date, but for the reason stated above it would be well to allow of some latitude in this respect.

THE Royal Sanitary Institute announce the holding of the following sessional meetings:—(1) At Poole, Dorset, on April 17th and 18th, 1931: subjects for discussion—"Some Aspects of Municipal Sanitation" (E. J. Goodacre, A.M.INST.C.E.); "Prospect and Retrospect" (Alderman J. C. Julyan, J.P., C.C.); and "Diphtheria Immunisation at Work" (George Chesney, M.B., B.CH., D.P.H., Assistant Medical Officer of Health). Chairman: Edward Willis, M.INST.C.E., F.S.I., M.INST.T. (2) At Batley, Yorks., on May 1st and 2nd, 1931: subjects for discussion—"Housing, with Special Reference to the Housing Act, 1930, from the aspect of (i) the town councillor (Hamilton Crothers, J.P., and H. S. Houldsworth, D.Sc.), (ii) the medical officer of health (Thomas Gibson, M.D., D.P.H.) and (iii) the sanitary inspector (Harold Hornby); and "The Practical Value of Meat Inspection" (Major D. S. Rabagliati, O.B.E., F.R.C.V.S.). Chairman: Professor W. W. Jameson, M.A., M.D., D.P.H., London School of Hygiene and Tropical Medicine. Visits to buildings and works of public health interest have been arranged in connection with each meeting. Full particulars of the programmes may be obtained of the Secretary of the Institute, 90, Buckingham Palace Road, London, S.W.1.

PUBLIC HEALTH

THE JOURNAL OF
THE SOCIETY OF MEDICAL OFFICERS OF HEALTH.

No. 8. Vol. XLIV. MAY, 1931.

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

Application should be made to the Executive Secretary of the Society, at 1, Upper Montague Street, Russell Square, London, W.C.1.

Subscription price 31s. 6d. per annum, post free in advance. Single Copies, 2s. 6d. post free.

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Editorial.

Presidential Presentations and Representations.

TO many who have allowed their eyes to rest now and then upon the row of portraits of Presidents with which the walls of the Society's house are hung, at least two thoughts must have occurred. One, that such pictures as there are could not possibly be worse displayed; and the second, that, attractive, interesting and inspiring as are those that are shown, there are absent from the group several that it would be to the credit of the Society to have displayed. Amongst Past-presidents of whom there has been no pictorial record is one whose omission it is impossible to mention without shame: Sir John Simon, to wit. How it comes that all the effort necessary to secure some sort of portrait of the very first President

has not been made by the Society it would be impossible to explain to any person with any sentiment at all. Equally it would be impossible to make clear how it comes that it has not occurred to somebody within the fellowship to suggest that perhaps the Branches to which Presidents not represented in the portrait line belonged might care to accept responsibility for repairing the omission. Largely, no doubt, it is because the time that the members can spare from their duties for the Society is very limited, and those even who are really interested in it are too much concerned in the progress of its work, the present and the future, to be able to devote much thought to its past history and its traditions. Or perhaps it is the case with the Presidents of the Society, as it is with Mayors when they leave the chair, that there is nothing

more dead. Fortunately, though the views of the majority with regard to Presidents of the past may be these, there is here and there one who thinks it wrong that there should be such forgetfulness. Of such is the President of this session, who, at the ordinary meeting of April, showed not only that he had felt the shame of the neglect to honour Sir John Simon and others of the Presidents of the past, but had tried to do something in the direction of making good the omissions. Chancing the occasion of this meeting, he made presentation to the Society of two portraits; one of Sir John Simon, and the other of Dr. Wynter Blyth, both of them men who, in addition to laying and strengthening the foundations upon which public health and preventive medicine rest to-day, made also the public health service and ensured much of the vigour that it now shows by establishing the fellowship to which the members of the service belong. It was a remarkably kind idea, this of Professor Harold Kerr, to search for and present these pictures, and it was good that in presenting them he offered inspiration by telling something of the work done by each of the men represented. To most of the members of the Society, even the most recent additions to the more clinical groups, something of Sir John Simon is known, their teachers having found it impossible to avoid making reference to him and his work. Of Dr. Wynter Blyth generally perhaps less is known, and especially that, in addition to holding the high office of President, he helped to establish PUBLIC HEALTH, the official organ of the Society, and was, in fact, the first editor. On the occasion of the presentation gratitude was expressed to the President for his gifts, and opportunity was taken to offer a welcome to him on his return to his place amongst his fellows and to express great gratification at his recovery from the illness that had deprived him of the pleasure of enjoying for so large a part of the session the honour it had given the Society so much pleasure to confer upon him. In the sentiments expressed at the meeting all the members of the Society share, and it is to assure the President, if he needs assurance, that it is so, this note is written.

Diet and the Teeth.

A FURTHER notable and outstanding contribution recently published is the second part of the well-known studies conducted by Mrs. Mellanby on the relations between diet and the teeth. The first report

published last year and reviewed in these columns* gave some most important results, chief among which were the conclusions that the structure of the hard dental tissues in dogs is subject to dietetic influences, and that perfect structure can only be ensured by an adequate amount of vitamin D (or, under certain conditions, by irradiation of the animal). A minimum of calcium and phosphorus has to be included in the diet, but any excess above the minimum is not important; further, it was shown that there is a factor chiefly associated with cereals which hinders calcification.

The present report† continues to open up the darkness of ignorance in a highly interesting way. It is shown that the structure of the periodontal tissue is subject to definite influences in the diet. A deficiency of vitamin A leads to hyperplasia of the subgingival epithelium and to its subsequent invasion by pathogenic organisms; the deficiency of vitamin D results in deficiency of the alveolar bone. A significant fact is the relative importance of diet in the early period of life when development is taking place. If a puppy's diet has been deficient in vitamins A and D during the early months of life, periodontal disease is liable to develop later, whatever the subsequent diet; but a perfect diet in the early stage prevents or greatly inhibits the production of periodontal disease, even if the subsequent diet is deficient in those vitamins.

Although attempts to develop a method of inducing dental caries in dogs have for the most part not been successful, yet some definite facts are presented. Only two out of 28 experimental dogs have shown carious teeth, and then only in those teeth with cavities in the enamel. The presence in the food of *streptococcus mutans* and *b. acidophilus* (said to be responsible for human dental caries) does not under experimental conditions induce caries, whether the diet has high or low

* DIET AND THE TEETH: AN EXPERIMENTAL STUDY. Part I. Dental Structure in Dogs. By MAY MELLANBY. Medical Research Council Special Report Series, No. 140. H.M. Stationery Office, 1929. pp. 308 and 109 plates. Price 17s. 6d. net. PUBLIC HEALTH, March, 1930, p. 163.

† DIET AND THE TEETH: AN EXPERIMENTAL STUDY. Part II. A.—Diet and Dental Disease. B.—Diet and Dental Structure in Mammals other than the Dog. By MAY MELLANBY. Medical Research Council Special Report Series, No. 153. pp. 93 and 28 plates. Price 2s. 6d. net.

calcifying properties, or whether there is a large amount of a fermentable sugar like glucose. More promising results have been obtained in rabbits, and although the conditions have not yet been fully worked out, there seems less tendency for invasion when there is abundance of fat-soluble vitamins in the diet.

The reaction of teeth to attrition shows renewed activities of the osteoblasts of the pulp and the production of secondary dentine. The intensity of this response depends on the diet during the period of attrition: with abundant vitamin D much well-calcified dentine is produced, indicating increased resistance of the fully erupted tooth, while lack of vitamin D or excess of cereals results in poor calcification.

The dietetic factors controlling the structure of rabbits' teeth are in general the same as those in the case of the dog; and similar control by vitamin D occurs in the rat, although in the absence of sufficient vitamin, calcification in rats is more influenced by alteration in the calcium and phosphorus of the diet than is the calcification of dogs' teeth. And in view of the difference in type of the teeth of dogs, rabbits and rats, it is suggested by these results that the tooth structure of mammalia is controlled by the dietetic and environmental factors which Mrs. Mellanby has ably elucidated.

The final link, the relation of the work to man, yet remains; and the third report of the series will be awaited with unusual interest, for it is probable that valuable findings will be presented. Meanwhile the workers in preventive medicine will join with the rest of the scientific world in unstinted admiration of Mrs. Mellanby's patient, painstaking and excellent research.

* * * * *

The Health of Ceylon.

“What do they know of England
Who only England know?”

In perusing the administration report of the director of medical and sanitary services of Ceylon for 1929, these lines will at once come to mind.

Most of the readers of PUBLIC HEALTH are well acquainted with the substance and form of the health reports of the chief cities and counties in this country, and many know how divergent is the sanitary procedure in different parts of the Empire and how important this is to the health and well-being of the different races.

The report of Dr. J. F. E. Bridger for the year 1929 deals not only with the sanitary circumstances of Ceylon, but with the administration of hospitals and the general curative work undertaken in the island. It also gives particulars of the administration of prisons and asylums, and deals fully with the chemical and bacteriological work in the government laboratories and that of the general hospital.

In Great Britain and most European countries, the work is to a large extent standardised as a result of half-a-century's experience, but in the colonies experience is less and, as a result, in many respects the work is more tentative. While this country is particularly unaffected by outbreaks of insect-borne disease, in Ceylon the great trouble is malaria, and a considerable portion of the report is devoted to the work done in dealing with this tropical scourge. In Colombo alone in 1929, 3,268 cases were admitted to the general hospital, 154 of these proving fatal. Cholera was responsible for 28 cases and 23 deaths, giving a fatality-rate of 82.1. Eighty cases of plague occurred, of which 40 were in Colombo.

Probably the greatest scourge of all, however, is hook-worm disease. No less than 178,000 cases were treated in dispensaries, and 12,129 in hospitals; while the total number of deaths registered for the island was 2,172. The total of deaths in the last five years has not diminished, though it would appear that in certain districts the ankylostomiasis campaign is beginning to show results, as it is reported that the wards in hospitals in these districts are now almost empty. When it is considered that the bulk of the Asiatic population goes about barefoot, and that latrines, except in Colombo and some of the towns, are, if existent, but sparsely used, it is not surprising that it is difficult to reduce the incidence of this disease.

The report shows that, with an estimated population of 4,750,000, the birth-rate was 36.8 per 1,000, the death-rate 24.9, and the infant mortality rate 183 per 1,000 births.

School hygiene receives some attention, particularly in Colombo. Dr. Bridger says: “It is rightly admitted that the foundation of all public health activities should be laid in the schools, which are the most suitable nuclei for disseminating modern ideas of sanitation.” The report clearly shows that the school service is under-staffed, Dr. Bridger stating that there was only one nurse working in the Colombo area up to February 1st, 1929, and

consequently results were only partly successful. Dental caries is shown to be the most common ailment of the school-child, and next in importance comes hook-worm disease. School clinics were maintained for the Colombo schools in the eye hospital, the dental institute and the anti-tuberculosis institute.

The report is well illustrated with charts and plans, and deals with a great variety of matters, but from the view of public health as appreciated in this country, sanitary efforts do not, relatively to curative work, appear to hold the position which the public have the right to demand. Congratulations are, however, offered to Dr. Bridger on the excellent record he shows as the result of his administration, and, fully appreciating the difficulties in dealing with sanitary matters in tropical colonies, no surprise will be expressed that the progress shown is not more marked.

* * * * *

Still-Birth and Neo-Natal Death in India.

UNDER this title, the Countess of Dufferin's Fund Council has published a report* of an interesting piece of research carried out, under the auspices of the Lady Irwin Research Fund, as part of the wider investigation into maternal and infantile mortality in India, which is now in progress. Dr. Christine Thomson, a member of the Durham County Council medical staff, who was released from her duties for the purpose of this research, began her enquiries in 1929 at the Gaffikin Institute, Bombay, whence they were extended to Madras, Calcutta and Delhi, taking fourteen months to complete.

The report falls mainly into two parts. The first and larger part deals with a series of 200 cases of neo-natal death or still-birth in which the body was subjected to a full pathological examination, and an inquiry made into all the circumstances—social, economic and medical—relating to the case. The various factors involved—contracted pelvis, syphilis, anæmia, placental disease, etc.—are considered in separate chapters, their effects summarised, and the findings compared with those of other workers.

The second part of the report deals with the information obtained from replies to a questionnaire issued to all the women's hospitals administered through the Fund, and to a

* London: H. K. Lewis & Co., Ltd., 1931. pp. 165. Price 1s. 6d. net.

number of government and missionary hospitals throughout the whole of India. Specific information was asked for in regard to all still-births and neo-natal deaths occurring in the hospitals during 1929, and 3,517 cases were reported upon. The figures so obtained are compared with the results of the 200 post-mortem examinations and with those published elsewhere. A full appendix gives details of individual districts and cases.

The difficulties in the way of obtaining exact and comparable data for an enquiry of this kind in India can be easily imagined, and Dr. Thomson herself points out that the findings of her report are to be taken as suggestions for further work along particular lines rather than as scientific deductions. This, however, will not lessen the interest of this enquiry to readers who know the dire effect of still-birth and neo-natal death on the infantile mortality rates of all countries, the ignorance that exists as to its causes, and the failure that has so far met all attempts to cope with it.

Complications of labour accounted for 19.5 per cent. of the deaths in the post-mortem series of cases. This is lower than the average for Great Britain, but the evidence of the questionnaire yielded percentages of 30 in Madras, and of 50 to 60 in the Northern cities where osteomalacia comes into play. Ante-partum hæmorrhage occurred in connection with 13.5 per cent. of the post-mortem cases, and for the whole of India appeared to be rather less prevalent than in this country. When present, it tended, as here, to prematurity, still-birth or neo-natal death. In connection with the toxæmias of pregnancy, which caused death in 15.5 per cent. of the post-mortem cases, and for all India seemed of the same prevalence as in Great Britain, certain differences were found according to season, geographical distribution, and community. It appeared that eclampsia was ten times commoner in Calcutta than in Bombay, and that Mohammedan mothers suffered from it more than Hindu mothers, the latter difference once more raising the question of meat and vegetarian diet in relation to its causation. Syphilis has been supposed to be very common in India, but this enquiry suggests some exaggeration in these fears, the percentage of definitely syphilitic foetuses being 14.5, with another possible four per cent. Anæmia of pregnancy has also been said to cause much foetal death in India,

but it accounted for the death of the baby in only two per cent. of the post-mortem cases, and, although an important cause of maternal death in the general cases, did not appear to influence the foetus to the extent expected from other observations. It is pointed out, however, that this form of anæmia is more common among the better classes, and that these scarcely came under review in the enquiry. Tropical diseases generally, in the mother, caused death in 10.5 per cent. of the foetuses examined. Disease of the placenta caused death in 5.5 per cent. of the cases, and in all led to prematurity. Prematurity itself seemed to rank higher in India as a cause of neo-natal death than in this country.

As a result of her work Dr. Thomson makes certain recommendations, among them the following:—

1.—Better teaching in the schools and colleges of India as to the causes of still-birth and neo-natal death, and better medical staffing and equipment for the maternity hospitals in order that neo-natal conditions can be dealt with more efficiently.

2.—Research into, among other things, the relation between poverty and malnutrition and the condition of the Indian child at birth; the relation of tropical diseases to neo-natal death; the geographical distribution of eclampsia with a view to obtaining more knowledge of its causation; and syphilis in regard to its true incidence.

It is to be hoped that these recommendations may be followed up and lead to further information on the various points raised in this valuable report.

* * * * *

Medical Research in the Far East.

UP to two or three decades ago, very few people in this country had heard of Kuala Lumpur, yet at the present time it is a fine city of 100,000 inhabitants with magnificent government buildings, clubs and sports-grounds, and the headquarters of the Government of the Federated Malay States. To readers of PUBLIC HEALTH it is perhaps even more interesting to know that it possesses an Institute for Medical Research, well-planned and equipped with a distinguished and energetic staff. The annual report for 1929 is just to hand, and is a most interesting document. The Institute is under the direction of Dr. Neave Kingsbury, well known for his work in connection with rabies, and the Institute comprises divisions devoted to bacterio-

logy, chemistry, entomology, pathology, malaria research, etc. It is obvious that the bulk of the work carried on is in relation to tropical disease, and among the subjects to which special attention was given during the year were tropical typhus, malaria, including mosquito investigations, and leprosy. It would be impossible here to deal at length with the scientific findings, but suffice it to say they are well laid out and elucidate many important facts.

In addition to the work of research, the Institute is the headquarters of departments dealing with food-adulteration, water and sewage analysis, biochemical work and medico-legal investigations, while tables of temperature and humidity also find a place in the report.

Vaccine lymph is prepared, and it is interesting to note that the methods employed in the Dutch Indies have been adopted and seed lymph was kindly supplied by Dr. Otter.

Buffalo lymph is employed for human vaccination, buffaloes being inoculated with calf lymph, which, when necessary, is rejuvenated by passage through rabbits.

It is recorded too, that 20,513 fluid ounces of liquid extract of rice polishings were prepared during the year, this being a sufficient supply to meet the demands of the Federated Malay States.

The report also contains a wealth of information on other public health matters, and Dr. Kingsbury and his staff are entitled fully to receive the congratulations of their colleagues at home, and the thanks of the very mixed population for whom they labour.

* * * * *

Public Health in Tanganyika.

LESS than fifty years ago so little was known of the interior of Africa that it was spoken of as the Dark Continent. Speke, Grant, Livingstone, and other explorers had given us glimpses of its vastness, its rivers, lakes, forests and swamps, its numerous tribes generally at war with one another when not decimated or weakened by disease or by the ravages of slave raiders. In old atlases we find that—

“Geographers on Afric's maps
Placed elephants to fill up gaps.”

In comparison with these, the map of Tanganyika Territory which accompanies the

Annual Report* (the tenth) of Dr. J. O. Shircore, the Director of Medical and Sanitary Services, for the year 1929, is most illuminating and instructive. As described before in dealing with previous reports in these columns, it is an immense territory, covered to a large extent by forest, difficult of access, yet the map is liberally sprinkled, not with elephants, but with red dots, squares and other devices indicating the disposition of the various medical units which have been organised. These include fully-staffed European and native hospitals; health offices with medical officers, dentists, bacteriologists, chemists, etc.; maternity and child welfare clinics in charge of European health visitors; native hospitals in charge of medical officers, or of sub-assistant surgeons, or of Indian compounders or of only an African medical assistant; tuberculosis hospitals, African district sanitary inspectors' stations, and tribal dispensaries. These last, 330 in number under the charge of native dressers, are the outposts of the service and are much appreciated by the natives. In previous notices reference has been made to the wonderful work which is being carried out in Africa, and nowhere with more success than in Tanganyika. It is not proposed, therefore, to touch upon the numerous details which are given in this report. Particular attention may, however, be drawn to the use which is made of natives both as sanitary inspectors, as dispensers and as tribal dressers. It was thought at one time, and indeed it is still the opinion in parts of Africa, that the native had not the mental capacity to benefit by education. In this territory that idea has been shown to be wrong. There are 218 African sanitary inspectors, all of whom are trained vaccinators. They have a preliminary training and are required to pass examinations to entitle them to promotion. Refresher courses are to be provided for those who have not recently been under constant European supervision. There are 81 native dispensers and these have received thorough tuition in the technique of intravenous and intramuscular injection for the treatment of yaws, syphilis, bilharzia and sleeping sickness. The Government dental surgeon writes that oral sepsis in all its forms is extremely prevalent amongst the native population, and urges that a staff of two dental

* TANGANYIKA TERRITORY.—Annual Medical and Sanitary Report for the year ending December 31st, 1929. London: The Crown Agents for the Colonies, 4, Millbank, S.W.1. 1930. pp. 252; illustrated. Price 5s.

surgeons is quite inadequate to render efficient service. Doubtless, development of this branch of preventive work will come in time.

THE Women Public Health Officers' Association, following the successfully organised educational tour in Germany last year, has arranged a similar tour in Holland from May 22nd to June 7th, 1931, for members of the Association who wish to see the work and institutions in connection with maternity and child welfare, etc., in that country.

DR. CHARLES PORTER, Medical Officer of Health, Metropolitan Borough of St. Marylebone, who has been closely associated with the activities of the Royal Sanitary Institute for many years, has been elected Chairman of its Council, in succession to Mr. Edward Willis, M.INST.C.E., Chief Engineer, Brentford and Chiswick Urban District Council.

AN important series of five lectures—the first under the terms of the Heath Clark Bequest to the University of London—is announced to be given in the London School of Hygiene and Tropical Medicine, Keppel Street, Gower Street, W.C.1, by Sir George Newman, Chief Medical Officer of the Ministry of Health and the Board of Education, who has taken as his subject "The Rise of Preventive Medicine." The lectures will be delivered on May 4th, 5th, 6th, 7th and 8th, 1931, at 5 p.m. The chair at the first lecture will be taken by the Rt. Hon. Arthur Greenwood, M.P., Minister of Health.

CHADWICK Public Lectures will be delivered by Professor E. L. Collis, D.M., M.R.C.P., (Welsh National School of Medicine) on "The Coal-Miner: His Health and Occupational Diseases," at the Institute of Mechanical Engineers, Storey's Gate, Westminster, London, S.W.1, on Friday and Monday, May 15th and 18th, 1931, at 8 p.m. "Environment of Work" will be taken as the subject on the first evening, and "Welfare—The Fund" at the second meeting. Sir George W. Humphreys, K.B.E., M.INST.C.E. (Chadwick Trustee) will occupy the chair. Admission to the lectures is free, and no tickets are required. Further particulars of Chadwick Public Lectures may be obtained of the Secretary, Mrs. Aubrey Richardson, O.B.E., at the Offices of the Trust, 204, Abbey House, Westminster, S.W.1.

Bacillary Dysentery in Great Britain.

By J. A. CHARLES, M.D., M.R.C.P., D.P.H., Deputy Medical Officer of Health, Newcastle-upon-Tyne; and S. H. WARREN, M.R.C.S., L.R.C.P., D.P.H., Director, Public Health Laboratory, University of Durham College of Medicine.

One of the points of serious importance brought out by the readers of these two papers at the ordinary meeting held in London on February 20th, 1931, is that there appear to be certain areas in this country in which dysentery is practically endemic, and that it is unsafe to continue to regard the disease as an "exotic." For this and other reasons, what the authors have to say is worth reading and deserves consideration.

DR. CHARLES.

UNDER a variety of names, either as shunt, lask, or the bloody flux, dysentery has for long been a factor in the mortality of these islands, and has maintained its reputation as a camp follower of war, and a bedfellow of famine.

Probably the earliest indication of the disease is its occurrence amongst Henry II's troops in Ireland in 1172. Later, Edward I, returning from Scotland, died at Burgh-on-Sands on the Solway, in 1307, and the manner of his passing does not seem to have excited the interest of the chroniclers. "*Rex vexari coepit dissenteria et desperabat de vita diuturna*," writes Walsingham, the historian, and finishes the tale in a few short phrases. The king was a soldier and, as such, subject to the death and diseases of his trade. That he should die of dysentery was an event hardly worthy of description.

There are other notable incidents of historical importance—Henry V's campaign on the Somme in the autumn of 1415; the infection in the fleet after the rout of the Spanish Armada; the passing of Drake and Hawkins—but most of them concern the deaths of famous men, soldiers and sailors for the greater part, whose activities almost predestined them for infection. Their histories are hardly a reflection of the condition of the English countryside. Nevertheless, dysentery was present there. Two of the St. Albans' chroniclers refer to the ravages of the disease in their abbey town in 1294 and 1315. In the great Scots famine of 1439, the "wame-ill" was a predominant feature. One can read in the parish register of Finchley for 1596, "*Hoc anno moriebantur de dysenteria XIX*."

From the time of the Stuarts, references are more frequent, and it is possible to trace the outbreaks with greater precision. In the weekly bills of mortality for London, dysentery appeared "unambiguously designated" as the "bloody flux," and its variations can be followed from

the year 1629, when it accounted for some 449 deaths, or approximately one-twentieth of the total mortality, until 1690, when only twenty are reported to have died of the disease.

Willis and Sydenham, however, saw sufficient of the disorder to put on record its distinguishing features, and the latter assigned to it a place in his "epidemic constitutions."

Passing over the ill-fated expedition to Dundalk in 1689, where dysentery and typhus killed off 6,000 of the 14,000 troops present, the "bloody flux" is next found in South Wales (1697) not only on the coast, but in the valleys, "creating such havock that in not a few houses there were hardly one or two left to bury the dead."

Throughout the eighteenth century there were frequently recurring epidemics of dysentery, and amongst other places which suffered severely were Edinburgh, Glasgow, London, York, Plymouth and Newcastle. The visitation to the last-named city in 1758-1759 has always been a matter of interest to us. Following upon it, Andrew Wilson, a practising physician of the city and a Fellow of the Royal College of Physicians of Edinburgh, wrote his "Essay on the Autumnal Dysentery," which contains some masterly descriptions of the disease.

Dysentery came again to Newcastle during the period 1779-1785, and its return coincided with the early years of one of the great charities of the city, the Newcastle Dispensary. The first report of this institution gives a tabular list of diseases treated, and among those recorded are forty-four cases of dysentery.

With the coming of the nineteenth century there is no immediate change in the procession of dysentery outbreaks across the historical stage. The infection occurred not only in the towns, but began to make its presence known in asylums and prisons, and Millbank Penitentiary was twice visited by large outbreaks, in 1823 and 1846 respectively.

But on the whole it may be said that the disease was apparently, if not actually, less prevalent among the general population, and this is borne out by the fact that from 1837-1846 (the first ten-year period covered by the registration of deaths) there was an average of 100 deaths annually in London alone, where the cause assigned was dysentery, whereas by 1860 registrations under this title had practically disappeared. In part this may have been due to statistical differences in classification, or a progressive failure of the clinical consciousness of the existence of the disease. But, on the other hand, it is highly probable that this apparent diminution of the number of cases had some basis in fact, and that the disappearance of the dysentery from the annals of the people can be attributed to the amazing changes which took place in personal cleanliness and domestic sanitation about the middle of the nineteenth century. Nevertheless, the records of the Newcastle Dispensary show that it was still present, and in the four successive decennia from 1860 to the end of the century, 174, 51, 25 and 24 cases were tabulated in the annual reports of the charity.

After the discoveries of Shiga, Flexner and Kruse, between 1898 and 1900, attention was again focussed on the disease in this country. Foulerton, while working at the Middlesex Hospital in 1900, found agglutinins for the bacillus of Shiga in the blood of certain patients from a Hertfordshire village, who had been admitted to the hospital with a history of a recent typical attack of the disease. Much work was done in mental institutions on their epidemic diarrhoeas during the next few years, but it was not until 1909 that an actual dysentery organism of the Flexner-group was isolated by Marshall, a young Royal Army Medical Corps lieutenant, from a fatal non-institutional case of the disease. Further confirmation of the presence of dysentery in the community was forthcoming in the model investigation of Bainbridge and Dudfield in Paddington in 1911.

After the commencement of the Great War, and its extension to various eastern theatres, men began to be invalided from the services on account of dysentery. The presence of these convalescent cases in Britain was the cause of occasional scares and actual minor epidemics. In 1919 the disease in all its varieties was made notifiable, and in Table I are shown the notifications and deaths for England and Wales from 1919 to 1929.

During the past twelve years there have been

many outbreaks in England, Scotland and Wales. A number of these, together with the earlier recorded outbreaks, are detailed in Table II, from which can be gathered the widespread distribution of the foci—some the site of a few sporadic cases, others of actual fulminant epidemic manifestations, and lastly, certain areas which now seem to be practically endemic reservoirs of the disease.

TABLE I.
ENGLAND AND WALES.
1919-1929.

	Cases Notified.	Deaths Registered.		
		Dysentery.	Bacillary.	Amœbic.
1919	1,638	435	—	—
1920	1,169	254	—	—
1921	1,193	261	17	11
1922	757	216	21	10
1923	458	149	12	13
1924	356	130	13	8
1925	293	135	13	11
1926	486	142	11	14
1927	405	95	6	13
1928	651	155	37	13
1929	536	98	20	14

Nevertheless, despite these incidents, it is still the practice of the text-books of medicine to refer to dysentery as an infectious disease of "exotic" origin.

Much of the pioneer work in disputing this classification has been done by Dr. Nabarro of the Hospital for Sick Children, Great Ormond Street, who has repeatedly brought to notice the frequency of the disease in young children in this country.

During the last few years the work of the Scottish investigators (Smith, Kinloch and Fraser in Aberdeen, and Wiseman in Glasgow) has established the endemicity of dysentery, at any rate in their areas. In particular, we would draw attention to the labours of the Aberdeen observers, a record of whose experiences was recently published in the *Quarterly Journal of Medicine*.

The title of this paper is in many ways a misnomer. It may have led to the belief that an all-comprehensive survey of dysentery in Great Britain was to be attempted. Actually our intention is to invite your consideration of certain aspects of the disease—clinical, epidemiological, and bacteriological—which have been brought to our notice during the past three years in Newcastle. Mention has already been made of the earlier Novocastrian records of the disease as set out in the annals of the city's dis-

TABLE II.

Year.	Region.	Cases.	Recorder.	Reference.
1900	Hertfordshire ...	3	Foulerton	<i>B.M.J.</i> , 1906.
1906	Birmingham ...	1	Saundby and Hewetson	<i>B.M.J.</i> , 1906.
1909	Lambeth ...	1	Marshall	<i>R.A.M.C. Jl.</i> , 1909.
1911	Paddington ...	4	Bainbridge and Dudfield	<i>Jl. Hygiene</i> , 1911.
1915	Blackwell ...	1,000-1,700	Rees	<i>L.G.B. Report</i> , W.S. No. 108.
1916	Eastern Counties...	35	Buchanan	<i>Lancet</i> , 1918.
1919	Aberdeen ...	978	Kinloch	<i>Jl. Hygiene</i> , 1922.
1920	Warrington ...	5	Manson and Mitchell	<i>Lancet</i> , 1921.
1921	Southport ...	7	Fitzgerald	<i>Lancet</i> , 1921.
1921	Ogmore Vale ...	1,100	Wade	<i>Min. Rep.</i> No. 14.
1922	Lynton ...	18	Hancock and Bruce White	<i>Min. Rep.</i> No. 20.
1923	Liverpool ...	5	M.O.H.	<i>Ann. Rep.</i> , 1923.
1923	Aberdeen ...	4	Smith	<i>Jl. Hygiene</i> , 1924.
1923	South Shields ...	4	Savage and Bruce White	<i>M.R.C. Spec. Rep.</i> , No. 92.
1923	Bristol ...	4	do.	do.
1923	Preston ...	22	do.	do.
1925	Antrobus ...	1	Joseph and Manson	<i>B.M.J.</i> , 1927.
1925	Ayr ...	11	Wiseman	<i>Jl. Hygiene</i> , 1926.
1925-				
1928	Aberdeen ...	264	Smith and Fraser	<i>Quar. Jl. Med.</i> , 1930.
1926	St. Andrews ...	150	Fyfe	<i>Jl. Hygiene</i> , 1927.
1926	Warrington ...	1	Joseph and Manson	<i>B.M.J.</i> , 1927.
1928	Birmingham ...	6	M.O.H.	<i>Ann. Rep.</i> , 1928.
1928	Smethwick ...	5	Severn and Evans	<i>Lancet</i> , 1928.
1928	Gosforth ...	24	Mackenzie	Communicated.
1928-				
1930	Newcastle ...	280	Charles and Warren	Present Paper.
1929	Twickenham ...	57	Scott	Communicated.
1929	Glasgow ...	119	M.O.H.	<i>Ann. Rep.</i> , 1929.
1930	Worcester ...	20	Griffin	Communicated.
1930	Scunthorpe ...	10	Powell	<i>B.M.J.</i> , 1930.
1930	Crieff ...	1	Rintoul	<i>B.M.J.</i> , 1931.
1930	Enfield ...	11	Geffen	Communicated.
1931	Hexham ...	24	Messer	Communicated.

pensary. The gentle trickle of cases enumerated therein finally dried up in 1903, and from that time until the war years there is no record of the disease either in the reports of the dispensary or of the medical officer of health. From 1919 to 1928 cases were encountered at fairly regular intervals, but the maximum number notified in any one year was ten, and in two years there were none at all.

In March, 1928, commenced that series of events and investigations which have led us to regard dysentery as a normal feature of everyday life in Newcastle.

Three members of a household in the city fell ill with symptoms which suggested a food poisoning infection. Bacteriological examination showed that these cases were due to *B. dysenteriae* Flexner z. Within a month, two sudden deaths occurred in boys aged 8 and 9 respectively, and post-mortem and bacteriological examination proved that the cause of death in each case had been a dysenteric infection by a Flexner organism.

In consequence of these facts the medical practitioners of the city were circularised and requested to notify to the medical officer of health any cases where signs and symptoms suggestive of dysentery were present. In all, up to the present date, 570 cases have been notified,

and from this source, and through other channels of enquiry, information has been obtained of 280 proved cases of bacillary dysentery, of which 224 have been the subject of investigation in hospital.

These 280 cases occurred in 221 separate outbreaks, and there were eighteen deaths, equivalent to a case mortality of 6.4 per cent. No fewer than six types of dysentery bacillus have been implicated—four strains of the Flexner organism, the Sonne bacillus, and the recently discovered Newcastle bacillus of Clayton and Warren. It is not our purpose to give any detailed account of the clinical signs of these cases. Roughly, they fell into two main classes—acute and enterocolic. The characteristics of the former were those of a simple dysentery, often mild, occasionally severe, in which the classical signs of fever, tenesmus and blood and mucus in the diarrhoeic stools were hardly ever lacking. The temperature, which rarely ranged higher than 101° F., was generally normal by the fourth or fifth day of the disease; the tenesmus was particularly marked in adults, though children with a knack of describing their symptoms also gave evidence to its occurrence; the diarrhoea, well nigh continuous in the early stages (15 stools in one night was the record of one patient, presented the classical signs of blood and mucus

probably only during the second and third day, and then passed through the various stages of mucous, muco-purulent, pultaceous stools, until the formed motion was again passed about the eighth or ninth day. The complications were few, but various, and many of the classical sequelæ were encountered, though the eye complications, in particular, were all missing. Hæmorrhoids, broncho-pneumonia, myocardial weakness, nephritis, bilateral otitis media, cerebral thrombosis, toxic neuritis and polyarticular arthritis were all met with at one time or another.

Relapses, however, were very rare, only two patients being so affected, and in only one instance was there any evidence of a "return" case arising from a recovered patient after his discharge from hospital.

Among the 268 cases who could be grouped in this category, there were six deaths, a case mortality rate of 2·2 per cent.

Of the entero-colic type of the disease little need be said. It is the sudden, fulminant disease which brings death in its train so rapidly that the patient appears to have been the victim of a virulent poison. Over and over again the type of case referred to is made the occasion for large headlines in the newspapers, and then at the coroner's inquest bacteriological investigation shows that the patient has died of this fulminant dysentery, in which toxæmia rather than diarrhœa plays the major part. Headache and vomiting are generally present, and convulsions are not infrequent. The temperature may at first be as high as 102° or 103° F., but often drops abruptly to sub-normal. There is little pain, and only occasional diarrhœa with blood and mucus. None of these symptoms is common, and if present is of little moment in the presence of the profound toxæmia, coma, collapse and circulatory failure which develop so rapidly. It may be said quite truly that these cases are only seen when they are moribund, and what may be regarded as their distinguishing features are often only the prodromata of death. Of the twelve cases of this type of which we have record, every one died. No form of treatment, neither simple salines, glucose salines, nor intravenous serum has ever proved of the slightest benefit.

Diagnosis.—It will be redundant for us to refer to the elementary facts of diagnosis, and the distinction between the amœbic and bacillary diseases. Nor will we claim that definite differentiation on clinical grounds is possible between the varieties of the disease caused respectively

by the Flexner and Sonne organisms. On the whole we incline to the view that the Sonne bacillus begets a milder disease, less commonly associated in its diarrhœic phase with blood and mucus, and tending to cause a "green" diarrhœa rather than a "bloody" one. The tale of certain erroneous diagnoses which on further investigation have been shown to be cases of acute or fulminant dysentery may be of interest.

The diagnosis of food poisoning has been altered to bacillary dysentery in no fewer than eight patients; a so-called intussusception has been met with on three occasions: "hæmorrhoids," "paratyphoid fever" and "laryngeal diphtheria" (the last stertorous moribund children) have each been encountered twice, and "encephalitis lethargica," "Henoch's purpura," "ruptured duodenal ulcer" and "facial paralysis" once each.

Treatment may be dismissed in a word. Rest in bed, light diet, colon lavage with plain water, or a very dilute boric lotion, and the administration of sodium sulphate or Pulv. Hydrarg. c. Creta in appropriate doses have constituted our routine. Serum treatment by means of a mixture of Shiga-Flexner, and a specially prepared Sonne serum, has been used fairly extensively. It is particularly efficacious in adults in doses of from 60 ccs. upwards, and is peculiarly beneficial in alleviating the tenesmus, of which they complain bitterly.

Geographical Distribution.—The disease has been widespread throughout the city of Newcastle-upon-Tyne, manifesting itself in every one of its nineteen constituent wards. The 280 positive cases occurred not only singly, but also as multiple cases in hospital and domiciliary outbreaks. In three of the hospitals of the city there were five outbreaks of eight, seven, five, three and two cases respectively. Of the domiciliary groups, apart from single cases, there were twenty-seven—one of eight patients, six of three each, and twenty where two persons were affected. Further, amongst the 189 single cases there were thirty which gave histories of associated cases of diarrhœa in the same dwelling. In all, as has been already stated, there were 221 separate outbreaks.

The usual sequence of the disease in a household is interesting in that simultaneous onset in several members of the family is rare. Most commonly one child infects another, and lastly, the mother, who has been doing the nursing, falls ill herself.

The Age and Sex Distribution of the non-institutional cases, numbering 255, is given in

TABLE III.
NEWCASTLE-UPON-TYNE, 1928-1930.
AGE AND SEX INCIDENCE OF CASES (NON-INSTITUTIONAL).

	Under 1.	1-2.	2-5.	5-15.	15-25.	25-45.	45 & over.	Total.
Male	6 (1)	25	46 (2)	37 (7)	5	11	5	135 (10)
Female	5	26 (2)	32 (1)	35 (1)	3	13.	6 (1)	120 (5)
Total	11 (1)	51 (2)	78 (3)	72 (8)	8	24	11 (1)	255 (15)

The figures in parentheses indicate fatal cases.

TABLE IV.
BACILLARY DYSENTERY ATTACK RATE PER 10,000 OF NEWCASTLE POPULATION IN VARIOUS AGE-GROUPS
FOR PERIOD 1928-1930. (NON-INSTITUTIONAL CASES.)

	Under 1 Year.	1-2 Years.	2-5 Years.	5-15 Years.	15-25 Years.	25-45 Years.	45 Years and over.	Total.
Population at 1921 Census	6,410	6,693	14,313	55,294	50,832	81,079	60,388	275,009
Non-Institutional Cases for period 1928-1930	11	51	78	72	8	24	11	255
Attack rate per 10,000 of population ...	17·2	76·2	54·5	13·0	1·6	2·9	1·8	9·27

Table III, and fatal cases are indicated in parentheses alongside the age and sex groups in which they occurred. Several facts are at once apparent. No age is exempt; our youngest patient was five months old; our oldest 71. The disease, though not uncommon in infants of under 12 months, is obviously most prevalent amongst children of from 1 to 2, and most fatal between the ages of 5 to 15. It is probable that the encouragement of breast feeding in Newcastle is responsible for the escape of the infants under 1 year, and it is remarkable that of the eleven cases in the first age group only four were purely breast fed.

The fatality of the disease in boys of from 5 to 15 is notable. These supplied the bulk of the fulminant cases. Whether the relative escape of the young girl of the same age from this presumably massive and undoubtedly virulent infection is due to their innately more delicate habits, or to a statistical illusion, we are unable to say.

In Table IV the attack rate of the disease per 10,000 of the population in the various age groups is demonstrable, and, in addition to the points already mentioned, attention is directed to the relatively increased incidence of the disease in both sexes between the age of 25 to 45, when presumably family duties and obligations exposed the adult to a greater risk of infection. There is no evidence of any significant difference

between the age and sex distributions of Flexner and Sonne infections.

TABLE V.
NEWCASTLE-UPON-TYNE, 1928-1930.
SEASONAL INCIDENCE OF DYSENTERY OUTBREAKS.

	Flexner.	Sonne.	Newcastle Bacillus.	Total.
January	7	1	2	10
February	6	—	—	6
March	13	1	—	14
April	21	—	—	21
May	25	1	—	26
June	14	4	2	20
July	14	6	—	20
August	19	6	1	26
September	17	8	1	26
October	12	9	1	22
November	8	13	—	21
December	5	4	—	9
Totals— Outbreaks	161	53	7	221
Cases	198	74	8	280

Seasonal Incidence.—Cases of bacillary dysentery have been met with in every month from March, 1928, to the present date. Table V shows, not the number of cases, but the number of individual outbreaks associated with the three main groups of organism, Flexner, Sonne, and the Newcastle bacillus, according to the months of the year in which they occurred. In Table VI the percentage distribution by months of all outbreaks of dysentery, and of those due

respectively to the Flexner and Sonne organisms is represented. The percentage distribution of *all* cases suggests that there are two main phases in the seasonal incidence of the disease—one in the spring, and the other and more important in the late summer and

TABLE VI.

SEASONAL DISTRIBUTION ON PERCENTAGE BASIS FOR PERIOD 1928-1930 OF ALL BACILLARY DYSENTERY OUTBREAKS, AND FLEXNER AND SONNE OUTBREAKS SEPARATELY.

	All.	Flexner.	Sonne.
January ...	4.5	4.3	1.9
February ...	2.7	3.7	—
March ...	6.3	8.1	1.9
April ...	9.5	13.0	—
May ...	11.8	15.6	1.9
June ...	9.0	8.7	7.55
July ...	9.0	8.7	11.3
August ...	11.8	11.8	11.3
September ...	11.8	10.6	15.1
October ...	10.0	7.5	17.0
November ...	9.5	5.0	24.5
December ...	4.1	3.0	7.55
	100	100	100

early autumn of the year. The Flexner distribution shows these two peaks, but in this case the earlier is the more important. The periodicity of the Sonne outbreaks suggests their particular association with the autumn months of the year. Whether these distributions have any particular significance it is impossible to say. The data available, though spread over three years, is not particularly large in quantity, and will require further analysis and consideration before any particular propositions can be based upon them. At the moment all we can say is this: that Sonne infections and outbreaks do appear to occur more frequently in the later months of the year, and that their main clinical characteristic, namely, the substitution of a "green" for a "bloody" flux, suggests that the disorder has a particular claim to be regarded as a variety of summer diarrhoea.

We are far from suggesting that summer diarrhoea is a distinct entity instead of the clinical and bacteriological rag-bag which it is known to be. But it is evident that the summer diarrhoea of one area and of one epoch is not necessarily the infective enteritis of another country or a later time. In America and Australia it has been recognised that dysenteric infections are part and parcel of the autumnal diarrhoea of infants. Is it too much to suggest that in this country we are in error in still regarding the work of Morgan in 1906 as the last word on the bacteriology of the subject? Nabarro's findings

in 1921 have not been given the attention they deserve. The time is surely ripe for a resumption of that intensive investigation of the subject which was planned by the Medical Research Council for the summer of 1922 and which, in a season almost barren of enteritis, was abruptly concluded for want of material.

Relation of Foodstuffs, &c.—The earlier cases of the outbreak were the subject of a minute investigation in which the possibility of infection through one or other of the usual epidemiological agents was considered. The relation of water, milk, milk products, ice-cream, prepared meats, shell-fish, water-cress, school attendance, and sanitary conditions, were all brought under review, and with negative results in every case. Nor has the investigation of these materials during later outbreaks implicated them in any way. Further, the connection of insects and animals with the disease was the subject of enquiry. During the three years, though no census was taken of the muscid population, it was commonly accepted that the number of flies was less than that ordinarily experienced. And even during the prolonged but, in Newcastle, not unduly hot summer of 1929, the fly population, as contrasted with that of previous years, appeared to be lacking in strength of numbers, in vigour and in purpose. Rodent infestation of the affected houses was negligible, and signs of epizootic infections, whether diarrhoeic or otherwise, were entirely lacking amongst the animal population.

Overcrowding.—It appears to us that overcrowding, with its manifold opportunities for personal contact, is of importance in the spread of dysentery. Newcastle is undoubtedly one of the most grossly overcrowded cities in the Kingdom. Its percentage of overcrowded persons, namely, 33.6 per cent., as contrasted with the average for England and Wales of 9.6 per cent., was exceeded at the last census only by certain other Tyneside towns and the Metropolitan Borough of Finsbury. The building of over 6,000 new houses since the census of 1921 has undoubtedly reduced this figure, and it is probable that the overcrowding percentage is now less than 33.6 per cent. Nevertheless, 53 per cent. of our dysentery patients were living in overcrowded conditions. The attack rate of the disease per 1,000 living in such an environment was 1.4, as contrasted with 0.68 per thousand of those in more favourable circumstances.

Our conception of the spread of the disease is that it occurs and is maintained through close

and intimate contact of infecting persons with others, or with their food, its preparation and service. The conditions under which many of our patients lived were such as made ordinary cleanliness very difficult, and the proper hygiene of the kitchen and food storage almost impossible. Without doubt the missed case of dysentery is the principal factor in the diffusion of infection. On several occasions the retrospective diagnosis of such a case has been possible by serum agglutination tests. The presence of carriers has been considered, and our findings are detailed in Dr. Warren's paper.

In conclusion, a few words must be said as to the epidemiological status of bacillary dysentery, not only in Newcastle, but throughout Great Britain. Lest it should be thought that Newcastle alone has suffered from the presence of the disease, and that the surrounding area has escaped entirely, let us bring the following facts to notice. From the 600 square miles centering on Newcastle, we have bacteriological evidence of twenty-five outbreaks, of which twenty have manifested themselves during the last three years. It must not be thought that these have occurred in areas within easy reach of the city. Many are geographically and socially remote, and in no case was it possible to obtain proof of the transmission of the urban infection to these areas. To our minds there are several facts which tend to support the thesis that we are advancing, namely, that bacillary dysentery is an endemic disease in certain parts of Britain:

First, the historical events referred to earlier in this paper.

Secondly, the record of the work done in Aberdeen and Glasgow and in our own area.

Thirdly, those widely distributed fulminant cases so often thought to be due to food poisoning, which are frequently brought to notice.

Fourthly, the curious fact that for the last three years there have been not one or two types of dysentery organism exhibiting their viability in Newcastle, but six definitely distinguishable strains.

Fifthly, that curious phenomenon well known to the medical historian, where a well-defined clinical condition seems to lose its identity for long years, and to sink out of recognition, only to be re-discovered and re-established often under another name.

Such we submit may have been the case with dysentery, and that in other parts of this country it has only to be sought for to be found. When that happens we shall probably be able to remove it from amongst the diseases of exotic

origin, and place it, as did Thomas Sydenham, in the category of the stationary fevers of these islands.

DR. WARREN.

It may perhaps be of interest if I give some information on these cases of bacillary dysentery from the laboratory point of view.

Much work has already been done on dysentery bacilli since these were first isolated by Shiga in 1898, Flexner in 1900, and Kruse in 1900, and there is now an enormous literature.

At last, however, they appear to be becoming more definitely elucidated, but it will only be possible for me to give a brief account of our findings and any variation from the already accepted views.

Public health bacteriology is often only applied bacteriology, and consists of identifying some pathogenic organism as indicated by the clinician who furnishes the specimen. It does not, as a rule, permit of complete bacteriological examination and identification of every organism present in the specimen, but there are occasions in which the identification of some pathogenic organism present furnishes the only real clue to the clinical condition.

In these cases of bacillary dysentery the specimens submitted were in the first instances sent from cases thought to be suffering from "food poisoning," or were post-mortem specimens from cases that had died either of acute gastro-enteritis or from some unknown cause. On finding all these conditions to be due to infection with dysentery bacilli, the practitioners of the district were asked to notify all cases presenting symptoms of dysentery with the passage of blood and mucus in the stools, and examination of specimens from these cases has shown that bacillary dysentery is comparatively common.

All the cases have been acute and none has consisted of prolonged illness like some of the cases met with in tropical dysentery.

The diagnosis of bacillary dysentery has not been made solely by the identification of an organism isolated from the faeces, but in practically all cases by the presence, in addition, of the usual pathological indication of acute colitis—the presence in the stool of mucus or muco-pus, often with the addition of blood and sometimes of bile. In fact, in bacillary dysentery the bacilli are rarely found in the absence of some muco-pus, and as soon as this has completely disappeared the cases are usually well,

and often free from infection. Table VII, giving the percentage finding of dysentery bacilli according to the nature of the stool, also confirms our findings.

TABLE VII.

PROPORTION OF RECOVERIES OF DYSENTERY BACILLI FROM DIFFERENT TYPES OF FÆCES. (MEDICAL RESEARCH COUNCIL, SPECIAL REPORTS SERIES, No. 40, 1919.)

	Blood and Mucus.	Diarrhoea and Mucus.	Diarrhoea.
Total Examinations	1,103	741	1,281
Positive ...	60.2	21.6	3.9
	per cent.	per cent.	per cent.
Negative ...	39.8	78.4	96.1
	per cent.	per cent.	per cent.

Another point regarding the examination of suspected dysentery stools is the very definite assistance required by the bacteriologist in the matter of the sending of specimens to the laboratory, especially when the laboratory is some distance from the cases.

It is essential that the doctor should himself see the stool, and not rely on the word of the mother or nurse. The correct portion of the stool, which is the muco-pus and blood, must be sent and not only faecal matter. (Proper glass capsules and scoops are provided for this, thus making it a very simple matter to take a specimen.) The fresh specimen must be sent to the laboratory as quickly as possible after being passed, and not left until the next day.

Mackie (from Egypt) states that dysentery organisms cease to be recoverable after six to eight hours (though occasionally they persist longer).

Little (Mhow, India) gives the accompanying Table (VIII) of percentages of positive results in 150 consecutive cases according to the age at the time of plating, thus showing a marked decrease in positive results if the specimens are more than three hours old.

TABLE VIII.

Age when Plated.	Percentage of Total.	Positive Results.
	Per cent.	Per cent.
Less than ½ hour ...	15.9	93.7
½ to 1 hour ...	25.4	67.7
1 to 2 hours ...	25.2	78.9
2 to 3 hours ...	20.0	73.3
Over 3 hours ...	13.5	40.0

Actually in this country it does not appear to be possible to get specimens sent very rapidly

unless from an institution or where the doctors are very keen; this point will certainly account for a number of negative results from obviously positive stools.

Specimens are also sent at times after post-mortem examination in some fatal cases, and from these it is essential, if a satisfactory report is to be furnished, for the specimens to be taken and sent in a proper manner. On opening the abdomen in a fatal case of gastro-enteritis, it is often possible to see at once a definitely inflamed portion of intestine; the lesion is usually to be found in the lower end of the ileum and upper portion of the colon, but in some cases the whole of the colon may be involved. The best specimen to send is a portion of the ileum and colon, which has been carefully ligatured at both ends, removed and not opened, but simply placed in a sterile vessel and sent direct to the laboratory. It is not necessary to send the whole of the inflamed gut; some portion is left which can be opened and examined with the naked eye to give an idea of the nature and extent of the lesion. Also it must be remembered that the inflamed gut will often contain muco-pus, blood and dysentery or food-poisoning bacilli. Dysentery bacilli have the best chance of remaining alive and capable of isolation in the inflamed intestinal wall and not in the faecal masses which may be found post-mortem.

The technique of the isolation and identification of dysentery bacilli will vary slightly in each laboratory according to the views of the bacteriologist. We have found that isolation is easily done on ordinary McConkey bile salt lactose, neutral red agar plates which should be well dried by incubating (opened) before inoculation; likely colonies are picked off on to agar slopes, and as soon as possible, glucose, lactose and mannite sugar tubes and a broth tube are also inoculated. All colonies giving acid in glucose and mannite in twenty-four hours, and no change in lactose are tested for motility, and put up for agglutination with the Oxford dysentery sera. A few further sugar tubes and litmus milk and peptone water are inoculated, and sugar reactions watched up to ten days, but a diagnosis can be made in three or four days without waiting for completion of all the tests.

A rapid diagnosis is possible in forty-eight hours from clinically positive cases by picking off likely colonies direct to broth tube, and after a few hours' incubation putting up agglutination tests at once, the diagnosis being confirmed by "sugar reactions" done later. The essential

point is isolation (biochemical reactions—agglutination tests).

We have received much help from Dr. W. M. Scott of the Ministry of Health Laboratory, who has examined a large proportion of the strains isolated by us and confirmed their identification and type.

The dysentery bacilli isolated from our cases have been found to belong to three main groups:—(1) Flexner group bacilli; (2) the Sonne dysentery bacillus; and (3) a hitherto unrecognised organism which Clayton and I have called the Newcastle dysentery bacillus.

Organisms of the Shiga and the Schmitz types have not been met.

(1) *The Flexner Dysentery Bacilli*.—These are by far the largest group, and in our work we have employed the English method of classification of Andrewes and Inman, by means of which these strains are classified in five serological groups—types V, W, X, Y and Z, and two sub-groups, VZ and WX. Some members of my audience may be more familiar with other names in association with the Flexner group, so it may be of assistance if I give the relationship of the old types to the more recent serological classification:—

Type V.—Corresponds with most of the strains kept as Flexner in European laboratories; it includes the Lister Institute Flexner; the Oxford Laboratory Flexner; the Lentz (Berlin) Laboratory Flexner; and Kruse type ? B or ? C. First isolated by Flexner in the Philippines in 1900.

Type VZ.—Corresponds with Kruse type A.

Type W.—Corresponds with a so-called Y of the Oxford Laboratory, and a Y from the Rockefeller Institute. Also a strain termed "Strong," isolated by Strong in Manila, probably belonged to this type. It is now recognised that the fermentation of saccharose on which Strong based his distinction is not a specific character.

Type WX.—Corresponds to no known classical strain.

Type X.—Corresponds to no known classical strain.

Type Y.—Is the classical Y strain, and is a strain received from General Russell from Washington. The Lister Institute Y, the Lentz (Berlin) Laboratory Y, and Kruse type D correspond with this. The Y strain was originally isolated by Hiss and Russell in 1903 from the stool of a fatal case of diarrhoea in a child in America.

Type Z.—Corresponds to Kruse type H.

Table IX shows the types isolated from our cases.

TABLE IX.

	V.	W.	X.	Y.	Z.	Sonne.	Newcastle.	Total.
Cases ...	—	111	10	2	75	71	8	280
Outbreaks	—	84	9	2	66	53	7	221

As regards identification of the strains of Flexner bacilli isolated, there has been little difficulty in this. The colonies taken straight off the plate have rarely failed to agglutinate without any further manipulation or sub-culturing, and it has usually been quite easy to determine the type.

Some few strains have agglutinated rather badly, and some X and W strains have suggested XY and WY types, but these, on agglutination with pure type sera (by Dr. Scott), have been shown to be X and W strains. There have been no really inagglutinable strains as seem to be encountered by people working in the tropics, and no variation from the ordinary sugar reaction using only five sugars—glucose, lactose, mannite, saccharose and dulcitol—litmus milk and peptone water for indol production; indol is nearly always produced, though some strains produce very little.

The serological grouping of Andrewes and Inman has proved satisfactory so far as our strains are concerned, but there were no V strains in our group, and very few Y strains.

The strains appear to remain true to type just as much as the Sonne or Newcastle bacillus do, for not more than one strain of Flexner has been isolated from one case, and if multiple cases from the same outbreak have been found, they have always been found to be infected with the same type. Repeated positive examinations in one case have given the same type of organism, but we have found a few cases of mixed infections (Flexner and Sonne; typhoid and Sonne).

Repeated examination of stools of our 280 positive cases gave the results shown in Table X.

TABLE X.

One positive, one negative,	in	191
Two " " "	in	35
Three " " "	in	14
Four " " "	in	4
Five " " "	in	1
		245
Incomplete or mixed,	in	35
		280 cases.

(2) *The Sonne Dysentery Bacillus*.—The organism which now appears to be universally called by this name was probably described by others before Sonne.

Sonne, in 1914-1915, described a series of cases of dysentery occurring in Denmark, and his group III, which he described in detail, was this organism which now bears his name. Some

TABLE XI.

PROPORTION PER CENT. OF THE FLEXNER TYPES.

	V.	W.	X.	Y.	Z.	VZ.	Inagglutin- able.
Little, India, 1926-27. 124 positive	5.3	38.6	1.8	0	0	0	54.3
Large, India, 1927. 51 positive ...	4.0	36.0	8.0	3.0	11.0	4.0	34.0
Fraser and Smith, Aberdeen, 1930. 135 positive	0	3.7	5.9	1.4	88.8	• 0	0
Charles and Warren, Newcastle, 1928-30. 198 positive	0	56.0	5.0	1.0	38.0	0	0

people still consider this to be a group of organisms and not a single entity; there is little doubt that this organism has already been isolated under a number of names.

(1) Kruse, in 1907, typed a number of strains of dysentery bacilli into eight groups. His E group has the same characteristics as the Sonne bacillus.

(2) *Bacillus coli anærogenes*, described by Nabarro in his investigation into summer diarrhoea in 1923, has since been admitted to include some strains which are the Sonne bacillus.

(3) Some strains of Meta-dysentery bacilli, described by Castellani in 1918 in association with dysentery, are the same organism as the Sonne bacillus.

(4) Mita, in Japan, in 1921, described two strains of pseudo-dysentery bacilli, types A and B, which have both been shown to be the Sonne bacillus.

Since the recognition of this organism by Kruse in 1907, and Sonne in 1914-1915, cases due to infection with this bacillus have been reported from almost all over the world in both temperate and tropical zones. Cases have been recorded, for example, in Germany, Denmark, Norway, Sweden, France, Great Britain, Italy, Egypt, Brazil, India, Australia, Japan, and the United States of America.

If all the details of the reactions of this organism which have been recorded are taken into account, there is little difficulty in its identification. The following points must be definitely noted.

This organism gives on sub-culture, and even on primary plates, two types of colonies, smooth and rough. Smooth colonies closely resemble those of Flexner, but are usually distinctly larger and thicker. Rough colonies are opaque with irregular edges, etc.

Smooth colonies are usually chiefly present in acute cases, but all smooth colonies have a

strong tendency to become rough after isolation and sub-culture.

TABLE XII.

SONNE CASES IN GREAT BRITAIN. (PUBLISHED PAPERS.)

Year.	Name.	Region.	Paper.
1923 and 1927	Nabarro	London	<i>Jl. Path. & Bact.</i>
1923	Bamforth	London	<i>Jl. Hygiene.</i>
1923	Savage and Bruce White.	Glasgow	<i>M.R.C. Rept. 92.</i>
1923	do.	Bristol	do.
1923	do.	Preston	do.
1924	Smith	Aberdeen	<i>Jl. Hygiene.</i>
1926	Fraser, Kinloch and Smith.	Aberdeen	<i>Jl. Hygiene.</i>
1926	Cruickshank and Kerrin.	Aberdeen	<i>Proc. Path. Soc. G.B.</i>
1926	Channon	London	<i>Jl. Path. & Bact.</i>
1927	Fyfe	St. Andrews	<i>Jl. Hygiene.</i>
1927	Clayton	Newcastle	<i>Lancet.</i>
1927	Wiseman	Ayr	<i>Jl. Hygiene.</i>
1927	Richards	Aberdeen	<i>Brit. Jl. Child. Dis.</i>
1928	Clayton and Hunter.	Newcastle	<i>Lancet.</i>
1928	Kerrin	Aberdeen	<i>Jl. Hygiene.</i>
1928	Charles	Newcastle	<i>Lancet.</i>
1929	Charles and Warren.	Newcastle	do.
1930	Fraser and Smith.	Aberdeen	<i>Quar. Jl. Med.</i>
1930	Powell	Scudthorpe	<i>Brit. Med. Jl.</i>
1930	Hay	Glasgow	<i>Jl. Hygiene.</i>
1930	Mansell	London	<i>Lancet.</i>

The two different types of colonies have different agglutination reaction, and it is necessary to employ smooth and rough sera for the identification of the organism, or else to use a mixed smooth and rough serum. A rough strain may saturate out the agglutinins from a smooth serum, but does not necessarily show sufficient agglutination to make the diagnosis certain. Very rough strains of this organism are liable to auto-agglutination in salt solution, and so appear to give a false result in the agglutination titre.

The sugar reactions also of this organism are peculiar, but, apart from some variations, quite

definite. Glucose and mannite sugars are fermented with the production of acid in twenty-four hours. Lactose and saccharose are, however, fermented later, but the actual time may vary from forty-eight hours to fourteen days. The lactose fermentation is finally strong, and milk is coagulated; saccharose is sometimes not fermented.

(3) *The Newcastle Dysentery Bacillus*.—Details of this organism have been published in the *Journal of Hygiene*.

colon. There was no acute peritonitis; the blood vessels were engorged, and internally there was a folliculitis passing on to follicular ulceration. Peyer's patches were prominent and hyperæmic, but rarely ulcerated. There was also some œdema, but no chronic thickenings. The adjacent mesenteric glands were usually acutely enlarged, and there were toxic changes in the heart, kidneys, liver and spleen.

It is only by bacteriological examination that the type of organism causing the lesion can be

TABLE XIII.

GIVING COMPARISON WITH OTHER RECENT INVESTIGATIONS INTO THE BACTERIOLOGY OF DYSENTERY.

	Flexner.	Shiga.	Sonne.	Other Organisms.
Little, India, 1926-27	73.2%	3.8%	1.3%	10.2% + 9.5% Schmitz.
Perry and Bensted, Egypt, 1929. 526 stools. Adults	47.0%	2.3%	9.2%	6.9% + 6.9% Schmitz.
Children	40.3%	9.0%	5.4%	14.1% + 1.0% Schmitz.
Fraser and Smith, Aberdeen, 1930	50.0%	—	50.0%	—
Charles and Warren, Newcastle, 1928-1930	70.7%	—	26.4%	Newcastle bacillus. 2.8%

The chief points for identification are: on primary isolation the organism suggests that it is a Shiga bacillus, and gives acid apparently only in glucose-peptone water. It does not, however, agglutinate with a Shiga serum and, after a few days, acid and perhaps a small bubble of gas are produced in dulcete. On Lemco broth sugar media there is produced acid and gas in glucose in twenty-four hours, and acid and slight gas in dulcete in three, four or five days.

The organism usually agglutinates with serum of the patient from whom it has been isolated.

Serologically it shows some relationship to the Flexner group, especially the Y type. This organism has been isolated as the only infection in single, multiple and fatal cases; it has also been isolated from a child with dysenteric symptoms in Glasgow, but not so far in other laboratories.

Post-mortem Appearances.—Of the eighteen fatal cases, twelve were of the fulminating type, one was typhoidal, and in five the dysentery was an intercurrent or terminal infection, occurring in marasmic or debilitated infants. None showed any signs of chronic dysentery; in practically all the cases there were inflammatory changes in the lower end of the ileum and in the

distinguished.

It was only possible to carry out a post-mortem examination on twelve of the fatal cases. The results of bacteriological examinations are shown in Table XIV.

TABLE XIV.

	Post-mortem Specimens Examined.	Positive for Dysentery Bacilli.
Stomach	5	—
Small intestine	12	6
Colon	9	7
Spleen	8	1
Liver	2	1

The types of organism isolated from all our fatal cases were:—Flexner, W, 9; X, 1; Z, 3; Sonne, 3; Newcastle bacillus, 2.

Carriers.—Comparatively little work has been done in this connection, yet this appears to be the only real source from which new cases and outbreaks arise. Fletcher and Mackinnon, at the end of the War, found that out of 935 patients, 71, or 7.5 per cent. were carriers, and that 26, or 2.78 per cent. were persistent carriers (a person carrying the bacilli for more than three months), but they also state, especially in regard to the Shiga carriers, that the patients were

obviously ill. There is no doubt that these were cases of chronic dysentery, and that there was really dysenteric ulceration in the colons of the patients.

Perry and Bensted give the percentage of carriers as: Shiga, 4; and Flexner, 7, in the tropics after clinical dysentery.

In fact, it seems probable that people passing dysentery bacilli in their stools actually have continuing ulceration, or what are termed "pus pits" of the colon, which from time to time discharge and liberate dysentery bacilli, and as Fletcher and Mackinnon also state, the Flexner carrier had a tendency to be intermittent, the bacilli being excreted for one or two days, and then being negative for a month.

In our series of cases not sufficient tests were really possible to determine if any of the patients became chronic carriers.

One patient was positive seven times in ten weeks, and four patients were positive four times in nine weeks, each before getting a negative stool.

We have isolated Sonne bacilli twice in the examination of the stools of two typhoid cases, and a Sonne bacillus was isolated from a Flexner Z dysentery case.

Agglutination reactions with patients' serum have not been used to any great extent, partly because there still seems to be quite a difference of opinion as to what is really a positive indication of infection, and partly owing to the fact that the reaction is not usually positive till the attack is nearly over. But, of course, a positive reaction is of much use as confirmatory evidence of an attack.

We conclude, therefore, that:—

(1) Bacillary dysentery is comparatively common in the Newcastle area.

(2) Dysentery bacilli are capable of giving rise to acute gastro-enteritis somewhat like that due to food-poisoning organisms.

(3) Outbreaks are often limited to the members of a family.

(4) There are a number of fulminating cases in children, where death occurs so rapidly from toxæmia that no definite diagnosis can be made, and an inquest and post-mortem examination are necessary.

(5) A definite diagnosis of these cases is only possible after bacteriological examination.

(6) These cases are very infectious, especially with children.

(7) Some cases are so mild, and cause so little inconvenience, that they do not go to a doctor for treatment.

(8) Since these cases have been isolated in hospital, fewer deaths have been recorded.

THE Forty-Second Congress of the Royal Sanitary Institute will be held at Glasgow from July 4th to 11th, 1931, under the Presidency of Sir Henry Mechan, D.Sc., LL.D. The preliminary list of subjects to be discussed is as follows:—*Section A, Preventive Medicine*: The Role of the Hospital relative to the Development of Preventive Medicine—the Voluntary Hospital; the Municipal General Hospital; the Maternity Hospital; the Children's Hospital; and the Mental Hospital. *Section B, Architecture and Engineering*: Hospitals—Planning and Construction; Discharge of Sewage into Sea; Housing. *Section C, Maternity, Child Welfare and School Hygiene*: Legalising Eugenic Sterilisation; Health Certificates before Marriage; Pregnancy and Tuberculosis; Maternity and Child Welfare Work. *Section D, Hygiene of Food*: Dietary Studies; Biology and Hygienic Principles of Bread-making. *Section E, Hygiene in Industry*: Ventilation as a Prime Factor in Industrial Hygiene. *Section F, Veterinary Hygiene*: Control and Disposal of Unsound Foods; Bacterial Contamination of Milk and its Significance. *Section G, National Health Insurance*: A General Medical Service in Relation to National Health Insurance; Development of the National Health Insurance Scheme. *Conference I, Representatives of Sanitary Authorities*: Closure of Private Slaughterhouses and Compensation Payable; Port Conditions as Affecting the Mercantile Marine; Air Purification. *Conference II, Medical Officers of Health*: Proposals of the British Medical Association for a General Medical Service, from the Standpoint of Preventive Medicine; Administration of the Local Government Act, 1929. *Conference III, Engineers and Surveyors*: Clyde Valley Regional Planning Scheme; Municipal Engineering and its Implications. *Conference IV, Sanitary Inspectors*: Housing; Single Pipe Drainage; Repeal of the Milk Regulations, 1901; Slum Clearances. *Conference V, Health Visitors*: The Pre-School Child; Infant Welfare Schemes; Teaching of Mothercraft. Full information with regard to the Congress may be obtained from the Secretary of the Institute, 90, Buckingham Palace Road, London, S.W.1.

Ut Ita Dicam.

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

The April Council Meeting.

The April Council meeting was the first for some time. Possibly that was why, though there appeared to be nothing of moment whatever upon the agenda, the members sat so long and argued so strenuously. Though they were in captious mood, however, they did not fail to display the very real pleasure they felt at having the President once more with them, and to tell him how much they regretted his absence and the reason for it. The chief of the business done at the meeting had reference to the appointment of representatives on certain other bodies, although there was discussion also of such matters as the propriety of using funeral hearses for purposes more joyful than those for which they were primarily intended, and the report of the Sub-Committee appointed to prepare evidence for the Departmental Committee on Private Schools. Even with regard to these two last, unexpectedly, there was some heat displayed; as to the former because some thought it did not matter if, when not required, prior to the serving up of baked meats the hearse carried the living and lively to a feast of beans, and as to the latter because apparently none of the people who knew anything about the subject had been given a place on the Sub-Committee.

A Heavy Session.

The kind of things to be done in the way of appointment involved the nomination of individuals to serve on the Nursing Council; to go as a delegate to the International Conference on Rural Hygiene at Geneva; to go to Montreal to the American Public Health Association meeting; to go up for election to the British Medical Association Council and on the Representative Body; to go to Glasgow to the Royal Sanitary Institute Congress; and so on. An almost incredibly long time was taken over these, mainly, I imagine, because the area of choice is so wide as to be embarrassing. The International Conference on Rural Hygiene proved the most troublesome of all, the selection of names taking over half an hour, not so much because of an *embarras de choix* as because of an excess of zeal on the part of a number of people outside the Council who were anxious to offer guidance and feared that we should go wrong in making our choice. The American Public

Health Association invitation presented less difficulty because all that was involved was the nominating, as delegates of the Society, a number of members of the Council invited to attend the meeting as guests of the Association.

The Pre-School Child.

Eventually all the selections were made and all the lengthy and, as those who talk around the hot-pot (derivation unknown; effect extremely inflammatory) will readily agree, futile discussions came to an end. Followed the ordinary meeting, one of the best and most largely attended I have seen for many a day. In the main this was because the Maternity and Child Welfare Group was involved and, as everybody knows, probably because it contains so many of the women members, this is one of the most active and live sections of the Society. The subject for discussion, "The Pre-School Child," is unfortunately one of those upon which everybody is agreed that it is time something was done, and almost all that happened was in the nature of a swapping of figures. Indeed, if it had not been for Dr. Sim Wallace, who thinks dentists know more about caries than physiologists, even Dr. M'Gonigle would have been deprived of an opportunity of insisting upon the importance of rickets. Dr. Ethel Cassie, who opened the discussion, made a strong case for the pre-school child, the plea she put forward, as any of hers is likely to do, sounding almost irresistible. In his contribution Dr. M'Gonigle, drawing upon his wide knowledge, supplied strong backing for Dr. Cassie's plea. To Dr. Picken and Dr. Macmillan as hard-headed administrators it was left to bring up the question of ways and means of benefiting the pre-school child, and to the former, particularly, out of his practical experience and a pocket bulging with record cards, to show just how complicated and extravagant a business it can be in a well-organised and up-to-date health department. As was almost inevitable, of course, there were several references to the need for the establishment of nursery schools, and one or two to the expense associated with such undertakings. All round, the meeting, in addition to being one of the largest recently held, was one of the pleasantest, and the various speakers really deserved the thanks and congratulations accorded to them.

Sir George Newman, Heath Clark Lecturer.

A note that has reached me containing information with regard to the series of lectures, the first under the Heath Clark Bequest, to be delivered at the London School of Hygiene by Sir George Newman, beginning May 4th, affords opportunity to renew expressions of wonderment at the extraordinary energy of the Chief Medical Officer of the Ministry of Health. Also of repeating my view that we others are under a very great debt to Sir George Newman because he is prepared to give of his energy for such purposes. The subject he has chosen, "The Rise of Preventive Medicine," is one that no one in the profession can treat so attractively or with such scholarliness as he. Like so many of his essays, spoken and written, the lectures are sure to be an addition of note to the medical literature of to-day.

Health and Social Evolution.

Of another book of his, "Health and Social Evolution," published only the other day,* that it is such an addition can safely be said. Based on the lectures he delivered as the Halley Stewart Lecturer in 1930, the book tells the story of the progress made in the fight against disease and for the health and welfare of the people of England in a manner entirely fascinating. Actually a book that all of us shall require for purposes of reference on questions relating to the development of the public health organisation, it is very much more than that. It is, in fact, a piece of literature that we shall want to have by us; at the bed or the chair side so that it may be easily got at. Largely it is of the past Sir George has treated in his volume, and, doing it, has followed the manner no one knows better how attractively to use than he. It is not entirely of the past, however, that he speaks, and in his outline of the work still to be done, writing as an authority, he lays down the principles and indicates the methods that are to be followed. In the Heath Clark Lectures it may be hoped that further glimpses of the future will be shown. (No matter what the line taken may be in the new series, it may be accepted that Sir George Newman will not fail to interest those so fortunate as to be able to attend the lectures. As an aside it may be ventured that those responsible for the management of the Heath Clark Bequest to the University of London

* London: George Allen & Unwin, Ltd. Price 4s. 6d. net.

may count themselves favoured in having secured the services of one so gifted and able as the first of the lecturers.

The Development of Local Government.

Another book that I have wanted to refer to, and to recommend here for some time, is one on "The Development of Local Government," by Dr. Robson, of the London School of Economics and Political Science.* Personally, and I imagine I am not alone, I have always wanted a good, simple and interesting book on local government, partly for my own purposes, and partly for use in talking to students, medical particularly, who, as a rule, regard local government bodies and officers as figures of fun merely, and citizenship as a subject not calling for study. In this book of Robson's I believe I have found what I wanted. The author knows what he is talking about; he has had practical experience, and he has investigated matters and questions relating to local government. His views with regard to public health organisation are sound and are set out interestingly and most convincingly. In the days to come I can hear myself quoting him as my authority and shamelessly borrowing from the pages of his book when I want particularly to indicate clearly and definitely the correct line to follow in connection with public health administration. The claim made by the publishers of the book is that it will be "indispensable to the councillor or officer who wishes to keep in touch with modern tendencies, and will appeal to all who are interested in the vital field of citizenship." This claim I consider absolutely justified. The book is an excellent one; exceedingly well written, and I strongly recommend it.

P.

THE London County Council announce that the following appointments in the hospital service have recently been made:—Miss Julia C. H. Avery, M.R.C.S., L.R.C.P. (Assistant Medical Officer, St. Benedict's Hospital); J. E. Purves, M.B., CH.B., F.R.C.S. (Senior Assistant Medical Officer, New End Hospital); J. E. M. Wood, M.R.C.S., L.R.C.P., L.M.S.S.A., D.P.H. (Assistant Medical Officer, New End Hospital); and G. S. Nightingale, M.R.C.S., L.R.C.P. (Assistant Medical Officer, Queen Mary's Hospital, Sidcup).

* London: George Allen & Unwin, Ltd. Price 12s. 6d. net.

Health Teaching in Germany.

By Professor Dr. A. ADAM, Reichsausschuss für Hygienische Volksbelehrung (Berlin).

This useful and interesting description of the methods adopted in Germany in connection with health teaching was summarised in the report of the proceedings of the Third Annual Health Education Conference, arranged by the Central Council for Health Education, held in November, 1930, at the London School of Hygiene and Tropical Medicine. The full paper, so very readable and attractive, will be read with real pleasure.

ON behalf of the National Council of Health Education in Germany, it is a pleasure and an honour for me to address you and to wish your Conference every success during its session.

Our Committee is a Council similar to that of your own. It is a working Committee comprising all those individuals, councils, authorities, insurance societies, medical and educational bodies in so far as they are interested in the promotion of health teaching. The Committee embraces only the chief societies, and is divided up into provincial committees which, in turn, comprise the chief provincial societies, these finding support in the health centres of the cities and provincial districts. In addition to this more official classification, our Committee possesses a worthy body of voluntary helpers, numbering many thousands, and consisting mainly of teachers and doctors, who, partly practising health education on their own initiative, also stimulate interest in other quarters. Our Committee, therefore, spreads an extensive network throughout the whole of Germany. It also exercises influence in schools, the press, broadcasting sections, and, to a modest extent, cinemas. The Committee is not purely an official institution, nor is it an ordinary society. It is a combination of both, inasmuch as its outward character resembles that of a society, but at the head of it stands the principal health official of the Reich, namely, the President of the German Health Department. The sub-organisations are similarly built up: these also have the character of a society, but with the local principal health officer at their head. This has a great advantage, since it affords our Committee, as a private association, more freedom of action; on the other hand, ample resources and official support are at its disposal.

One of the most important tasks of our Committee was, from the beginning, the introduction of health teaching in the schools. On the recommendation of the Committee, the Reichs

Ministry issued a decree whereby it was made compulsory for the State and Provincial Governments to include health teaching in the school schedules. Lengthy discussions took place as to whether the teacher or the medical officer was the person most fitted to undertake health instruction. The medical officer, for his part, could claim to possess the greater knowledge and, in his capacity as doctor, would feel justified in being selected to promote the national health. It soon became clear to us, however, that the question of health teaching was not so much a medical one as a matter of the art of applying it by the teacher. Just as rarely as instruction in chemistry and physics is given in the schools by the qualified chemist and physicist, so rarely should health instruction be given by the hygienist. It was only required to provide the teacher with the necessary knowledge to enable him to handle this particular sphere of tuition. Health teaching should be more a matter of education than one of memorisation. It should be the duty of the teacher to impress the scholar in an exemplary manner. Above all, he should exercise an instructive influence upon the children in the lower school classes. This can only be done by the teacher who is in close and continuous contact with the scholars. As soon as it was decided that the teacher should give health instruction, it was first necessary to provide him with the relative knowledge. And so the whole question of the scholars' instruction reverted to that of the teachers' instruction. This question was more easily overcome with regard to the coming generation of teachers. In this respect, it was only necessary that the training of teachers in health should be adopted, and, as a result of our efforts, the school authorities in Germany have, in fact, introduced health teaching in the so-called pedagogical academies for the training of elementary school teachers. The training extends over two terms, two hours each week. During the first term the rudiments of the subject matter are given, and in the second

term the ways and means of instructing the scholar are taught. In Germany the following principle is adhered to, *i.e.*, the teacher shall not induce the scholar to mechanically memorise by lecturing on the matter, but he shall achieve results by his labours with the children, teaching them only the rudiments of the subject, and leaving them to reason things out for themselves. Take, for example, a demonstration in breathing: a scholar, stripped to the waist, is placed before the class, and told to breathe deeply. The scholars should describe what they see by the breathing. The teacher acknowledges the correct observations and rectifies the wrong ones. He then puts the question: "Is the air the boy inhales the same as that which he exhales?" In most cases the scholar will answer in the affirmative. To illustrate that this is not the case, the teacher takes a vessel containing lime water, and with a pair of bellows and a glass tube, blows air into the vessel. The air-bubbles rise in the vessel. The lime water is in no way affected by the air so introduced. He then instructs the scholar to use his lungs instead of the bellows, and to breathe air through the tube into the lime water. The carbonic acid gas contained in the exhaled air combines with the lime contained in the water, and forms carbonate of lime, thereby causing the fluid to become opaque and of a milky colour. In this way it is made clear to the scholar that the air forced into the liquid by means of a pair of bellows is different from that which the boy breathed from his lungs into the lime water. This should be discussed in connection with the details regarding the composition of the air we breathe, perhaps taking recourse to an experiment showing that a light will not burn in the air the human being exhales, thus illustrating the necessity for the continual use of fresh air. In this manner, health teaching is admirably adapted to the object lesson. I have repeatedly been present at school classes when such lessons have been in progress, and have observed the tremendous enthusiasm of the scholars for this type of instruction.

To return to the question of the teachers' training. There is no doubt whatever that teachers now, and in future, entering the school service, will do so adequately trained for health teaching. But not so the teachers already in the service, and with regard to these the question is much more difficult. These teachers will require to undergo a minute and laborious training, entailing much time. In this respect, however, the authorities have assisted us by

issuing a decree, whereby all teachers at present in the service are required to go through a post-graduate course of lectures in hygiene. These courses have been arranged by our Committee, and are distributed generally over three months with two lessons a week. At certain centres the teachers meet usually on a Saturday afternoon. The medical officer lectures on a subject, such as exercise, and the teachers, with the help of literature supplied by him, are required to study the matter sufficiently during the following week to enable one of them, not selected beforehand, to give a lesson on the same subject to a school class on the following Saturday. Then a second lecture is given by the medical officer, who takes the subject of tuberculosis, for instance. In the same manner, this subject is studied by the teacher during the following week, and later utilised at the scholars' class. The instruction is thus extended over the whole three months, and we are happy to be able to say that the interest shown by the teachers is surprisingly great, and they have proved themselves very willing to undertake this voluntary task.

I have only been able to indicate briefly the difficulties to be met with in regard to the introduction of health teaching in the schools, and I presume you also have to fight against these difficulties. I have not come here to talk to you only about Germany; above all I hope to learn something from you. International co-operation is of the greatest value and importance in such a new field of work as health education, and I sincerely hope that this co-operation will not only serve the welfare of our respective countries, but will prove an instrument of international understanding.

A SESSIONAL Meeting of the Royal Sanitary Institute will be held at Exeter on Friday and Saturday, May 29th and 30th, 1931. Discussion will be introduced by Mr. E. J. Silcock, M.INST.C.E., F.S.I., on the New Sewers and Sewage Disposal Works, and visits will be made to the Southern Railway Concrete Works and to the City Housing Schemes. Dr. P. H. Stirk, Medical Officer of Health, Exeter, is acting as Local Secretary of the meeting, and the chair will be taken by Dr. Charles Porter (Chairman of the Council of the Institute), Medical Officer of Health, St. Marylebone.

The Society. Reports, Proceedings and Announcements.

NOTICES.

FEVER HOSPITALS MEDICAL SERVICE GROUP.

The next meeting of the Group will be held at 1, Upper Montague Street, Russell Square, W.C.1, on Friday, May 22nd, 1931. Agenda: (i) Election of Officers and Members of the Council for 1931-32; (ii) any other business.

MATERNITY AND CHILD WELFARE GROUP.

The next meeting of the Group will be a clinical meeting on Saturday, May 16th, at 2.30 p.m., at the North Middlesex Hospital, Silver Street, Upper Edmonton, N.18, by kind invitation of Col. Spencer Mort, Medical Superintendent. Will all members intending to be present please notify the Hon. Secretary of the Group by May 11th?

It is hoped to arrange an orthopaedics meeting on the morning of the same day. Details will be forwarded in a later notice.

DENTAL OFFICERS' GROUP.

A meeting of the Group will be held at 1, Upper Montague Street, W.C.1, on Friday, May 22nd, at 8 p.m., when the latest exhibits of the Dental Board of the United Kingdom will be shown. It is expected that Mr. Bompas, Secretary for Education to the Dental Board, will attend.

COUNCIL MEETING.

A meeting of the Council was held at the house of the Society on Friday, April 17th, 1931. The President (Prof. Harold Kerr) was in the chair, and there were present, Drs. R. H. Wilshaw, Agnes H. Nicoll, W. G. Willoughby, K. E. Tapper, P. H. Stirk, E. Ward, E. H. T. Nash, H. J. Milligan, W. W. Jameson, R. H. H. Jolly, E. H. Snell, H. Gibbons Ward, Charles Porter, James Fenton, R. M. F. Picken, H. B. Brackenbury, W. Paterson, J. A. Stirling, G. C. M. McGonigle, T. P. Puddicombe, J. J. Buchan, F. T. H. Wood, G. W. N. Joseph, G. H. Pearce, and Lt.-Cols. F. E. Fremantle, and G. S. Parkinson.

The minutes of the last meeting having been approved and signed, apologies for absence

were received from Sir Eustace Hill, Drs. G. F. Buchan, A. F. Cameron, E. G. Annis, A. K. Chalmers, James Mair, A. B. McMaster, J. J. Jervis, R. Veitch Clark, T. W. N. Barlow and Mr. A. E. Baker.

Welcome to the President.—Dr. J. J. Buchan moved a resolution expressing the pleasure of the Council at the return of the President after his recent illness, and this was passed by acclamation. The President replied briefly, thanking the Council for their warm welcome.

Photographs of Past-Presidents.—The President announced that he had been able to obtain enlarged photographs of Sir John Simon (first President, 1856-1861), and of Dr. A. Wynter Blyth (President, 1901-1902) which he would present to the Society at the ordinary meeting that afternoon, for addition to the gallery in the Council room. The President was heartily thanked for his gift.

Provincial Meeting.—The President announced that he had been authorised by the Lord Mayor of Newcastle-upon-Tyne to give an invitation for a Provincial Meeting of the Society at Newcastle, on a week-end in September to be decided later.

Superannuation.—A letter was read from the Ministry of Health acknowledging the representations forwarded by the Society in connection with the superannuation of public health officers, with special reference to the proposal for an alternative scheme for nurses employed in county and municipal hospitals (*See Proceedings of Council, February 20th, 1931*). The letter stated that legislation for the amendment of the Act of 1922 was in contemplation, but that it was impossible to say when a Bill would be introduced or its provisions made available for discussion; in regard to the position of nurses the Minister was still awaiting suggestions for harmonising the funding scheme under the Act of 1922 and the federated hospitals scheme. In the circumstances the Minister felt there would be no advantage at present in receiving the proposed joint deputation from the Society and other associations.

Age Limits for Appointments.—The Executive Secretary reported that his attention had been drawn to the fixing of the age-limit at 40 for the forthcoming appointment of Medical Officer of Health at Southampton. He had written to the Town Clerk pointing out that

this limit would preclude many suitable candidates and unduly restrict the choice of an officer, and asking the Borough Council to reconsider their decision and to raise the age-limit to 45 years. The Council endorsed the action of the Executive Secretary.

Congress of the American Public Health Association.—A letter was read from the American Public Health Association inviting representation of the Society at their annual congress to be held in Montreal from September 14th to 17th, 1931. It was agreed that this invitation be accepted, and the General Purposes Committee were asked favourably to consider the nomination of one or more representatives of the Society, and the granting of £100 towards the expenses of the journey.

League of Nations Conference on Rural Hygiene.—The Minister of Health having asked the Society to suggest names from which he might select a delegate to the above conference, the following were recommended: Drs. H. Gibbons Ward, C. E. Tangye, R. D. Smedley, and J. Ferguson.

General Nursing Council.—The following were recommended for the consideration of the Minister of Health in connection with the appointment of a successor on the General Nursing Council to Dr. J. J. Buchan, resigned: Drs. Charles Porter, R. M. F. Picken, and James Fenton.

B.M.A. Elections.—It was agreed to recommend for the support of Public Health Service Members of the B.M.A., the following candidates: for Council, 1931-32, Drs. R. M. F. Picken, and H. J. Milligan; for the Representative Body, Drs. H. Kerr, J. J. Jervis, E. H. T. Nash, R. H. Wilshaw.

Representation of the Society.—The following were nominated to represent the Society: The President and Dr. J. J. Buchan at the Congress of the Royal Sanitary Institute, Prof. A. Bostock Hill at the Imperial Social Hygiene Congress, and Dr. H. Vallow at the Congress of the National Association for the Prevention of Tuberculosis.

Use of "Convertible" Hearses.—The Council considered a communication from the British Funeral Workers' Association (London Centre) forwarded by the Metropolitan Branch with a recommendation that the Society should deprecate the use of hearses for other than funeral purposes, and should advocate the disinfection of hearses after their use in the conveyance of persons dying from infectious disease. This

was referred to the General Purposes Committee for report.

Private Schools.—Dr. R. H. H. Jolly submitted a memorandum by the Sub-Committee appointed to prepare evidence for the Departmental Committee on Private Schools. It was agreed that the memorandum be forwarded to the Departmental Committee with certain additions suggested by the Council.

Report of the General Purposes Committee.—A report of the above Committee's meeting of February 20th, was received and adopted.

Departmental Committee on Local Government Officers.—Dr. James Fenton reported that with Dr. R. M. F. Picken, he had presented the Society's memorandum of evidence (*See PUBLIC HEALTH*, April, 1931) before the above Committee on March 17th, and that the Society's witnesses had been examined at some length.

The Council then adjourned.

ORDINARY MEETING.

An Ordinary Meeting was held at the house of the Society on Friday, April 17th, 1931. The President (Prof. H. Kerr) was in the chair, and was extended a cordial welcome from the meeting following his recent absence through illness. There was an excellent attendance, including a large number of members of the Maternity and Child Welfare Group.

The minutes of the last meeting having been approved and signed, the President announced that he had been able to obtain photographs of two distinguished Past-Presidents, Sir John Simon, first President of the Society from 1856-61, and Dr. Wynter Blyth, President in 1901. These portraits he now presented to the Society for addition to the gallery of Past-Presidents in the Council room. A hearty vote of thanks was passed to the President for his generous gift, and for the trouble taken by him in obtaining these photographs.

The following candidates were elected to the Society:—

As Fellows:—

Barritt, Maxwell Mandall, B.Sc., DIP. BACT., L.M.S.S.A.; Bond, Hilda Maud Price, M.B., B.S. (LOND.), D.P.H.; Bone, Eleanor B., M.B., CH.B., (EDIN.), D.P.H.; Bryan, Hugh Stanford, M.R.C.S., L.R.C.P.; Buckle, Gwendolen, M.B., B.S. (DURH.); Corlett, Richard Lovell, M.D. (LIV.), D.P.H.; Dugdale, Harry Reynolds, M.B., CH.B. (LIV.), D.P.H.; Gale, Arthur Harold, B.M., B.CH. (OXON.), M.R.C.S., L.R.C.P., D.P.H.; Griffith, Grace Mary Gulston, M.B., B.S. (LOND.), M.R.C.S., L.R.C.P.; Harvey, William Clunie, M.D., (GLASG.), D.P.H.; Hill, Helen Sutherland, M.B., CH.B. (LIV.), D.P.H.; Ison, Amelia Muriel, M.D. (LOND.), D.P.H.; Keays, Richard

George, M.B., B.CH. (DUB.), D.P.H., D.T.M. & H.; Kennedy, Betty Marcal, M.B., CH.B. (EDIN.), D.P.H.; Kent, Mary, M.B., CH.B., (MANCH.); Kingston, Claude, M.R.C.S., L.R.C.P., D.P.H.; Knowles, Marion, M.B., CH.B. (LEEDS); Lennane, Gerald Alfred Quin, M.B., B.CH. (CAMB.); McArthur, Catherine Brand, M.B., B.S. (LOND.), M.R.C.S., L.R.C.P.; Macmillan, Archibald, M.B., CH.B. (GLASG.), D.P.H.; McNaught, James Gibson, M.A., M.D. (GLASG.), D.P.H.; Ornstein, Helen Ellen D. E., M.B., B.S. (LOND.), M.R.C.S., L.R.C.P., D.P.H.; Russell, Christina, M.B., CH.B. (ABERD.); Wilson, Stanley Pierce, M.D. (MANCH.), D.P.H., D.T.M. & H.

As Associates:—

Littlar, Arthur Roydon, L.D.S. (LIV.); McKinna, William Robert, M.R.C.V.S., D.V.S.M. (VICT.); Moor, Henry, L.D.S. (DURH.); Roach, William, F.R.C.V.S.

A number of nominations were received for the next election.

There followed papers on "The Pre-School Child," read by Dr. Ethel Cassie, Chief Child Welfare Medical Officer, Birmingham, and President of the Maternity and Child Welfare Branch, and by Dr. G. C. M. M'Gonigle, Medical Officer of Health, Stockton-on-Tees. In the subsequent discussion there spoke Drs. R. M. F. Picken, J. Macmillan, Agnes H. Nicoll, J. Sim Wallace, Margaret Emslie, Ralph Williams, and E. H. T. Nash. The President expressed the pleasure and interest afforded to the meeting by the papers and subsequent discussion, and a hearty vote of thanks to Drs. Cassie and M'Gonigle was passed by acclamation.

The meeting then adjourned.

A full report of the papers and discussion will appear in a later issue of *PUBLIC HEALTH*.

THE METROPOLITAN BRANCH.

President: Dr. John Macmillan, D.S.O., M.C., M.O.H., Woolwich.

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 March 27th, 1931, the President occupying the chair. Sixteen other members of the Branch Council were present.

Consideration was given to a letter from the Metropolitan Boroughs' Standing Joint Committee relating to the examination of newly-erected dwellings before occupation, and asking for information as to how far Section 4 of the London County Council (General Powers) Act, 1920, had proved ineffective in respect of drainage of such premises having regard to the fact that no penalty was enforceable for non-compliance with the Section. It was decided that, as this matter was first raised

by the Greenwich Borough Council, it should be referred to a Sub-Committee consisting of Dr. Annis (Medical Officer of Health of Greenwich), Dr. Howell, Dr. Charles Porter, and the Hon. Secretary.

Dr. Keith, acting for the Hon. Secretary, read a letter from the Metropolitan Boroughs' Standing Joint Committee referring to the Branch Council's suggestion that regulations should be made whereby more systematic examination of suspected foodstuffs might be assured, and asking to be furnished with a memorandum dealing with the subject of unsound food generally and giving reasons for seeking the further powers mentioned. It was decided to refer this request to the Sub-Committee which previously dealt with the matter and which consisted of Drs. Connan, Keith, Trotter and Willoughby, with a view to the preparation of a memorandum on the lines requested.

The Branch Council gave consideration to a memorandum from the Chief Clerk of the Bethnal Green Public Health Department in regard to statistical methods of comparing maternity and child welfare work in the metropolitan boroughs, with particular reference to ante-natal care. The Hon. Secretary was directed to communicate with the Chief Clerk of Bethnal Green expressing the thanks of the Branch Council for his interesting memorandum, and suggesting that it should be referred to the Association of Chief Clerks with a request for further proposals as to the form in which such statistics should be presented.

The Branch Council had before them a letter from Dr. Annis pointing out that the period of office of the present London Panel Committee expires in June next, and suggesting that steps should be taken by the Society to select their representative for the ensuing period before that date. It was decided to recommend the Society to re-appoint Drs. Annis and Trotter to serve as representatives of the Society on the London Panel Committee for the ensuing session.

A meeting of the Branch followed the Council meeting, the President occupying the chair. Twenty other members were present.

Dr. Keith read a letter from Lady Balfour thanking the Branch for their message of sympathy in the loss of her husband.

The Branch gave consideration to communications from the West of England Branch and the Midland Branch, putting forward

the names of Drs. Ernest Ward and C. Killick Millard respectively for the office of President of the Society for the session 1931-32, and it was decided to support the nomination of Dr. Killick Millard.

The Branch approved certain minor alterations in the draft tuberculosis pamphlet proposed to be used in London, and decided that the Hon. Secretary should circulate copies to the Branch Council. It was pointed out that the double red cross which appears on the front of the pamphlet, and which is the emblem of the International Union against Tuberculosis, is not in the nature of a trade-mark, and the Branch were of the opinion that there is no reasonable objection to the use of such a cross on a pamphlet dealing with the prevention of tuberculosis.

THE NORTHERN BRANCH.

President: Dr. Charles Franks, J.P., M.O.H., Durham C.C.

Hon. Secretary: Dr. J. A. Charles, Deputy M.O.H., Newcastle-upon-Tyne.

A meeting of this Branch was held at the Medical Institute, Windsor Terrace, Newcastle-upon-Tyne, on March 27th, 1931, the President occupying the chair. Thirty-one members were present.

The Branch decided to submit the following recommendations to the Council of the Society:—(1) That Drs. E. H. Snell and R. M. F. Picken be nominated as the two Representatives of Public Health Service members on the Council of the British Medical Association; and (2) that Sir T. Eustace Hill, Professor Harold Kerr, Drs. R. M. F. Picken and R. H. Wilshaw, be nominated as the four Representatives on the Representative Body, Session 1931-1932.

A letter was read from the Midland Branch asking for the support of the Northern Branch in the candidature of Dr. C. Killick Millard for the office of President of the Society for 1931-32. It was agreed that the matter be considered at the May meeting.

The following were elected members of the Branch:—Compertz, Alexander, Assistant Maternity and Child Welfare Medical Officer, Stockton-on-Tees; Sutherland, Jean, Assistant School Medical Officer, Stockton-on-Tees.

Dr. M'Gonigle reporting as Branch representative on the Council of the Society, stated that the only matter of general interest related to the memorandum of evidence embodying the Society's views to be placed before the

Departmental Committee on Local Government Officers.

Dr. MacLeod stated that he did not agree with parts of the evidence contained in the memorandum, and expressed his strong disapproval of the fact that the Branches of the Society had not been given the opportunity to discuss the memorandum prior to its submission to the Departmental Committee.

A discussion on Ministry of Health memorandum 156/M. & C.W., with special reference to maternal mortality, was opened by Dr. A. Stuart Hebblethwaite, Medical Officer of Health, Sunderland; Dr. E. Farquhar Murray, Honorary Gynaecologist, Royal Victoria Infirmary, and Honorary Obstetric Physician, Princess Mary Maternity Hospital; Dr. J. W. H. Morrison, Medical Officer of Health, Blaydon-on-Tyne; and continued by Drs. F. H. Morrison, G. C. M. M'Gonigle and R. MacLeod.

On the motion of Dr. Mary E. Howie, seconded by Dr. J. O. Murray, the openers of the discussion were accorded a hearty vote of thanks for their interesting and instructive contributions.

THE YORKSHIRE BRANCH.

President: Dr. L. Pickering-Pick, M.O.H., Spenborough.

Hon. Secretary: Dr. G. H. Pearce, M.O.H., Batley.

A meeting of this Branch was held at the Town Hall, Sheffield, on March 27th, 1931, the President occupying the chair. Eighteen members and four visitors were present. In the unavoidable absence of the Hon. Secretary, Dr. J. Johnstone Jervis acted as Secretary *pro tem*.

A visit was made to the Sheffield and Eccleshall Co-operative Society's Pasteurising Plant at Millhouses. Designed to deal with 30,000 gallons of milk weekly, the plant is modern and up-to-date in every respect. All processes are carried out by electrical power, the milk being untouched by hand at any stage.

A return was then made to the Town Hall where tea was kindly provided by the Lord Mayor. At a meeting held subsequently some interesting remarks were made by Dr. John Rennie, Medical Officer of Health, Sheffield, on the subject of the pasteurisation of milk, particularly with respect to its effect on the Sheffield milk supply. An interesting discussion followed.

A letter from the Yorkshire Branch Council of the British Medical Association stated that

the Branch Council had passed the following resolution:—"That the question of post-graduate instruction as to the early diagnosis and treatment of tuberculosis should receive consideration by the Branch, the West Riding Panel Committee and the Yorkshire Branch of the Society of Medical Officers of Health, and we recommend the formation of a Joint Committee to discuss the whole question." Drs. Tattersall, Turner, Rennie and Pearce were appointed representatives of the Society on this Joint Committee.

For many years little or no interest in the proceedings of the Society of Medical Officers of Health has been taken in the Sheffield area, and the success of this meeting was very encouraging and augurs well for future progress in the interests of the Society in South Yorkshire. The thanks of the Branch are due to Dr. Rennie for making the local arrangements, and it is hoped that another meeting may be held in Sheffield or Rotherham early in the next session.

A meeting of the Branch Council was held prior to the ordinary meeting.

THE NORTH-WESTERN BRANCH.

President: Dr. C. O. Stallybrass, Assist. M.O.H., Liverpool.

Hon. Secretary: Dr. G. W. N. Joseph, M.O.H., Warrington.

A meeting of this Branch was held in Liverpool, on April 10th, 1931, the President occupying the chair. Twelve members were present.

The Hon. Secretary intimated that the next ordinary meeting of the Branch would be held in Manchester on Friday, May 8th, 1931, at 6.30 p.m., at Parker's Restaurant, St. Mary's Gate, and would be preceded by a hot-pot supper (price 2s. 6d. each).

The annual meeting of the Branch will be held in Liverpool on Friday, June 5th, 1931.

A most interesting paper on "Anthrax and Modern Methods of Treatment" was read by Dr. A. E. Hodgson of the City Hospital, Fazakerley. His remarks were limited to the cutaneous form. In dealing with the etiology of the disease he mentioned that there was no precise knowledge of immunity against the disease; no preventive inoculation was known, but although persons might contract the disease more than once, second attacks were generally less severe, showing that there was some degree of immunity sufficient to modify

the disease. Describing the symptoms, he laid stress on the fact that malignant pustule was to some extent a misnomer, for pus was never found at any stage and, if found, was a contra-indication to the diagnosis. It was only present in the late post-inflammatory sloughing stage. If situated in the anterior triangle of the neck or on the cheek it was always extremely serious owing to the likelihood of early involvement of the larynx, in which cases tracheotomy only temporarily postponed a fatal issue. The prognosis depended chiefly on early recognition and situation of lesion. He dealt with a series of 52 cases and exhibited photographs of many of the lesions; of these, seven proved fatal, four being moribund at the time of admission. With regard to treatment, he advocated intravenous injection of anti-anthrax serum in doses of 100 to 250 c.cs. repeated daily until improvement, indicated by decrease in the swelling, was manifest. The largest dose he had given was 1,540 c.cs. and the smallest 90 c.cs.; the average for the 52 cases worked out at 360 c.cs. each. Only the most trustworthy of sera should be used, and there was a wide variation in potency in different batches of the same sera. Of chemical substances, neo-salvarsan and its allies had been used, particularly in the East, and Stabilarsan had been tried recently with good effects.

A hearty vote of thanks to Dr. Hodgson for his excellent paper was unanimously accorded on the proposition of Dr. Grahame, seconded by Dr. Peirce.

Dr. Rundle pointed out in the subsequent discussion the difficulty of assessing the value of serum, as cases differed so and dosage was largely empirical. He mentioned the ease with which hypersensitivity to serum may develop during serum treatment of anthrax, thus necessitating the cessation of this form of treatment.

Dr. Sharpe said he was struck with two things regarding anthrax—its great infrequency in this country, and the fact that medical practitioners as a whole were fully alive to the possibility of its occurrence.

Dr. Stallybrass, who had summarised recent work on anthrax for the *Bulletin of Hygiene*, stated that much work had been done on anti-anthrax serum in Czechoslovakia, where successful treatment of the disease in cattle was reported. In cattle anthrax chiefly took the form of a bacteraemia which caused sudden death. Probably in

those cases in human beings with sudden death a bacteremia also developed. This serum was probably connected with the aggressins in the blood. There was no statement that he had seen with reference to the use of this Czecho-Slovakia serum for human beings. Another improvement that might be made in anti-anthrax serum was in the direction of further concentration, such as had already been accomplished by two South American workers through precipitation by passing CO₂ through the serum.

Dr. Stockdale also joined in the discussion, and Dr. Hodgson replied.

THE WELSH BRANCH.

ASSISTANT MEDICAL OFFICERS' AND SCHOOL DENTISTS' SUB-GROUP.

Chairman: Dr. C. J. McSweeney, Deputy M.O.H., Cardiff.

Hon. Secretary: Dr. W. E. Crosbie, Asst. M.O., Glamorgan C.C.

A meeting of this Sub-Group was held at the Public Assistance Offices, Bridgend, on February 20th, 1931. Ten members were present.

Mr. H. N. Tiplady, School Dentist, Swansea, read a paper on "The Mouth as a Focus of Infection." A copy of the paper is being forwarded to the Hon. Editor of PUBLIC HEALTH with a view to publication.

In the discussion which followed, the Chairman, Drs. Betenson, G. Evans, Holmes and Cohen and Messrs. Young and Hevin Jones took part. The association between dental caries and such conditions as malnutrition, cervical adenitis, and acute rheumatism were raised and discussed, as well as the occurrence of oral sepsis amongst expectant mothers, especially in relation to puerperal sepsis and maternal mortality.

A short paper on the "Correlation of Public Hospitals with the Public Health Services" was read by Dr. W. E. Crosbie. In dealing with this subject, the increased powers and duties given to some local authorities by the Local Government Act, 1929, were mentioned. The appropriation of existing poor law hospitals was discussed in detail, and finally the points of contact between the public hospitals and the public health services were enumerated, illustrations being given of how the latter may be extended by utilising the facilities offered by public hospitals.

The chairman, Drs. Cohen, G. Evans,

Betenson and Holmes took part in the discussion which followed.

The proceedings terminated with a vote of thanks to Mr. Tiplady and Dr. Crosbie for their interesting contributions.

THE MATERNITY AND CHILD WELFARE GROUP.

President: Dr. Ethel Cassie, Assistant M.O.H., Birmingham.

Hon. Secretary: Dr. Grace Calver, 1, Holly Terrace, Highgate, London, N.6.

A meeting of this Group was held at the house of the Society on March 27th, 1931. Thirteen members were present, Dr. H. Clodak Gregory occupying the chair.

Dr. William Moodie, Medical Director of the Child Guidance Clinic, gave a paper on "Difficulties in Childhood, with Special Reference to Enuresis." He pointed out that some cases were due to physical causes, such as a long prepuce, worms, chemical urinary changes or improper diet, whilst others could be classified in one of four groups. The first of these, where enuresis had been present always, was often associated with prolonged illness or jealousy of another child, and was a continuation of the emotional situation so created. In the second, it was one of several anxiety symptoms due to some emotional storm and environmental cause. In the third, enuresis was present during the day and not at night, and was often in the nature of an overflow incontinence. In the last and smallest group there was a sexual basis, often with well-marked nervous disturbance. Treatment resolved itself into compensation of the unsatisfactory environmental factor, habit training, suggestion, and, in certain types, individual psychotherapy.

An interesting discussion followed in which Dame Louise McIlroy and Drs. G. Calvert, M. Emslie, E. H. T. Nash, and A. H. Nicoll took part.

Replying to points raised, Dr. Moodie said that normal micturition was probably a conditioned reflex not developed until the fourth or fifth month; in mental defectives there was non-development of the necessary neuron control. Fatigue was a very important factor to be considered in investigation and treatment.

A hearty vote of thanks to Dr. Moodie, proposed by Dame Louise McIlroy, was carried by acclamation.

THE MATERNITY AND CHILD WELFARE GROUP.

BIRMINGHAM AND MIDLAND SUB-GROUP.

President: Sir John Robertson, C.M.G., O.B.E.

Hon. Secretary: Dr. Jean Hall Morton, Asst. M.O. (M. & C. W.), Birmingham.

The second meeting of this Sub-Group was held on March 14th, 1931, at Wolverhampton, where the members made a tour of inspection of several institutions of public health interest,

including the Venereal Diseases Department of the Royal Hospital, and the new Maternity and Isolation Blocks of the Women's Hospital (at which tea was served).

Keen interest was shown in all that was seen, and a hearty vote of thanks was accorded to Dr. R. H. H. Jolly, Medical Officer of Health, Wolverhampton, for his kindness in arranging such an enjoyable and instructive visit.

The Literature of Preventive Medicine.

INFANT FEEDING IN GENERAL PRACTICE. By J. V. C. BRAITHWAITE, M.D., M.R.C.P. (Lond.), Physician, and Physician in Charge of Children Out-Patients, Leicester Royal Infirmary and Children's Hospital. With a Foreword by H. C. Cameron, M.A. M.D. (Cantab.), F.R.C.P. Bristol: John Wright & Sons, Ltd., 1930. pp. 140. Price 4s. 6d. net.

In a modest preface the author of this book declares that it contains little that is original, but this is an admission which need in no way daunt the prospective reader. The works of prominent German and American pediatricians have wisely been consulted, but Dr. Braithwaite's book bristles with pleasurable dogmatic passages which are evidently his own, and which are well supported by illuminating case reports.

As a short work, the book is well arranged, being mainly made up of three equal sections which describe, in turn, breast feeding, artificial feeding, and nutritional disorders. The remaining space is devoted to conditions which simulate disorders of nutrition, and though the inclusion of this matter may be criticised as being beyond the scope of the book, it represents so concise and practical an article on differential diagnosis that it is certain to prove of value.

In the description of the chemistry of digestion, the author has succeeded in making his explanation clear and logical without including a host of symbols and formulae, and if every intelligent expectant mother had the opportunity of reading this section of the work, the practitioner's advocacy of breast feeding would be much more sympathetically understood.

There are statements, of course, to which objection will be taken by some; for example, the advocacy of sedatives and narcotics in early infancy, and the recommendation that all cow's milk should be boiled before it is used

for artificial feeding: nevertheless, the book is so admirably written and up-to-date that without hesitation it may be recommended.

THE CASE FOR ACTION. A Survey of Everyday Life under Modern Industrial Conditions, with Special Reference to the Question of Health. By INNES H. PEARSE, M.D., B.S. (Lond.), and G. SCOTT WILLIAMSON, M.C., M.D. (Edin.). London: Faber & Faber, Ltd., 1931. pp. 171. Price 5s. net.

The law of nature is the survival of the fit; the reverse of that law is the survival of the unfit, but the ideal of preventive medicine is the making of everyone fit to survive. This is not only the principle of the Pioneer Health Centre as described in "The Case for Action," but of all progressive local authorities.

The book deals adequately with the failure of the National Health Insurance Act to maintain the relationship previously existing between doctor and patient, but an extension of that Act to include the care of dependents would be a more simple way out of the difficulty than that described by the authors.

It is refreshing to a member of the public health service to read that the real danger to general practice lies in the abuse of the out-patient departments of general hospitals and not in the encroachment of municipal clinics.

The amount of overlapping and duplication of services is vast, and the provision of facilities for the "pooling" of babies to prevent the development of parental characteristics (Soviet Russia) for the "club" life for mothers and for the "snug" life for fathers is contradictory to the policy of the preservation and strengthening of the family as the basic social unit. In any area where the usual social and health services are provided there is no case for action.

MODERN SKIN THERAPY. By H. D. HALDIN-DAVIS, M.D., F.R.C.S., M.R.C.P., Dermatologist, Royal Free Hospital; Lecturer on Skin Diseases, London School of Medicine for Women. London: Jonathan Cape, Ltd., 1930. pp. 128. Price 5s. net.

This is another of the series of handy and compact volumes devoted to treatment. It should be a great service to practitioners and students as an immense amount of practical and modern advice is compressed within its pages.

The first half of the book is devoted to systematic considerations of eczema, psoriasis, mycelial infections, urticaria and lupus. Diseases of the scalp have a chapter to themselves in the middle of the book. The third portion is concerned with actinotherapy, protein shock therapy, and minor surgery.

The book is quite justifiably claimed as a practical handbook. Useful and effective prescriptions are interpolated in the text and the subject matter is full of sound advice that has the additional advantage that it has been applied successfully in the actual handling of the really common skin complaints.

The general style is brisk and fresh, and the author has obviously drawn on a very large personal experience of dermatology in relation to general medicine.

A MANUAL OF TUBERCULOSIS FOR NURSES. By E. ASHWORTH UNDERWOOD, M.A., B.SC., M.B., CH.B., D.P.H., Deputy Medical Officer of Health and Tuberculosis Officer, Rotherham; Medical Superintendent, Oakwood Hall Sanatorium. With an Introduction by Professor J. R. Currie, M.A., M.D., M.R.C.P., D.P.H., Professor of Public Health, Glasgow University. Edinburgh: E. & S. Livingstone, 1931. pp. 272. Price 6s. 6d. net.

The aim of this manual is to provide, in convenient form, the information which is likely to be required by nurses who are engaged in the hospital management of tuberculous cases, and also to meet the needs of those who are preparing for the final examination for the Certificate of the Tuberculosis Association. The author is well qualified to provide a book with such aim, and has produced in handy and convenient form a volume that should be of real value to those for whom it is intended. To nurses generally, and to tuberculosis nurses and health visitors in particular, the information given should also prove useful, and to them the book may be recommended.

THE TREATMENT OF ASTHMA. By A. H. DOUTHWAITE, M.D., F.R.C.P. (Lond.), Assistant Physician, Guy's Hospital, etc. London: H. K. Lewis & Co., Ltd., 1930. pp. 164. Price 7s. 6d. net.

The object of this book is to present an epitome of modern medical knowledge of asthma, particularly where this has direct bearing on the subject of therapeutics. The first part is devoted to a consideration of asthma as viewed by the clinician and laboratory worker, the major section dealing with therapeutics.

That there is a breath of hope for the asthmatic all through is only one of the reasons for recommending the volume as worthy of study even by members of the public health service.

PUBLIC SOCIAL SERVICES. THE NATIONAL COUNCIL OF SOCIAL SERVICE (INCORPORATED), 26, Bedford Square, London, W.C.1. 1930. pp. 144. Price 2s.

A very warm welcome is offered to the fifth edition of this intensely valuable publication which so modestly describes itself as a "Handbook of Information." As a fact, the term "Gold mine" would be more appropriate, for such it must have appeared on innumerable occasions to members of the public health service, health visitors and others particularly. To these it is strongly recommended, as also to students preparing for the examination for the health visitor's certificate, who are expected to possess some knowledge of the subject without being told very definitely where they may acquire it.

THE SOCIAL WORKER'S HANDBOOK. By ANNIE MILNE. London: Martin Hopkinson, Ltd., 1930. pp. 127. Price 2s. 6d. net.

Although prepared for people who get together with the object of forming a society of some sort or another, in order that the formation, procedure and so on may go forward in an orderly manner, this book is one that may be read with profit by very many others.

As a fact, in nearly every meeting, even of individuals who ought to have learned by experience, there are always some who appear to have something to learn with regard to the rights and duties of a chairman, points of order, and what not.

Not only to these but to those for whom it is intended, Mrs. Milne's little book is most warmly recommended.

In the Annual Reports.

CREMATION.—Out of a total of 7,898 deaths which occurred in the city during 1929, the number of bodies disposed of by cremation was 36, or 0.46 per cent. Though this represents an increase of five over the figure for 1928 it is nevertheless disappointingly small. Why the public should continue to neglect cremation as a form—and from a hygienic point of view the best form—of disposal is hard to explain. In other parts of the country there is certainly the same reluctance to abandon the old method of earth burial, but nothing like so pronounced as in Leeds. One would have thought that with the growth of knowledge and the ever-increasing interest taken in matters relating to the public health, the advantages of cremation over the older method of earth burial would have made a wider appeal and attracted more support, especially from the better educated classes. As is usual with any reform, there is always at its inception a dead weight of ignorance, prejudice, and sentiment to overcome before it becomes generally accepted, and progress is probably slower with a reform which has to do with the disposal of the human body after death than with one which affects the living. It has been stated that the amount of formalities to be observed before cremation can take place, and the expense involved, account for the slow progress made. But if one examines the position impartially, one finds that these objections have very little real foundation. Formalities there must be, and expense is unavoidable, but disposal in the traditional way by earth burial is not free from either; indeed, as far as expense is concerned, cremation is probably the cheaper. What the public have to appreciate is the increasing difficulty of finding land in, and in the vicinity of large cities for gardens, parks, open spaces and for sites for dwelling houses, and to consider whether it is in the interest of the inhabitants of these cities that so much valuable land should be devoted to cemeteries and graveyards. The claims of the living are surely not less important than those of the dead, though in this country at least it is not always apparent that this is recognised.—*Dr. J. Johnstone Jervis, Leeds.*

CLEAN MILK COMPETITIONS.—The clean milk competition organised in the county and towards which the corporation contributed a portion of the cost is to be repeated, more farmers joining. One big distributing firm has joined together with other similar agencies in the bonus system which has a competitive side. It is interesting to note the standards laid down in this competition: Bacteria, not to exceed 250,000 per c.c.; *B. coli*, must be absent in 1/100 c.c.; butter fat, 3.2 per cent. mornings—2.8 per cent. evenings. Total solids, must be up to legal standard at all times or disqualification follows. Samples are taken often; always in less than a fortnightly interval. The inducement to producers to reach the standard is the only inducement which in this material world is likely to have any results, that is, a financial inducement. Those farmers reaching the standards laid down receive a bonus of £1 extra per 1,000 gallons. It is to be hoped that this system can and will be extended to cover all milks supplied for human consumption. If this could be obtained then the necessity for pasteurisation

would be abolished, and clean milk containing all its natural constituents and its consequent improved value as food would be sold to the public. It is interesting further to note the standard of milk fat laid down in this connection, viz., 3.2 per cent. mornings and 3.8 per cent. evenings. First remembering that the farmers concerned are ordinary commercial farmers with no special appliances and no secret sources of information as to feeding and caring for cattle, it is rather a denial of the argument that it is unfair to prosecute milk producers who fail to secure the legal standard of 3 per cent. milk fat. Not content with the minimum legal standard, the promoters of the scheme have raised the average milk fat content 0.5 per cent. and are securing it. Their standard of cleanliness is little inferior to Grade "A" milks, and is being obtained without any apparent difficulty. It would appear that the provision of a clean milk supply is only a matter of incentive to the producers, combined with advice to and the education of the farm worker in the simple if tedious methods of cleanliness necessary.—*Dr. V. F. Soothill, Norwich.*

CHEST CLINIC v. TUBERCULOSIS DISPENSARY.—The opinion of Dr. Ellman is that "the sooner the unfortunate title of 'The Tuberculosis Dispensary' can be replaced by the more appropriate one of, e.g., 'Chest Clinic,' the brighter the prospects of the anti-tuberculosis campaign will become, the fuller will be the necessary co-operation of both the general practitioner and the patient, and, even more important, the earlier will suspected cases of pulmonary tuberculosis be diagnosed. For the position of the general practitioner is a difficult one. The average patient dreads nothing more than the idea of having to attend a tuberculosis dispensary as such, where he fears the worst and believes himself to be a suspected consumptive. Not infrequently, as general practitioners in the borough have told me, the patient will resent the suggestion of visiting a tuberculosis dispensary and will seek advice elsewhere, till finally, after very considerable delay and from sheer necessity, he attends the dispensary with advanced phthisis, by this time probably having infected other members of the family. Such is the position we not infrequently have to face because of this tuberculosis 'phobia.' This unfortunate position could be very considerably remedied by replacing 'Tuberculosis Dispensary' by 'Chest Clinic.' It is more appropriate and truer, since numerous cases sent up are suffering from other pulmonary diseases than tuberculosis. It would create less fear and more confidence in the mind of the patient."—*Dr. W. Benton, East Ham.*

MR. MEREDITH WYNTER BLYTH, B.A. (Cantab.), B.SC. (Lond.), F.C.S., whose death, at the age of fifty-nine years, occurred at Tankersley, near Barnsley, on March 23rd, 1931, was the son of the late Dr. A. Wynter Blyth, at one time Medical Officer of Health and Public Analyst of St. Marylebone, the first editor of PUBLIC HEALTH, and President of the Society, Session 1901-1902.

Correspondence.

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

ADMINISTRATIVE AND TECHNICAL HEALTH OFFICERS.

To the Editor of PUBLIC HEALTH.

SIR,—The discussion at the meeting of the North-Western Branch, reported at page 232 of your April number, should act like a fresh sea breeze in blowing away some of the cobwebs that festoon the walls of the Society. With characteristic frankness, Dr. Veitch Clark threw open the window. In one short phrase he ventilated and illuminated the Society's oubliette where live those members who are, as he states, "experts in their own line."

If, however, one turns back to the memorandum of evidence submitted to the Departmental Committee by the Society, one finds precious little mention therein of these "experts." True, there is one short paragraph which tells us that, under section 59 of the Local Government Act of 1929, the Ministry of Health has defined the minimum professional qualifications necessary for a tuberculosis officer, a medical superintendent of a sanatorium, a venereal disease pathologist, a venereal disease officer, and a senior maternity and child welfare officer. Reading between the lines, however, it would almost seem as if these officers preserve their identity mainly because a portion of their salaries is refunded to the local authority from government funds. Indeed, it would appear that there is hovering in the background a blind fury with abhorred shears awaiting an opportunity to slit their thin-spun life, for are we not told, in para. 34, that:—

"With a view to the training of future chief officers, it is in many areas considered desirable that tuberculosis work, maternity and child welfare work, and other branches of medical work, should be divided amongst all available assistants, so that each may obtain a varied experience."

Those of us who have seen that system attempted in tuberculosis work can bear witness to the degradation of the standard of efficiency which resulted. If the tuberculosis service, poorly endowed as it is with the riches of this world, is at least saving its soul—and it came perilously near to losing it—where

has it found its spiritual home? Is it in the Society of Medical Officers of Health?

In the organisation of a public health service, or any other service, there must be two classes of officers, the administrative and the technical, complementary to each other, with defined spheres of action. If one medical society shelters both, as it should do, it must be based on liberty, equality and fraternity, and cater for all its members.

I am,

Your faithfully,

P. HEFFERNAN.

*Tuberculosis Officer,
Derbyshire County Council.*

Buxton.

April 16th, 1931.

THE British Broadcasting Corporation announce an interesting series of talks on "The Child's Health in Summer" to be given on Thursday mornings at 10.45, commencing July 2nd. The principal speaker will be Dr. Stella Churchill, who will deal with the subject under various headings, *e.g.*, sleep: clothes; food and drink; and holidays and outings. Talks on "Meals in Summer" will be broadcast by Professor and Mrs. V. H. Mottram on June 23rd and 30th and July 7th and 14th.

"THE Campaign against Rheumatism—Recommendations on how to Build, Equip and Staff a Clinic for Treatment of Rheumatism" is the title of a brochure recently issued by the British Red Cross Society, primarily for the information of industrial centres contemplating the starting of clinics similar to that opened by the Society in London last year. It deals with the subject under the following heads—The building; general and medical administration; the matron's and almoner's departments; schedule of rooms, etc.; equipment, furniture and linen; summary of staff. At a time when the industrial importance of rheumatism is so prominently in the public mind, the booklet will be found of special value, and those interested are invited to apply to the Secretary of the British Red Cross Society, 14, Grosvenor Crescent, London, S.W.1, for a copy.

PUBLIC HEALTH

THE JOURNAL OF
THE SOCIETY OF MEDICAL OFFICERS OF HEALTH.

No. 9. Vol. XLIV. JUNE, 1931.

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

Application should be made to the Executive Secretary of the Society, at 1, Upper Montague Street, Russell Square, London, W.C.1.

Subscription price 31s. 6d. per annum, post free in advance. Single Copies, 2s. 6d. post free.

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Editorial.

Smallpox Prevention.

DECLARING itself to be "a review of certain present aspects of smallpox prevention in relation particularly to the Vaccination Acts, 1867-1907," No. 62* of the Ministry of Health series of reports on public health and medical subjects will be found of value, and will be appreciated by health officers for that reason. There are other reasons, however, why it will interest these officers and prove helpful to them. For one thing they will note particularly that there is in it a final official recognition of the necessity of accepting smallpox as at least a two-type disease. Though there would appear to be a little of

banking after the term "alastrim," the report declares for a division into variola major and variola minor, quoting as authority the last decennial International Conference on the Nomenclature of Causes of Death (Paris, October, 1929) and expressing the view that, with a few exceptions, since 1923 the minor variety has been the prevalent form in this country. The justification for so claiming lies in the facts of its clinical character and low fatality-rate, and that unvaccinated persons affected have almost wholly escaped the serious illness, disfigurement, and death "with which they are so selectively smitten in the course of an epidemic of variola major." Outstandingly important from the more practical point of view of the health officer are the notes with regard to the methods of

* H.M. Stationery Office, 1931. pp. 67. Price 1s. net.

administrative control of smallpox. In this connection with every justification a number of claims are made: amongst them that extinction of smallpox of either form by the methods ordinarily followed in health departments is inevitable, and that though the minor variety may be more difficult to deal with on account of the ease with which it escapes detection, and because the people are less helpful in regard to it, there being "less feeling of civic conscientiousness regarding a malady thought to be trifling than there is with one known to be severe," where a new district is invaded and warning is given, it is often successfully controlled and kept to minimal proportions by applying to it all the measures applicable to the major variety. That there is ground for believing that unnecessary strain is thrown on departments by insisting upon the carrying out of all the routine adopted in respect of the major variety in the case of the minor, is granted in the report. Very full description is given of the lines that may be followed in modification of the ordinary measures, and in the whole report no part probably will be regarded as more practical and welcome than this by many harassed officers. A number of the suggestions discussed in a publication of this sort appear startling in their novelty, and even more startling the manner of their reception. On hospital isolation of cases of smallpox, for example, almost calmly it is left to the local authority, on the advice of their medical officer of health ("M.O.H." the report calls him) and their knowledge of the district, to decide the question, being partly social as well as medical, as to the advisability of retaining cases at home or admitting them to special wards or blocks in the ordinary infectious disease hospital. The possibility of making use of the local medical practitioners in connection with immediate vaccination of household and other contacts with cases seen by them, using government lymph specially served out to them, is fully canvassed. Interestingly enough, this is regarded as a not unreasonable suggestion, and so long as "authoritative supervision" and the keeping of proper records can be arranged for, no objection, it may be taken, will be raised to the proposal of any medical officer of health to adopt a system of distribution of government lymph to practitioners during epidemic periods. That there will come a time when there will be nothing used except government lymph, and that no medical practitioner will have the

slightest difficulty in obtaining a supply as and when required, is a hope raised by the spirit of acquiescence displayed by the Ministry to the suggestion in this present instance. Other hopes raised have reference to the method of dealing generally with contacts in the case of variola minor. The report recognises that the compilation of lists of all contacts is a laborious business and, in general, futile, and appears to agree that effort can be economised without loss of efficiency by concentrating on contacts with the patient from the time of his first sickness down to the appearance of the rash. Visits also might, with advantage, be replaced in many cases by notices. Of even greater advantage would it be if there were greater authority over contacts, with power to require them by notice to attend for inspection at a particular place and hour or, if they are unwell, to be at home at a specified time. This question of compulsion in relation to contacts is used to raise the whole question of compulsion in relation to vaccination. As a fact, the main theme of the report is vaccination, and much of its aim is to assist and encourage local authorities, who have now had about a year's experience of administration of the Vaccination Acts, in arriving at a decision as to alterations necessary. That the authorities may, and their officers definitely have formed opinions on this matter is probable. At the time of the taking over of the vaccination duties from the poor law authorities it was claimed here that from the point of view of preventive medicine this might prove to be one of the most important changes brought about by the Local Government Act. Experience has strengthened this view, and studied in the light of that experience the report will be found of the utmost use. Much of the portion dealing with vaccination is based upon the work and findings of the Committee on Vaccination and the effect of the recommendations originally offered by that body. Most striking in the report is the frankness with which the matter of the possibility of abandoning the compulsory idea, wholly or in part, is discussed. One of the difficulties in this connection lies in relation to the person unprotected by recent vaccination or by previous smallpox, who is known to have been exposed to infection at a time when prompt vaccination would in all probability prevent development of the disease. Refusal on the part of such an individual in his own and the general interest should not be tolerated, and no matter how

far relaxation of compulsion may be carried it should not cover a case of this kind. When the question comes forward for consideration, as it is obviously the intention of the Ministry from this report it shall, this case will no doubt receive special attention.

In producing and issuing this report the Ministry has done an excellent service to the health officer. Smallpox, no matter what form it takes, is always a source of worry and anxiety and, eminently practical, this report will bring comfort because it refers sympathetically to difficulties and offers useful suggestions. Also it provides food for thought on vaccination and other subjects which adds greatly to its value.

* * * * *

District Nursing in London.

A SURVEY of district nursing in London has recently been presented to the London County Council by their Medical Officer of Health.* It is contained in a comprehensive document, for the preparation of which Dr. Margaret Hogarth has been responsible, and deals with the general arrangements for domiciliary nursing throughout the county as well as conditions of service. The work of district nursing is reviewed in detail, special sections dealing with general nursing, poor law nursing, midwifery and maternity nursing, the nursing of insured persons and the work of the district nurses in relation to child welfare work, infectious disease (including tuberculosis) and school nursing.

The report should be welcomed chiefly because of the great tribute paid to the high standard of nursing at present available in London homes, and the Central Council for District Nursing, its affiliated Associations and the independent Associations have every reason to congratulate themselves. The survey draws special attention to the fact that an equally high standard of nursing is available whether the services of a private nurse can be paid for or not.

There are over thirty separate nursing associations in the metropolis, employing nearly 400 nurses, but between 60 and 70 of these are engaged, whole-time, in connection with special services such as school treatment centres. Excluding superintendents, the rates of pay of the majority of these nurses vary

* London: P. S. King & Son, Ltd., 1931. London County Council Publication No. 2818. Price 1s.

from £63 to £75 a year, with board, lodging, etc. They work, as a rule, eight hours a day and have, as off-duty time, according to the demands of the service, two hours daily, one half-day a week, and every third or fourth week-end. Every nurse has one month's holiday every year. They may qualify for a pension of £30 a year, after 21 years' service.

The service was primarily organised for the purpose of nursing the sick poor, but in recent years it has been extended to include nursing for statutory and other bodies. Its nurses have been employed by the London County Council in their school medical service, and by the metropolitan borough councils for nursing patients suffering from certain specified diseases. They have nursed, at home, poor-law cases for the former boards of guardians, and insured persons for approved societies and insurance companies. In certain areas they have provided a midwifery and maternity nursing service and assisted in the work of the infant welfare centres.

Nearly half the income of these Associations comes from voluntary contributions, one-fifth from patients' payments, and about a third from public funds. The late boards of guardians made contributions to their funds, varying from £5 5s. to £175 a year; the borough councils, as a rule, pay an agreed sum (from 1s. to 2s. 6d.) per visit, and the London County Council £170 per annum for each nurse. Other organisations have paid a fixed sum per session or per visit. The average cost of each visit is 1s. 4d.

Of all the public health services in London, none can point to a better record of work quietly, unostentatiously and efficiently carried out than the present nursing services. It is a service which has been used by the London County Council, by the metropolitan borough councils, by boards of guardians, by employers of labour, by provident insurance societies, etc., and it has met all the calls made upon it without complaint and without complaining. It is a service worthy of the great traditions which Florence Nightingale imparted to the nursing profession.

As the survey clearly shows that the existing service is adequate and efficient, the only consideration which need affect the London County Council (and the metropolitan borough councils even more so, for this is essentially a local service) is to ensure that such efficiency is not allowed to become impaired for lack of funds. It would be easy

to fix a rate of payment for the metropolis based on a general county average over some years, but every effort should be made to see that, in fixing this rate, due regard is paid to the higher rates found necessary in some parts of the administrative county, rather than to risk the crippling of this splendid service in these areas.

* * * * *

Bovine Tuberculosis in Man.

THE memorandum recently issued* dealing with this subject is the outcome of a promise made by the Minister of Health to Lieut.-Colonel Fremantle, M.P., in the course of a reply to a question in the House of Commons upon co-ordination of effort to prevent spread of bovine tuberculosis from cattle to man, and to promote the consumption of milk, and may be regarded as one of those publications to which the description "epoch-making" may in justice be applied. The account it gives of this most difficult and complicated subject is clear and concise, summarising the position now reached by efforts directed towards the prevention of bovine tuberculosis in man in this country with what may be regarded as absolute accuracy. The true facts of the case are admittedly difficult of assessment, and the memorandum reveals a commendable caution in the statements of fact and the conclusions to which they appear to lead. While noting that the death-rates for non-pulmonary forms of tuberculosis in England and Wales are decreasing, the fact is stressed that there is very serious loss of life and invalidity still to be credited to this disease, and that probably more than 1,000 children under fifteen years of age die annually in this country from tuberculosis of bovine origin, the great majority of such infections being almost certainly conveyed by cows' milk. It staggers but may be accepted that though the proportion of milch cows infected with tuberculosis is not accurately known, there is reason to believe that not less than 40 per cent. are so affected, and probably between 1 and 2 per cent. are yielding tuberculous milk.

Discussing the means available for preventing the spread of tuberculosis of bovine origin and the policy that should be adopted in the

*A MEMORANDUM ON BOVINE TUBERCULOSIS IN MAN, WITH SPECIAL REFERENCE TO INFECTION BY MILK. Ministry of Health Reports on Public Health and Medical Subjects, No. 63. H.M. Stationery Office, 1931. pp. 25. Price 6d. net.

future, an attempt is made to assess the value of the various prophylactic measures suggested. On the whole the assessment may be regarded as fair in respect of such methods as the complete eradication by slaughter of all animals positive to the tuberculin test, the building up of tubercle-free herds, inoculation with B.C.G., pasteurisation, and the routine clinical examination of cattle by experienced veterinarians.

The memorandum differs from others in the series inasmuch as no particular member of the staff is named as the author. In the prefatory note, indeed, Sir George Newman claims it as a report of the Ministry. Definitely this gives force to any views and opinions expressed, and to none more than to those relating to pasteurisation. This, it appears, the Ministry regards as the sole means of prevention likely to achieve appreciable results within a reasonable time. Many of a certainty will be inclined to agree with this conclusion. It cannot be doubted, however, that such as have been interested in the production of better milk under the machinery set up by the Milk and Dairies (Amendment) Act, 1922, and the Milk (Special Designations) Order made under it, will be disappointed to find the scheme, practically without comment, relegated to a very minor position, and the causes of failure neither discussed nor named.

Speaking generally, however, the omissions are comparatively few, the memorandum being extraordinarily complete and, of course, eminently readable and scientifically reliable, as must be any report whether it deals with milk or any other problem that is to be admitted to this remarkably valuable series.

* * * * *

Alcohol and Motor Road Dangers.

EVERY motorist knows how much dry roads make for safety: it cannot be doubted that safety is very much increased when drivers also are dry." This was a view expressed by Dr. Somerville Hastings, M.P., in returning thanks to Mr. Morrison, Minister of Transport, on behalf of a medical deputation that recently appeared before him to urge that he should follow the example of transport authorities in other countries and issue an official warning to all motorists against the taking of alcohol before or during a drive.

From facts and figures submitted by the spokesman of the deputation there appeared to be every reason for the statement of Dr. Hastings, and every justification for the

adoption of the suggestion submitted. The deputation, which was purely medical and introduced by Dr. Salter, M.P., included two members of the public health service, Sir Arthur Newsholme and Dr. Charles Porter, the former being the leading speaker on behalf of the party. The case he made, sufficiently strong, was strengthened by, amongst others, Dr. Vernon (University of Oxford, Industrial Fatigue Research Board) and Mr. McAdam Eccles, who spoke out of a wide experience as adviser to a large insurance company. On the evidence submitted to him the Minister admitted the necessity of giving serious consideration to the suggestion offered, though at the same time pointing out that, so far as compulsion was concerned, the law contained sufficient provision, if properly used, for imposing punishment upon persons found drunk in charge of motor vehicles.

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Cancer of the Lip, Tongue and Skin.

IN May of last year there appeared as one of the series of Ministry of Health reports on public health and medical subjects, a report on cancer of the lip, tongue and skin, containing an analysis of the literature, from a statistical standpoint, with special reference to the results of treatment. Using the information contained therein as a basis, the department has produced a memorandum* upon these types of cancer for the information and guidance of local authorities who have made, or contemplate making, some direct effort of dealing with this disease, in which is included the provision of instruction and means of obtaining advice and treatment.

Cancer of the three organs named may be regarded as appropriate for attack by the methods indicated, and some hope is offered that, if so attacked, favourable results may follow. In the memorandum reference is made to the common feature of cancer siting in these organs that, prior to their development, there is persistently shown an apparently harmless or at least non-cancerous condition which may be removed by treatment or watched for the cancerous change. If, it is suggested, information to this effect can be broadcast; if the people can be impressed with the importance of this characteristic and

* Ministry of Health Circular 1186, April 30th, 1931. H.M. Stationery Office. * Price threepence net.

if, at the same time, they can be made to grasp the relation of irritation to the occurrence of these forerunners of cancer, something effective in the direction of prevention might not unreasonably be expected.

In the case of skin cancers it is a fact that very largely they arise from occupational hazards and are, therefore, somewhat restricted. Nevertheless, the effort to secure the adoption of preventive measures, based upon a relationship between cause and effect and involving attack upon the former, is obviously worth the making.

Another interesting and encouraging feature presented by the cancers distributed as described in the memorandum is accessibility, not only for diagnosis, treatment and observation, but also for the noting of suspicious signs and symptoms by the patient himself. It is this that encourages belief in the value of teaching and impressing the need of taking early advantage of the facilities for securing advice, guidance and treatment. Largely it is in order to provide local authorities with the information upon which these conclusions are based that "Cancer—VIII," like others of its seven predecessors, has been issued. The abstracting of the original report has been so admirably done, and the scientific and statistical matter contained therein so readably and convincingly summarised, that the memorandum is certain to be found not only helpful and encouraging but providing, as the Ministry hopes it may, a further impetus for continuation and expansion of effort.

"ECONOMICAL Production of Pure Clean Milk" is the title of a most admirable poster prepared by the United Dairies' Inspection Department for distribution amongst their producers. As a collection of pictures on the subject, and from the point of view of practical accuracy, it is probably unique. Intended for persons engaged in the business of producing milk, it has obvious claims to be regarded as useful in connection with the education of health workers if not of the public generally. No indication is given as to whether or not it has been published for general circulation and sale. Undoubtedly, since there would probably be something of a demand for it, the question of such publication is worthy of consideration.

The Mind of the Young Child.

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In this paper, read at the inaugural meeting of the Birmingham and Midland Sub-Group of the Maternity and Child Welfare Group, Dr. Hamblin Smith, whose work as a psychologist is so well known, put forward points of view too rarely regarded by maternity and child welfare workers. Real gratitude will be felt that Dr. Hamblin Smith has been good enough to allow his paper to be reproduced here and to take so much trouble in preparing it for publication.

IT is probable that every age has regarded itself as unique, as witnessing changes which are quite unprecedented. It is, of course, flattering to our self-esteem to think thus of our own age. But when every allowance has been made for this natural self-esteem, it seems to me that we are really living in one of the great epochs of the world's history. I am not thinking of social history just now, important as are its present phenomena. My concern is with the history of thought, and the applications thereof. For no doubt is present in my mind that in the discoveries of the new psychology we have a fresh orientation of knowledge, which can only be compared with those effected by Copernicus and by Darwin. New light has been thrown upon every department of human learning. It is true that this has also thrown new and heavy responsibilities upon our shoulders. But, on the other hand, it has freed us from the incubus of more than one boggy of the past.

Most of those who consider the branch of medical work known broadly as infant welfare would do so in physical terms. They would think of ante-natal care and advice, of the care of the health of infants and children, with special reference to their proper feeding and clothing, to the preservation of their teeth, to the ventilation of their rooms, and to the early treatment of certain physical ills, which can be corrected with more or less ease in the commencing stages, but which, if left uncared for, occasion so much disability and morbidity in later life. In this respect Birmingham has a record of which her citizens may well be proud, so long as they are not content to rest upon past and present achievements, so long as they always keep in mind the city's motto ("Forward"). Nothing which I am about to say is intended to depreciate in the least degree the value and the importance of the work which I have just outlined.

But there is far more than this physical side. There are even greater opportunities of work on the mental side. Time was, and not so long ago, when psychology was regarded by the leaders of our profession with, at the best, amused tolerance. And the physical science, in which I and my contemporaries were brought up, was of a strictly materialistic aspect, and held that the time would come when every mental process would be established as resting upon a physical basis, an idea which is still held, to judge from some recent pronouncements on the inheritability of mental disorders. But to-day, while we are ready to admit the importance of the physical side, while we fully agree that the physical and the mental must be studied together, we deny that there is any dependence of the mental upon the physical. There is a partnership between the two; but if either partner is to be looked upon as predominant, that partner is the mental. It is urged that psychologists sometimes overlook a physical ailment in their attention to the psychical. It may be so; but the alternative error, in which mental ailments are ignored is much more common. For example, many nutritional problems in children are due to psychological factors, and the physical treatment of enuresis leaves much to be desired. Psychological treatment often has a marked effect upon bodily health, because bodily secretions which have been under psychological arrest are released. We all know cases of physical disease, or malformation, due to neglect in early life. There are far more cases in which neglect has caused mental injury, and they are of much greater moment. For while it is quite possible to live a contented and a useful life with a diseased or malformed body, it is utterly impossible to do so with a diseased or malformed mind. We are wont to express horror at the large number of inmates of our mental hospitals. There is an even greater

number of such potential patients who, in one way or another, are just tolerated in society outside those mental hospitals. There is the vast army of our neurotic subjects. And the extent of this gigantic evil, and the utter inability of so-called orthodox medicine to touch more than the fringe is shown by the vogue of certain strange religious cults in this country and still more in the United States of America. No words of mine are necessary to indicate to you the magnitude of the problem; it is patent to all who have eyes to see. And, as is the case with physical disease of malformation, much of this trouble might have been prevented had the case been taken in hand early enough. The pre-school years are the most important in this respect.

In olden times people were wont to explain the existence of evil by the subtle influence of religious sin. It was an easy explanation, and relieved us of much personal responsibility. When that began to get out of fashion, the view of heredity came to the rescue. This again, and for a similar reason, was a highly comforting doctrine. And heredity is much to the fore to-day; its protagonists are to be found in high places, and they certainly do not suffer from inability to make their voices heard, as witness the fantastic proposals for sterilization which are quite frequently advanced. This is not the place, nor is there the time, to debate the vexed question of heredity versus environment, using the latter term in the fullest sense. I do not, of course, deny that heredity has an influence, but I am sure that such influence is much less than is often stated. Even if mental patterns were inherited, which I doubt, they would still be subject to modification. In my remarks I intend to leave heredity entirely out of consideration, and I believe that those engaged in child welfare work can very largely adopt a similar course.

Now from our present point of view, what is the task of the welfare worker? Put into simple words, it is to counteract the mistakes made by the parents of the patients. Naturally, you do not advertise that primary object. You quite properly do all in your power to win the parents' confidence, to enlist them with you in your attempt to do something for your child patient. But at the same time you realise that the trouble lies not in the child but in the parents, and that it is the parents whom you are treating and not the child; and when I speak, as I shall speak of parents' mistakes,

I am so doing solely from the point of view of their effect upon the child.

Let us pass on to the immediate consideration of our subject, the mind of the young child (not children, for we study individuals). To begin with, let me insist upon the point that this mind does not come into existence at birth. From the first moment of conception, the embryo may be regarded as having a mind, inasmuch as it is a living organism. And from a very early stage in interuterine life the child may be regarded as being the subject of definite experiences. We have good reason to think that the interuterine state is one of complete and restful peace, in which every desire is satisfied; and it is a state in which we all unconsciously desire to return, a desire which is well illustrated by the fantasies and dreams of many adult patients. At birth all this comes to a dramatic and painful end. The trauma of birth is a tremendous and a most painful experience to the child, and its influence upon the child's mind is quite insufficiently appreciated. We need not doubt that this experience is much intensified when there is occasion for obstetric manipulation. Take, for example, the application of forceps. We are always taught to take the greatest care to avoid causing injury to the child's head. But when every possible care is taken, there must always be an unavoidable shock to the child in the mere act of being forcibly dragged into the world. This obstetric trauma and its effect in later life, deserves more investigation than it has as yet received. The weaning of a breast-fed infant is also an event occasioning severe mental trauma, the effect of which we have only just begun to appreciate.

As soon as it has been born, the child is the subject of a great number of new experiences. That these experiences are painful the child testifies in the most emphatic and unmistakable manner. There are sensory experiences through the skin, through the intestines, through the eyes, and through the ears (for in uterine life, sounds, if heard at all, can be no more than the pleasant murmur of surf on a far-off reef). And the new-born infant is subject also to violent changes of position to which it had been previously quite unaccustomed.

James has not unaptly described the new-born infant's mental condition as a "blooming, buzzing confusion," which the infant is unable to sort out.

The old notion was that the infant came into the world with a mind which was compared to a sheet of blank paper, upon which it was the happy task of parents and teachers to write just whatever they chose. We see that this view is entirely erroneous. The child arrives in this world with a mass of experiences, as well as with its equipment of human instincts. Every such instinct is present at birth, although each of them may have forms very different from those assumed in later life. The life history of every man is the history of a struggle between the pleasure principle and the reality principle, between what we want to do and what we are able to do. Childhood, far from being, as it is too often described, a time of complete and undisturbed happiness, is a time when this struggle is most intense, far more intense than is the case at any subsequent period of life. For the adult, and to some extent the adolescent, has various means of self-expression, and has also some degree of control over his environment. Whereas the child's powers of self-expression are limited, and his control over his environment is, for practical purposes, negligible. This fact alone should make us more considerate of children than we often are.

The infant looks upon himself as supreme. He regards the whole world as so much food for his consumption, for his interest is largely nutritional. But he soon has to modify this view, for he finds that certain things are not edible. His problem is to find some way in which these inedible things may be brought within the realm of his supremacy. This aim is achieved, at least in part, by those handling actions by which inedible things are moved and otherwise controlled. It is of the utmost importance for us to realize how powerful are the experiences of this stage in determining the reactions of subsequent stages. Take, for example, man's urgent need to explain things, to put them into classes, if he can do no more than that. The utmost that man can do to matter is to control it, that is, move it from place to place; and by so doing he gratifies his primal fantasy of supremacy. When he can find no place in which to put a thing he is annoyed, for his inability to place the thing is a direct assertion of his powerlessness, and an attack upon his fantasy of supremacy. Or, again, we can all recall having in our childhood the exceedingly pleasant sensation of knowing something which is unknown to some other person. This is taken over into adult life. It accounts for the attraction of secret

societies of various kinds; and when Mrs. X has obtained some piece of information about Mrs. Y, its chief value is that she can impart it to, or, if she prefers, withhold it from Mrs. Z.

In the infantile stage the fantasy of supremacy is fairly well realized in fact. As soon as the infant cries, the mother, or the mother surrogate, hastens to fulfil his desires. Quite soon the infant appreciates this phenomenon, and he begins to make use of the cry as a signal that he desires something. But he cannot interpret this fulfilment of his desire in the terms of an external agency, he cannot even conceive the existence of such an agency. Consequently, he regards his cry as the intermediary between his desires and the satisfaction thereof. Sandor Ferenczi has called this stage the "period of omnipotency by the help of magic gestures." And when we reflect how readily early conditions are transferred to dissimilar situations in later life, we have not far to seek for an explanation of the almost universal belief in magic, with all the important contributions of this belief to religious ideas. Further, the infant soon begins to distinguish between appreciation and blame. But we must not infer from this that the infant has any recognition of an ethical basis for approval or disapproval; nor may we so infer at a later stage in the child's development. The parent desires affection, and the infant appreciates approval and dislikes disapproval, for the latter implies loss of love, and hence some diminution of the sense of security. The infant finds that certain types of conduct produce approval, and these forms of conduct tend to be repeated. Somewhat later it is true that the child begins to classify actions under the categories of "good" and "bad," the latter being actions which elicit disapproval from the other persons in his environment. Such actions tend to be inhibited. But we must not, even then, infer that the inhibitory force may be regarded as what is generally known as a "moral restraint." The categories of good and bad depend upon some external standard. The importance of a full grasp of this fact is of the utmost moment in all considerations of social order; but into this subject, with all that it implies, I cannot enter now. Suffice it to say that few of us realize how largely our judgments of good and bad depend upon our early training in convention. And the majority of persons in the world do not recognize this at all, and are absolutely furious when it is brought to their notice.

That much, for example, of what we call modesty is conventional and not innate may be seen by the relative absence of that quality in the insane. The idea of bad being that which induces disapproval is constantly referred by the child to things in his environment. The child terms the table against which he has struck his head "bad." I suppose that no one would suggest that this implied the existence of a moral standard. But when the child expresses similar judgments in situations to which, on the adult point of view, the idea of good or bad would be properly applied, then people, quite mistakenly, allow themselves to see evidence of a moral standard. It is likely that children appreciate this point more clearly than do adults; and it is probably for this reason that they so strongly resent any sanctimonious expressions on the part of their companions.

The infant is absolutely egotistic. And since its desires tend to be satisfied by its mother, or mother substitute, the fantasy at this stage of life, the fantasy of supremacy, has not unfairly been termed incestuous. The fantasy of supremacy persists throughout life, and has always to be reckoned with; but I have no time to enter into this. The existence of this supremacy fantasy explains the well-known fact that to forbid a child to do a thing at once occasions a strong desire to do it. For the existence of something which we must not do is a direct challenge to supremacy. The same consideration applies to the existence of something which we do not know. To tell a child that he is too young to understand is a most humiliating thing, as well as an implication (as a rule quite false) that the superior adult does understand. The child should never be deceived, to do so is always fatal to any confidence. The silly lies often told to children about the arrival of babies do great harm, and have occasioned grave neurosis. The administration of medicinal powder in jam is another example; such a procedure tells the child quite plainly that adults may tell lies, while they forbid him to do so.

Infancy gradually fades into childhood, in which stage the dominant fantasy may be described as narcissistic. The child soon begins to resent authority, and to show marked signs of an authority complex. His contests with authority are usually quite ineffectual. Naturally, he will desire someone who will provide him with sympathy. He cannot, as a rule, find such sympathy among adults, with whose

code he is quite out of harmony. It might then be expected that he would turn for sympathy to another child. But the other child is, himself, too egotistic to give adequate sympathy in these circumstances, he having his own authority complex to contend with. Consequently, our typical child is driven elsewhere. He may select some animal or some toy to confide his woes to. Loeb, the Chicago murderer, confided his troubles to a teddy bear at the age of 18. But far more often the child creates his sympathiser by means of fantasy, and the characteristic fantasy at this stage is that of the ideal companion, one who is full of unwearied interest and sympathetic understanding. But the ideal companion is, by reason of the possession of these desirable qualities, quite under the domination of his creator. The ideal companion has no antagonistic desires of his own. And so we see that there is still a marked element of supremacy in the fantasy of this stage also, and the ideal companion fantasy persists throughout life. During the childhood stage the child can be taught to show, and later to experience disgust, although the origin of this emotion has not yet been satisfactorily explained. And we come, in this second stage, to the occurrence of definite repression, and as a result thereof to the formation of the most important part of the unconscious mind, that of the secondary or Freudian unconscious, as contrasted with the primary unconscious. So we have (1) a stage in which the primary unconscious is dominant; (2) a stage of compromise, in which the primitive tendencies give way, in part, to herd wishes; (3) the stage in which the primary unconscious goes into definite repression, and the child acquires a feeling of guilt for his primitive impulses.

The pure infancy stage is the only stage of which we can say that there is no complex; for the whole mind is dominated by the fantasy of supremacy, and the essential nature of a complex is that it is something which can be separated from the rest of the mind.

I have devoted a considerable amount of my time to the consideration of the ethical point, because of its great practical importance. The idea of an innate conscience is widespread and is very attractive. It is attractive because it relieves us of so much personal responsibility. We are quite ready to lay all responsibility for our conduct upon the rules laid down by some external authority, and few people trouble themselves about the validity of that authority,

or about the value of the rules laid down by it. But a generation which has lived through the war is not quite so satisfied with the operations of innate conscience as were the generations of the past. Yet while the loss of this valued prop to our self-esteem appears, at first sight, to be grievous, it really puts us in a far higher situation. When we realize that the child obtains its notions of right and wrong from ourselves, and from nowhere else, we may be more careful about the ethical training of children.

Much confusion is due to the idea that children are the property of their parents. It may be that, in primitive times, parents were allowed by law and custom to do things to their children which civilization does not now permit. And it would appear that Roman Law gave to a father, under certain circumstances, the power of inflicting death upon his offspring. But we are still fond of talking about the rights of parents. For example, it is constantly urged that parents have a right to teach their children, or to have them taught, just what they please. But we must never forget that the so-called gift of life is bestowed upon a child without any reference to that child's possible desires. Children are pro-created for the pleasure of their parents. In only too many cases the birth of the child is not even desired by the parents. Many a child has seen good reason to curse the day of his birth. It is certain that no child should be allowed to be born unless its parents really desire its coming. This puts the duty of children's obedience upon a very different footing. We are inclined to-day to demur to the old view that any person who has attained a certain age is qualified to become and justified in becoming a parent, and as automatically becoming entitled to absolute obedience from his children. Those only who are worthy of obedience are entitled to be obeyed.

It is often urged, and it is being urged just now with great clamour, that parents are quite able to bring up their children without the assistance, or, as it is usually put, the interference of psychologists. We all know what the result of this plan has been as regards physical ill-health. We have all heard of the mother who resented teaching about the care of her children, on the grounds that she ought to know all about children, having buried ten of them. We should describe such a case in other words, and we might substitute "murdered" for "buried." What about

those who have been mentally murdered, and mentally ill-treated? The amount of mental damage which is done to children is appalling, and for this the parents are directly responsible. I have heard it seriously said that cats are quite able to rear their offspring without assistance, and why should not women do the same thing. The cases are not parallel. We cannot compare animals with human beings who will be subjected to all the stress of modern civilization. And it is quite possible that savage parents really prepare their children better for the stress which they will have to meet than do parents in a civilized country. It is often urged that experience is sufficient. Apart from the fact that the vast majority of parents are quite inexperienced, experience by itself is not enough. It has been well said that the practical man is he who practises the errors of his predecessors. There must be scientific organization of experience before it can be of any value. And we must not forget that the mother is too occupied by her own problems to be able to deal with her children. But I need not labour the point. The eagerness of mothers to consult the present clinics, dealing as those clinics do with physical ill-health, is enough to show us that there will be a ready response from parents when mental clinics are started.

In the past, our understanding of the child was confused by our persistence in regarding him as a reasoning and a moral being. We see that morality is a matter of slow development, and that there is a strong unconscious resistance against that development. We also see that our unconscious resistance subjects us to deep emotional difficulties with our children, and that the nature of these emotional difficulties is often beyond our comprehension and our knowledge. It becomes clear that the effective handling of our children depends upon our comprehension of the unconscious minds, not only of children but of ourselves. It might be urged that this comprehension involves an elaborate study of psychology. Such is not the case. Long experience has taught me that quite ordinary men and women are capable of understanding the unconscious emotional activities of the mind, if the subject is presented to them in non-technical terms, and it can be so presented.

What kind of child do we want? I mention this point, because traits which would be of service in some communities might be very

damaging in others. We have to pay some consideration to the particular herd in which a child will have to live, having due regard to the fact that our existing herd is gravely unsatisfactory and requires amendment, which amendment can only be attained if there are people who want to do some amending.

I have to speak of fear. It is likely that certain fears are useful, in so far as they may cause us to avoid physical dangers. But superstitious fears are always most damaging, and invariably lead to a neurosis in more or less degree. We must not forget that we are all influenced by superstition, however much we may laugh at its influence. Fear is the great evil. What has to be cured is unhappiness. An adjusted person is always happy. An adjusted person does no ill to his neighbour.

When the infant is born we have to deal with an organism whose mental capacities are limited to physical reflexes and unorganised emotions. Very early we may see signs of anger. We may also note the early stages of love, and only too often those of fear and anger. We need not trouble ourselves unduly about the anger. But love and fear are on a different footing. Undue handling and excessive petting should be forbidden to the mother, and to all other persons. For the mentality of many an infant has been gravely damaged by lack of this precaution. I suppose I need hardly say that to pick up a baby whenever it cries is a hopelessly bad thing to do; this has now become almost a common-place, although the avoidance of the habit calls for self-discipline on the part of the parent more than discipline by the parent of the child.

The important pleasure-seeking paths of the infant are taste and touch sensation. I need not urge the avoidance of undue stimulation of the food canal. But I would urge that babies should not be the subject of indiscriminate kissing and stroking. Excessive stimulation of any pleasure seeking path may result in that path becoming abnormally sensitive, and this may have dire results in after-life. An infant who has been excessively kissed is very likely to want excessive kissing in later days. I do not know whether this is more undesirable for boys or for girls. The child's discovery that he can obtain pleasure from his own body is an important feature in his mental development, and leads on to masturbation, a term which has, of course, a very extended meaning in psychological language.

The education of the child's love impulse

is a momentous matter. After the first year of life we have to deal with other matters. The child has to retire from his position of centre of the universe, and he has to acquire some of the gathered experience of the race.

Put into simple terms, the situation is this. Until it has been taught the child is simply a primal savage, governed by its instincts. It has no morals, and no concern for any other person. It has to face the difficult task of adjustment to its environment. We have spoken of the infantile fantasy of supremacy. Its inevitable lot is to lose this supremacy, and to become merely a unit among the ocean of humanity. The infantile desire for the exclusive possession of some desired person is of immense practical importance, and is also the root, when it persists into adult life, of jealousy. We have already dealt with the mistake which is made in regarding the young child as being in the possession of a conscience, or a moral sense. And a similar mistake is to give the child credit for more power of reasoning than it possesses. Reasoning requires experience, and this the child does not possess. In fact, the reasoning part of the child's mind may be likened to a water cistern, out of which you can get nothing until something has been put in. Whenever we appeal to the reason of a small child, we inevitably set up a conflict in his mind. A vigorous part of that mind is being called upon to yield to the desires of others. I do not think that adults have nearly sufficient realization of the intenseness of the mental struggle which is thereby set up. I do not mean for one moment that we are to yield to the child's resistances. But I do mean that, whenever we have to see that our wishes prevail we should remember the child's mental conflict and exercise the utmost tact and gentleness. The existence of the struggle in all of us is the reason why so much of the childish days is forgotten. There is, as in all other cases of forgetting, a strong cause for the loss of memory.

I cannot enter into the peculiar problems which present themselves in the respective cases of the eldest, the middle, and the youngest child in a family, nor can I touch even the fringe of the eternal triangle of father, mother, and child, and its important bearing on the child's mental development, which rehearses every similar situation in after-life, and which has played so great a part in religious mysticism. I would just remark that the members of a family must not be assumed as

being necessarily fond of each other. It is probable that only the love of the mother for her infant can properly be regarded as instinctive. Antagonism felt by the child towards one or both parents is quite a normal feature of family life. The attitude of the child towards its excreta has a most momentous bearing upon its future character; but this matter would require a whole address for its elucidation.

In talking to children about matters in their conduct which we may desire to correct, it is of the utmost moment to select a suitable time. The child has done something of which we disapprove for good reasons, and it is impossible for us to avoid feeling a certain amount of anger. If we wait awhile that anger will have time to cool. You all have experience of such a happening. And in looking back over one's life, a striking feature is the frequency with which we have felt anger over entirely trivial and foolish matters. To speak when we are angry never does anything but harm. This is recognized in every well-managed institution, and precautions are taken to avoid dealing in hot blood with disciplinary offences, and to allow time for reflection on both sides. It is, of course, merely an extension of the old and useful advice of counting twenty-five before speaking. I fear only too many parents speak hastily to children. We must always remember that no single word we say to child or adult is ever really forgotten. Parents not only tell children what is useful for those children to remember, they also say many things which they would, later, give much to have had unsaid. In dealing with children more, if that be possible, than in dealing with adults, we must always keep in mind the warning—"Thou art master of the word that is unspoken, but the word that is spoken is master of thee." You have often heard the old and most ridiculous saying that "hard words break no bones." It is only to be wished that that was all they did. Much more serious matters are broken than bones. Recently there was much stricture in the Press over the remarks of a speaker at the British Association meeting who said that the old proverb should be altered to "Parents should be seen and not heard." What he meant, as I take it, was that parents should instruct by their example, and should not preach.

And the curious thing is that children are constantly told to check the angry word and the hasty blow, as if adults had nothing to be

corrected in that way. It is merely an example of the fact that we all expect too much from children. They must understand us, but must follow at a respectful distance; must humbly ask questions, but never ask such as are outside our powers to solve; always be obedient and submissive to us, yet have character and wills of their own towards others; come to us with their troubles, but not plague us unduly; make endless allowance for us and never question our opinion, while we make no allowance for them and constantly ridicule what they say; respect our privacy, but have none of their own; humbly ask our pardon when we are annoyed with them, but never expect us to ask theirs. And we must also bear in mind that the child's idea of God is derived from his idea of his parents, together with certain conventional notions which are imparted to him. God is represented to the child as a being who constantly watches us, from whom there is no escape, no privacy, whose conduct must never be questioned, who lays down arbitrary rules for our conduct, which rules seem quite senseless to the child (and often to the adult, for that matter) and punishes us if we disobey. In short, God is an exaggerated adult, with all the adult's most objectionable characteristics. Children are even taught that God ceases to "love" them if they are "naughty," that is, if they do anything to which adults object. It may be said that all this is quite antiquated theology. It is not so; it is the idea of God which is carried over into the life of many an adult. And I need not point out that this notion contains a most deadly element of that awful thing, fear. I do not mean that no ethical teaching is to be given to children. It is quite possible to show a child that certain types of conduct are anti-social, without introducing any feeling of fear or guilt.

It is related of Artemus Ward, the famous American lecturer, that he once required a pianist. He first attempted to obtain a good performer. This proving impossible, he determined to get the worst pianist available. I am in somewhat the same position. I should have liked to deliver an address with which all would agree. That being quite out of the question, I have endeavoured to be as provocative as was possible.

No one who has made any detailed study of delinquents and of neurotic patients can fail to have been struck with the frequency of histories of trouble during the pre-school period. The parent has the opportunity, had

he the wisdom, to prevent nearly all delinquency, nearly all neurosis. It is for us to supply him with the required wisdom. We may say, paradoxically, that the task of mental hygiene is to make mental hygiene unnecessary.

The future belongs to the children and not to us. What the children make of that future will depend upon what we assist them to make of themselves. We may draw an analogy from the story of Moses. He did his best to cure those whose lives had been warped by their Egyptian slavery. But his real contribution to mental hygiene was that he brought up a new generation under entirely new condi-

tions. We can take our analogy just a little further. We have a long road to travel ere we reach the Promised Land. Some of us will fall by the wayside. Some of us will be slain by the Amalekites, the forces of organized greed and reaction, or fall victims to the fiery serpents of superstition. In either case it will be a not ignoble martyrdom. But we can at least see to it that it is not the hardness of our own hearts which hinders our escape from the wilderness.

[I would express my indebtedness to the writings of Miss Mary Chadwick, Mr. Frederick Pierce, and Mr. T. K. Slade.]

The Control of Small-pox.

By L. PICKERING-PICK, M.R.C.S., L.R.C.P., D.P.H., Medical Officer of Health, Spenborough.

It was the practice in former years for Presidents of Branches, in their Addresses, to compare the past with the present, and to be entirely optimistic. The Presidential Addresses of the session 1930-31, it may have been noted, have rather a pessimistic tendency. In this of Dr. Pickering-Pick, delivered to the Yorkshire Branch, there is much pessimism with regard to the control of small-pox. Possibly now, if he has seen the Ministry of Health Report No. 62, to which reference is made elsewhere, he may be more inclined to optimism.

MY excuse for taking up such a subject as small-pox must be its importance, mainly owing to the amount of time that its control involves.

Ten years ago the country was nearly free from this disease; the West Riding of Yorkshire entirely so. Odd cases occurred in widely separated districts, but they were quite easily dealt with, and did not spread. The first town to be affected to any extent during this period of ten years was Middleton, in Lancashire, where there were seventy-nine cases in October and November, 1920.

The West Riding was first attacked in the first quarter of 1921, when there were three cases in the Wakefield rural district. Nothing further occurred for over six months, and then in the last quarter of the year the disease made its appearance in the Colne Valley, where there were a considerable number of cases. Since then, nearly nine years, the Riding has never been free from small-pox, though it must be nearly so at the time of writing, for during the period July 27th to October 11th (eleven weeks)

only twenty-two cases were reported, one of which I know was not small-pox, in seven districts. In four of the eleven weeks no cases were reported at all.

During the past nine years, every county borough in the Riding has had cases, and, with the exception of Ripon, every municipal borough. No urban or rural district of 10,000 population or over has remained entirely free. The incidence of the disease has, of course, varied widely. In some areas there have never been very many cases at any one time, but the disease has remained in evidence over an extended period. Examples of this are Huddersfield, where in three years and a half there were 291 cases, or 1.6 per week on the average, and Doncaster, where there were 197 cases in three years, equal to just over a case and a quarter per week. On the other hand, there have been districts which, when attacked, had a large number of cases in a comparatively short time, after which the disease disappeared, entirely or nearly. This happened at Sheffield, where there were 728 cases in nine months, and Rawmarsh,

where there were 456 cases in the first three months of 1926, since when there have only been thirteen further cases.

In my own district, Spenborough, the first case of small-pox for over twenty years came to light on the last day of February, 1928, though a large number of contacts had been notified in previous years from places as far apart as Bradford and New York. When I say that the first case came to light on February 29th, 1928, I, of course, mean the first case that was known about was first seen on that day, for there is no doubt whatever that there had been several unrecognised cases before that date. Subsequent events proved that to have been the case beyond all doubt.

This first case was that of a baby of 6 weeks, who had contracted the disease from his grandfather, who was said to be suffering either from food poisoning or from a bromide rash. In a very few days several more cases came to light, and in a number of them there was a history of another member of the household having just recovered from chicken-pox. This outbreak lasted until the middle of June. The district was then clear until the middle of the following February, when it again broke out. Probably, in this case again, there had been several missed cases. The first three cases were spread over nearly three weeks, and occurred in widely separated parts of the district. The first was a school child, the second a woman mill hand living over a mile from the first, and the third an employee at some stores living a mile and a half from the first, and nearly twice that distance from the second case. This epidemic lasted till the end of June, or four and a half months. Our third outbreak began in December, 1929, and lasted till July, 1930. Its commencement was instructive in showing the casual attitude of a large section of the public towards small-pox, and the difficulty in dealing with a possible outbreak. At the beginning of December a school boy was absent from school for three days, suffering from a "poisoned stomach." He returned to school on the fourth day with an eruption on his face and arms. This was assumed by the headmaster to be the result of the poisoned stomach, and he was in school all that day and the next. On the sixth day, the rash being no better, he was sent to see the doctor, who immediately recognised small-pox, and told the boy to go straight home and wait for the ambulance. Instead of doing so, the boy went to a picture-house in an adjoining district. Strenuous attempts were made to get

the school contacts vaccinated, but with little success. As a result, just at Christmas time ten other school children were down with small-pox. One boy who was leaving school at the end of the term and had got work was actually found in the mill with the rash full out.

These three outbreaks show rather an interesting difference in the course they took. The first one lasted 105 days. The peak was reached on the twenty-ninth day, when there were twenty cases in hospital. It then took a further seventy-six days to clear the district of the disease.

The second outbreak lasted 126 days, but the peak was not reached until the ninety-eighth day, and then in a month the epidemic was over.

The last of the three epidemics lasted 244 days, the peak being reached on the forty-fifth day, when there were twenty-four cases in hospital, all from one small part of the district. The epidemic then gradually abated until there was only one case in hospital, when a fresh infection was introduced into two parts of the district, and 120 days from the start there was another peak (eighteen cases), and it was a further four months before the epidemic was at an end.

During the past ten years small-pox has increased very rapidly both as regards the number of cases notified and the number of districts affected. Thus, in 1920, there were only occasional cases, and in no district except the one previously referred to did it become epidemic. In the first half of 1923 there were rather over twelve hundred cases in seventy-four districts. In the corresponding period of 1926 there was an increase of 378 per cent. in the number of cases notified, and of 107 per cent. in the number of districts affected. Last year (1929) there was a further increase of 21 per cent. cases and 90 per cent. districts compared with 1926. Small-pox is, therefore, obviously becoming more and more prevalent, and widely spread, though the rate of acceleration has been much less in the last three years than in the previous six.

In the control of an outbreak of small-pox, rapid and accurate diagnosis is of the utmost importance. The signs of classical small-pox are well known. There is the initial feverish illness with raised temperature and malaise, lasting a day or two. Then there is a drop in the temperature and general improvement, followed on the third day by a recurrence of the fever accompanied by a papular eruption which

develops very rapidly, and is centrifugal, affecting the limbs more than the trunk. The whole crop of papules appear together, becoming vesicular on the fifth day and pustular on the seventh. The important date is the third day, when the papular eruption first makes its appearance, for it is then that the disease is said to be in its most highly infectious state, and immediate isolation is essential. But it is just here where the signs of the present mild type of small-pox are apt to lead us astray, for they often differ very materially from those of classical small-pox.

To begin with, the papular rash is often, I might almost say usually, extremely scanty and ill defined. Again, the rash does not make its appearance *en bloc*, but often takes a considerable time to develop, in some of the Spenborough cases two or three days. In addition, there is no recurrence of the initial fever and malaise; in fact, of the cases I have had under my own observation during their isolation, the great majority have never felt ill at all after the appearance of the eruption. Only a very occasional case has had to be kept in bed while in hospital, and most of those who were kept in bed were so treated because they had pocks on the soles of the feet which made walking painful. Another difficulty I have found is that owing to the extreme scantiness of the eruption in many cases, the distribution of the rash is not easy to determine, there seeming to be as much, or as little, on the trunk as on the limbs. One case I had two years ago showed some of these difficulties very plainly. I saw a man one Friday afternoon with a fairly extensive papular rash on the body, but very little on the limbs. There was a history of tinned fish having been eaten a few days before, followed by some indisposition. There was no history of contact with small-pox, though there were a few cases still about. I decided provisionally against small-pox, but made up my mind to see him again the next day. I did so, and found the rash on the trunk as on the previous day, but the arms and legs were now covered with a profuse discrete papular eruption. Undoubtedly small-pox.

We are told that small-pox has, practically always, a definite incubation period of twelve days. This does not seem to me to be the case, and I should be glad to learn the opinions of others on the matter. At any rate, in a considerable number of the cases I have seen the history seemed to point to a longer incubation period; in one case, a known contact, as much as nine-

teen days. Whether or not this is so, it is not of great importance in arriving at a decision, and I, personally, should not be influenced by an apparently long incubation period if other signs and symptoms pointed to the condition under consideration being small-pox. The differences mentioned frequently make the diagnosis of small-pox a very difficult matter, particularly when dealing with first cases in an epidemic. So far as my experience goes, the sheet anchor in diagnosis is a history of "influenza," followed in a few days by a papular eruption affecting the limbs, no matter how scanty it is, and no matter whether there is more or less on the trunk. I think if all such cases are isolated, not many cases of small-pox will be missed, and few will be sent into hospital unnecessarily. The one symptom that has been absolutely constant in every case I have seen has been the preliminary influenza-like illness. Two cases that occurred this year (1930) illustrate this point very well. I was asked to see a child of two and a half one Sunday afternoon as being a probable case of small-pox. The child had been under medical care during the previous six weeks for bronchitis, but was now practically well, and there had been no return of any illness during the previous week. He was unvaccinated. The rash was extremely profuse, covering the whole of the trunk, face and limbs, except a band on each arm about an inch and a half wide, which was entirely free from rash. The rash, which had first made its appearance on the previous Friday, was just beginning to become vesicular, and was quite homogeneous. It seemed from the appearance of the eruption to be a clear case of small-pox, though there was no history of contact; in fact, there were no cases at all in that part of the district. In addition, I was not quite satisfied owing to the absence of any preliminary illness. I sent him into hospital as a matter of precaution and vaccinated him the same day. The result of the vaccination was entirely successful.

The other case was a lad of eighteen, whom I was asked to see because he had a rash on the face. There was an indefinite history of possible contact with a previous case, and a definite history of illness two or three days previously. The rash was decidedly peculiar. It was entirely confined to the face, there being no sign of anything on the limbs or trunk. The rash on the face was confined to the malar region and forehead, and consisted of tiny pearly white papules, very close together, but discrete. I

sent him into hospital because he had had a short illness, and now had a papular eruption, and intended to vaccinate him the next morning. But when I arrived at the hospital I found him covered with a typical small-pox rash, fairly profuse and with the ordinary distribution.

The administrative control of small-pox is a troublesome and decidedly expensive matter. It has been estimated in my district that the cost to the isolation hospital is 17s. 6d. per day per patient, plus ambulance and disinfection charges. This means that in my small area alone the isolation of small-pox has cost about £3,500 during the past two years and eight months. The amount of time the discovery and following up of contacts takes up is enormous. It is, in addition, a very difficult matter to get anything like a complete list of contacts in any one case. Home contacts and those at work or school are, of course, easy enough to discover, but it is an extraordinary thing how persons who get small-pox never seem to have been anywhere or to have had anybody to see them at home. In the early part of this summer a girl was admitted to hospital suffering from small-pox from a somewhat isolated part of my district in which there had not been a case of small-pox for over twenty-five years. She worked in Cleckheaton and went to work by 'bus, and failing any other discoverable cause of infection, I surmised that she had perhaps contracted the disease from a fellow passenger. About ten days after her admission to hospital she received a letter from a friend in an adjoining district, telling her that a mutual friend of both, next to whom she was sitting at a concert just a fortnight before she was taken ill, had been taken to hospital with small-pox the day after the concert. Now this girl had most certainly never been given as a contact, for I am perfectly certain that the medical officer of the district concerned would not have omitted to notify me at once.

Another difficulty in getting complete lists of contacts, and one that is increasing, has already been referred to. It is due to the enormous increase in transport facilities. Communities are no longer isolated, or nearly so. So far as Spenborough is concerned, with regard to the control of infectious disease, it is no longer a small district of 30,000 inhabitants, but part of a huge area with a population of some two and a half millions, who are continually moving about from one part of the area to another. This naturally affects the course of other diseases besides small-pox, but most of

the other epidemic diseases prevalent in this country, with the exception of influenza, chiefly affect children who do not range so far afield as do adults.

I do not suppose any of us here can complain that our departments are overstaffed; rather I should imagine the reverse would be the case. The work put upon health departments does not tend to diminish; it is continually increasing. Within the past few years we have had new duties with regard to the inspection of meat, dairies, cowsheds, etc., and now the Housing Act of this year entails a large volume of work which will take up much time if properly carried out. A fairly extensive small-pox epidemic throws a burden of work on health departments, especially in small districts, which it is often very difficult to cope with.

I would like to ask, in all seriousness, whether this elaborate scheme for dealing with the type of small-pox now prevalent is necessary, and still more, if it is altogether wise. There is a body of opinion, small, probably, but existent, nevertheless, that holds that it is neither one nor the other. You will all probably have seen letters on this matter in the journals from time to time.

But before we can so much as discuss any modification of the present procedure, two important questions must be asked and answered.

In the first place—Is this trivial complaint (for trivial it is in the vast majority of cases) really small-pox, or is it not? Is it, for instance, a disease allied to small-pox as paratyphoid fever is allied to enteric fever, or is it another disease altogether which happens to resemble small-pox in some particulars. I do not think we need go into this matter. The Branch discussed it at a meeting some years ago, and the members were, speaking from memory, nearly unanimous that this mild disease is really small-pox, and that is, I think, practically universally accepted. Certainly it appears to be by the Ministry of Health.

The second question is—Does variola minor breed true always, or, does it, can it, or may it give rise to cases of the severe or classical type of small-pox?

So far as my personal experience goes, it certainly does seem as if variola minor does breed true, for we have not had a single case that could, by the wildest stretch of imagination, be thought to be virulent small-pox. Of course, the cases coming under my notice are only a very small fraction of the whole, and the experience of others may be very different from

mine. As I understand it, that variola minor breeds true seems to be the general opinion. It appears, therefore, that both these questions can be answered in the affirmative.

Is the present scheme of control necessary? Admitting that the disease we are dealing with is small-pox, for if it were not, the expenditure of so much time and money on it would be simply futile; admitting we are dealing with small-pox, but with a particular type that can only give rise to cases of a like type, why expend all this time, trouble and money on it?

If it were thought probable or even possible that variola minor could give rise to variola major, and, after all, perhaps some day it may do so, there would be no more to be said on the matter of any relaxation of control. But the diseases that should occupy our attention, and should take up our time are those which kill, those which cripple, and those which disfigure. Now variola minor neither kills, cripples nor disfigures. Of course, in the official returns, small-pox accounts for a few deaths. The case mortality for the past three years was, I believe, about .3 per cent. But owing to the official method of assigning the ultimate cause of death, it is by no means certain how many, if any, of these persons actually died because they had small-pox, and would not have died had they not had it. Of course, as a matter of fact, we know that some of the deaths in the last three years were due to variola major, the Tuscania cases, for example. A death from small-pox was assigned to Spenborough two years ago, of which I knew nothing. It was, of course, a transferable death. I found on enquiry that the deceased was an old man, who had been in the workhouse for years, and was in the last stages of senility. Cleckheaton was his official domicile, and so we were credited with a death from small-pox which was probably due to old age.

It seems to me, therefore, that it is at least debatable as to whether a mild disease like this, which is likely to remain mild, is worth while the time given to it, in view of the many more important matters which occupy our attention. Already, in many districts, mild cases of scarlet fever, and this has been, on the whole, a mild disease of recent years, have not been isolated in hospital, and the accommodation thus set free has been devoted to more serious diseases, such as measles. And scarlet fever, even in its present mild form (to say nothing of measles) is a considerably more dangerous disease than variola minor. For my own part, I should welcome a change that would set our small-pox

hospital free for the treatment of severe measles cases. Measles has certainly killed more in my district during the past ten years than small-pox has killed in the whole of the West Riding during the same period. I cannot help thinking, therefore, that some modification might usefully be made in our present procedure.

Is it wise to act as we are doing in dealing with this mild type of small-pox? Speaking for myself, I have no doubt whatever that it is extremely unwise. We, the medical profession, preached vaccination for years as the only preventive, as, of course, it is, from that loathsome, deadly scourge—small-pox. We foretold the terrible things that would happen when small-pox got a stranglehold on an unvaccinated population when it came, as it undoubtedly would. The public refused to listen to us; vaccination became more and more uncommon. In 1927, 83 per cent. of the children under 7, seen by me at medical inspection were unvaccinated.

Well, small-pox came, and lo! it was not loathsome, it was not deadly, it was not even a scourge. In my opinion, people, or, at any rate, a very large percentage of them, do not care a straw whether they get it or not. The older members of the community who have seen the real thing—I mean, of course, classical small-pox—do not believe it is small-pox at all, and the younger people look upon it as a joke, entailing a three weeks' holiday, good food and sick benefit pay.

What is going to happen when virulent small-pox appears in this country, as it may do at any time? Communication between country and country is so rapid that half the world, nay, nearly the whole of the civilised world, is within the incubation period of small-pox from England, for has not the time of transit to Australia dropped to ten days within the present month. Sooner or later malignant small-pox infection will be introduced here, perhaps in several parts of the country simultaneously. What are we going to do, more than we are doing at present? We shall warn the people in our districts that small-pox has broken out, advise vaccination and other precautions, and just as much notice will be taken of our advice as is being taken now. It will not be until people begin to die, and to die in considerable numbers, that the populace at large will begin to take precautions for themselves, and cease to treat small-pox as they do a common cold. And then perhaps it may be too late.

Back in 1920 and 1921 some of the cases were notified and given in the weekly returns

of infectious disease as alastrim. I think it is a pity this term was not retained for popular use. To us, variola minor is small-pox, but to the public it may prove a very different proposition.

Destructive criticism is of very little use unless it is accompanied by a constructive policy, and having said so much, I feel I should make some suggestions as to what might take the place of the present routine procedure. I think it is very doubtful if many of you will agree with my foregoing remarks; in fact, I feel I am being unduly optimistic—"many" should be "any." Moreover, whatever we here may or may not think, I do not suppose that the Ministry of Health would be in the least sympathetic. I should like to make it quite clear that no alteration which might take place in the future in the administrative control of small-pox should prevent the medical officer of health being made aware at the earliest possible moment of the occurrence of any case of small-pox in his district. Hence, notification of small-pox should, of course, continue, but, in a slightly extended form. Besides the particulars now given on forms of infectious disease notification, those relating to small-pox should give the date of onset of the illness, the date of appearance, distribution and character of the rash, together with the patient's temperature and general condition at the time of the appearance of the rash. The medical officer of health or his assistant would then, if possible, see all cases, but certainly any case where the temperature is raised when the rash appears or where the rash is very diffuse or confluent. Isolation would not be resorted to except in cases where there seemed a possibility of variola major being present. Lists of contacts would be compiled as at present, but instead of the personnel of the health department spending valuable time in tramping about the district inspecting these contacts, a circular-letter would be sent to each one, advising vaccination (advice which in the great majority of cases would be ignored), and giving instructions as to the probable date of the onset of illness if infection had taken place and such other information and advice as might be considered necessary.

And what would be the result if such modifications were made? Probably a large increase in the number of cases, to begin with, possibly an enormous increase, would be almost inevitable. This would entail the payment of many extra half-crowns by the local authorities, but in the long run would cost a great deal less than maintaining lusty men and women in hospital

with nothing the matter with them. What about the loss of wages to the additional number of workers who would get this complaint in consequence of the relaxation of control? Well, all I can say with regard to that is, to repeat Sir George Newman's words at Edinburgh, in 1925, "small-pox is the perquisite of those who wish to have it." It seems to me that the final result would be that those who did not desire to have small-pox would be vaccinated as at present, and a large number of those who did not care would be protected from variola major by an attack of variola minor. For, with very few exceptions, one attack of small-pox protects from a second, and both variola major and minor are small-pox. I do not think that such alterations as I have indicated would make the control of malignant small-pox any more difficult, and it might make it easier, particularly if we ceased calling this mild disease small-pox to the public, and adopted for popular use either variola minor or alastrim in its place, reserving the term small-pox for use in cases of the severe disease.

I offer these remarks, not because they constitute an article of faith, but because I do think that the time of the personnel of health departments can be better employed than in chasing alastrim contacts, and the ratepayers' money be spent to better purpose than in maintaining people who are nearly always perfectly well, and require no treatment, and who, for the most part, will not raise a finger to assist the department in combating the disease. But I do feel that nothing should be done to tie our hands if, and when, malignant small-pox should make its reappearance. We are handicapped enough as it is by the attitude of the public and of the various governments during the past thirty years in their attitude towards vaccination, an attitude which to my mind is on a par with sending battleships into action without their big guns.

I am very conscious that I have been talking hygienic heresy. As your President, giving his Presidential Address, I believe I am immune from criticism, but if any of you wish to indicate how thoroughly you disagree with me, I trust you will not refrain from indicating the same in the usual manner, by saying so. But, let us not forget that what has been rank heresy to-day has sometimes been rigid orthodoxy to-morrow.

DR. M. M. J. MAUGHAN has been appointed Assistant Medical Officer of Health for the City of Lincoln.

Ut Ita Dicam.

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

The May Council Meeting.

One of the outstanding events of Council meeting day was that a photograph was taken. This may or may not have accounted for the fact that the attendance was quite good. The photograph also is quite good although it was taken in the rain, as any picture taken in the open in this country almost inevitably must be. Apart from the photographing there happened practically nothing else of interest. Even though it was the last scheduled meeting for some months, the agenda was a light one and, except for formal routine business, there was little. The chief formal item was nomination of the President for the ensuing session. Actually only two names came before the meeting; those of Dr. Killick Millard of Leicester (first President of the East Midland Branch), and Dr. Ernest Ward, Tuberculosis Officer for South Devon and Hon. Secretary of the Tuberculosis Group. A ballot showed voting in favour of nominating Dr. Killick Millard, and this it was accordingly decided to do. Other officers were nominated as well, including vice-presidents, the treasurer and the editor.

The American Annual Health Conference.

In addition to making these decisions, it was decided also to accept the invitation of the American Public Health Association and to send a delegation to attend the sixtieth annual meeting in Montreal from September 14th to 17th. Amongst those named delegates were Drs. G. F. Buchan, Carnwath, Fenton, Professor Jameson, Drs. Picken and Porter, and Mr. George Elliston, each of whom will take part in a symposium on public health administrative methods and practice in Great Britain. With other members of the service, including Sir George Newman, Dr. Parlance Kinloch of the Scottish Department of Health, and Dr. Kay Menzies of the London County Council, all the representatives named, it was explained, had received personal invitations to attend and to make contribution on particular subjects. Not all, however, had been able to accept for one reason or another. It is the hope of the Association that they may be able to make a grant towards the expenses of the delegation, and the Council of the Society, on a report from the General Purposes Committee, decided that assistance from this side also should be given.

It was agreed accordingly to grant to the delegation the sum of £100.

Funerals and Beanfeasts.

All the items mentioned having gone through without, comparatively, a word said, members felt apparently that the time had come to talk of many things. A beginning was made on the convertible hearse mentioned last month: the vehicle that travels sedately to the cemetery one day, and buoyantly to the beanfeast on the next. The General Purposes Committee, on consideration, agreed with the Metropolitan Branch that it was an undesirable arrangement, and also thought that after a hearse had been used for the carriage of a person dead of an infectious disease, disinfection would not be out of place. This set tongues wagging with a vengeance: some members, indeed, felt so strongly on the subject that they made three or four speeches and moved eight or nine amendments, all of which found themselves being put at the same time. The word "disinfection" it was that upset most of the speakers, this being a word that in the bright lexicon of the really modern health officer has no place. Eventually, therefore, it was decided to mask the expression "disinfection" behind the words "cleansing and," and the jangling bells rang out other jangling tunes on suggestions put forward by the Maternity and Child Welfare Group as to the qualifications of clinic officers, and by the County District Group on a variety of matters affecting the status of such areas and their officers and the Group itself. There were many and long speeches on all of these things and unanimity on nothing, except deferring consideration and decision until memoranda had been prepared or the Branches consulted.

The Heath Clark Lectures.

Sir George Newman's Heath Clark lectures at the London School of Hygiene, as was anticipated, attracted very large attendances and were listened to with the extremest interest by audiences that included on each occasion quite a noticeable sprinkling of members of the service. At the first lecture the gathering was one of distinction, the Minister of Health himself presiding, supported by Lord Dawson of Penn, Dr. Wellcome and others. As is well known, the subject chosen by Sir George Newman for the lectures was "The Rise of

Preventive Medicine," and, as will readily be accepted, he told the story of progress from the magic and mystery of the beginnings till to-day with an infinity of grace and charm. Into the telling he imparted all the enthusiasm with which he himself had traced back to the roots and all the joy it gave him to see the plan unfolding and all the optimism with which he looks to the future. One of the reasons why it is so pleasant to hear Sir George Newman is because he shares the pleasure he has taken in the work of preparation and in the finished article with his audience. He is of those who get things over, and the only way to ensure getting over is to be enthusiastic about the thing put over. Personality is part enthusiasm and part optimism. By way of illustration to his lectures Sir George had numbers of extremely valuable and interesting historical objects, mostly, if not entirely, from the collection of Dr. Wellcome, and a large number of slides. These he demonstrated as a sort of addendum to the lecture. I do not know which I liked better. Certainly in dealing with the slides the vein followed by the lecturer was lighter, but in the unillustrated part the interest taken was no less and, like myself, everybody I imagine enjoyed it all. At the end of the first lecture both the Minister of Health (Mr. Greenwood) and Lord Dawson had complimentary and graceful things to say in expressing the general appreciation of the efforts of Sir George Newman. They did not exaggerate. All the lectures were greatly enjoyed and their appearance in book form will be eagerly anticipated.

Twenty-five Years On.

For some time I have been receiving communications of various sorts and kinds advising me that National Baby Week is to be held from July 1st to 7th, and that particular attention is to be devoted to a variety of matters during that period. In not one of them is any reference made to the fact that in the matter of infant welfare this is a year of some importance, since it marks the twenty-fifth anniversary of the establishment of the first infant clinic in this country. As an event this strikes me as possessing considerable importance, and I should have thought that those concerned in pushing what National Baby Week presumably stands for, would have thought that it provided a peg upon which to hang propaganda of an effective kind. Since they have not done so, I suppose I must have been wrong in thinking that it had wide propaganda or publicity value,

and that it was sufficient after all, disregarding the national and international aspects, to have a merely local celebration of the establishment in the place where the clinic had been inaugurated twenty-five years before. The place in which the first clinic was held, as is now well known, was the Marylebone General Dispensary, the person primarily responsible being Dr. Eric Pritchard, at that time a member of the medical staff of the institution. With him there co-operated the then Medical Officer of Health of St. Marylebone, the late Dr. Wynter Blyth, and others, and there were established, as a result of their efforts, clinics in other parts of the district. Fortunately, on the occasion of the celebration, quite a number of those who played a part at the initiation of the movement were able to be present to support Dr. Pritchard, and to hear him tell the story of the origin of the clinic and of its growth and development.

The First Infant Clinic.

Present with him on the platform was Miss Susan Lawrence, M.P., as Parliamentary Secretary to the Ministry of Health, representing that department and expressing appreciation of the work done. Apart from the fact that it seems somewhat unfortunate that something wider in the nature of recognition of the occasion could not be made, it is rather pathetic that what is after all the mother centre should still be housed in quarters so extremely modest as those available at the Marylebone General Dispensary. After all, however, as Budin pointed out long ago, the value of a clinic lies mainly in the physician, and given, as there always have been at this centre, doctors who know their business, and enthusiastic and experienced workers, probably the structure matters little. Limited as is the space, developments have taken place and step is being kept with progress, and in some cases, even as in the very beginning, the way to progress shown. Following its establishment, as Dr. Pritchard showed, the clinic became a place of resort for all seeking for information. To-day, even though there is nothing to show definitely where it is, or to distinguish it from the police station in Marylebone Lane—more famous, perhaps, because in at least one of his stories, Mr. Wallace, who so thrills us, makes reference to it—visitors from all parts still find their way to it and succeed in finding the place itself. Whether or not it will be in the same condition still when the fiftieth anniversary comes round, it is difficult

to say. There are two possibilities: one that someone or some body may replace it by something more worthy, or it may be squeezed out altogether because the space it occupies is required for business and other purposes. Of the two, the latter appears the more likely to occur. In the meantime, we, though our interests are perhaps more deeply concerned with the maternity and child welfare of the present and the future, may spare a moment to glance back at the beginnings, and to offer a word of recognition and congratulation to those, amongst them prominently Dr. Eric Pritchard, responsible for these beginnings.

An Anniversary of our own.

After making so much talk of celebration of anniversaries, it comes rather as a surprise and appears to be interesting to

learn that in this very year we, as a Society, are provided with a reason for celebrating also. May 13th marked, I find, the seventy-fifth anniversary of the birth of the organisation, for on that day in 1856 there met in the rooms of the Medical Society, 32A, George Street, Hanover Square, London, thirty medical officers of health who, with appropriate ceremony and solemnity, formed themselves into the Metropolitan Association of Medical Officers of Health. What can be done about celebrating the event this year and the steady flow of extra-metropolitan medical officers to enrol themselves as Honorary Members that followed, I do not know. Probably nothing: but at least it is worth noting that being 75 years of age we are getting quite respectably old.

P.

The Society. Reports, Proceedings and Announcements.

NOTICES.

ANNUAL SUBSCRIPTIONS.

Members who have not yet forwarded the sessional subscription due on October 1st last are asked to do so at once in order to avoid the necessity for further notices from the Executive Secretary.

NOMINATIONS.

The following candidates have been nominated for the next election to the Society: *As Fellows*:—Dr. James Clark, City General Hospital, Sheffield; Dr. R. G. Cooke, City Hospital, Derby; Dr. C. K. Cullen, 1, Wellington Road, Bow, E.3; Dr. A. R. Culley, West Woodlands, Victoria Gardens Road, Neath; Dr. D. P. Holmes, Roath House, Newport Road, Cardiff; Dr. Phyllis N. Hooper, 9, Wellfield Place, Roath Park, Cardiff; Dr. Josephine M. Howells, Glanant, Caerphilly; Dr. R. P. Stanley Kelman, Selly Oak Hospital, Birmingham; Dr. G. H. Menzies, Rawmarsh Hill, Parkgate, Rotherham; Dr. G. O. Mitchell, 22, Bethune Avenue, Friern Barnet, N.11; Dr. P. Phillips, Southmead Hospital, Bristol; Dr. A. S. Simpson, 19, Fisher Street, Carlisle;

Squadr.-Ldr. H. S. C. Starkey, R.A.F.M.S., Air Ministry Medical Department, 6, Clement's Inn, W.C.2; Dr. R. J. O. Taylor, Borough Isolation Hospital, Derby; Dr. E. A. Underwood, Oakwood House, Rotherham; Dr. Moreen Whelton, 13A, Walter Road, Swansea; Dr. J. H. Harley Williams, Tavistock House North, W.C.1. *As Associates*:—J. R. Hayhurst, Esq., M.R.C.V.S., D.V.S.M., 40, Temple Fore-Mary C. Whelton, B.D.S., 13A, Walter Road, Swansea; Lieut.-Colonel T. D. Young, O.B.E., M.R.C.V.S., D.V.S.M., The Meat Inspection Offices, Smithfield Markets, E.C.

MATERNITY AND CHILD WELFARE GROUP.

In connection with the National Conference on Maternity and Child Welfare, a *Post-Graduate Course* organised by the Welsh National School of Medicine and the Maternity and Child Welfare Group will be held at Cardiff on Monday and Tuesday, June 29th and 30th. Tickets for the Course, price 10s., may be had from the Secretary, Fellowship of Medicine, 1, Wimpole Street, W.1.

Programme: Monday, June 29th, 10.15 a.m. to 1 p.m.—Demonstration by Mr. A. O. Parker at the Prince of Wales Hospital, Cardiff, on "Early Postural Defects in Children and other Orthopaedic Lesions."

2.30 to 5 p.m.—Obstetrical Department, Cardiff Royal Infirmary. Demonstration by Sir Ewen Maclean, and the staff of the Department of Obstetrics and Gynaecology, Welsh National School of Medicine, on "Toxæmias of Pregnancy and other Ante-natal Conditions."

Tuesday, June 30th, 10 a.m.—Obstetrical Lecture Room, Cardiff Royal Infirmary. Paper by Professor Leonard Parsons, of Birmingham, on "The Anæmias of Childhood," to be followed by discussion.

11.30 a.m.—Obstetrical Lecture Room, Cardiff Royal Infirmary. Paper by Dr. A. V. Neale, Birmingham, on "Some Considerations of the Diet in Infancy and Childhood," to be followed by a discussion.

2.30 p.m.—Lord, Pontypridd Hospital, Dulwich House, Cardiff. Demonstration by Dr. C. J. McSweeney, Deputy M.O.H., Cardiff, on "Early Manifestations of Rheumatism in Childhood, especially Cardiac."

4 p.m.—Cardiff Isolation Hospital, Demonstration by Dr. John McGarrity, Medical Superintendent, on "Schick and Dick Testing and Immunisation against Diphtheria and Scarlet Fever." Cases will be shown.

Members attending the National Conference on Maternity and Child Welfare in Cardiff, July 1st to 3rd, who wish to take advantage of this Post-Graduate Course, should secure nomination as delegates by their local authority, and thus qualify for allowance of expenses.

The Annual General Meeting of the Group will be held in the Council Chamber, City Hall, Cardiff, on Wednesday, July 1st, at 4.30 p.m. Nominations for President, Vice-President, Representative on Council of the Society, Committee, and Hon. Secretary should be forwarded to Dr. Grace Calver, 1, Holly Terrace, Highgate, N.6, before June 22nd.

A meeting will also be held at 5.15 p.m. when Dr. Ethel Cassie will deliver her presidential address on "Some Administrative Problems."

The Annual Dinner of the Group will be held at the Royal Hotel, Cardiff, on Thursday, July 2nd, at 7.45 p.m., when it is hoped that Sir Ewen Maclean will be the guest of honour.

Tickets for the dinner, price 7s. 6d., should be obtained from Dr. Calver before Monday, June 29th.

COUNCIL MEETING.

A meeting of the Council was held at the house of the Society on Friday, May 15th, 1931. The President (Professor H. Kerr) was in the chair, and there were present Sir Eustace Hill, Professors A. Bostock Hill, W. W. Jameson, and J. J. Jervis and Drs.

J. J. Buchan, J. Howard-Jones, E. H. Snell, A. K. Chalmers, G. F. Buchan, Charles Porter, T. W. N. Barlow, W. G. Willoughby, R. M. F. Picken, R. H. H. Jolly, James Mair, H. B. Brackenbury, James Fenton, H. J. Milligan, R. H. Wilshaw, A. B. McMaster, G. C. M. M'Gonigle, H. Gibbons Ward, G. W. N. Joseph, J. A. Stirling, R. Veitch Clark, Agnes H. Nicoll, Ernest Ward, T. P. Puddicombe, G. H. Pearce, F. T. H. Wood, E. H. T. Nash, K. E. Tapper, P. H. Stirk, A. A. Turner, and W. Paterson.

Public Health Service Representatives on the B.M.A.—A letter was read from the Medical Secretary of the British Medical Association announcing the election, as Public Health Service Representatives for the session 1931-32, of Drs. R. M. F. Picken and H. J. Milligan to the Council, and of Drs. Harold Kerr, J. J. Jervis, E. H. T. Nash and R. H. Wilshaw to the Representative Body. No nominations having been received for Deputy-Representatives, their appointment rests, under the Bye-laws, in the hands of the Chairman of the Representative Body, who will announce his nominations in due course.

National Smoke Abatement Society.—A letter was read from the above Society regretting the inability of their deputation to attend at present before the Council as arranged. The Executive Secretary was instructed to invite the attendance of a deputation at a later meeting.

Nomination of President, Session 1931-32.—Nominations for the election of the President of the Society for the session 1931-32 were received from the Branches on behalf of Drs. C. Killick Millard, Ernest Ward and G. H. Pearce. Dr. Pearce's nomination, having been received a few days after May 1st, though technically not before the meeting, was by leave withdrawn. A ballot was taken, and, there being a majority for Dr. Millard, it was agreed to submit his name to the Society for election as President for the coming session.

Election of Officers.—The following were elected Officers of the Society for the session 1931-32:—

Vice-Presidents.—Professor Harold Kerr, Dr. J. J. Buchan and Dr. J. Howard-Jones.

Hon. Treasurer.—Dr. G. F. Buchan.

Hon. Editor.—Dr. Charles Porter.

American Public Health Association Annual Meeting.—On the recommendation of the General Purposes Committee, the

Council nominated the following to represent the Society at the above meeting, to be held in Montreal from September 14th-17th next:—Drs. G. F. Buchan, Thomas Carnwath, James Fenton, W. W. Jameson, R. M. F. Picken, Charles Porter and Mr. G. S. Elljston (Consultant Secretary). It was agreed to allow a grant of £100 towards the expenses of the delegation.

Use of "Convertible" Hearses.—The General Purposes Committee reported that they had considered the representations of the British Funeral Workers' Association and the Metropolitan Branch with regard to the above. The Committee suggested that the following would express the view of the Society:—

"That the Society deprecates the use of hearses for other than funeral purposes, and advocates the disinfection of hearses after their use in connection with the burial of persons dying from infectious disease."

After some discussion the Council agreed to adopt the above resolution with the addition of the words "cleansing and" before disinfection.

Staffing and Administration of M. and C.W. Centres.—The Council received a memorandum on the above forwarded by the Maternity and Child Welfare Group. The thanks of the Council were expressed to the Group for the trouble and care involved in the preparation of this memorandum, but it was decided that it should be circulated to the Branches with a view to obtaining their observations before it could be adopted as the official policy of the Society.

The County District Group.—The following resolutions were received from the County District Group for consideration by the Council:—

(1) "That in the opinion of the Group, Sanitary Areas should be so constituted that they should be sufficiently large to occupy the whole time of a Medical Officer of Health, who should be responsible for all the Public Health Services in the district. And further, that the combined appointments of Medical Officer of Health and Assistant County Medical Officer are not in the best interests of preventive medicine."

(2) "That in view of the fact that the County District Group comprises some 140 members and that five Sub-groups have been formed, the Group is of the opinion that the Articles of Association of the Society should

be so amended as to allow of more than one representative on the Council of the Society.

(3) "That in districts which are Maternity and Child Welfare areas and which employ a whole-time Medical Officer of Health, delegation of powers under the Midwives Acts should be given."

(4) "That in the opinion of the Group, Authorities to whom powers under the Midwives Acts have been delegated should be represented on Conferences convened by Local Supervising Authorities."

(5) "That in outbreaks of small-pox it has been found that under existing conditions, delay has been occasioned in vaccinating contacts and this Group is of the opinion that vaccination should be controlled by Local Sanitary Authorities."

The above resolutions, with the exceptions of (2) and (4) were referred back to the Group with the request that they be embodied in a fully reasoned memorandum, which would be submitted to the Council at a later date. Resolutions (2) and (4) were referred to the General Purposes Committee for report.

Review of the Society's Constitution.—On the motion of the President, it was referred to the General Purposes Committee to review the present constitution of the Society (drawn up in 1923) and to report thereon to the Council.

Representation of the Society.—The Council nominated Professor Bostock Hill to represent the Society at the annual conference of the Sanitary Inspectors' Association to be held at Bridlington, September 7th-12th next.

The Council then adjourned.

THE METROPOLITAN BRANCH.

President: Dr. John Macmillan, D.S.O., M.C., M.O.H., Woolwich.

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 April 24th, 1931, the President occupying the chair. Seventeen other members of the Branch Council were present.

The Branch Council had before them a report regarding the preparation and use of convalescent measles serum. Attention was drawn to the exceptionally good results obtained by the use of this serum, and it was recommended that, in order to make the scheme more widely known, copies of the report should be circulated by metropolitan medical officers of health to the

medical superintendents of institutions in their areas.

Consideration was given to two questionnaires from the producers of the New Survey of London Life and Labour, asking for particulars in regard to bakehouses, outworkers in various branches of the clothing trade, etc., and the Branch Council were of the opinion that the information requested should be furnished by the medical officers of health in receipt of these communications.

Proof copies of a tuberculosis advice pamphlet were before the Branch Council, and the Hon. Secretary reported that the printers of *The Medical Officer* were prepared to supply the cards at a cost of £2 per thousand, with an additional charge of 5s. 6d. per thousand for overprinting on the front page the name of the borough, address of dispensary and hours of attendance.

The Branch Council considered and approved the following report, which had been prepared at the request of the Metropolitan Boroughs' Standing Joint Committee by the Sub-Committee appointed by the Branch Council on November 28th, 1930 :—

UN SOUND FOOD.

The power to deal with unsound food generally is governed by the Public Health (London) Act, 1891, Section 47 :—

Sub-section 1 gives power to enter premises, inspect and examine any article intended for the food of man which is sold or exposed for sale or deposited for the purpose of sale or of preparation for sale. Any article of food found to be unsound may be seized and dealt with by a Justice. The proof that the article was not intended for the food of man rests on the person charged (under *Sub-section 2*).

Sub-section 2 provides for the condemnation of such unsound article by a Justice and for the infliction of a fine or imprisonment upon (a) the person to whom the article belongs or did belong at the time of the sale, &c., or (b) the person in whose possession or on whose premises the article was found.

Sub-Section 3 reads as follows :—

"Where it is shown that any article liable to be seized under this section, and found in the possession of any person, was purchased by him from another person for the food of man, and when so purchased was in such a condition as to be liable to be seized and condemned under this section, the person who so sold the same shall be liable to the fine and imprisonment above mentioned, unless he proves that at the time he sold the said article he did not know, and had no reason to believe, that it was in such condition."

It is upon the operation of *Sub-section 3* that difficulty has arisen in connection with the sale of fruit, &c., by wholesale to small traders who subsequently sell by retail in markets, and from street stalls, &c. It will be noted that the intention of *Sub-section 3* was that the original seller, i.e., the wholesaler, was to be

liable to the fine or imprisonment (mentioned in *Sub-section 2*) provided it could be proved (1) that, at the time of the sale by the wholesaler, the article of food was liable to be seized as unsound, &c., and (2) that it was purchased from the wholesaler for the food of man.

A proviso is inserted that the original seller (in this case the wholesaler) is not to be liable to the fine, &c., if he proves that "at the time he sold the said article he did not know, and had no reason to believe, that it was in such condition."

It is not unusual to find exhibited at the place of sale by wholesale a notice, the first and third relevant paragraphs of which read as follows :—

1. "All goods for sale at this shop, stand, or warehouse are open to the inspection of intending purchasers. Intending purchasers are requested to inspect the bulk as the goods will be sold with all faults and defects and no allowance will be made for errors of description or defects of quality, quantity or condition. Sales are not made by sample and any goods on show before or at the time of the sale are not shown as or intended to be a sample of the bulk.

3. If the whole or any part of the goods sold is damaged, spoilt, unsound, unwholesome or otherwise defective so as to be unfit for human consumption whether caused by delay in transit or by any other cause, such defective goods are not sold as or intended by the salesman to be for the food of man. The goods are sold on the express condition that the purchaser shall sort the same and destroy all those which are damaged, spoilt, unsound, unwholesome or otherwise defective, and shall not use or sell any such defective goods or offer the same for sale for the food of man."

At the appeal in the case of *Rex v. Dennis*, 1894, in which certain articles of food, namely, walnuts, had been sold by wholesale and the seller convicted, it was shown that a notice in similar terms to the above had been exhibited and, upon appeal, the conviction was quashed.

Since then little attempt has been made by local authorities to operate *Sub-section 3*, and in a recent case, *Deptford Borough Council v. Ford*, heard at the Greenwich Police Court, the decision in *Rex v. Dennis* was followed.

While it is conceded that the exigencies of trade preclude, at present, the possibility of wholesalers examining their whole stock before offering it for sale, it is submitted that the facilities for sanitary authorities to inspect and examine food at wholesale premises is too limited to prevent the sale of food in an unsound condition.

Thus, where such a notice (as quoted above) is exhibited at wholesalers' premises, it is questionable, since the case of *Battersea Borough Council v. George Walker*, whether food exposed there is not immune from seizure.

Again, even though seizure be possible, the power conferred by Section 47 is to inspect and examine, but no provision is made for the detention of such food for examination. As a result both of the difficulty in carrying out a complete examination of articles of food prior to sale by wholesale, and the effect of the exhibition of such a notice as is quoted above, which virtually permits a wholesaler to contract out

of an Act of Parliament, foodstuffs such as fruit are sold wholesale "with all its faults." Small retailers are thus induced to buy a consignment, part of which is unsound, and there is a great temptation to pass on to the public as large a proportion as possible of the total, regardless of its condition.

The Sub-Committee draws attention to the Public Health (Imported Food) Regulations, 1925, which, in the case of an article sampled, provide for the detention of the article pending further examination; and the Sub-Committee urges that a somewhat similar procedure, as outlined below, should apply generally in the case of foodstuffs :—

(a) The medical officer of health or other duly authorised person acting under his direction to be empowered to prohibit for a reasonable period the removal, except to a place to which the medical officer of health may consent, of any food deposited in any market, store, shop or other premises at or from which food intended for human consumption is customarily stored, prepared or sold.

(b) To empower such officer to take samples of such food.

(c) Any persons having custody of such food and the owners and occupiers of such premises to afford all reasonable facilities for the inspection of such food; such facilities to include such unpacking, uncovering and sorting of the food as the medical officer of health may deem requisite.

It was decided that a copy of the above report should be forwarded to the Standing Joint Committee with a recommendation that they should press for the promotion of legislation on the lines suggested.

The questions of assessment and financial responsibility in respect of treatment by artificial pneumothorax refills were discussed, and attention was drawn to the opinion expressed by the Metropolitan Tuberculosis Sub-Group that liability should not be accepted for such refills unless the patient had been seen and examined at the dispensary. It was agreed that the President (Dr. Macmillan) should attend a meeting of the General Purposes Sub-Committee of the Metropolitan Boroughs' Standing Joint Committee in order to inform the Sub-Committee that the Branch Council are not in favour of assessments being made in respect of artificial pneumothorax refills, but that borough councils should not accept financial responsibility in any case unless the patient is recommended by the tuberculosis officer for such treatment.

Attention was drawn to a document from the Metropolitan Tuberculosis Sub-Group offering various criticisms of the London tuberculosis service, and, after a considerable amount of discussion, the Branch Council decided to refer it to a Sub-Committee consisting of the President, Dr. Keith, Dr. Howell and the Hon. Secretary, who were asked to confer with a

Sub-Committee of the Tuberculosis Sub-Group and submit a further report in six months' time.

The Branch Council decided to refer to the Maternity and Child Welfare Group a suggestion from the County Medical Officer as to the desirability of preparing a booklet of advice to expectant mothers for use both at county council and borough council ante-natal clinics.

The Hon. Secretary reported that he had received an invitation from the Western Electric Co., Ltd., for members of the Branch to view a cinematograph ("talking") film of a surgeon performing the Cæsarean section operation, and the Branch Council directed the Hon. Secretary to accept the invitation on behalf of the Branch and to make such arrangements as were necessary.

THE EAST MIDLAND BRANCH.

President: Dr. C. Killick Millard, M.O.H., Leicester.

Hon. Secretary: Dr. J. A. Stirling, M.O.H., Chesterfield.

A meeting of this Branch was held at the Guildhall, Nottingham, on March 12th, 1931, the President occupying the chair. Eighteen members and three guests were present. Apologies for absence were received from five members.

Dr. W. E. Haigh read a paper on "The Ventilation of Cinemas," describing original work done by him in the County Borough of Derby on this subject. An interesting discussion followed in which Drs. Millard, C. Banks, Barker, Newth, Morrison and Mr. Widdows took part, and at its conclusion, Dr. Haigh was warmly thanked for his paper on the proposition of Dr. Tibbits, seconded by Dr. Banks.

A meeting of the Council of the Branch preceded that of the Branch.

A further meeting of this Branch was held at the Guildhall, Nottingham, on April 16th, 1931, the President occupying the chair. Twenty-one members and eight guests were present. Apologies for absence were received from three members.

Mr. V. C. Carrington read a paper on "Dentistry for the School Child." The subject proved a very stimulating one as was evidenced by the interesting discussion which followed in which Drs. Millard, C. Banks, Newth, Campbell, Davies and Messrs. Ashton, Sutcliffe and Mason took part.

A hearty vote of thanks was accorded to

Mr. Carrington on the proposition of Mr. Mason, seconded by Mr. Moor.

A meeting of the Council of the Branch was held prior to the Branch meeting.

THE WELSH BRANCH.

President: Dr. E. I. L. Parry-Edwards, County M.O.H., Carnarvonshire.

Hon. Secretary: Dr. D. J. Thomas, Deputy M.O.H., Rhondda.

A meeting of this Branch was held at Shrewsbury on March 14th, 1931. The President occupied the chair and nine members were present.

Consideration was given to a letter from the Midland Branch seeking support for the nomination of Dr. Killick Millard (Leicester) as President of the Society for the next session, and it was resolved that Dr. Millard be nominated for the Presidency by the Welsh Branch.

The President delivered an address on "Maternal Mortality." In his preliminary remarks, Dr. Parry-Edwards craved the indulgence of the members of the Branch for his absence from meetings previously held during the session owing to ill-health and, for a similar reason, expressed regret that he had been unable to prepare, to his own satisfaction, an address suitable for this occasion. The President recalled his experiences as a student of midwifery under Sir Vernon McCann and Lawson Tait, and as a pupil and assistant to his own father, who carried on a successful midwifery practice in a rural district. The golden rule impressed on the students at the Rotunda in those days enjoined the examination of an expectant or parturient woman properly and once only; if the examination revealed a normal condition, then nature and patience were allowed to take their course and no interference was indulged in. His father practised according to the same principles, and a recent perusal of his records and reference to the statistics published by the Registrar-General showed that the maternal mortality was lower in that rural practice, in which a genuine pride was taken in the service provided. Calvert's carbolic acid was the prevailing disinfectant in use. The impression was obtained that the general practitioners of the present day do not take such pride in their midwifery as their predecessors, and the service was mainly relegated to midwives. The passing of the 1902 Act was regarded with disfavour by the

older practitioners of that period in view of the fact that it opened the midwifery profession to inadequately trained women, and it had to be noted that the majority of the candidates for midwifery training alone, possessed poor educational attainments, whilst the number of cases per pupil was insufficient in many of the training schools. Provision should be made for the allocation of more cases to pupils who definitely undertook to practise the profession of midwifery. The training of medical students was likewise lacking in the number of cases available, and in the "drumming" tuition imparted to preceding generations of students. In modern days, expectant mothers, also, did not take the same personal care of themselves and the dietary was unsuitable in many cases.

Turning to the memorandum recently issued by the Minister of Health, the President noted that approximately 50 per cent. of maternal deaths were classified as primarily avoidable, but he was not sure how some of these could be avoided in rural districts. Error of judgment was a big factor, the existence of intentional negligence was doubtful; lack of facilities might pertain to household arrangements or medical equipment, and hospital treatment of puerperal cases was difficult to provide satisfactorily.

In Carnarvon, it was proposed to tighten up the ante-natal services, though 60 per cent. of births in the county were receiving ante-natal supervision: he was of opinion that the work done was not sufficiently thorough, and a case was cited where the daily examination of the urine revealed the presence of albuminuria only on certain days. It was hoped to establish a maternity wing in one of the general hospitals in the county, under the control of a trained midwife supervised by a specialist obstetrician, where a fortnightly ante-natal clinic would be developed for the expert examination of cases referred from the subsidiary clinics throughout the county. The routine examination of ante-natal cases for venereal diseases would undoubtedly prevent a large proportion of maternal deaths amongst cases found to be infected. In conclusion, the President emphasised that the education of the expectant mother was of prime importance in any national maternity scheme.

Dr. Picken, in proposing a vote of thanks, expressed the appreciation of the members for an address which was based on the personal experience of the speaker, and concurred with

the opinion given regarding the distribution of cases amongst pupil-midwives who intended to practise the profession of midwifery.

Dr. Howard-Jones, in seconding, also thanked the President for the personal touch conveyed in the address. The vote of thanks was carried by acclamation.

THE WELSH BRANCH.

ASSISTANT MEDICAL OFFICERS' AND SCHOOL DENTISTS' SUB-GROUP.

Chairman: Dr. C. J. McSweeney, Deputy M.O.H., Cardiff.

Hon. Secretary: Dr. W. E. Crosbie, Asst. M.O., Glamorgan C.C.

A meeting of this Sub-group was held in the City Hall, Cardiff, on March 20th, 1931. There were twenty-three members present, the chairman presiding.

Mr. D. W. Elliot, Senior Dental Surgeon, Cardiff City Council, read a paper on the "Teaching of Oral Hygiene." The relationship between the teeth and the other organs of the body was described, and the importance of dental hygiene in the maintenance of general health explained. The influence of food as a factor in the development and subsequent health of the teeth was emphasised. Where a correct diet had been given to a large number of children for a considerable time, as was the case in many orphan homes and institutions, it was invariably found that the resistance of their teeth to decay was much higher than the average.

Co-operation between the dentist and the patient could only be obtained by better education of the public. This could best be effected by training the children at home and in school. This training to be effective must be commenced at an age when habits were easily formed. The school dentist was the person best qualified to teach oral hygiene, but under present conditions his visits to a school were too infrequent to permit of the carrying out of an effective scheme of dental propaganda.

The school teacher, however, had a great opportunity of instilling in the pupils the ideals of dental hygiene. It would be a great advantage if only a very few minutes daily could be devoted to this subject. Short lectures, illustrated by pictures, showing how teeth were formed and how decay commenced, and demonstrations as to the proper method of brushing the teeth, constituted the usual practice in the teaching of this subject. In conclusion, Mr. Elliot gave some interesting

results obtained in schools in Bridgeport, U.S.A., to show the possibilities of how the teaching of oral hygiene might lower the incidence of dental disease.

The Chairman, Mr. Young, Mr. Tiplady, Mr. Vaughan, Dr. Betenson and Dr. Crosbie took part in the subsequent discussion.

Mr. R. D. Owen, F.R.C.S., gave a lecture on the "Middle Ear Problem." He dealt with the subject in a most interesting and practical manner, which was greatly appreciated by all present. A description of the anatomy of the eustachian tube, tympanic cavity, and mastoid process was followed by the pathology of otitis media—acute and chronic. The signs, symptoms and treatment of otitis media in the early stages were fully described and reference was made to the diagnosis of early mastoid involvement.

Mr. Owen then dealt with the case of the "chronic running ear," the aural condition most frequently present when the child came to the school clinic. A very clear description was given of the various signs and symptoms which might be found on examining such a case, and the influence of site of perforation upon persistence of the discharge was fully explained. The appropriate treatment to be carried out for the different conditions found on examination was mentioned.

At the conclusion of his paper, Mr. Owen kindly offered to answer any questions which members might care to ask, and most of those present took advantage of this opportunity.

The proceedings terminated with a hearty vote of thanks to Mr. Owen and to Mr. Elliot for their interesting papers.

THE HOME COUNTIES BRANCH.

President: Dr. K. E. Tapper, O.B.E., M.O.H., Bromley, Kent.

Hon. Secretary: Dr. A. A. Turner, M.C., M.O.H., Finchley.

A meeting of this Branch was held at the house of the Society on April 10th, 1931. Twenty-eight members were present. In the absence of the President, Dr. A. J. Laird (Cambridge) was appointed to the chair.

Consideration was given to a letter from the Executive Secretary, asking the Branch to submit nominations of representatives on the Council of the British Medical Association and on the Representative Body for 1931-32. Drs. Thomas Orr and R. M. F. Picken were nominated by the meeting.

It was also resolved to recommend to the Council of the Society that only active members of the public health service should be nominated to represent the Society on the Council of the British Medical Association or on its Representative Body.

Dr. J. D. Rolleston, Medical Superintendent, Western Hospital, London County Council, read a paper on "The Value of Routine Swabbing and Virulence Tests in Diphtheria before Discharge." He gave interesting data from hospitals which swabbed and hospitals in which swabbing had been dispensed with, and summed up in favour of abandoning the practice of routine swabbing.

Dr. Rolleston was followed by Dr. Gunn, his senior assistant, who dwelt on the technique of the culture of the diphtheria bacillus and virulence testing.

After an interesting discussion, a hearty vote of thanks was accorded to Dr. Rolleston and Dr. Gunn for their papers.

THE SOUTHERN BRANCH.

President: Dr. R. H. Wilshaw, M.O.H., Worthing.

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

A meeting of this Branch was held at King Edward VII Sanatorium, Midhurst, Sussex, on May 1st, 1931, the President occupying the chair. Eleven members were present. Apologies for absence were received from five members.

A letter from Lieut.-Colonel G. S. Parkinson was read, with reference to the excellent meeting held on March 6th, 1931, and intimating that the National Union of Teachers was affiliated to the Central Council for Health Education.

With reference to the nomination of representatives on the Council of the British Medical Association and on the Representative Body, it was left to the Branch representative (Dr. Wilshaw) to vote as he thought fit.

Correspondence from the Southampton Division of the British Medical Association, regarding the appointment by the Branch of two representatives to discuss the formation of the proposed Local Medical Advisory Committee for the County Borough of Southampton, was considered. After discussion it was felt that the matter would be more suitably dealt with by the members of the Branch resident in Southampton than by the Branch

as a whole, and the Hon. Secretary was instructed to reply to the Division of the British Medical Association accordingly.

Letters were submitted from the West of England Branch and the Midland Branch, seeking support for the nomination of Dr. Ernest Ward and Dr. Killick Millard respectively, for the Presidency of the Society for the session 1931-32. It was left to Dr. Wilshaw (the Branch Representative on the Council of the Society) to support either nomination at his discretion at the Council meeting.

A paper on "The Position of the Sanatorium in the Treatment of Tuberculosis" was read by Dr. R. R. Trail, Medical Superintendent of the Sanatorium, who afterwards replied to many questions.

A hearty vote of thanks was accorded to Dr. Trail for his interesting contribution, which will be published in full in PUBLIC HEALTH in due course.

Subsequently the party, which included a number of ladies, was entertained at tea and conducted over the sanatorium and grounds. The visit concluded with expressions of thanks to Dr. Trail and his staff for their kindness and hospitality.

THE NORTHERN BRANCH.

President: Dr. Charles Franks, J.P., M.O.H., Durham C.C.

Hon. Secretary: Dr. J. A. Charles, Deputy M.O.H., Newcastle-upon-Tyne.

A meeting of this Branch was held at the City Hospital for Infectious Diseases, Walker Gate, Newcastle-upon-Tyne, on May 8th, 1931. The President, thirty-seven members and nine visitors, including several medical superintendents of municipal hospitals, were present.

Before the meeting the members had tea, and the President, on behalf of the Branch, thanked the Matron and the Domestic Superintendent of the Hospital for their kindness in making the necessary arrangements.

Letters received from the West of England, Midland and Yorkshire Branches, nominating Drs. Ernest Ward, C. Killick Millard and G. H. Pearce, respectively, for the office of President of the Society for the session 1931-32, were read. It was agreed to support the nomination of Dr. Ernest Ward.

It was decided that the date and place of the summer meeting be left in the hands of the President and Hon. Secretary.

At the termination of the official business, the members proceeded to one of the hospital pavilions where a series of demonstrations, etc., had been arranged.

The following is a detailed list:—

(a) The use of Lipiodol in the diagnosis of pulmonary conditions. (Dr. G. Hurrell and Dr. E. F. Dawson-Walker.)

(b) X-ray films of interest. (Dr. G. Hurrell and Dr. E. F. Dawson-Walker.)

(c) Thoracoscopy and the division of adhesions in artificial pneumothorax. (Mr. W. E. M. Wardill, F.R.C.S.)

(d) The technique of artificial pneumothorax (with actual cases). (Dr. W. H. Dickinson.)

(e) The preparation of convalescent measles serum. (Dr. S. H. Warren and Dr. J. L. G. Iredale.)

(f) The Sonne dysentery bacillus—its isolation and characteristics. (Dr. S. H. Warren and Dr. J. L. G. Iredale.)

(g) The immunisation of a hospital staff against enteric, diphtheria, and scarlet fever. The City Hospital scheme. (Dr. J. A. Charles.)

(h) Serum treatment of anthrax. (Dr. J. A. Charles.)

(i) Intradermal tuberculin reactions in children and adults. (Dr. B. A. Dormer.)

(j) Serum treatment of erysipelas. Graphic review of 100 cases.

(k) Pathological specimens.

THE NORTH-WESTERN BRANCH.

President: Dr. C. O. Stallybrass, Assist. M.O.H., Liverpool.

Hon. Secretary: Dr. G. W. N. Joseph, M.O.H., Warrington.

A meeting of this Branch was held at Parker's Restaurant, Manchester, on May 8th, 1931, the President occupying the chair. Twenty-three members were present. Before business commenced the party partook of a hot-pot supper.

A letter was read from Dr. L. Pickering-Pick (President of the Yorkshire Branch) stating that that Branch had nominated Dr. G. H. Pearce for the Presidency of the Society for the session 1931-32.

Dr. H. H. MacWilliam, Medical Superintendent, Walton Hospital, Liverpool, in a very interesting paper on "Poor Law Hospitals: their Past and Future," traced the history of the provision of medical services and hospitals from the early days of the poor law to the Local Government Act, 1929. The paper will appear in full in PUBLIC HEALTH in due course.

Dr. Ratner, in proposing a vote of thanks, was glad of the suggestion that tuberculosis officers should be placed on the consultant

staff of the hospitals. He pointed out the great shortage of medical staff in many hospitals of 500 beds that had been taken over in which there were no consultants and only a medical superintendent and one resident.

Dr. Topping seconded, and said there was an inclination to judge the old hospitals too harshly, forgetting that they were generally only ancillary to the poor law institutions and not meant to be separate units. In areas removed from the large towns and teaching schools it was difficult to find consultants. The present time was most opportune for progress, and it would take at least 6 or 7 years before the standard desired could be reached.

Dr. Sharpe thought that in many of the smaller units the service had been landed with institutions not up to the voluntary hospital standard, which would require an enormous amount of administrative work before they would attain it. The keynote of success must be the creation of adequate out-patient departments and the modification or abolition of the present system of district medical officers. If the old Poor Law system was to be destroyed, the chain must first be broken at the district medical officers, and an essential must be additional powers for the medical officer of health in this direction, or the creation of the medical superintendent of the hospital as chief district medical officer for supervisory purposes. The voluntary hospitals desired all the plums, and there would be a great fight to get the municipal hospitals as efficient as the voluntary hospitals, but the municipal hospital could only really co-operate with the voluntary hospital by setting up an organisation equally valuable and with an equal standard of work.

Dr. F. T. H. Wood alluded to the growing habit on the part of the public for seeking institutional aid not only for births but for terminal illnesses, and asked to what extent the district medical officer's and insurance practitioner's choice of cases for hospital was a matter of convenience. He wondered how far it was possible to run a 500-bedded hospital for a population of, say, 100,000, by classification. There was one distinct advance to be obtained from the transfer, and that was the following up of patients through the health staffs.

Dr. J. M. Gibson said that a scheme such as that in Liverpool was impossible in the smaller areas where in some cases they had not

even a medical superintendent. The municipal hospital must step in where the voluntary hospital failed, and in his own instance medical cases could not be adequately dealt with at the voluntary hospital. It was intended in the recent public assistance regulations that the supervision of the district medical officers should come under the medical officer of health.

Dr. Gebbie mentioned the difficulty of the recovery of maintenance charges in appropriated hospitals of persons with settlement in other areas.

The President (Dr. Stallybrass) considered that the follow-up functions of the health authority under the new scheme were very important, and suggested that the term "continuation department" might be better than out-patient department. He gave some interesting details of the system in Sweden and Denmark.

Dr. MacWilliam, in reply, stated with regard to the admission of cases that the closer the district medical officer could be brought in contact with the hospital the better he would appreciate the accommodation available.

THE DENTAL OFFICERS GROUP.

President: Sydney J. Smith, Esq., L.D.S., Edin., Chief School D.O., Middlesex C.C.

Hon. Secretary: W. Leigh Breese, Esq., L.D.S., 328, Brixton Road, S.W.9.

The Council met on December 12th and February 2nd to consider the draft memorandum on the position and status of Public Health Dental Officers which had been drawn up at the request of the Council by Mr. Baker. The report was considered in detail together with some amendments made by Dr. Wood to whom the first copy had been submitted. The amended draft was accepted by the Council. It appeared in the April issue of PUBLIC HEALTH. The Council thanked Mr. Baker for the time and trouble he had taken over the matter. At the Council meeting on February 2nd the very warmest congratulations of the Group were extended to Mr. W. G. Senior, one of the members of the Council, on his appointment as Dental Secretary to the British Dental Association. Mr. Senior has been a member of the Dental Officers Group for some years, and has always taken the keenest interest and a most active part in the Group's affairs, and in the deliberations of the Council.

The Council met again on February 27th.

A letter was read from Mr. Senior, tendering his resignation from the Council, as his new appointment would not allow of his regular attendance. It was accepted with deep regret and a vote of thanks was passed to Mr. Senior for his valuable services to the Group.

Mr. Grantley Smith was co-opted to fill the vacancy.

A General Meeting followed at which Dr. Sim Wallace read a paper entitled "The Newer Knowledge of Hygiene and Diet." It was well attended and a good discussion ensued.

THE Dental Board of the United Kingdom, as one of its many activities, has arranged a series of courses of post-graduate instruction, and dental members of the Society particularly will be interested in the announcement which appears elsewhere in this issue with regard to the excellent facilities offered. The first course, it will be noted, has been designed especially for school dental officers. The Board is to be commended on its efforts in this direction, and it is to be hoped that a full measure of support will be secured for the scheme.

A NATIONAL Conference on Maternity and Child Welfare, organised by the National Association for the Prevention of Infant Mortality in co-operation with the Maternity and Child Welfare Group of the Society of Medical Officers of Health, will be held at the City Hall, Cardiff, on July 1st, 2nd and 3rd, 1931, when the following will be the main subjects for discussion:—(a) An effective maternity service for the whole population; (b) the physical health of the normal child from 1—5 years of age; (c) the mental health of the normal child from 1—5 years of age; and (d) children in institutions and boarded-out children. Arrangements will be made for visits to various child welfare institutions in and near Cardiff, and the child welfare travelling exhibition of the National Council for Maternity and Child Welfare, in which delegates to previous conferences have always shown great interest, will be displayed in the Lesser City Hall. Full particulars of the programme, fees, travelling facilities, etc., may be obtained from Miss J. Halford, O.B.E., Hon. Secretary, National Association for the Prevention of Infant Mortality, Carnegie House, 117, Piccadilly, London, W.1.

The Literature of Preventive Medicine.

HEALTH AT THE GATEWAY. Problems and International Obligations of a Seaport City. By E. W. HOPE, O.B.E., M.D., D.S.C., Professor of Public Health, University of Liverpool; formerly Medical Officer of Health, City and Port of Liverpool; Past-President, Society of Medical Officers of Health. Cambridge University Press, 1931. pp. 213. Price 15s. net.

This is a history of the administrative development affecting the public health of the City and Port of Liverpool. "A long and active participation in duties associated with the advancement of the health and welfare of the people," writes the author, "leaves no doubt that the problems involved, and the associated controversies, so fully occupy the time of those whose business it is to deal with them, that little or no opportunity is left to study the growth and results of previous endeavour. Descriptions of destructive epidemics, of bad housing, of intemperance, all resulting in conditions socially deplorable—or of imperfectly organised emigration and ineffective quarantine, resulting in international friction—are scattered and dispersed in various records. The help of a knowledge of past experiences is wanting; and, I believe, a useful service can be rendered by some review of past experiences." It is with this definite object that this story of earlier procedure is told, and Professor Hope tells it very well.

It will be recalled that Dr. Russell did a similar service for the City of Glasgow. Both these cities have much in common in their growth and development, and it is of interest to compare the methods by which each has progressed. Although of early origin, in the reign of Elizabeth, Liverpool contained only 138 householders and owned a dozen ships. The beginning of its commercial importance may be dated from the Restoration, and the first dock was constructed in 1709. Thereafter the population increased rapidly, coincident with its growth as a port. As elsewhere, there was an absence of building control, so that structural evils accumulated without check. In a "medical survey" made by Dr. Moss in 1784, he warned the inhabitants that the health of the town would suffer; the houses were too crowded together, the streets too narrow, the want of light and air being especially marked

in the numerous shut-in courts. He made suggestions for widening some of the streets, pointing out that the expense might be met by the increased value of the new fronts, very similar to the proposals in the new Planning Bill now before Parliament. Dr. Moss was in advance of his times: it was not until 1842 that the public had been sufficiently educated, when Liverpool applied for and obtained an Act of Parliament giving a certain amount of control over buildings, cellar dwellings, narrow courts, etc. It was not long before it was recognised that if full use was to be made of these powers, skilled officials were necessary, with the result that Dr. W. H. Duncan, who had already taken an active interest in the matter, was appointed as medical officer of health (1847-60). It is noteworthy that this was the first appointment of the kind in the country. He was followed from 1861 to 1876 by Dr. William S. Trench, who was instrumental in founding, and was for several years the President of the North-Western Association of Medical Officers of Health, now the North-Western Branch of the Society. Dr. John Stopford Taylor succeeded him and held office until 1883, when Dr. Hope took up the work. The extensive staff which Professor Hope left behind on his retirement had no representative in Dr. Duncan's early days; he had no inspectors and no clerks. It has been no light work to get rid of the legacy of the previous century-and-a-half, but much has been accomplished to improve the housing conditions. Comparison between the old state of affairs and the new is admirably shown by numerous illustrations.

In various chapters Professor Hope deals with water supply, drainage, hospitals, child welfare, food control, etc. It may be doubted that Liverpool can claim to be the pioneer in regard to health visiting and child welfare, for it is believed that as early as 1860, Dr. Ransome founded in Manchester and Salford a society the objects of which were to give instruction to the poorer classes and to try to overcome indifference to personal and household cleanliness. That society eventually trained women as visitors to give advice and practical demonstrations. It was not until the nineties that definite attempts in this direction were made in Liverpool and in certain areas in London, probably stimulated to some extent by the work of Budin in France.

At the risk of making the book a little longer, some further information on the control of food supplies would have been welcome. The amount of food imported into Liverpool must be very considerable, and the methods of dealing with it would be instructive.

Professor Hope has devoted much time to searching among old records, and has produced a book of which the citizens of Liverpool may well be proud.

In the Annual Reports.

CARE OF THE FEET.

Footwear.—The provisions of the Health Acts relating to boots and shoes, and the Footwear Regulations made thereunder, have been enforced by the Department's officers during the year. Owing to a complaint reaching the Department to the effect that shoddy and unbranded footwear was being landed in a Southern State, a special visit of inspection was paid to all boot retailers' premises in the metropolitan area for the purpose of ascertaining the position in Brisbane. Close scrutiny of stock in local boot and shoe retailers' premises disclosed that in three shops only was there any footwear on sale of a kind that reasonably might be included in such category. The articles in question were a line of ladies' shoes made in Czecho-Slovakia, and as these shoes were plainly branded on the soles with the name of the manufacturer and the words "Textile uppers, leather soles, cardboard insoles and stiffeners, free from barium," together with the maker's address, they complied with requirements under the Queensland law in such connection.—*Dr. John Coffey, Commissioner of Public Health, Queensland.*

Foot Clinic.—This clinic was opened in May, 1930, to provide treatment for minor troubles of the feet, such as corns, callosities, bunions, ingrowing and thickened toe nails and warts. These ailments are extremely common and very troublesome, and yet by virtue of their very insignificance are often neglected. The clinic is not intended to usurp the functions of an orthopaedic department, and cases of flat feet and other similar deformities are not treated, but are referred to their own doctors. The clinic is staffed by qualified chiropodists and students from the Chelsea Polytechnic Training Centre, and I have to thank Mr. Bride and Miss Montgomery of that institution for their very valuable help in starting the clinic and their active co-operation in running it. In the beginning there were two sessions a week, on Wednesday afternoon and evening. It soon became necessary to increase the number of sessions, and at present the clinic is open for five sessions a week, on three afternoons and two evenings. One of the afternoons is reserved for patients who are seen by appointment only, and only patients who are at work in the day time are seen at the evening sessions. Miss Montgomery is in charge of the clinic and associated with her are a number of paid assistants and a number of students from the Polytechnic. A charge of sixpence is made for each treatment, and in the case of patients seen by appointment the charge is one shilling. Each

chiropodist works in a cubicle and there are at present five cubicles in operation at each session. The cost of equipping a cubicle is approximately £10. The number of attendances up to date has been 3,589; males 992 and females 2,597; and the number has shown a progressive increase each month, so that it will be necessary in the immediate future to consider the opening of a second clinic in the other half of the borough. I hope that it may be possible to provide more sessions for men in the evenings and possibly one on Saturday afternoon, and I think it likely that the appointment session will be abolished as it appears to be less popular than the ordinary session.—*Dr. D. M. Conman, Bermondsey.*

THE Board of Education has recently issued a revised edition of the list of certified special schools, recognised institutions for the training of the blind and other defective students, and nursery schools in England and Wales. Copies of this useful publication (List 42—1931) may be obtained from H.M. Stationery Office, price ninepence net.

THE Joint Tuberculosis Council announce post-graduate courses on tuberculosis as follows:—(1) A practical series on modern methods of therapy in tuberculosis of the respiratory system, with special reference to collapse therapy, will be given by Dr. Peter Edwards, Medical Superintendent of the Cheshire Joint Sanatorium (near Market Drayton, Salop) where there is abundant material for the full demonstration of artificial pneumothorax and allied procedures, as about 150 refills are done each week. Methods of sanatorium administration will also be demonstrated. No class will exceed four members in number and may be less. Suitable arrangements for board and residence can be made within a convenient distance of the sanatorium. The difficulty experienced by many full-time medical officers in finding time to get away to post-graduate courses is recognised, and every effort will be made to meet the convenience of intending members. As they will be intensive, no course need exceed three days if more time cannot be spared; (2) a study tour will take place in Holland from June 29th to July 4th, 1931, when various institutions for combating tuberculosis will be visited, and the methods employed will be explained; (3) a course in Lancashire has been arranged for the period October 19th to 24th, 1931. Programmes, details of expenses, etc., of all three courses may be obtained from Dr. William Brand, Hon. Secretary for Post-Graduate Courses, 8, Highway Court, Beaconsfield, Bucks.

PUBLIC HEALTH

THE JOURNAL OF
THE SOCIETY OF MEDICAL OFFICERS OF HEALTH.

No. 10. Vol. XLIV. JULY, 1931.

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

Application should be made to the Executive Secretary of the Society, at 1, Upper Montague Street, Russell Square, London, W.C.1.

Subscription price 31s. 6d. per annum, post free in advance. Single Copies, 2s. 6d. post free.

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Editorial.

National Baby Week.

FEW of those who saw or took part in the celebration of the first National Baby Week in 1917 seriously thought that 1931 would still see celebrations in full swing. The first Baby Week was planned by a band of child welfare enthusiasts to stir the nation to awareness of the great fact that the phenomenal loss of life through the Great War could more quickly be made good if an attempt was made to save the infants. At that time it seemed clear that much disablement and ill-health in adult life could be attributed to a neglected or mismanaged infancy and early childhood. It was to spread abroad the knowledge of this principle of prevention that the first Baby Week was held.

National Baby Week originally concerned itself with the general cry—"Save the Babies." Since that time public opinion and

Government alike have become thoroughly well informed on the importance of State measures for the care of mothers, babies and little children. This informed public opinion was crystallised in the Maternity and Child Welfare Act passed in 1918. Since that Act with its permissive powers came into force, one local authority after another has incorporated maternity and child welfare services in its administrative scheme, till at the present time there is no local authority in this country which does not provide, in some measure, great or small, for these services. It, therefore, might be thought that there no longer exists any need for National Baby Week or for the local Baby Weeks which are held up and down the country.

The situation is changed. The principle of "Save the Babies" has been nationally adopted, but the details of the methods of

saving the babies are still open to comment and criticism. On the one side there have been established the maternity and child welfare services; on the other there remains a public to be educated in the use of these services. Year by year there is a new crop of marriages and subsequently a new crop of young mothers, expectant and nursing, each of whom—because bringing a child into the world does not in itself endow a mother with sound knowledge of how to rear a child—stands in need of education in mothercraft. A comparatively modern side of this educational movement, largely due to the way in which the National Baby Week Council has stirred public feeling, is seen in the education of fathers. Many infant welfare centres now have their fathers' committees and fathers' councils; many health visitors now—often with considerable tact and with sacrifice of private time—contrive to talk helpfully to the fathers as to the mothers. This is as it should be, the father, it may be presumed, being equally responsible for the existence of the child with the mother; its safe and healthy rearing may be regarded as depending to an extent upon his sympathetic understanding of, and co-operation in, the mother's task.

What the fathers of the future will be remains to be seen, but the National Baby Week Council is helping to lay good foundations. Year by year, national competitions are held in association with National Baby Week. Each year some provision is made in these competitions for school children. This year boys and girls alike have been invited to enter for a poster competition, the design of the poster to cover the idea of National Baby Week. This year, too, a unique competition has been offered. A miniature cot for a baby (the cot not to be more than 18 inches in length) to be fully equipped with bedclothing, was required. These cots had to be the joint effort of a boy and a girl—the boy to make the cot, the girl the bedclothing. The entries are truly remarkable and show that the boys have in the most minute ways attended to the correct details for the construction of a baby's cot. Safety drop sides, no canopies, rustless spring mattresses, correct proportions—all of these have been provided by the young male idea, while the bedclothes entered are a marvellous indication of the way in which the young school-girl of to-day is studying the needs of the young baby—indeed, mothercraft and fathercraft in the making.

These are two instances of the way in which the modern education of the public in child welfare is proceeding. This year, the National Baby Week Council draws special and emphatic attention to two important problems: (1) the need for, and nature of, a national maternity service scheme and (2) the care of the child from one to five years of age. It is noteworthy that the Council visualises the welfare of the child as a threefold principle, embracing the bodily, mental and spiritual sides of existence. In National Baby Week, therefore, not only are the experts discussing in conference the physical and the mental sides of this problem, but in the churches of all denominations on Baby Sunday, July 5th, preachers are sending out a plea for consideration of the spiritual welfare of the little child.

One extremely useful piece of propaganda during National Baby Week (July 1st to 7th) undertaken by the National Baby Week Council is the distribution to midwives, through local supervising authorities, the majority of whom have taken supplies, of a pamphlet, "The Prevention of Puerperal Sepsis," specially prepared by Dr. T. Watts Eden.

In the long run, as a result of the activities of the National Baby Week Council and of many other agencies working along kindred lines, there should be formed a public highly educated on maternity and child welfare subjects: educated not only on the practical side of child management, but on the social side of civic responsibility. In due course there will be in operation all the nursery schools necessary to meet the needs of the toddlers; toddlers' clinics and health visitors enough to supervise the health of the pre-school child; a national maternity service scheme so that each mother may have within her reach all provisions for a safe maternity; and the time will arrive when there need be no fear that the right proportion of the block grant will not be put at the service of maternity and child welfare work.

B.C.G. and Protection against Tuberculosis.

IT is probable that belief in the possibility of discovering something in the shape of a vaccine that will be effective against the bacillus of tuberculosis will never die. Even the findings of Dr. Stanley Griffith in his experiments with B.C.G. on monkeys, set out in the report issued the other day by the

Medical Research Council* will not kill it. Griffith in his experiments tried out on monkeys Calmette's method which claims to afford protection against tuberculosis infection by the administration of B.C.G. vaccine, which is, of course, a culture of a strain of the tubercle bacillus known as the *Bacillus Calmette-Guerin*. This strain, it is held, is of such low virulence as to be incapable itself of causing disease. Even if administered by mouth, however, it is further claimed, it is able to arouse an effective immunity. Abroad, trial of the Calmette method has been made already in the case of a number of children, particularly those born of tuberculous parents or into homes where there are other risks of familial infection.

In this country investigators have not felt justified in experimenting with children and administering the vaccine to them until there was indisputable confirmatory evidence of the validity of the claims made for it and of its harmlessness. It was in an attempt to find such proof that the investigation described in this report was carried out. For the reason, amongst others, that their susceptibility to tuberculosis is so marked, monkeys were chosen as the experimental animals. That the experiments were performed with meticulous care and under conditions of complete and perfect control it may be accepted, and the report gives absolute proof. The results in a word were that though it was confirmed that the B.C.G. has a low virulence and that there is a real possibility of its absorption from the alimentary tract after administration by mouth, no protection against tuberculosis infection was conferred in any of the trials made by the researcher. The object of the publication by the Medical Research Council at this stage is to make available for other workers an account of the work done and results obtained so far. In view of the conflict of evidence and difference of opinion that exist this is probably wise.

In addition to the work upon monkeys described in this most important report, Dr. Griffith is engaged also, along with Professor Buxton, in experiments of a similar kind with cattle. Such a research has an importance of almost incredible vastness, having regard to

what it would mean, not only to the stock owner but to the public health in general, to be in a position to confer immunity to tuberculosis upon milch and other cattle by feeding them with the B.C.G. or anything else while they were calves. The investigation in this connection is not yet completed. There is every reason why the investigation in this case should be thoroughly and fully made in order that the report, when it is issued, shall leave no room for doubt. Nothing is to be gained by hurrying the experiments or hastening to make reports. Dr. Griffith and Professor Buxton may be relied upon to withhold all statements with regard to results obtained so that they may be conclusive when they are announced. They are all the more eagerly anticipated for that reason.

In the meantime, Dr. Stanley Griffith is to be congratulated on the contribution he has made to knowledge with regard to B.C.G. in this report and the clearing up of the situation produced as a result of the work done.

* * * * *

The Prevention of Anthrax.

ONE of the great effects of the alteration in practice of recent years whereby Branches, instead of devoting all meetings to the reading and discussion of papers, give a certain number to the visitation of places of public health interest, has been undoubtedly the widening of the outlook of the health officer and the increasing of his interest in works other than those which come under his view as a matter of routine.

A visit of extreme value paid by the North-Western Branch was that to the Government Anthrax Disinfecting Station in Liverpool last month, at which an opportunity of viewing and learning of the procedure adopted in relation to the prevention of anthrax was afforded.

Under the Anthrax Prevention Act, the importation of hair, wool and other substances liable to be infected, can be prohibited by regulations made under the Act. At present the importation of the following articles is prohibited unless after disinfection:

(a) Shaving brushes from Japan.

(b) i. Goat hair from India.

ii. Wool and hair from Egypt.

Articles included under group (b) are delivered by the shippers to the Anthrax

* STUDIES OF PROTECTION AGAINST TUBERCULOSIS. Results with B.C.G. Vaccine in Monkeys. By A. STANLEY GRIFFITH, M.D. Medical Research Council Special Report Series, No. 152. H.M. Stationery Office, 1931. pp. 49. Price 9d. net.

Disinfection Station for treatment before they are handed over to the importers. The station has a capacity of 10,000,000 lbs. of wool and hair per annum, but at present the amount of wool and hair from India and Egypt which is being dealt with is about 1,000,000 lbs. The bales on arrival at the station are uncovered and are then broken automatically and fed into the disinfecting machine. The material first passes through a bath containing a $\frac{1}{2}$ per cent. solution of carbonate of soda to free the spores from the albuminous coating, and then goes into a bath containing a $\frac{1}{2}$ per cent. solution of a soap and a little free alkali. After this preliminary treatment the wool or hair is passed into the disinfecting bath, containing a 2 per cent. solution of formaldehyde, in which it is retained for twenty minutes. The wool is afterwards washed in water to remove the formaldehyde, dried in a hot-air dryer, cooled and moistened to restore it to its natural condition with regard to moisture, which is approximately 16 per cent. The wool is then conveyed to a baling press and packed for dispatch.

Although many samples of wool and hair from infected countries do contain the *B. anthracis*, it is not constantly present. The *B. mesentericus* is, however, regularly found in all samples of wool and hair, often in large numbers. It is a spore-bearing organism which is more resistant to formaldehyde than *B. anthracis* and for this reason is used to control the efficiency of the disinfection, which takes about $1\frac{1}{2}$ hours to complete.

Some interesting figures were given as showing the effect of the process on the prevalence of anthrax in Bradford mills using this type of wool and hair before and since the introduction of disinfection. Prior to the opening of the station in 1921, the average number of cases of anthrax in the Bradford mills was 25 per annum with five deaths, and three cases of pulmonary anthrax. Since 1921, the average number of cases has been 3.2 per annum with two deaths, and there have been no cases of pulmonary anthrax.

There have only been three cases of anthrax among the employees at the station in ten years. The operatives are provided with overalls which are regularly disinfected, and baths are provided for their use. The charge for disinfection of material at the station is $1\frac{1}{2}$ d. per lb.—equivalent to a charge of three to five per cent. on the value of the material.

The Birthday Honours.

THOUGH Dr. Alexander has not for some years done the actual work of a medical officer of health it is open to claim that his recognition by the King in the birthday honours was, in fact, given to medical officers of health. Unless the O.B.E. in this case is so counted, then it must be that medical officers of health as a group have gone unrecognised, and even the health service, except vicariously through the knighthood to Dr. Varrier-Jones, and the M.B.E. to Mr. Humphery, Chief Sanitary Inspector, Reigate, and to Mr. Kelso who holds a similar appointment in Paisley. To all those who have been honoured congratulations are offered. These are all the more sincere since the worth of those honoured is well and long known to their fellows in the health service of the public. Dr. Alexander while in Poplar took a keen interest in all social works, and since his retirement has devoted much time to the welfare of the blind. Dr. Varrier-Jones, because of his work in relation to tuberculosis and for the benefit of the tuberculous, has earned a reputation that is world-wide and, by way of reward, no less of recognition than that so graciously bestowed by the King at this time. Mr. Humphery and Mr. Kelso, in their own branch of the health service, are men outstandingly capable, highly respected and admired, who have helped in no small measure, not only in their own area but generally to bring about the well-recognised improvements in the health of the people. Both have had the interests of their fellows sincerely at heart, and both have laboured to improve the status of the profession of which they themselves are fine examples. They are, and deserve to be, highly thought of in the service, which rejoices that they had this honour conferred upon them.

THE series of lectures on "The Difficult Child: A Medical, Psychological and Sociological Problem," delivered under the auspices of the Jewish Health Organisation of Great Britain at Toynbee Hall, London, last year, has now been published as a booklet. Though the lectures have already appeared in print elsewhere, there are many who will welcome the opportunity of obtaining the series in its present collected form. The price of the booklet is one shilling net, and copies may be obtained from the Organisation at 19, Dorset Square, London, N.W.1.

The Pre-School Child.

B ETHEL CASSIE, M.D., D.P.H., Chief Child Welfare Medical Officer, Birmingham, and G. C. M. M'GONIGLE, M.D., B.H.Y., D.P.H., Medical Officer of Health, Stockton-on-Tees.

National Baby Week (July 1st to 7th) falling within the period to which this issue relates, and one of the main subjects for attention during this time being "The Physical, Mental and Spiritual Care of the Child from One to Five Years of Age," it is suitable that the contributions of Dr. Ethel Cassie, Dr. M'Gonigle and others to the symposium on "The Pre-School Child," held at the Ordinary Meeting of the Society in London, on April 17th, 1931, should occupy a prominent place in the contents of this present number.

DR. CASSIE.

HAVING been asked to give a paper on the pre-school child, I felt it better, since the subject is so large a one, to deal with the earlier period in the age-group covered by that phrase, since, in my opinion, the disabilities found in the child on reaching school originate, as a rule, before the age of three. The phrase itself—"the pre-school child"—is a clumsy one, yet so far no other has been evolved to replace it. It has come to us from the United States, and is at least more inclusive than the English term "toddler," since within it one wishes to include the child from one to five years.

At first sight, such a grouping appears to be purely artificial, since the border-line between the infant reaching twelve months, and the young child, is as indefinite as the border-line passed at the fifth birthday. All the same, the grouping is practical, simple and convenient, and recently it has been shown to be physiological. Dr. Harris of University College in "The Primary School" (H.M. Stationery Office) distinguishes definite periods of growth or "springing up," and definite periods of "filling up," in the life of the child. The first year is a period of rapid growth or "springing up," and the years from one to five are the first "filling up" period, succeeded by a second period of "springing up" from five to seven. Here, then, we have a further justification for a convenient grouping in child study and child care.

In practice, the outstanding difference between the methods employed for the school child, as compared with the pre-school child, is the fact that speaking generally, with the younger child the mother must be the agent through whom alone we can act. The teacher, the school nurse, and the doctor, can

deal with groups of school children independently, consequently the whole problem of clinical and administrative arrangements must differ fundamentally in the two groups, and one gets the natural division between the child welfare centre and the school clinic.

The whole age-group presents problems peculiar to itself and met with at no other period, while it is affected at the same time by the general conditions influencing childhood.

It is naturally these particular problems which make this age-group of special interest. The conditions which affect large numbers, and leave permanent disabilities, must be of the greatest importance from the public health standpoint. These, therefore, must receive primary consideration in any scheme for dealing with the pre-school child.

There are the two great aspects of child care—the physical and the mental, and in both one has to consider the physiological and pathological aspects. It is impossible to consider the larger preventive problems without thinking of both. In childhood the boundary is even less clearly defined than in adult life, and is more easily passed. In fact, a study of the pathological may throw considerable light on the physiological aspect of difficult problems, as a study of rickets has shown the physiological need of the body for vitamin D.

The physical aspect is of first importance, since a healthy body will certainly help us to attain a healthy mind; the individual must exist, indeed, before character-training becomes of importance, though some enthusiasts appear to forget this.

The death-rate at this age-period is by no means negligible. Taking the latest complete returns for England and Wales, those for 1929, we find that no less than 29,629 children died between the age of twelve months and five years, nearly half of these dying between

twelve months and two years. The death-rate per thousand at this period (one to two years) was 23.5, as compared with a general death-rate of 13.4, and is significant when compared with the rapid fall in the succeeding years, *i.e.*, from 2-3 years, 10.0 per 1,000; from 3-4 years, 5.7 per 1,000; from 4-5 years, 4.2 per 1,000. It is low when compared with the infant mortality of 77 per thousand, but when it is considered that half the deaths under one year take place in the first three months of life, the death-rate in the second year remains extremely high, and compares with the later months of the first year. This death-rate is important, not only in itself, but in relation to the morbidity rate and the permanent disabilities with which it is associated. It is of interest to note, too, how much the death-rate at this age-period has fallen.

I therefore want to say something of the pathological aspect of the problem as well as to consider the preventive and curative methods within the scope of the public health

service. One wishes, in fact, to state the problem as a preliminary step.

Much has been heard recently of the high percentage of defects found in the child as it reaches school age, but even now there is failure to recognise that practically all these defects originate very early, and that while we are doing a great deal for the infant, much too little is done at the real danger period from one to two years.

Recently in Birmingham, medical inspection clinics for children from eighteen months to five years were established at most of the child welfare centres. Eighteen months was chosen, since it is from that age that the regular attendance of children at the centres falls off.

Actually eighteen such inspection clinics per week have been held, and a total of 6,474 children were examined in 1930, half of these children being between two and four years old. The figures for these clinics are shown in the accompanying table.

CITY OF BIRMINGHAM.

MEDICAL EXAMINATIONS AT INSPECTION CLINICS. CHILDREN FROM 18 MONTHS TO FIVE YEARS.
January 1st to December 31st, 1930.

	Under 2 years			2-3 years			3-4 years			4-5 years			Total	
	No.	% of Total	% of age group	No.	% of Total	% of age group	No.	% of Total	% of age group	No.	% of Total	% of age group	No.	% of Total
Number examined ...	884	13.7	—	1836	28.4	—	1852	28.6	—	1902	29.3	—	6474	—
Enlarged Tonsils ...	274	10.3	31.0	768	29.0	41.8	750	28.3	40.5	857	32.4	45.1	2649	40.9
Defective Teeth ...	20	1.1	2.3	214	11.8	11.7	583	32.2	31.5	995	54.9	52.3	1812	28.0
Enlarged Glands ...	148	8.4	16.7	504	28.7	27.4	504	28.7	26.7	599	34.3	31.4	1755	27.2
Active Rickets ...	105	64.0	11.9	57	34.8	3.1	2	1.2	0.1	—	—	—	164	2.5
Evidence of Old Rickets ...	19	6.0	2.1	93	29.2	5.1	113	35.5	6.1	93	29.2	4.9	318	4.9
Other Orthopaedic Defects ...	6	10.7	0.7	10	17.9	0.5	16	28.6	0.9	24	42.9	1.2	56	0.9
Otorrhœa ...	22	13.7	2.5	48	29.8	2.6	41	25.5	2.2	50	31.1	2.6	161	2.5
Defective Hearing ...	1	2.9	0.1	4	11.8	0.21	14	41.2	0.8	15	44.1	0.8	34	0.5
Squint ...	25	10.4	2.8	46	19.1	2.5	78	32.4	4.2	92	38.2	4.8	241	3.7
Other Eye Conditions ...	2	28.6	0.2	3	42.9	0.16	1	14.3	0.05	1	14.3	0.05	7	0.1
Chronic Bronchitis ...	6	16.7	0.7	9	25.0	0.5	7	19.4	0.4	14	38.9	0.7	36	0.53
Other Lung Infections ...	2	15.4	0.2	2	15.4	0.1	2	15.4	0.1	7	53.8	0.4	13	0.2
Systolic Heart Murmur ...	3	4.6	0.3	17	26.2	0.9	14	21.5	0.7	31	47.7	1.6	65	1.0
Other Heart Affections ...	—	—	—	3	50.0	0.16	2	33.3	0.1	1	16.7	0.05	6	0.1
Eczema ...	3	18.8	0.3	7	43.8	0.38	3	18.8	0.15	3	18.8	0.2	16	0.24
Other Chronic Conditions ...	2	14.3	0.2	2	14.3	0.1	1	7.1	0.05	9	64.3	0.5	14	0.2
Total Defects ...	638	8.7	72.0	1787	24.3	97.3	2131	29.0	115.0	2791	38.0	146.7	7347	111.9

When one considers the defects recorded, allowance must be made for the variation of standard among medical officers. The most frequent defects noted are enlarged tonsils, enlarged glands, and defective teeth, and these are defects the detection of which is least affected by the standards of the observer. The cases of rickets and rickety deformities were limited to 164 and 318 respectively. In this instance, the standard employed by medical officers varied very strikingly, and one sees this

readily by looking at the records for different centres. Some medical officers quite evidently only record the grossest deformities. It must also be remembered that the children examined are not a fair average sample. Definitely they represent the children of mothers who are particularly interested in their welfare, since it is easier to secure the attendance of such children. It is also necessary to remember that children with obvious defects are brought more readily. With these provisos in mind, the

table is still of considerable interest, and does definitely show the need for medical supervision in these age-groups. Such medical inspections must be combined with provision for treatment. Remedial exercise clinics, ultra-violet light clinics, and tonsil and adenoid clinics, are essential, as well as treatment for squint, otorrhœa and similar defects. Provision of treatment through the general medical practitioner obviously does not meet the need in these cases.

When one considers the physical ailments at this age-period, apart from special inspections, the conditions which at once stand out are chiefly four in number—rickets, enlarged tonsils and adenoids, pulmonary infections and pyelitis. Obviously these are largely due to environmental faults or to a low resistance to infection. We are all now well aware of the importance of diet and light in relation to rickets; we are not yet aware of the relative importance of diet, light, overcrowding, congenital disabilities, and contact infections, in relation to the other conditions mentioned, but we know that in the majority of instances the environment, including the diet, plays a major part.

Rickets usually originates before the twelfth month, but, as we all know, it persists well into the second and third year if untreated, and the deformities may be life-long. It is responsible for at least 90 per cent. of the minor orthopaedic defects affecting children under the age of five. Flat-foot, knock-knee, bow-legs, and, especially when combined with adenoids, chest deformities and postural defects of all kinds result. Minor grades of rickets are so easily overlooked that it is difficult to get any accurate statistics. Speaking roughly, 11 per cent. of the children under two years, in an ordinary working-class district, attending a child welfare centre were found to show well-marked signs of rickets; but if careful, early and close observations are recorded, this figure rises at once. For instance, on one occasion, 60 apparently healthy babies under six months, coming from homes where the housing was known to be bad, were X-rayed for rickets and six, or 10 per cent., were found to have active rickets, though it was not suggested clinically at that early age in these cases.

In 1930, 334 children under five years attended the Birmingham Orthopaedic Hospital, and of these, 155 had rickets, eleven had poliomyelitis, 23 congenital defects, and eight tubercular disease. Rickets gave 46 per cent. of the total. These were practically all well-marked cases

of deformity. Children with minor defects either fail to obtain treatment or receive it from the child welfare centres. These minor orthopaedic defects frequently cause permanent disabilities. Flat-foot alone is a constant cause of pain and crippling later in life. We do not know the full toll of rickets anywhere, but we know that, however much we have in the midlands, it represents only a fraction of the amount found in the north.

I wish to stress the importance of rickets from the orthopaedic standpoint, since I believe this is the important aspect of the condition. I greatly doubt whether in itself it lowers the resistance and increases liability to infection. Children living in dark, overcrowded homes, with a defective diet, get rickets; they generally also suffer from dangerous infections, but it is possible to get severe rickets with no particular liability to infections.

The pulmonary infections constitute the second important condition affecting this age-group. The heaviest incidence is on the child under two years, but the after-effects are felt only too frequently for many years among the survivors.

Here again it is impossible to obtain reliable statistics, but the number of young children suffering annually from broncho-pneumonia is enormous. The disease itself is almost peculiar to this age-period. While lobar pneumonia is a simple acute catarrh of the alveoli, in the broncho-pneumonia of the young child we are dealing with a deep-seated infection of the inter-alveolar tissues, an infection which from its pathological character must be prolonged, chronic and recurrent. It is a fortunate child in whom the condition clears up in one attack, a child fortunate in its environment and in its previous physical history. These cases of prolonged and recurrent lung infection constitute one of the major problems in dealing with the toddler. Prolonged treatment in good hygienic conditions is necessary to prevent recurrence and chronic ill-health—to prevent, in fact, that terrible event, the onset of bronchiectasis or pulmonary fibrosis. These children, in too many instances, succumb to a third or fourth attack after having cost more than any community can afford in useless expenditure.

The influence of lung infections on the death-rate in young children is very striking. In the 1929 figures, broncho-pneumonia and other pneumonias accounted for the death of no less than 8,791 between one and five years of age, and when other infections causing death through

pulmonary involvement are included, *viz.*, influenza, bronchitis, measles, whooping cough, the total reaches 16,987, or 57 per cent. of the total deaths at this age-period. Diarrhoea and enteritis only account for 1,045 deaths. It appears that the improvement in diet, hygiene and general sanitation has mainly affected this group, leaving the lung infections unduly prominent. An investigation into the chronicity of lung infections in young children by means of radiographs and clinical observations was carried out in the Carnegie Institute, Birmingham, in 1929, and the results showed how extensive and prolonged such infections are, and how frequently permanent damage follows.

While there appears to be a congenital liability in some cases to enlarged tonsils and adenoids, the majority are undoubtedly associated with a lowered resistance, causing repeated catarrhal infections, and a similar sequence of events leads to the occurrence of pyelitis. Pyelitis accounts for a surprisingly large number of cases of chronic ill-health in young children. It is associated with recurrent and prolonged pyrexia, often undetected. The necessity for microscopic examination of the urine for diagnosis delays recognition of the condition.

It seems obvious that environmental and dietetic measures must play a large part from the preventive aspect, while our immediate need lies in the direction of efficient medical and convalescent treatment for the victims of our failures in prevention. I should like to make a special plea on behalf of the young child suffering from pulmonary infection. At present, such a child is given two to four weeks' treatment in hospital during the acute stage at the onset of the disease, and is then thrown back into the environment which produced the condition, making complete recovery a difficult and hazardous possibility. The dearth of hospital beds for these children is notorious, yet it is surely uneconomic to admit and readmit these cases, sometimes over a period of two to three years, if not longer, rather than secure a complete recovery in the first instance.

Leaving aside physical defects, one must consider the equally important psychological aspect, the training and management of the young child. It is now clearly recognised that these early years are the important ones as far as the development of the character and the personality are concerned. How haphazard a business it is we are only now commencing to realise. The child welfare centre of the future must concentrate more and more on the teaching

of child management, not only dealing with the simpler problems of the infant, but tackling the much more difficult problem of the toddler.

These psychological problems are all important among the children of the artisan class. Among them, with the limitation of the family, the nervous, lonely child, with the over-anxious mother concentrating on him, gives us a typical picture. The child is well fed and well cared for, every physical defect is dealt with, but he remains fretful, peevish, sleepless, often suffering from anorexia, much underweight, and having developed some trick to further attract attention, such as pseudo-habit vomiting. Put these children into an observation ward with other children, and with careful, but comparatively uninterested nurses, and they lose their peculiarities in a fortnight, and gain weight and liveliness in a startling fashion. Such a demonstration is helpful as an educational factor for the mother, but it can only be applied to a limited extent, and in the worst cases. The intelligent mothers can be taught the importance of avoiding over-anxiety, the need for instilling self-confidence and self-control, the need for playmates, and other simple but fundamental points. Time and patience are needed; group teaching and individual teaching both play their part. All mothers are not open to conviction, and others are circumstanced so that they are seriously handicapped in their efforts. It is for these cases that the nursery school, or even the nursery play centre, is invaluable. In considering such institutions, much stress is laid on the physical benefit to the children, but actually their greater value lies in the mental training. Simple discipline, occupation, amusement, and co-operative action produce a transformation in the neurotic child within a few days. The simplest methods suffice if applied intelligently. This problem of the only child is only one of many. We have the displaced toddler, jealous of the baby, and fretting himself ill in consequence; the sick child, pampered in convalescence and determined to remain the centre of attention; the child of the over-strict parent, abnormally naughty, and so on through all the results of failure of management. It is as often the intelligent mother as the stupid one; very frequently it is the selfishly indulgent father, who causes a difficulty as great as the unkind and over-strict father. The need for educating the parent creates the need for educating the medical officer and health visitor in these questions. It is not a question of child guidance, but the guidance of the parent, and

neither a doctor's nor a nurse's training gives the necessary knowledge. The special training courses for health visitors should, and usually do, include teaching in simple psychology, and for those already working, refresher courses are essential.

The training of medical officers in maternity and child welfare work obviously requires consideration. For the maternity and child welfare medical officer a special clinical diploma would be of value, and the increase in personnel will probably bring the value of such a diploma home to our dilatory educational authorities before long.

It is not possible in the time at my disposal to do more than touch on some of the more obvious features of this question of the care of the pre-school child. I can only offer this as an apology for a somewhat sketchy consideration of the subject.

DR. M'GONIGLE.

The pre-school child is taking a prominent position to-day in the scheme of public health services; but it is, perhaps, unfortunate that there is a tendency to consider him as an entity separated by an intangible barrier from babyhood, and, by his fifth birthday, from the school child. The pre-school child has his own special problems—as has any age group—but the fundamental problems of biology, nutrition and pathology which underlie his welfare are applicable equally to children of any age.

Some months ago Dr. Picken, of Cardiff, made an appeal for the unification of the health services which are organised for the school child with those for the pre-school child. Such unification would be of benefit to childhood as a whole.

Though there is ample legislative sanction for the establishment by local authorities of a full medical service for pre-school children, in but few areas is a comprehensive scheme for their care in operation. The pre-school child has suffered by his importance being overshadowed by that of the infant, and by our fetish of regarding a low infant mortality-rate as the measure of success of our child welfare work.

We continue, quite wrongly, to assess the value of our infant welfare work by the infantile mortality-rate. The falling curve of

the death-rate during the first twelve months of life has been for over thirty years a constant curve, and it is open to question whether the intensive post-war activity in the child welfare service has influenced it at all. Time does not permit a consideration of this curve and the factors which may have been responsible for it. Whether we are in agreement or not as to the causes of the falling infant death-rate, the measurement of the success of child welfare work by the proportion of infants who survive the first anniversary of their birth can give but a very imperfect assessment of the value of that work. It is a very inexact measuring scale, for it takes no account of the number of survivors who are damaged in the process of surviving.

The findings of the school medical officer provide us with a much more accurate measuring rod by which to assess the value of our care, or lack of care, of the pre-school child. I often feel profoundly grateful to the school medical officer that he has not laid his measuring rod across our backs and pointed out, by the *argumentum ad baculum*, our shortcomings.

Speaking frankly, there are grounds for dissatisfaction at the physical condition of the school entrants. Throughout the country as a whole, at least 20 per cent. of these five-year-old children is found to be suffering from physical defects so severe at the time of discovery as to require immediate medical treatment. These defects consist of enlarged tonsils and adenoids, otorrhoea, strabismus, heart disease, etc., etc. This 20 per cent., it must be remembered, is exclusive of dental defects. Every school medical officer knows quite well that this figure of 20 per cent. gives but a very imperfect picture of the physical condition of these children on their entry into our elementary schools. There are numerous minor defects which he either refers for observation or omits to record. These latter omissions are because he considers the defects too trivial to note, and also because their numbers are so great that the mere recording of them would seriously interfere with his work of recording and following up the major defects.

Whenever careful search is made for minor defects they are found to be so numerous as to strain the credulity of those who have never made an intensive search for deviations from the normal.

The assessment of dental decay is a fairly

easy matter, and we find that rather more than 60 per cent. of children is referred by the school dentists for treatment. This does not mean, however, that four out of every ten children have perfect teeth. The percentage of children found by the school dentists to be entirely free from dental caries is not available, but it is known to be very much less than 40 per cent.

The Second Interim Report of the Board of Education Committee on Adenoids and Enlarged Tonsils, which was published recently*, gives some figures as to the incidence of dental caries. Mrs. Mellanby examined 1,293 five-year-old children in London elementary schools, and the percentage free from caries was 4.7. Caries was present in a slight degree in 11.7 per cent. The remainder, 83.6 per cent., had quite well-established caries. Even if allowance is made for the severity of the standard adopted by Mrs. Mellanby, these figures are disquieting.

The same interim report divulges that of 1,361 children examined by Dr. Wells (who, incidentally, made a digital examination of the posterior naso-pharynx in each case) 174 had already been operated upon for the removal of adenoids, and, of the remainder, the naso-pharynx was found normal in only 17.4 per cent. of cases.

Three medical officers of the London County Council school medical staff examined between them 1,638 children for the presence or absence of bony signs of rickets. The percentage entirely free from such signs was 12.5, while 64.1 per cent. presented two or more, and 40.4 per cent. had three or more signs.

The association between these various abnormalities is of great interest, but is not a matter for consideration here. What I want to emphasise is that we find among average, unselected, five-year-old children these high percentages of abnormalities. The instances given are sufficient to indicate that our methods of nurture of the pre-school child are at fault, for how otherwise can one explain that it is the exception rather than the rule to find a physically perfect five-year-old child?

Those who have read Professor Mellanby's Hastings lecture will realise that there are

very distinct gleams of hope for the amelioration of the lot of our young children, but such gleams cannot fully illuminate the world of childhood until a much greater appreciation of biological and nutritional verities is attained, and also until further field research work among human beings is carried out on very extensive scales.

It would appear to be reasonable to suppose that a great diminution of the incidence of dental decay could be brought about by the ingestion of an adequate amount of vitamin D by expectant mothers and also by young children. Many workers in ante-natal clinics devote the whole of their energies to the purely obstetrical and gynaecological aspects of their patient's condition and, so far as I know, very few have, as a routine matter, given additional vitamin D to the women with the object of reducing dental decay among their offspring. In my own ante-natal clinic I have carried out this procedure for three years and the results (though the number of cases is not yet sufficiently large to be worthy of publication, nor has the length of time yet been sufficient) are distinctly encouraging.

A recent attempt by me to correlate defects among pre-school children with various factors in their nurture and environment points to nutritional factors as being of much greater importance than poverty, bad housing, overcrowding, size of family, etc.

The rôle of vitamins in nutrition has only lately begun to be understood and much yet remains to be elucidated concerning them, but there has been a tendency to suppose that these substances contain the whole secret of successful growth and nutrition, and as a result, other factors, for instance, the balance of the various elements of diet, have been somewhat neglected.

The point I particularly wish to make is this: there is an enormous percentage of aberrations from perfection in the physical development of our young children. We know some of the causes of these deviations from normal. Is it not our duty as a whole to endeavour to lead the nation on to the right path so far as we know it? Are we doing that, or are we, in our text-books and our teaching, merely perpetuating nutritional precepts which, while avoiding gross rickets, etc., yet may give rise to the mass of minor pathological conditions from which our children suffer?

DISCUSSION.

Dr. Ralph M. F. Picken (Medical Officer of Health, Cardiff), in referring to the work carried out in Cardiff, said that the result of examining children under school age, as regards proportion of defects found, had worked out similarly to that obtained in Birmingham. One of the difficulties associated with the scheme was to induce the parents to bring young children to the clinics. Environment was probably not quite so important as it had hitherto been believed, and it was unfortunate that, in the public mind, public health at the present time, as in the past, was still dominated by the question of housing. The work of such men as Dr. M'Gonigle, who had devoted so much time to problems of nutrition was, therefore, of special interest. An aspect of the problem which appealed to the practical administrator was the extent to which the work which was being done for the pre-school child could be made available to those who were to examine that child in later life. Dr. Cassie had said that the "under five years of age" was not a bad grouping for practical purposes. As an administrator he considered it unsatisfactory. In Cardiff schools a large number of children were admitted under the age of five—even at the age of three—so that they did come within the province of the school medical service before they had left the province of the maternity and child welfare department. That was one reason why five years could not be accepted as a suitable line of demarcation. Further, if it were the case that the diseases of later life were laid down by the disabilities from which the children under five years of age suffered, then it was important that the individual should be considered as an individual throughout his life rather than that his life should be separated into age-compartments for medical purposes. The problem was full of difficulties. What was the practical solution? At the present time, only in certain areas was it possible to establish any continuity of medical and nursing supervision of children throughout their pre-school and school life, and also perhaps at later stages of their life. The matter had given him a great deal of concern for a number of years, and he had tried to find some way of obtaining that continuity. The most satisfactory way of doing so was to have every child, from the time he first came under the notice of the department, dealt with by the same medical and nursing staff; and up to a point it was possible, by devolving the clinic work to districts, to arrange

a scheme on those lines. In practice, however, the arrangement was apt to break down. For one thing, there were not nearly big enough staffs to create small enough areas to work the scheme satisfactorily. For another, it tended to group children according to the school they attended rather than to the place where the homes were situated. Then there were so many special forms of defect for which special clinics were necessary; the orthopaedic clinic, for example, which must be more or less centralised; the throat and nose clinic and various others which could not very well be distributed throughout a town in districts. An endeavour had therefore been made to find another way out of the difficulties. It was decided to try filing all records in one common folder and to make them available for each medical officer when he saw the child, but the bulk of records became enormous and the mechanical problem of sending all the cards round was serious. He then adopted a summary card resembling that of the Ministry of Pensions. Birth card, maternity and child welfare clinic card, routine school inspection card, and, where necessary, vision clinic card, orthopaedic record card, ear, throat and nose clinic card, minor ailment clinic card—all were summarised and the information transferred to the summary card. All those records might be of importance, and it was essential that the medical officer who, in later life, examined the child should know of them. Under the various Factories and Workshops Bills put forward it had been proposed that the school medical service should supply the factory surgeons with details regarding children who were about to commence work which would be a reliable record of their health prior to leaving school, and such a summary card would simplify compliance with that requirement. Another point also had to be kept in mind. Although the extension of insurance to dependents seemed to be postponed indefinitely at the present time, health record cards compiled now would be of very considerable value when the expected developments of the insurance medical benefit materialised. The significance of many of the things that were being found at present in young children was not yet fully known. It was believed that good was being done by their treatment, but it was rather important that records should be available in such a form that somebody in the future could collate the findings among adults with their history in childhood. The adoption of the summary card system had already involved a great deal of work, and was

* BOARD OF EDUCATION.—Committee on Adenoids and Enlarged Tonsils. Second Interim Report. The Association of Rickets and Dental Disease with Adenoids and Enlarged Tonsils. H.M. Stationery Office, 1931. pp. 28. Price 6d. net.

taking up the time of two skilled clerks who were unable to cover the whole ground. It was, therefore, a costly scheme to work, and the question arose—was it worth while? Dr. Picken said he felt strongly that the information gathered at the clinics should be made available for future reference, and he had been unable to devise any better or more economical way of doing it than that described.

Dr. John Macmillan, D.S.O., M.C. (Medical Officer of Health, Woolwich) said he thought that the simplest way to deal with the problem of the pre-school child at the present time was by instituting a system of routine medical inspection on similar lines to those of the school medical service. To ensure the success of such a scheme it was necessary to create a favourable public opinion towards it, as had already been done in the case of infant welfare centres and the school medical service. Toddlers' clinics as at present organised were not as successful as they might be because they had been established on infant welfare lines, but if efforts were made to deal with the toddler on school medical lines, better results might be obtained. If mothers could be made to realise that infant welfare centres could be as useful to them in the care of the toddler as with the care of the infant, then a great step would have been made in solving the problem of medical supervision. Mothers would not attend toddlers' clinics because they had not realised the importance of advice on the toddler; they had already experience of long delays at welfare sessions which would be accentuated if more toddlers attended, and they could not afford to spend the time to attend regularly on special days when a younger child appeared. Woolwich had had a scheme of routine medical inspection of toddlers since May, 1930. Two sessions on one day were held weekly in charge of a part-time medical officer with experience in school medical work and maternity and child welfare work. An additional health visitor had been appointed. Children were seen at these sessions by appointment, and the number of appointments made at each session was limited to twelve. The organisation was as follows: The special health visitor obtained from the district health visitors the names of forty children divided into three age groups—two, three and four years—the children being selected partly from those who had attended the infant welfare centres and partly from those who had not. She then visited the homes,

and it had been found that the majority of mothers were willing to bring the child up for this special examination. When the health visitor had obtained twenty-four acceptances, she closed her list for the next two sessions. In talking to the mothers she explained the nature of the examination; told them it was by appointment, and that they would not be kept waiting; that if everything was satisfactory they would be told so, and would not be pressed to come again unless they wished it; and they would be informed of any conditions to be observed, and given advice on obtaining treatment. At the sessions the children had a complete examination, the results of which were entered on a card. Following up was done by the district health visitors, and if re-examination was necessary the mother was given a definite date upon which to return. It was found that when the scheme became known the mothers were more and more willing to bring their children. In the early days, out of thirty acceptances, there were as few as seven actual attendances, but now, out of twenty-four acceptances, as many as twenty, and sometimes more, actually attended. It was interesting to note in regard to attendances that mothers who had never brought their children to the welfare centres had brought them up for this examination. In the eight months ended December 31st, 1930, 471 children had been examined, distributed over the three age periods. The percentage referred for treatment was 35. A complete system of providing treatment was available either through their own school clinics or by voluntary agencies. At whatever age the child went to school, the card was transferred to the education authority.

The scheme was being extended in the present year when the work would be carried out by the district health visitors, and children would, in due course, be examined in the birthday month of each of three years—2+3+4+. The advantages of such clinics were four-fold: they enabled defects to be discovered; they provided a means of instruction; they shewed the way to treatment; and they provided facilities for keeping under observation minor conditions of ill-health or physical defects.

Dr. Agnes H. Nicoll (Assistant Medical Officer, Willesden) said that continuity of medical service in Willesden was secured by dividing the district into areas, in each of which there was a health centre in charge of a clinical medical officer. In the case of the schools a little overlapping occurred, a very small pro-

portion of the children at a school in one area having to attend another centre because they lived in the area in which that centre was situated. Even with slight overlapping, however, constant co-ordination was obtained by sending notes on from centre to centre. With regard to special treatment, children were referred to various places for treatment by specialists, and the notes were sent back to the centre. When the first medical inspection was about to be made at school, all the information regarding the child up to that point was collected, and a summary prepared by the medical officer for inclusion on the school medical inspection card. A school record card was also kept, on which was entered everything that happened to the child while in school.

Dr. J. Sim Wallace (Lecturer on Preventive Dentistry, King's College Hospital) said he sometimes thought that one section of the medical profession did not know what another section was doing or thinking; consequently, it might interest members to know what the dental profession thought about matters related to the teeth. In recent years there had been much research work done with regard to the teeth, perhaps more especially as to the effect of vitamins, and there had been an idea that the problem of dental caries could be solved to some extent by the administration of vitamin D. In that connection, the following quotation from the report of an investigation recorded by two South African dentists associated with the University in Johannesburg, who, in his opinion, knew their subject well, was significant and interesting:—

"The problem of our bad teeth has been attacked from two main points of view in the last twenty years:

(1) The food we eat as regards its action in the mouth on its way to the stomach. This includes the fermentability of the food, its adhesive qualities and its cleansing qualities. That is, its power of cleansing and polishing the teeth and leaving none of itself behind when the meal is finished.

(2) The food we eat after it has passed into the stomach, been absorbed into the blood stream and become available for the tissues. This includes the supply of raw materials which we have discussed, but more particularly does it refer to the theory advanced by Mrs. Mellanby that our bad teeth are due to a lack of vitamin D. . . .

"Vitamin D is contained chiefly in fats, the oil extracted from fishes' livers having the most. It has been found, however, that vitamin D is also produced by the action of the sun on exposed skin, or by the exposure of the substance ergosterol contained in the skin to the action of ultra-violet light, and that this exposure of the skin to the sun's rays is sufficient to produce the amount of vitamin necessary for the

growth of the bone and so presumably of teeth. In Johannesburg we are favoured with a large amount of sunlight, and, owing to the altitude, the intensity of the ultra-violet rays is greater than at lower altitudes. The actual figures given by Osborn are that, of the actinic rays given off by the sun, provided there are no clouds, 26 per cent. reach the earth in England, 43 per cent. reach the earth on the high veldt, e.g., Johannesburg. But, in addition, the sun shines only 29 per cent. of the total possible in England, as against 73 per cent. in Johannesburg. Taken all together, Osborn estimates that if the actinic rays in England are represented by one, we in Johannesburg have ten. In Johannesburg, and, we believe, in South Africa generally, rickets is practically an unknown disease, due possibly to the sunlight. According to Mrs. Mellanby's theory we ought also to have sound teeth. It is well known that this is not the case. To satisfy ourselves personally, however, we undertook the inspection of the children at two government day schools. In one of these schools there were 267 children, in the other 333; 600 in all. The ages of the children varied from six to 16 years. It will be seen from the results obtained that 6.65 per cent. of the children examined presented sound teeth; the remainder, 93.35 per cent., had one or more carious teeth each. The average for all the children was 4.82 carious teeth each."*

Two other important investigations recently made in the Island of Hawaii, where the condition of the teeth was deplorable, provided corroborative evidence that vitamins could not be relied upon to prevent caries. The authors stated:—

"Fruits and vegetables are rich sources of vitamin A, vitamin B, and vitamin C, and poor sources of vitamin D, the antirachitic factor. It would seem offhand that vitamins might be the determining factor. However, when supplied in the form of cod-liver oil, which is the richest known source of 'A' and 'D' (irradiated foods excepted), of eggs or of milk, both human and fresh unpasteurised cow's milk, orange and tomato juice, these vitamins, in good measure, fail utterly to prevent the rampant disintegration of the teeth of the babies born in Hawaii.

"That vitamin B is not primarily concerned in dental decay is evidenced by the extraordinarily sound teeth found in adults who have had beri-beri.

"Notwithstanding the excellence of milk as a food, neither human nor cows' was effective in preventing the rampant disintegration of enamel in infants and small children."†

"In Hawaii, sunshine is abundant. Cod-liver oil, whether vitamin-tested or not, is administered by the gallon in some schools, yet the younger children suffer from defective, poorly calcified teeth."

* Geoffrey, Friel, B.A., L.D.S., and Shaw, J. C. Middleton, M.A., D.D.S., F.I.C.D. "Some Notes Concerning Dental Caries in South African Children." *British Dental Journal*. April 1st, 1931, pp. 312 and 313.

† Jones, M. R., Ph.D., Larsen, Nils P., M.D., and Pritchard, G. P., D.D.S. "Dental Diseases in Hawaii," *Dental Cosmos*. July, 1930.

A photograph of fifty children at Hanamaula School, Kauai, is given; "every child suffered from dental caries." Milk is consumed. Two other photographs of twenty-four and eighteen children respectively are given, in which in the former, the lower grade school, two pupils had defective teeth. In the latter, the upper grade school, one pupil had defective teeth. "Native diet prevails in these (latter) schools, and no milk is consumed."*

A further investigator had given the following valuable data with regard to the calcification of teeth and bones on rachitic and non-rachitic diets:—

"The averages and average deviations of calcium and phosphorus of the (incisor) teeth (of rats) and bones are given in the table. The figures represent the percentage of the dry weight of the alcohol-ether extracted material."†

Diet.	Teeth.		Bone.	
	Per cent. Ca.	Per cent. P.	Per cent. Ca.	Per cent. P.
Rachitic ...	26.7±0.6	13.8±0.5	11.3±1.2	5.9±0.8
Rachitic + KH ₂ PO ₄ + cod-liver oil	26.5±0.5	14.0±0.1	21.8±0.7	10.5±0.5

In England there had not been, and were not likely to be, many corroborative researches on a subject of the kind just referred to, with grants from the Medical Research Council, but observations had been made, and this was one from *The Dental Surgeon* (April 5th, 1930, p. 180):—

"We are already meeting with cases where children are devastated with caries, who have been dieted with cod-liver oil, and where the fond and anxious parents have pinned their faith to this food—in vain."

It did not necessarily follow that, because Professor Mellanby never had had any special education with regard to the teeth, his conclusions were altogether reliable. Though extremely sorry to have to make that remark, Dr. Sim Wallace said he felt bound to state that experts who probably knew a great deal more about the subject had not come to the same conclusion that seemed to have swept through the whole of the medical profession without a particle of irrefutable and relevant evidence to support it.

* Millberry, Guy, D.D.S., Dean of the College of Dentistry, University of California, San Francisco. "A Study of the Dental Problem in Hawaii."

† Karshan, Maxwell. *Ex Dental Cosmos*, May, 1930, p. 549; from *Proc. Soc. Expt. Biol. and Med.*, December, 1929, 27, 200-202.

Dr. Margaret Emslie (Vice-President, Maternity and Child Welfare Group), expressed surprise that though there were now some five thousand infant welfare centres in this country, no statistics appeared to be available to show the medical condition of pre-school children. Referring to the factor of nervous effect in connection with clinical work, Dr. Emslie said that the great majority of the nervous defects were found at the age of two, when actually many children were suffering from definite loss of sleep. In her view, it was difficult to say that nutrition, as one factor producing the conditions referred to, was more important than another, and could be separated from the factors of environment—housing, size of family, &c. With regard to Dr. Cassie's clinical details, no mention had been made of anæmia in her table of medical examinations at the Birmingham inspection clinics.

Dr. Ralph P. Williams (Medical Officer, Board of Education), outlined the method adopted in investigating the medical condition of a thousand children in three areas in England on behalf of the Board of Education, and spoke highly of the co-operation of the local authorities concerned. Large groups of children between the ages of two and six years had been examined, and in due course, the findings would be made the subject of a report. During the last year, two areas had been completed, and he was now engaged in carrying out the work in the rural area.

Dr. E. H. T. Nash (Medical Officer of Health, Heston and Isleworth) said that in his district the whole of the service had been thrown open to the pre-school child, but only the children of the better educated parents had attended the clinics. The establishment of nursery schools he held to be the solution of the problem of securing attendance of the children and treatment of their defects. The success of any scheme to-day or in the future could be ensured only by retaining the same medical officer to look after the child from birth until it left school.

Dr. M'Gonigle, in reply, said the papers had certainly served their purpose and had originated an interesting discussion and expression of views from those who had seriously studied the problem. It had to be remembered that the question of the establishment of any complete scheme for the care of

children under school age was very largely a financial one, and that obstacle was encountered at every point. Continuity of service from the time the child was a small infant to the time it left school was a factor the importance of which could not be overestimated. Dr. Macmillan had suggested there was difficulty in getting pre-school children to attend the clinic, but his own figures had shown that the trouble could be largely overcome. Similar objections were raised with school medical, and maternity and child welfare work, in its early stages, and any objection to the clinic for pre-school children would die down in the course of years. Dr. Sim Wallace's views on the cause of dental decay were well known. He had said that in certain areas where dental decay was much in evidence, rickets was absent. It had often been claimed that rickets was absent in an area. Dr. M'Gonigle had been told that there were no rickets in the metropolis, but the medical officers of the London County Council had stated that there was something like 80

per cent. among the children. Had the same standards been used in looking for rickets in other countries where dental decay was extraordinarily prevalent? Dr. Emslie had raised the question of Dr. Cassie's omission to include anæmia in her table. Replying for Dr. Cassie (who had been unable to remain to the end of the meeting), Dr. M'Gonigle said it would be realised that the assessment of anæmia in young children was a very difficult matter, and that probably accounted for the omission. In conclusion, he held that, in child welfare work and in work amongst pre-school children, the medical officer must get away very largely from the point of being a doctor and, to be successful, must be a sort of super health visitor.

The President (Professor Harold Kerr, O.B.E.), on behalf of the Society, thanked the readers of the papers and those who had taken part in the discussion for their extremely interesting contributions on the subject of the pre-school child.

The School Medical Officer and Mental Inefficiency in the Child.

By A. A. E. NEWTH, M.B., B.S., D.P.H., Senior Medical Officer, City of Nottingham Education Committee.

This paper, read before the East Midland Branch, will be enjoyed because of its originality, enthusiasm and optimism.

DENTAL retardation is a question that is very largely the concern of school medical officers. Some have to make diagnoses involving legal responsibility in the more serious forms of mental retardation. Every school medical officer has frequent opportunities of helping the teachers to salve from the rubbish heaps of the schools the lesser retarded and sometimes misunderstood children so as to enable them eventually to become more or less efficient citizens.

Mental abnormality is found in children in all degrees, from the incurable helplessness of the idiot to the temporary aberration of the genius. But while for legal and administrative purposes it is convenient to divide children into idiots, imbeciles, mental defectives, dull, backward, and normal, it should never be forgotten that there is no definite line of demarcation between these grades; they merge insensibly into one another and overlap to a considerable degree.

Ascertainment of Mental Defectives.—A most definite duty was laid on the school medical service by the Mental Deficiency Act of 1913, which required every local education authority to ascertain the mentally defective children in their area and to provide education for them. This work was carried out in varying degrees of efficiency, and in 1928 Sir George Newman in his annual report calculated from the returns of school medical officers that there were 33,000 mentally defective children in England and Wales. In the following year the report of the Joint Committee of the Board of Education and the Board of Control (the Wood Report), was published, giving the results of Dr. E. O. Lewis's investigations; this report revealed the amazing fact that he estimated that there were no less than 105,000 mentally defective children in England and Wales; that is to say, more than three times the number actually ascertained by local authorities.

Surely this discrepancy is a severe indictment of the school medical service.

I think we have every excuse. In the first place, the difficulties of ascertainment in rural areas are very great. Seeing that there is such a great preponderance of mentally defectives in rural areas over those in urban areas (33·82 per 1,000 school population in rural areas as opposed to 18·84 per 1,000 in urban areas) this would account for some of the discrepancy. In the second place, there is no doubt that school medical officers have been disheartened by the lack of proper accommodation in the special schools. In 1929 there were only 16,750 places in the special schools.

But although we may have some excuse in the past, it would seem that it is essential for us to carry out this work with greater efficiency in the future.

After all, it is important. It is generally wise for officials to carry out legal requirements, and those of the Mental Deficiency Act of 1913 were definite enough. In addition to this, the presence of the mentally defective child in the normal class is detrimental to the teaching of the normal children in that class, and for the mentally defective child it is extremely harmful for him not to have training suitable for his low intelligence: it accentuates his failings, and as a result he leaves school in an even more helpless condition than his limited capabilities warrant, so that failure in life comes on at once and he is quickly a liability to the State. Furthermore, the figures of the Wood Report demonstrate that in one generation (from 1904 to 1929) the proportion of mentally defectives to normals in the community has almost doubled, and the problem is becoming one of national and racial importance.

It may be asked why the duty of ascertainment should be thrown on the doctors. The present definition of mental deficiency in the child is an educational one—"in the case of children that they appear to be permanently incapable by reason of such defectiveness of receiving proper benefit from the instruction in ordinary schools."

Is it not the duty of the teachers to decide which children are not capable of benefiting by their instruction? Manifestly not. Mental retardation is so closely associated with medico-psychological questions that it is definitely a problem for the medical man. Again, teachers are too kind-hearted to diag-

nose mental deficiency without prejudice. Dr. Lewis asked head teachers to estimate by their own standards the degree of educational retardation in certain children, and the compared their estimates with the results of educational tests. The teachers' estimate of the amount of retardation was found to be nearly half the actual retardation; 2·7 against 5 years. The opinion of an experienced and observant teacher is of the greatest value, and may be more reliable than results furnished by intelligence or educational tests, but to rely on an unchecked opinion is to rely on personal equation which is always so unreliable. Undoubtedly the diagnosis of mental deficiency is the duty of the school doctor.

The Act of 1927 defines mental defectiveness as "arrested or incomplete development of mind existing before the age of eighteen years, whether arising from inherent causes or induced by disease or injury." This new definition is framed to cover those cases of amentia which develop some years later, perhaps after the 'early age' of the 1913 Act. It suggests the distinction between the inherent and the other forms of amentia, but a more scientific distinction is secured by the terms primary amentia and secondary amentia. The latter is due to causes operating on a brain which started normally but has had its development interfered with by trauma or by disease occurring generally at or after birth. It also includes cretinism due to hormone insufficiency. The primary amentias have had a bad start from the first, and in the vast majority of cases are due to hereditary causes, an exception being mongolism (which is probably due to imperfect development of the ovum at the time of conception). It is estimated that quite 80 per cent. of all cases of mental deficiency are due to hereditary causes.

Tredgold thinks that the hereditary factor is a germ impairment of the developmental potentiality of the neuronic determinant, produced by some adverse factor in the environment, such as those causing certain physical diseases—tuberculosis, alcohol, etc. Many other authorities would assign the factor to some germinal variation of unknown origin, but inherited according to the Mendelian law. Owing to the complexity of heredity in human beings, many generations may have to be studied before the point is conclusively determined. But whatever may have been the original cause of the germinal abnormality, the important point is that mental inefficiency

is in the vast majority of cases a hereditary characteristic just as are such constitutional diseases as diabetes, physical features such as the colour of the iris, or mental attributes such as musical ability.

It is not necessary to demand as evidence of heredity that either parent should be mentally defective; they may both be apparently normal, but instances of mental disturbance will be found in other members of the family. (It may be noted in passing that those parents from whom it is most important to obtain a family history are the very ones who are generally least able to give any accurate details of their forebears.) Nor is mental deficiency the only criterion of defective stock; insanity, illiteracy, alcoholism, chronic pauperism, recidivism, gross immorality, etc., may all be indications of mental instability of which mental deficiency is only one manifestation. And in these days of small families one is tempted almost to regard fecundity as evidence of a similar degeneracy. Large families of normal intelligence are becoming increasingly rare. In Nottingham, for instance, I have found that the average number of children per family from which a mentally defective child came was 5·43 against 3·7 for the family of the normal child. Although it has been suggested that this is a natural phenomenon due to a loss of fertility in normal stocks, it is far more likely to be due to purely artificial causes—late marriage, use of contraceptives, etc.

Turning to the secondary amentias, I am inclined to think that in addition to such obvious causes as meningitis, birth-injuries, etc., it may be that severe emotional disturbance of the mother during pregnancy is one of the causes of mental deficiency in the child, due to endocrine disturbances. And I often wonder whether the mental deficiency of the single illegitimate child may not have been produced by the unsuccessful use of abortifacients. But in many of such cases there is often sufficient evidence in the family history to suggest hereditary deficiency.

It is frequently stated that the eldest or the youngest member of the family is more likely to be defective than the other children, but I find no evidence of this. In my cases 15·3 per cent. were first-born; 31 per cent. were last born, and 53·7 per cent. were intermediate. Again, although there is some evidence that the elderly mother is more likely to bear a mongol, with regard to the other forms of

mental deficiency the age of the parent seems to have but little influence. Most of my parents were aged between 31 and 35 at the time of the child's birth, and in only one instance was there any marked incongruity between the age of the father and that of the mother.

We cannot rely on the findings of an ordinary routine inspection to furnish us with the information we require about mentally defectives, as there is no time at such examinations to go fully into the question. We must devise some *ad hoc* method of ascertainment. My predecessor, Dr. Wyche, drew up such a scheme for Nottingham, and it has worked well. The head teachers are required by the director of education to submit all children at the age of 7 to Ballard's one-minute educational tests. The names of those falling below 85 per cent. are sent in to the senior school medical officer. Each case is then investigated by a member of his staff—not a doctor—in consultation with the head teacher. Eyesight and hearing are tested, opportunities for previous education noted, illnesses, etc., and in some cases intelligence tests are given. The results of these investigations are reported to the senior medical officer, who decides whether the children should remain in an ordinary class, or be sent to a dull and backward class, or be submitted to a further special examination by himself or his senior assistant who alone possess the power of certification for the special schools. This final examination is carried out at the clinic in the presence of the parent.

The tests chiefly used are Burt's adaptation of the Stanford Revision Tests. The Porteus Maze, Drever's, Burt's Educational Tests, etc., are also used from time to time. Although there may be a few who are sceptical about the value of these tests, I think the more one uses them the more one realises their value, provided one is careful to take all other factors into consideration. We sadly need some equally efficient tests for emotionality. After all, intelligence is only one of the factors influencing success in life; temperament is just as important. At present we have to rely on the evidence furnished by the parent or teacher, and on our own observations of the child at the time of the examination.

It is most important for the examiner to go carefully into the physical condition of the child. The dull child is frequently also

physically defective, and much mental inefficiency of a temporary nature may be due to ill-health. It might be thought superfluous to emphasise the importance of testing the sight and hearing. But it is amazing to find how easy it is to miss gross defects of sight or hearing, unless they are specifically tested in each case. It is not infrequently very difficult to decide on the degree of deafness, especially when it is associated with nervousness or with mental deficiency.

The greatest care should be taken to avoid being prejudiced by the presence or absence of stigmata. Many mentally defective children show no stigmata, while some normal children may show them. They may be evidence of defective stock, although the member of that stock under examination may himself be normal in intelligence. Left-handedness is more common amongst mentally defectives than amongst normal children, but it obviously by no means follows that a left-handed person is probably mentally defective. Such abnormalities should be recorded, but their presence or absence should not influence the diagnosis.

A history of late commencement of speech and of walking and of cleanly habits is very suggestive, but the information is often very unreliable.

An account of the child's behaviour at school and at home should always be obtained. But gross abnormalities of behaviour of a serious nature—stealing or sexual misconduct—are not incompatible with normal intelligence, and may merely be evidence of temporary emotional disturbance.

The difference between the normal and the mentally defective is but slight in earlier years. As the child gets older the difference becomes more easily recognisable; especially marked is the lagging behind of the educational ratio. How often one hears the parent of a hopelessly defective child say that some doctor has told her, when she herself suspected the mentality of the child in earlier years, that there was no need to worry—the child would “come on” later, perhaps at the magic age of seven. I cannot believe that it is kind to let a parent go on hoping against hope in this way, when the ugly truth is bound to be revealed to her sooner or later.

It is not permissible to certify a child for the special school before he is seven, and even at this age with the greatest care mistakes may be made. So that, although for the definitely mentally defective child, special school educa-

tion should be secured as soon as possible after this age, the borderline case should be sent to a dull and backward class for a year or two.

After the child gets to the special school, he should still be watched. If care is taken in diagnosis, it will be very exceptional for a child to advance sufficiently to be sent back to an ordinary school. But it should be done if the circumstances warrant it. Again, although the majority of mentally defective children are inefficient in everything, hand-work as well as ordinary educational subjects, occasionally one finds a child who is really above the normal in some special subject, such as art. I have had one child who came under observation first on account of fits, simulating epilepsy and serious psychological outbursts, threatening suicide, etc. He was mentally defective, with an I.Q. of 64 and an E.R. of 54. He was sent to a special school (not without a good deal of anxiety on my own part) and it was soon found that he possessed artistic ability. This was encouraged, and as he gained confidence in drawing he gained confidence in reading and other subjects. Later on he was sent to the school of art where the principal reported that in certain forms of art he was distinctly above the average of his fellow students. At the same time his reading had improved enormously, so that at the age of 14 he was able to read as well as a child of 13. With Drever's Performance Test he came out at 120 per cent. His so-called epileptic fits had ceased from the time he entered the special school, but his general intelligence is still extremely limited. He is now earning a living wage in a sign-writer's business. Such cases are very exceptional, but they are always worth fighting for.

Does the association of a borderline case with other children worse than himself cause him to deteriorate? I do not think so. The special school teacher is always keen to push on her most promising cases, and we can safely rely on her not to permit deterioration.

Dull and Backward Children.—While the mentally defective form only 1 to 2 per cent., the dull and backward group is very much larger and represent 10 per cent. of our school population. It is an important group to the teacher because the methods applicable to normal children are not applicable to the backward children. It is important to the doctor, because the backwardness is so often due to medical causes, and is nearly always associated with medico-psychological factors. It is of

importance to the sociologist because it is from this group that we get so many of our neuropathic, delinquent, unemployable, and criminal adolescents and adults. More than this, it is from the ranks of the dull that are drawn a large proportion of the mentally defectives of the next generation.

Burt defines backward children as those “who, though not defective, are yet unable, about the middle of their school career, to do the work even of a class below their age,” viz., 15-30 per cent. retardation.

This is the most interesting group to the school medical officer, for it includes not only the border-line mentally defectives, but also perhaps some exceptionally brilliant children who have been thrown back by illness or other causes. In past days the dull or backward children used to be allowed to subside to the bottom of the class; as they got older they were dragged up class by class, always at the bottom, where they were ignored or beaten. Now, it is recognised that they are worth studying; they are not ignored, and they are but rarely beaten. The necessity for this altered treatment is clear when we remember that, as Burt insists, “the feeling that he is not wanted, not understood, not like other children, in short, sub-normal and a nuisance, damages the child far more than the sub-normality itself.”

It is convenient to divide the dull and backward into the permanently retarded or the dull, and the temporarily retarded or the backward.

Dulness is due to the same causes as mental deficiency, but in a lesser degree. Inborn inferiority in general intelligence is probably the commonest condition, but there are many children whose only defect is some special disability, such as bad memory, unstable attention, incapacity for verbal or abstract symbols, etc., associated perhaps with a normal capacity for manual work. There are also the temperamental defects, such as emotional instability, emotional apathy, and so on, generally accentuated by environmental difficulties at home or at school.

The backward group is one which the school doctor should observe carefully, for it includes the children with defective sight, defective hearing, the tonsil and adenoid cases, the debilitated, &c., &c. Such conditions lead not only to temporary or permanent inefficiency of the senses, but often also to mental dulness, relieved when the condition is remedied. We all know of instances where removal

of adenoids has had a remarkable effect on a child's mental alertness, and not infrequently similar results follow a course of ultra-violet therapy.

The open air school will often enable a child to leap ahead in a miraculous way. My predecessor demonstrated that in one of the open-air schools of Nottingham the children advanced educationally on an average 17.4 months in one chronological year, in spite of the alleged difficulties of education in cold and damp weather.

Epilepsy is often accompanied by mental deficiency or dulness, but some epileptics do well at school and there seems no need to exclude the occasional epileptic if the parents bear the responsibility of accident, and if the frequency of the fits do not disturb the school. The so-called hystero-epilepsy is, I believe, not an uncommon condition in children, and I have known more than one case cured by the simple expedient of enforcing school under a wise teacher.

In addition to the dulling of the mind by such conditions mentioned above, the loss of education by absence from school owing to prolonged or repeated illness is a very important factor. Sometimes I feel we are apt to be misled by over-anxious parents, and we forget that the modern school is often a much healthier place than the home. Many doctors are too apt to ignore the psychological and educational life of the child in their interest in the physical condition.

Chronic neglect and lack of sleep are conditions that often lead to continued blunting of the mind, and the latter is one of the things that we school medical officers must be continually fighting.

Sometimes we get disheartened by the appalling conditions we meet with, and we may be inclined to shrug our shoulders and say that nothing can be done under the circumstances short of taking the children away from their parents and putting them under more ideal conditions. But the results attained by enthusiastic teachers in some of the worst districts should teach us that by dint of dogged perseverance a tremendous improvement can in time be secured. In this connection it is interesting to watch the results of slum clearances from the overcrowded areas, and of re-housing in better districts. Some of the families have risen nobly to the occasion, and the consequent improvement in the mental outlook of parents and children is most striking.

No doubt some of these results may be due to the improvement in the physical conditions, but to no small extent it is owing to a different psychological outlook.

Dull and backward children need careful educational treatment in dull and backward classes (preferably called by some euphemistic title) which may often with advantage be run on open-air school lines. It is most important that the teacher of the dull and backward class should be one of suitable ability and personality. The ambitious teacher should not be allowed to feel that the dull and backward class is rather a blind alley occupation; the work is sufficiently important to attract the best type of teacher.

The Problem Child.—The problem child has received a great deal of attention lately, not only in America but also in this country. And rightly so, because although children are sometimes able to overcome physical disability to a remarkable degree, they experience much greater difficulty in overcoming psychological troubles.

In tackling the question of the problem child, it is neither necessary nor advisable for the school medical officer to attach himself to any particular school of psychological thought. But it is necessary for him to follow the trend of modern psychological teaching in order that he may delve into the minds and lives of difficult children. Parents are the last people in the world to understand such children. They themselves are frequently of psychopathic tendency and may, indeed, be partly the cause of the child's breakdown. They are too close to the problem to view it with unprejudiced eyes. They exaggerate unimportant details, and overlook incidents which to the trained observer are of the deepest significance.

The problem child may do most outrageous things or he may just be a nervous child. He may be a weakling; he is not infrequently innately mentally dull. He is thus faced with failure both in school and in play. He hears his mother say a hundred times a week that he is a bundle of nerves, and feeling that he is unable to distinguish himself in any other way, he soon learns that he can acquire notoriety by continuing to be a bundle of nerves. Such a child may have some remediable physical complaint. He may have nothing at all the matter with him, or he may be suffering from some most serious disorder. In any case, the nervous child needs the most scrupulously

careful examination, partly to exclude physical defects and partly to convince the mother. It is no use trying to treat the nervous child till you have won the confidence of the mother; having won it, you may find it difficult to get rid of, but you can adjust this when you have cured the child. It is true that sometimes the mother may fail to understand your advice; sometimes she may have so little control over herself that she is unable to carry it out; or she may be of the vampire type who is so selfish that she refuses to alter her ways. In such cases the only thing may be to try to get the child away from the mother for as long as possible in the day by sending him to an open-air school where he can stop from nine in the morning till five or six o'clock at night, or by sending him away to a convalescent home, or to a sensible relative in the country.

The only child is always somewhat of a difficulty. We are apt to assume that he is spoilt, and he very frequently is. Often the parents, realising the danger of this, go to the other extreme and treat him harshly. In other cases the spoiling is alternated with severity, treatment which is so confusing to the child that it leads to serious psychological upheavals. The presence of a grand-parent in such a household is a very dangerous complication.

The mother of the only child is often above the normal in intelligence and may be quite willing to alter her ways, and yet the treatment may not succeed because of mental instability in the child. The abnormality in the child may be due less to environmental causes than to innate and hereditary factors. How often one finds that the mother of the only child is herself neurotic. Is it that the neurotic parent is more likely to resort to contraceptive methods, or is it that he or she is naturally infertile? If the latter, it may be nature's way of protecting the race from becoming neurotic. While the problem of the only child is obvious, we should not forget that one child of a large family may possess a temperament different from the others; he may be just as lonely as the only child, and I am inclined to think his position may be even more dangerous.

The child guidance clinics in America are highly organised affairs. They have their physicians, psychologists, psychiatrists, neurologists, pathologists, sociologists, and a host of other "ists." Excellent as such team work may be, away from the largest centres in this country we cannot make such a show as this.

Nor is it generally necessary. Much may be done by simple treatment if only things can be adjusted before the abnormality becomes too marked.

Juvenile Delinquency.—It is impossible to discuss mental retardation without speaking of juvenile delinquency. The Departmental Committee on the Treatment of Young Offenders recommended that the school medical records should be obtained when a child appears before a children's court, and the Joint Committee of the Board of Education and the Board of Control recommend that such children should be submitted to a medical and psychological examination. This again is therefore a subject in which we must take an interest. Criminologists tell us that 10 to 20 per cent. of criminals are mentally defective, and many more must belong to the more recently recognised group of dull and backward. Furthermore, inasmuch as the majority of habitual criminals are said to receive their first conviction before they are twenty-one, it is assumed that if only the juvenile could be prevented from becoming delinquent, much recidivism could be prevented.

The true moral defective is a *rara avis*, although there are many individuals who are lacking in moral sense in varying degrees. The delinquent is generally more or less mentally retarded. The normal child brought up in moderately normal surroundings does not commit crime, but the dull child is easily lead into mischief. As Burt proves in his works on juvenile delinquents, there is in a large proportion of the cases defective home circumstances of some kind or another. It is by no means always the bad or careless parents whose children get into trouble; too strict discipline may drive an unstable child to crime.

The treatment of the delinquency should obviously be based on the cause. Sometimes simple adjustments of the environment may effect a cure. For instance, some behaviour disorders such as truancy, wanderings, or more serious sex misdemeanours or stealing, may be due to a quite normal and healthy self-assertiveness which has been unwisely repressed. A talk to the parents and the child may secure for the latter those opportunities for self-assertion which he needs, such as the boy scouts or some suitable hobby. Sympathetic as is the atmosphere of the children's court, it is not the proper place for thrashing out these problems. Every child charged should be submitted to a

thorough medical and psychological examination, and it is the school medical officer with his knowledge of child life who should carry out this duty. Magistrates will then be able to mete out treatment indicated by the cause of the delinquency, rather than by the trial and error method usually adopted.

Insanity.—The passing of the Mental Treatment Act has given prominence to the importance of early treatment of mental disorders. We are told that much insanity may be traced back to hypersensitivity and emotionality in childhood, and it is possible that timely advice to the parent or teacher in these early stages may save the child from going over the border later on.

Conclusion.—As school medical officers, we are all the time working for prevention rather than cure. Although in many cases we find ourselves powerless to prevent an individual from inevitable disaster sooner or later, there is no reason why we should not interest ourselves in the social conditions that are contributory to, if not actually causative of, the enormous amount of mental retardation there is amongst elementary school children. Widely divergent views are held as to whether slumdom, alcoholism, illegitimacy, delinquency, and so on, are the result or cause of mental backwardness. But there is complete agreement that such conditions cannot be anything but harmful, and working as we do amongst children that are the victims of these evils, we cannot be indifferent to them. If we feel that the only solution to the problem of mental deficiency lies in eugenic measures, there is a great deal of field-work to be done before the legislature can be persuaded to adopt drastic remedies. However, the question is coming to the fore now, and with all this wealth of material in our hands we should make ourselves authorities on the subject. In this way we may help to solve the problem of mental inefficiency which, in the words of the Joint Committee, "is one of the major social problems which a civilised community may be called upon to face." The school medical officer will also find himself acquiring a breadth of outlook which will add enormous interest to his work.

The Second International Congress for Light is to be held in Copenhagen from August 15th to 18th, 1932. A detailed programme will be issued in the autumn of 1931 from the Congress Bureau, Finsensinstituttet, Copenhagen.

Ut Ita Dicam.

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

National Baby Week.

This issue of the journal will appear during the course of National Baby Week, and is by way of being a special number and a contribution to the general publicity on the subject of infant and child welfare. The opening editorial treats of Baby Week, and all the papers have more or less of a bearing on work of the type that those responsible for the celebration of the occasion consider of first importance. The journal, and the Society too for that matter, may be counted very fortunate that at such a time and in such a cause they can put forward pronouncements from individuals so well-known and highly regarded as Dr. Cassie and Dr. M'Gonigle, and papers so attractive and suggestive as that of Dr. Laird on "Maternal Mortality;" and on "The School Medical Officer and Mental Inefficiency in the Child" by Dr. Newth.

Health Officers and Weeks Generally.

It is a most astonishing thing the grip these various "weeks" have secured in relation to public health work. In the majority of departments, indeed, they have become almost part of the routine activities, and in many at certain times of the year it seems that no sooner is one done with than another is commenced. For the continuance of most of the celebrations there can be no doubt that the health service is responsible. Having adopted them, the health officer feels that everything possible must be done to ensure success. Great ingenuity is displayed in devising features, and a remarkable talent for publicity of a telling sort has been revealed in unexpected places. Perhaps National Baby Week, more than any of the others, has brought out bright ideas, and though this to an extent is due to the fact that it is comparatively easy to interest helpers in work on behalf of infants, in the main it has been in those areas in which the health department is most active that the most effective celebrations have been held. Also it has been those particular "weeks" in which the health service could co-operate that have survived longest. Such as have languished or died before or soon after birth have been such as have not sought, or have failed to secure, the interest and support of health workers. Perhaps it is just as well that the numbers should be limited, since important no doubt as health propaganda is, and definitely

part of the health officer's duty as education may be, he has other duties to perform and time for these must be found. Persons filled with a desire to promote national hen weeks, cow weeks and dog weeks, therefore, before going far with their arrangements would be well advised to get into touch with health officers individually or through their Society or the Central Council for Health Education. In all probability what they would learn as a result would be sufficient to induce them to reconsider the position. If not, the fact that the officers were not, and could not be, with them would tend to bring about a result likely to suggest that the hen or the cow or what not was less of a popular favourite than they had been inclined to believe. Even if they did have success it would be small in comparison, and rightly, with that commonly secured with such a well-established event as National Baby Week, for which this year a greater success than ever is sincerely wished and confidently anticipated.

Chicago: This Picture—

One of the most interesting volumes to come before me recently is one bearing the title "Public Health Organisation in the Chicago Region."* From a number of points of view I found it interesting, but more particularly from this, that after an intensive investigation of 1,700 or more governing powers responsible for something like 5,000,000 people in a number of districts of which the City of Chicago is one, the investigator—Dr. Robert F. Steadman of Syracuse (N.Y.) University, and therefore independent—comes definitely to the conclusion that Chicago itself is ahead of all the others. And not only definitely but very definitely, and not only ahead but far ahead. His conclusion, in fact, is that "Chicago's health protection is superior to that afforded by other local governments in the region." Amongst reasons for this view are these: that among the health departments Chicago is practically alone in pressing physicians, midwives and others to report births and deaths and in allocating these to wards of residences, and using the information in guiding local health activity or in evaluating its results. Chicago's record of

* Cambridge University Press. pp. 279. Price 13s. 6d. net.

vaccinations against smallpox and immunisations against diphtheria and scarlet fever is far and away superior to the average. All cases of smallpox, poliomyelitis and epidemic meningitis, and 75 per cent. of all typhoid, 30 per cent. of diphtheria and 25 per cent. of scarlet fever cases are hospitalised in the two city hospitals maintained for the purpose. There is a routine practice of nursing visits to cases of contagion, and instead of gaseous terminal disinfection there is thorough cleansing and laboratory tests where necessary. The infectious diseases death-rate of Chicago is lower than elsewhere in the region, and practically in every branch of health work, the city is ahead. In the case of venereal disease, Chicago is exceptional in the provision made for control, alone providing, amongst other arrangements, quarters where diseased prostitutes are isolated and treated. Out of 17 clinics in the whole region, 12 are situated in Chicago. In child hygiene the city is again pre-eminent, the effect of the provision made showing in a lower infant mortality and still-birth rate. In the schools there is an average of 150,000 physical examinations per annum, while the nursing system is "a matter of contrast with all other municipalities." In milk and food work she is, of course, far ahead of all others, and her water supply, though derived like many of the other municipalities from Lake Michigan, is much superior to most of the communities of the region. In matters of miscellaneous sanitation, such as housing, smoke abatement, nuisance abatement, etc., the Chicago organisation "seems superior," but in the matter of popular health publicity she is head and shoulders above any other regional government, "with the aid of its splendid statistical bureau, its technical publications, and the regular pamphlets sent to parents of infants quite unparalleled in the entire remainder of the region." Speaking generally, from Dr. Steadman's examination, Chicago would appear to be not a bad place, from the health and health administration point of view at any rate. This, by the way, is an opinion I have heard expressed by others.

—and Another Picture.

One of the places where one finds but rarely anything like a favourable view taken of Chicago is in the press of this country. It is curious, for example, that on the very morning of the day in which I read, and accepted quite readily I may say, Dr. Steadman's description and assessment of health work and conditions in

Chicago, I came across this in a London daily paper from a special correspondent:—

"There may be some in Chicago who think that gunmen and gangsters are vanishing. They are utterly wrong. There are more than ever, and the regiments are getting fresh recruits every day."

All this may, of course, be true. Personally, I prefer to believe, and should like people in this country to be told, what appears to be the case from Dr. Steadman's book, that health administration and work in Chicago are on a very high level, and that it is a place to which even we might, and indeed often do, turn for guidance in regard to certain health matters, education and propaganda particularly. Dr. Steadman's investigation is very full and complete, and his book should prove of great value as a stimulus and for reference.

Vaccination is Compulsory (kind of) here.

How useful are those measures relating to vaccination—the Vaccination Act and the Regulations thereunder! How essential the machinery for putting the provisions into operation! How effective the officers—statutory and securely tenured—who make the wheels go round; the vaccine produced at the people's expense, but available only to a select few; and the forms, so fearfully coloured and lettered, that read like the back of an insurance policy! In proof of the utility of compulsory powers, take the figures for Derby for 1930, and take, by way of contrast, those of St. Marylebone:—

	Derby.	St. Marylebone.
Total number of births	2,664	3,162
Children under 12 months died		
un-vaccinated	208	126
Insusceptible	5	8
Postponed	32	35
Successful	191	2,099
Conscientious objection certificates	2,023	367

The latter, it may be noted, is a district in which every thing possible is done to conceal the fact of the existence of laws relating to vaccination as a compulsory procedure, and to cover over and soften the crudities of the blue forms and the yellow forms, the "Q's" and the "K's"; and to create the impression that the decision to accept vaccination is made after consideration of the pros and the cons. Similar methods could easily be adopted generally, and would work as well. It is the law and, above all, the forms and the threats—all of them empty—they convey, that stand in the way. P.

Maternal Mortality.

By ANDREWINA LAIRD, M.D., D.P.H., Maternity and Child Welfare Medical Officer, Newport, Mon.

This paper proved extremely useful in opening the discussion on "Maternal Mortality" at a meeting of the Assistant Medical Officers' Sub-Group of the Welsh Branch, because it gave so excellent a summary of the principal points in the Report of the Departmental Committee on this subject. For the same reason it will be found useful and interesting by the readers of the journal.

WHILE the infantile mortality-rate has declined from 109 in 1911-1915 to 74 in 1929, there has been little change in the maternal mortality-rate in the last twenty years, the figures being 4.0 and 4.3 per 1,000 births in 1911-1915 and 1929 respectively, and one out of every 250 mothers die in childbirth, in spite of improved housing, nutrition, physical health, the replacement of the handyperson by trained midwives, and improvement in the rapidity of transport.

With the declining birth-rate (30.5 in 1891-95, 17.8 in 1926) there has been a rapid decline in the infant mortality-rate.

The falling of the birth-rate has made a consequent increase in the proportion of first confinements, but this increased risk has been compensated for by the decline in risks associated with the eighth and later confinements—risks which seem to exceed those of the first confinements.

Dame Janet Campbell reports that London has the lowest rate of maternal mortality (3.35) in the British Isles. This can be accounted for by the high standard of the midwives' practice and the relatively good facilities for the hospital treatment of all abnormalities.

The northern districts in general have the highest mortality-rates from all causes (4.75), which is greatest in urban districts, being 5.25. This may be due to the higher proportion of complicated cases which occur in the north, and to the comparatively poor facilities for special treatment in many of the small towns and villages. In Wales the death-rate remains higher than in England—4.92 from all causes as compared with 4.12 in England and Wales. It has been suggested that this high rate is due to the sparseness of the population, which may be scattered in hilly and mountainous country difficult of access.

In the six years ending 1927 the maternal mortality-rate in England and Wales was 3.96; in New Zealand 4.87. In the same

period the lowest rates were in Italy (2.8 per 1,000), the Netherlands and Scandinavian countries (2.53), while relatively high rates were present in Germany (5.1), Switzerland and Ireland. In the United States of America, where the records are incomplete, the maternal mortality-rate in 1921-1925 was 8.3.

It is certain that puerperal mortality is but a part of the damage involved; there is the morbidity which may arise during pregnancy or after the confinement.

In the Scottish Departmental Report for 1924 on maternal mortality and morbidity, the following statements were made:—

"Of the cases attending ante-natal clinics, of whom 38 per cent. were primiparas, 54 per cent. were found to be normal. The proportion of cases requiring treatment were:—Albuminuria and toxæmia, nine per cent., incidental conditions (cardiac, etc.), 28 per cent., and hæmorrhage, five per cent. The proportion of cases requiring operative delivery were:—Contracted pelvis, three per cent., malpresentations, two per cent., and other causes, three per cent. These figures do not include Glasgow, and would be misleading as regards the frequency of contracted pelvis there. Twenty per cent. of the cases admitted to ante-natal wards in Glasgow show contracted pelvis."

Late Morbidity.—This morbidity is not merely synchronous with it, but often much later. Of 10,000 cases seen at a hospital for diseases of women, 65 per cent. had borne children and 28 per cent. suffered from disabilities attributed to previous confinements: Sepsis and its effects, nine per cent., laceration, including fistulæ, five per cent., prolapse of rectum, bladder, uterus, 10 per cent., and other displacements of uterus, four per cent.

Ill-health in the mother or the existence of any cause likely to lead to difficulty or complicated labour is full of danger to the foetus,

and action taken to prevent maternal morbidity would indirectly lead to the saving of much infant life.

Eardley Holland shows that in a series of 300 still-born foetuses submitted to careful post-mortem examination, the cause of foetal death in 51 per cent. was some complication of labour. Syphilis accounted for 16 per cent. of cases, and toxæmia of pregnancy and chronic renal and other maternal diseases for a further 12 per cent. Of these 79 per cent., he estimated that 53 per cent. were preventable by improved ante-natal and intra-natal care.

A Departmental Committee has recently investigated 2,000 maternal deaths and issued an interim report on those cases.

The 2,000 cases are divided thus:—

(1) 1,596 deaths directly due to pregnancy and child-bearing.

(2) 404 deaths due to independent diseases, concurrent with pregnancy and childbirth, in which child-bearing contributed to or accelerated death or was present merely as an incident.

Deaths Directly Due to Child Bearing.

		Percentage.
Sepsis	616	38.6
Eclampsia	218	13.6
Operative shock, etc. ...	145	9.0
Ante-partum hæmorrhage	125	7.8
Post-partum hæmorrhage	92	5.7
Other toxæmias, including chorea and mania ...	99	6.2
Embolism	113	7.0
Abortion	168	10.5
Extra uterine abortion ...	20	1.2
	1,596	

Deaths Not Primarily Due to Pregnancy.

Lung disease	153
Heart disease	98
Chronic renal disease ...	40
Pulmonary tuberculosis ...	26
Cerebral hæmorrhage ...	18
Scarlet fever	4
Unclassified	65
	404

The Committee were impressed with the lack of facilities for adequate treatment and management during pregnancy and labour of women seriously ill with intercurrent disease. For the first three in this second group it is evident that more hospital accommodation is required.

The Primary Avoidable Factor.—In discussing this the Departmental Committee used the following standard of treatment:—

(1) The patient should book and make arrangements for the confinement; should report any obvious deviation from the normal, and should carry out the instructions of the doctor or midwife.

(2) The patient should receive such ante-natal care as should lead to detection of albuminuria, malpresentation or marked disproportion between the foetal head and pelvis, and the history of difficult labours or serious illnesses.

(3) Confinement should take place in suitable environment.

(4) Antiseptic and aseptic precautions should be observed.

(5) A doctor or midwife should be available and should bring to the case a fair average degree of skilled knowledge and attention.

(6) Such hospital consultant and transport service as are essential should be available, and the doctor should take advantage of them as and when necessary.

(7) A second doctor as anæsthetist should be available.

(8) Hospitals should provide suitable facilities and their officers show evidence of special skill.

In 626 cases a primary avoidable factor was found.

The primary avoidable factors are given as:—

(a) Omission or inadequacy of ante-natal examination.

(b) Error of judgment in the management of the case.

(c) Lack of reasonable facilities.

(d) Negligence of patient or friends.

(a) Faulty ante-natal care was the primary avoidable factor in 226 out of the 626 cases.

Absence of Ante-Natal Examination.

Doctor responsible in ...	28
Midwife in	20
Patient in	109
	157

Failure of Ante-Natal Examination to Detect Abnormality.

Examination by doctor ...	37
Examination by midwife ...	13
Examination in clinic or hospital	19
	69

(b) Error of Judgment (224 cases).

There were many errors of judgment in emergency, the greatest number of errors naturally being attributed to doctors, as on them rests the ultimate responsibility for all conditions showing a departure from the normal. Doctors also work under many handicaps in general practice; they have to give surgical treatment in unsuitable surroundings and with lack of time, and surrounded with the distress of relatives. In one-third of the cases classed as errors of judgment on the doctors' part, the mistake was due to premature application of forceps.

Error of Judgment.

Doctor.	Hospital.	Midwife.	Total.
146	21	57	224

(c) Lack of Reasonable Facilities (64 cases).

In 26 cases the most important factor was the absence of a second doctor for the administration of an anæsthetic, and in 25 it was considered that the most important cause leading up to death lay in the bad surroundings under which the patient was confined. There is, therefore, an increased need for institutional facilities.

(d) Negligence of the Patient and her Friends (112 deaths).

Failure to follow the doctors' advice or ignoring signs and symptoms of obvious and serious illness.

The most important cause was the absence of suitable co-operation on the part of the patient; 109 failed to avail themselves of ante-natal care.

Conclusions of Committee.—It is necessary to have better education of the public; better education of the midwife; better education of the doctor, and provision of consultant services and more hospital beds.

The Training of the Midwife.—The amount of training varies in different countries. Since 1926 it is necessary in this country for a pupil midwife without general training to have 12 months' training, and she is given instruction in ante-natal work as well as ordinary midwifery.

	Training Period.
England and Wales ...	12 months.
New Zealand	16 "
Denmark	24 "
Holland	36 "
Maternal death-rates for 1927 in those countries:—	
England and Wales	3·96
New Zealand	4·87

Holland	2·59
Denmark	2·36

If the training of the midwife was the only factor to be taken into consideration, it is obvious from these figures that both in England and New Zealand the instruction is insufficient; but there are two other factors which are of very great importance, viz., the skill of the general practitioner and the specialist. The opportunity of obtaining midwifery knowledge of the average doctor in Holland and Scandinavia is greater than in the British Empire. In this country also there is no uniformity of training of midwives; they are trained in all manner of institutions, whereas in continental countries they are trained in a limited number of maternity hospitals definitely set aside and recognised by the state for the training of midwives, so that uniform instruction is given.

In Denmark, refresher courses for midwives (five weeks duration twice annually) are given.

It would be advantageous to raise the status of midwifery as a profession and encourage well-educated women to adopt it.

The Training of the Doctor.—Until lately, midwifery was given an inferior position in the medical schools, and the student was sent into general practice much less well equipped for dealing with midwifery cases than he was for the highly elaborate technique of surgical practice.

The training now is more wide and more prolonged, as laid down by the General Medical Council's amendment in 1923. The great drawback is the lack of sufficient maternity beds to give the required practical experience. It is very important that the education of the doctor should not be scamped to give material for pupil midwives, as only 20·25 per cent. of the 60,000 trained midwives on the roll of the Central Midwives Board practise midwifery.

The Education of the Public.—The Departmental Committee suggests that local Authorities should undertake the education of the public as regards the necessity of ante-natal supervision.

It is a generally accepted fact that careful and systematic supervision during pregnancy does more to save infant and maternal life and to prevent injury at the confinement than anything else.

The following figures give an indication of the benefits of ante-natal care.

The Queen Victoria Nursing Association

gives constant ante-natal care. In 1924-25, 103,754 women were confined under the care of its nurses. There were 18 deaths from eclampsia—0·17 per 1,000.

In New Zealand most patients do not get ante-natal care, and there was in 6 years ending 1927 a death-rate from eclampsia of 1·15.

In Dudley Road Infirmary, Birmingham, in 1925 there were 1,217 confinements. Amongst patients with ante-natal care were no cases of eclampsia, while in those who had no such care there were 9 cases with one death.

Ante-natal care must be made wider. In Australia there is a Maternity Allowance Act, £5 being given to the mother on the birth of her child; and in 1926 the Commission of Health recommended the amendment of the Act to provide that application for the allowance should be made at least 5 months before the confinement, and that no payment should be made unless a medical certificate was produced showing that the mother had received ante-natal supervision. Dr. Marshall Allan recently reported that in Victoria, Australia, it has failed to lessen the maternal and infantile mortality, as it does fail unless there is a higher standard of medical and nursing education, the establishment of ante-natal clinics and all other urgent sources provided for.

At present, because of lack of provision for the confinement, doctors are called in to a confinement without any knowledge of the patient's past history, and are faced with a condition necessitating immediate operative treatment in circumstances in which no surgical work would be performed; with no trained assistance, and in badly illuminated, unsuitable surroundings—all conditions favouring ill-results.

Local authorities can also help by the provision of sterilised maternity outfits, home helps, and by the provision of consultants for midwifery work and for attendance on puerperal sepsis cases.

Also, it is absolutely essential that more maternity beds should be provided. At present the number is inadequate. If additional beds were provided in connection with a voluntary hospital, one could obtain the benefit of the opinion of the other consultants on the hospital staff. More hospital accommodation for ante-natal cases is also very necessary.

In connection with ante-natal clinics special dental clinics and venereal disease clinics should be established.

With the provision of more hospital accommodation, laboratory equipment would be necessary, also efficient transport facilities, which were notably lacking in some of the recorded cases.

In addition to the ante-natal clinics, post-natal clinics are essential. Every woman should be examined 4-6 weeks from confinement: thus diseases may be detected in their earliest stages when they are more amenable to treatment.

Finally, arrangements should be made to provide for post-graduate obstetric teaching of doctors.

Purposely I have not gone into the British Medical Association and national schemes, and have had to curtail the details of the various investigations by the Departmental Committee.

Not only Members of the Council, with whom he is in most intimate touch, but Fellows generally of the Society will desire to offer congratulations and good wishes to Professor W. W. Jameson, M.A., M.D., F.R.C.P., Barrister-at-Law, Professor of Public Health in the London School of Hygiene and Tropical Medicine, who has been appointed Dean of the School, in succession to the late Director, Sir Andrew Balfour.

THE London County Council announce that the following appointments in the hospital service have recently been made:—M. Malk, M.R.C.S., L.R.C.P. (Assistant Medical Officer, St. Alfege's Hospital); Miss Constance Irene Ham, M.B., CH.B., F.R.C.S., L.R.C.P. (Assistant Medical Officer, Hackney Hospital); Miss Margaret E. Anderson, M.B., CH.B. (Assistant Medical Officer, St. Mary Abbot Hospital); D. Wilkie, CH.B., F.R.C.S. (Assistant Medical Officer, St. Mary (Islington) Hospital); M. L. Poston, M.A., M.B., B.CH., B.A.O. (Assistant Medical Officer, St. Leonard's Hospital); I. Taylor, M.R.C.S., L.R.C.P. (Assistant Medical Officer, Constance Road Hospital); Miss Margaret Mary Murphy, M.B., B.CH. (Assistant Medical Officer, Northern Hospital); A. T. G. Thomas, M.B., B.S. (Assistant Medical Officer, St. Mary Abbot Hospital); E. G. M. Jones, B.Sc., M.R.C.S., L.R.C.P. (House Physician, North Western Hospital); and J. D. Kershaw, M.R.C.S., L.R.C.P. (House Physician, North Western Hospital).

The Society.

Reports, Proceedings and Announcements.

NOTICES.

ANNUAL SUBSCRIPTIONS.

A number of members have not yet forwarded the annual subscription due on October 1st, 1930. They are asked to do so at once, as the collection of these payments must be completed before the annual audit.

NOMINATIONS.

The following candidates have been nominated for the next election to the Society: *As Fellows*: Dr. W. G. Patterson, Frith Hill House, Nightingale Road, Godalming; Dr. N. F. Pearson, Killingbeck Sanatorium, Leeds; Dr. W. M. Ritchie, Bonhill, Roper Terrace, Stockton-on-Tees; Dr. Clara M. Wilson, 6, Holly Bank, Headingley, Leeds.

THE YORKSHIRE BRANCH.

President: Dr. L. Pickering-Pick, M.O.H., Spenborough.
Hon. Secretary: Dr. G. H. Pearce, M.O.H., Batley.

A meeting of this Branch was held in the Town Hall, Batley, on May 1st, 1931, the President occupying the chair. Fourteen members, including Professor W. W. Jameson, were present. Apologies for absence were received from four members.

Consideration was given to the question of nominations for the Presidency of the Society for the session 1931-32 (adjourned from the January meeting) when it was unanimously resolved that the Yorkshire Branch nominate Dr. G. H. Pearce, Honorary Secretary and Treasurer, and that the President of the Branch be requested to convey this nomination to the Executive Secretary.

The Council of the Branch met prior to the Branch meeting. Later, the members took part in the sessional meeting of the Royal Sanitary Institute, the delegates to which numbered 256, representing 75 local authorities.

A further meeting of the Yorkshire Branch was held in the Education Offices, Calverley Street, Leeds, on May 29th, 1931. The President occupied the chair and nine members were present. Apologies for absence were received from seven members.

Letters from the Executive Secretary respecting (a) proposal to attach to the London School of Hygiene a Research Fellow, and (b) memorandum of agreement respecting salaries of whole-time medical officers of health, were received. The former was heartily approved, and it was decided that the latter be discussed in accordance with the suggestions contained in the Executive Secretary's letter.

It was unanimously decided that the members of the veterinary profession attached to the Branch should be invited to form a Veterinary Group within the Branch, and the Hon. Secretary was instructed to write to the veterinary representative (Major Rabagliati) conveying this invitation.

Officers of the Branch for the Session 1931-32 were elected by ballot as follows:—

President.—Lieut.-Colonel Hubert Tunstall Bates, R.A.M.C. (T.), O.B.E., B.A., M.B., B.Ch., B.A.O. (Dublin), D.P.H. (Leeds).

Vice-Presidents.—Drs. J. Johnstone Jervis and L. Pickering-Pick.

Hon. Secretary and Treasurer.—Dr. G. H. Pearce.

Three Members of Council to hold office for twelve months.—Drs. J. J. Buchan, T. N. V. Potts and J. Rennie.

Four Representatives of the Yorkshire Branch of the Society on the Yorkshire Branch Council of the British Medical Association.—The four retiring members, namely, Drs. W. B. Hill, J. Johnstone Jervis, J. Mair, and G. H. Pearce, were re-elected for twelve months.

Two Auditors.—Drs. H. T. Bates and T. Gibson.

Veterinary Representative on the Council of the Branch (non-official).—Major D. S. Rabagliati, the present Representative, was re-elected.

Dr. J. J. Buchan, a Past-President of the Society, reported that at the meeting of the Council of the Society in London on May 15th, 1931, it was announced that the nomination by the Yorkshire Branch of Dr. G. H. Pearce for the Presidency of the Society during the Session 1931-32 was technically out of order, and his name could not be voted upon owing to the fact that this nomination, which should have reached the Executive

Secretary not later than May 1st, was not, in fact, received until May 5th.

Dr. J. J. Buchan was requested to allow himself to be photographed in order that the Branch might have the pleasure of presenting such photograph to the Society to be hung in its house amongst other Past-Presidents.

Dr. Bates opened a discussion respecting (a) *sarcoptes scabiei*; (b) local epidemic of tonsillitis; and (c) a mild local outbreak of diarrhoea and vomiting. Drs. Buchan, Jervis, Mair, Potts and Williamson took part in the subsequent discussion.

The County District Group met before the ordinary meeting and transacted certain business. Dr. J. Mair was re-elected Chairman, and Dr. Pickering-Pick, Hon. Secretary.

THE NORTH-WESTERN BRANCH.

President: Dr. C. O. Stallybrass, Assist. M.O.H., Liverpool.

Hon. Secretary: Dr. G. W. N. Joseph, M.O.H., Warrington.

The annual meeting of this Branch was held in Liverpool on June 5th, 1931.

The members assembled at the Government Anthrax Disinfecting Station in Love Lane at 3.30 p.m., when the working of the station was explained by Mr. Duckering, the Superintendent. The members were afterwards conducted round the establishment by him and details of the process were fully explained.

(A description of the procedure and the results obtained will be found amongst the editorials on page 307.)

After leaving the Disinfecting Station the members were conveyed by a special bus to Fazakerley Isolation Hospital and, en route, visited some of the housing schemes of the City of Liverpool, and inspected a number of the tenement dwellings in course of erection.

Prior to the business meeting, Dr. C. Rundle, Medical Superintendent of the Hospital, showed one of the wards in which a new method of heating by electricity was being tested.

Dr. C. O. Stallybrass (President) occupied the chair at the annual meeting and twenty-two members were present.

The reports of the Hon. Secretary and the Hon. Treasurer were read and confirmed. Dr.

H. H. I. Hitchon, who has acted as Hon. Treasurer for the Branch for twenty-one years, intimated his wish to be relieved of the office, and on the motion of Dr. F. T. H. Wood, seconded by Dr. Gebbie, it was unanimously resolved that the best thanks of the Branch be accorded to Dr. Hitchon for his excellent services to the Branch in the capacity of Hon. Treasurer.

Officers were elected for the session 1931-32 as follows:—

President.—Dr. G. W. N. Joseph.

Hon. Treasurer.—Dr. T. W. Naylor Barlow, O.B.E.

Hon. Secretary.—Dr. J. E. Spence.

Council Representatives.—Drs. R. Veitch Clark, G. W. N. Joseph, and F. T. H. Wood, O.B.E.

Committee.—The Vice-President, Officers, and Drs. Gebbie, Herd, Walker and Whitehead.

After the meeting the members were entertained at tea by the Hospital Committee, and at the conclusion, on the proposition of the President, the thanks of the members were accorded to the Chairman, the Hospital Committee, Dr. Rundle (Medical Superintendent) and the Matron for their hospitality. Acknowledgment was made by the Chairman of the Committee.

THE WEST OF ENGLAND BRANCH.

President: Dr. A. H. Wilson, M.O.H., E. Wilts. C.S.D., and Salisbury R.D.

Hon. Secretary: Dr. P. H. Stirk, M.O.H., Exeter.

A meeting of this Branch was held at Quantock Sanatorium, near Bridgwater, on June 5th, 1931, the President occupying the chair. Ten members were present.

Consideration of the following matters, referred by the Council of the Society, was postponed, the memoranda to be circulated amongst the members in the meantime:—

(1) Salaries of whole-time public health officers.

(2) Appointment of a Research Fellow at the London School of Hygiene.

(3) Staffing and administration of maternity and child welfare centres. (Memorandum from Maternity and Child Welfare Group.)

Officers were elected for the session 1931-32 as follows:—

President.—Dr. W. Horton Date (Exeter).
Vice-President.—Dr. R. H. Parry (Bristol).
Hon. Treasurer.—Dr. J. F. Blackett (Bath).
Hon. Secretary and Representative on Council of Society.—Dr. P. H. Stirk (Exeter).

It was decided to hold the next meeting of the Branch at Bristol in September.

Dr. Savage then outlined the scheme of the summer camp for debilitated children at Quantock. This provided four weeks' treatment for boys and girls, free of all cost to the parents except the necessary equipment with which each child had to be provided. The camp is held in buildings in the grounds of the sanatorium. Apart from the cook and assistant, the staffing is entirely voluntary, being composed of members of the after-care committee, girl guides, etc.

The institution is run on open-air lines. The campers are paid for by the education committee, although strictly speaking, in its limited sense, education is no part of the curriculum. Children are taken up to the age of 16 years, but mostly between 12 and 13 years.

Dr. Short, Tuberculosis Officer, Somerset County Council, outlined the activities of the tuberculosis after-care committees. These commenced operations in 1915, a committee being established in a number of areas, each dealing with the patients in that particular area. The committees are voluntary, and have proved very satisfactory, having raised, by various means, from £1,000 to £2,000 per annum. They assisted families when the bread-winner was undergoing sanatorium treatment and, after treatment, found employment and extra nourishment for a number of patients.

Dr. Martyn, Medical Superintendent of Quantock Sanatorium, read some notes on artificial pneumothorax. He thought the dangers of the process were overstressed, adhesions being the great difficulty. He found percussion very useful, more so than X-rays, but X-rays were essential. He advocated refills at shorter intervals, and on the whole considered this the most hopeful thing in sanatorium work.

An interesting discussion followed in which many members took part. The party was conducted over the institution, and a visit was paid to the summer camp.

Members were kindly entertained at lunch and tea at the Sanatorium, and votes of thanks were passed to all concerned in the entertainment and in the conduct of an exceedingly interesting and useful meeting.

THE HOME COUNTIES BRANCH.

President: Dr. K. E. Tapper, O.B.E., M.O.H., Bromley, Kent.

Hon. Secretary: Dr. A. A. Turner, M.C., M.O.H., Finchley.

The annual meeting of this Branch was held at the house of the Society on June 5th, 1931, at 3.30 p.m. The President and 20 members were present. Apologies for absence were received from four members.

Officers of the Branch for the following session were elected as follows:—

President.—Dr. W. A. Muir (Gillingham).

Hon. Secretary.—Dr. A. A. Turner, M.C. (Finchley).

Hon. Treasurer.—Dr. K. E. Tapper, O.B.E. (Bromley).

Representatives of Branch on the Council of the Society.—Drs. Muir, Tapper and Turner.

Drs. Linton and McMaster were nominated as representatives of the Branch to serve on the Council of the Kent Branch of the British Medical Association.

On the motion of Dr. G. F. Buchan, it was unanimously agreed that the Council of the Society be asked to recommend to the British Medical Association that representatives from each Branch of the Society be appointed to serve on the Council of the corresponding Branch of the Association.

Dr. Buchan raised the question of the relationship of vaccination to the local authority responsible for the control of infectious diseases and, after a full discussion, it was resolved unanimously that, as vaccination has been instituted for the purpose of controlling infectious disease, the administration of vaccination should be in the hands of the sanitary authority which has as its function the control of infectious diseases.

THE COUNTY DISTRICT GROUP.

President: Dr. A. B. McMaster, Dover.

Hon. Secretary: Dr. C. E. E. Herington, M.O.H., Erith.

A largely attended meeting of this Group was held at the house of the Society on May 8th, 1931. Apologies for absence were received from fourteen members. In the absence of both the President and Vice-President, Dr. G. F. Buchan was elected to take the chair.

Dr. A. H. Wilson opened a discussion on "The Future of the District Medical Officer of Health." He enlarged upon the trend of

modern legislation which tended to add to the duties of the county councils and ignore those of sanitary authorities. An interesting and informative discussion followed in which all present took part.

The representation of the Group on the Council of the Society was considered, it being pointed out that the Group consisted of some 140 whole-time medical officers of health, and that five sub-groups had been formed. It was thought that owing to the activities of the Group, the Council of the Society should be approached with a view to adding to the number of representatives thereon.

The question of the control of vaccination received attention, the opinion being expressed that it would be in the interest of preventive medicine to place vaccination under the direct supervision of the medical officer of health of sanitary districts.

The Group discussed the delegation of powers in regard to supervision of midwives, and expressed the view that districts which were maternity and child welfare areas, employing a whole-time medical officer of health should in every case receive delegation.

THE TUBERCULOSIS GROUP.

President: Dr. F. J. C. Blackmore, T.O., Woolwich.

Hon. Secretary: Dr. Ernest Ward, T.O., South Devon.

A meeting of the Group Committee was held at the house of the Society on May 15th, 1931, the President occupying the chair. Seventeen members were present.

(1) The Hon. Secretary announced that a Committee of the Tuberculosis Association was considering the formation of a tuberculosis library and information bureau.

(2) A memorandum on the employment of tuberculous staffs in tuberculosis institutions was discussed and passed for presentation to Council with amendments. It was decided to ask Council to pass the following resolution: "That local authorities be encouraged to employ tuberculous ex-patients on their tuberculosis staff whenever possible."

(3) A memorandum on clerical assistance for tuberculosis officers was considered and was passed with some amendment for submission to Council.

(4) A memorandum on the utilisation of sanatoria received consideration, and it was

decided to refer this question to the Joint Tuberculosis Council, and also to place the subject on the agenda for further discussion at the next meeting of this Committee.

(5) The risk of infection to physicians engaged in tuberculosis work was discussed, and further information on the subject was thought desirable.

(6) Dr. Peter Edwards was nominated President of the Group; Drs. Jessel and Blackmore, Vice-Presidents; and Dr. Ernest Ward, Hon. Secretary and Council Representative, the names to appear on the agenda of the next Committee meeting for confirmation before being sent forward to the annual general meeting.

(7) Friday, October 16th, 1931, at 10.30 a.m., was fixed as the date and time of the next meeting of the Committee, to be followed at 12 noon by the annual general meeting.

DR. J. ARNOLD STOBBS has been appointed to the staff of the Durham County Health Department.

DR. J. R. GRAHAM, Medical Officer of Health for Brighouse, has been appointed Medical Officer of Health for the Chesterfield Rural District, at a salary of £900 per annum, with £70 per year travelling allowance.

THE London School of Hygiene and Tropical Medicine (University of London), announces that the next series of eight lectures and demonstrations on tropical hygiene, which are intended for men and women outside the medical profession proceeding to the tropics, will be given by Lieut.-Colonel G. E. F. Stammers, O.B.E., M.R.C.S., L.R.C.P., D.P.H., from July 6th to 10th, 1931. These courses of instruction, in addition to providing simple rules for guidance in regard to preparation for life in the tropics and personal hygiene, will also embrace a short account of some of the more common diseases, with advice in regard to measures of protection against such diseases and some guidance in simple methods of self-treatment. Synopsis and other particulars may be obtained from the Secretary of the School, Keppel Street, Gower Street, London, W.C.1.

The Literature of Preventive Medicine.

BREAST-FEEDING. By MARGARET EMSLIE, M.B., CH.B., late Senior Assistant Medical Officer for Maternity and Child Welfare, Croydon; formerly Senior Clinical Assistant, Hospital for Sick Children, Great Ormond Street, London; Medical Officer, Southfields Centre. London: Humphrey Milford, Oxford University Press, 1931. pp. 142, illustrated. Price 5s. net.

This little text-book on breast-feeding is the first of its kind to be published in this country, and deserves the attention of the public health service.

In it the author, whose work on the subject is known and appreciated in maternity and child welfare circles, sets out in concise and interesting fashion the sum of clinical experience that has been slowly accumulating since, in 1918, medical attention was first directed on a large scale to problems connected with the diet and physiology of the normal infant.

After a preface touching on the difficulty experienced so often by the modern mother in carrying her reproductive function to its normal conclusion in lactation, and suggesting some of the possible causes for this, the main text deals in successive chapters with the preparation for breast-feeding; the anatomy and physiology of the breast; the establishment of breast-feeding; the management of breast-feeding; the child on the breast; the difficulties of breast-feeding; and weaning.

In the appendix is a brief discussion on the treatment of sore nipples and of breast abscess (the only point at which the pathological is allowed to intrude), and an account of an experiment carried out by the author in regard to hours of feeding.

Among the most important matters dealt with are those relating to the preparation for, and establishment of breast-feeding and its mechanical difficulties. It is well known that the latter play a large part in the failures to breast-feed, and that many a baby is unnecessarily weaned for lack of just the kind of practical instruction that is offered in this book.

It is to be specially commended, therefore, as a standard text-book for the use of medical students and midwives; to junior maternity and child welfare medical officers; and to general practitioners unacquainted with this subject and desiring further information. Being reasonably free from technicalities

it can also be read and enjoyed by the educated mother.

Maternity and child welfare workers of equal experience with the author, while possibly differing on points of detail, will welcome this book and will readily endorse its teaching as substantially in accordance with their clinical findings.

The illustrations call for special comment in respect of some particularly fine plates showing abnormalities of the nipple, and a very successful photograph of the infant on the breast.

In the Annual Reports.

THE HYGIENE OF FURNITURE STORAGE AND REMOVAL.—In consequence of complaints of the manner in which furniture removal firms carried out their work, investigations were made in the metropolitan districts. The inspections included 94 furniture stores, as well as vehicles and appliances used in the storage and removal of furniture. For the most part, the operations from a sanitary aspect were very satisfactory. In some instances, however, unsatisfactory conditions were found, and in two cases legal proceedings were taken and convictions obtained against offenders. On the recommendation of the Department, several councils have taken action to improve the premises and methods of these businesses within their areas. Several of the larger firms arrange for carpets, bedding, etc., to be treated by professional cleaners, and the manner in which these firms pack and store effects so as to eliminate dust and probable infection is very satisfactory. During the investigations every endeavour was made to encourage local councils to keep removalist firms under observation.—*Dr. Robert Dick, Director-General of Public Health, New South Wales.*

UNDULANT FEVER.—Observation of the circumstances attending the prevalence of undulant fever in these islands would show that this fever is principally a disease of man, and that the goat is the main reservoir of infection and acts only as a carrier. It is, in fact, very rarely that the health of these animals appears to be affected. This constitutes one of the main obstacles to prevention. The goat is practically the only source from which our fresh milk supply is obtained; it has become splendidly acclimatized and is a first-rate milch animal. Goats harbouring undulant fever infection continue to yield the same amount of milk. As a fact, they show no signs of deterioration and no symptoms of ill-health. Nothing happens to alarm the owner and open his eyes to the necessity of protecting himself against the serious loss which sickness, or death, or diminished secretion of milk would cause him, if infection of his herd were attended by manifestations of disease and its usual consequences.—*Dr. A. Critien, Maltese Islands.*

PUBLIC HEALTH

THE JOURNAL OF
THE SOCIETY OF MEDICAL OFFICERS OF HEALTH.

No. 11. Vol. XLIV. AUGUST, 1931.

PUBLIC HEALTH, the Official Organ of the Society of Medical Officers of Health, is prepared to receive a certain number of approved advertisements. Application should be made to the Executive Secretary of the Society, at 1, Upper Montague Street, Russell Square, London, W.C.1. Subscription price 31s. 6d. per annum, post free in advance. Single Copies, 2s. 6d. post free.

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Editorial.

The Annual Report for 1931.

FOR the reason that warning has been given so early as July 14th, 1931, the date of the issue of the "Circular as to the Contents and Arrangement of the Annual Reports of Medical Officers of Health for 1931," no officer of the class addressed can have any excuse at all for failing to send his report to the appropriate authorities not later than the middle of May. The reason for the early appearance of the circular is stated to be with the object of making medical officers of health aware of the fact that the headings in relation to housing have been revised; a course rendered necessary by the operation of the Housing Act, 1930. County medical officers are informed that though they should include their views on housing conditions in their counties in their reports, it is not intended they should include particulars called for from district medical officers.

The matters to be discussed in the report on this occasion are not markedly different from those generally referred to in reports of the ordinary type, which this, of course, will be. Information is to be given in regard to the statistics and social conditions of the area; general provision of health services (institutional provision for the care of mental defectives; hospitals; clinics and treatment centres; maternal mortality, etc.); sanitary circumstances of the area (water supply; scavenging; schools; etc.); housing; inspection and supervision of food; prevalence of and control over infectious and other diseases. Statements of any noteworthy conditions prejudicial to health and of any special action taken to arouse public interest in the prevention of ill-health are also called for, and a summary of special reports made during the year must be submitted.

The Registrar-General, it is pointed out,

as in the past, will continue to facilitate the preparation of the report by issuing particular statistics to medical officers. There is a reminder also that there has been issued a new edition of the Manual of the International List of Causes of Death which the Registrar-General will use for the tabulation of causes of death. Addressed to medical officers of health of combined sanitary districts there is a request that if they report upon the circumstances of all their districts in a single report, they must take care to give separately for each district the statistics required to be furnished, and include also an index enabling references to the several districts to be readily traced. As heretofore, there must be a specific report on the administration of the Factory Acts in workshops and workplaces, and in addition to sending a copy of the complete report to the Under Secretary of State at the Home Office, the medical officer of health must send in advance a copy of the special table containing particulars of proceedings under the Factory and Workshop Act, 1901.

* * * * *

The Glasgow Congress.

WITH the exception of the jubilee meeting in London, the Glasgow Congress of the Royal Sanitary Institute was attended by a larger number of delegates than ever previously. This, in view of the severe trade depression and economy campaigns which certainly prevented many from being present, is very encouraging to those who appreciate the work the Institute is doing and are pleased to note the progress made.

The attendance at the Conference of Medical Officers of Health was excellent, the numbers at one time reaching nearly 400. Professor Currie, who occupies the Chair of Public Health in Glasgow University, and had been due to preside over and deliver an address to the Conference, was unable to do either. In his absence, Professor Bostock Hill, without hesitation, kindly agreed to take the chair, and made, as everyone confidently anticipated, a most acceptable and efficient substitute.

Dr. Thomas Gibson, of Wakefield, read a paper to a very appreciative audience, contributing in the opinion of many one of the best papers of the week. The subject chosen was, "The Proposals of the British Medical Association for the Establishment of a General Medical Service, from the Standpoint of Preventive Medicine," and led to a discussion

of extreme value, which unfortunately had to be closed on account of lack of time. Followed a paper by Dr. T. N. V. Potts, the recently appointed Medical Officer of Health to the West Riding of Yorkshire County Council, on the activities of his authority under the Local Government Act, 1929.

Many of the contributions to the various discussions on this occasion were most constructive, outstandingly so, in the general opinion, being those of Dr. J. J. Buchan and Lieut.-Col. F. E. Fremantle.

A complaint frequently heard on this as on previous occasions has reference to the numbers who stand just inside the doors of the rooms at the meetings of the various sections. That they obtain any advantage may be doubted; that they successfully obstruct the entrance of others who might be certain. It is suggested that in future years, presidents of sections and conferences should take a strong line with such obstructionists and insist either that they enter and join the general body of the meeting or else leave the doorway free.

The social side of the Congress was well supported by medical officers of health, and it was good to see so many obviously renewing old acquaintances or meeting friends made in other days when their mutual responsibilities were much lighter.

The presence of the President of the Society was noted with particular pleasure, since it was taken as an indication of great improvement in health. The welcome accorded him was all the more sincere for this reason.

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Dr. Willoughby and the B.M.A. Meeting.

THE President of the British Medical Association at the annual meeting at Eastbourne, delivered an opening address relating to health education that has attracted a vast amount of attention. To all his colleagues in the public health service, this cannot fail to be a source of real gratification, as must the great success that has attended the meeting generally. At the time of his election to the position of President, opportunity was taken, in addition to offering congratulations to Dr. Willoughby, to congratulate the public health service as a whole on the recognition that was given to it by the choice of so representative and greatly respected a member. No doubt was felt at that time as to the ability of Dr. Willoughby to carry the honour conferred upon him and to do credit to the position and to the

service. The events of the period of the meeting at Eastbourne have well borne out anticipations in this direction, and it is not at all out of place to offer congratulations to Dr. Willoughby on the success achieved, to which it may be claimed he contributed in no small degree.

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The Census of 1931.

A VERY great part of the introduction of the Registrar-General to his preliminary report on the census* has reference to the work done as enumerators by the unemployed, and suggests that a great deal of worry and anxiety must have been caused, not only to the Registrar-General himself but to local officers by a number of these men. To persons in the municipal service who hear sad tales from time to time of colleagues concerned in the business of elections the fact that there was trouble comes as no surprise.

Apart from unburdening himself on the unemployed question, the Registrar-General gives some interesting information in his introduction with regard to the census itself and the results thereof. Most of these, no doubt, medical officers of health have already studied and digested, particularly such as refer to their own areas. The total population of Great Britain (44,790,485) is the largest yet recorded. To it England and Wales contribute 39,947,931, having increased their population since 1921 by 5.4 per cent. Amongst interesting points revealed is that though, of course, there is a preponderance of females over males, the female majority being 1,670,243, the ratio of females to males (1,087 to 1,000) is less than at the census of 1921. The majority in this latter year was 1,736,221.

The number of births between 1921 and 1931 was more than a million and a quarter fewer than in the preceding ten years, and it is entirely due to this that the increase in the population is so comparatively low. That there has been so much of a fall in the number of births is not unexpected by persons engaged in public health work who have had to report year by year that the birth-rate is "the lowest yet recorded." The rate of 16.3 for the country has been reached by a steady fall each year during the last ten years; 16.3, as a fact, being half or less than half of that recorded in pre-war years.

There are throughout the country a number

*H.M. Stationery Office. 4s. net.

of areas in which more or less unexpectedly the population has been found to have decreased, but so far as can be made out there is no part in which the decreases are more startling or greater than in the metropolitan area. In the administrative county the decrease amounts to 87,702, and in the metropolitan boroughs to 84,989. Only some eight of these show an increase, greatest in the two most important dormitory boroughs, Lewisham and Wandsworth, the former giving 45,748, and the latter 24,794. The largest decreases are in Camberwell (15,825) and Stepney (24,454). Most of those who constitute the decrease appear to have gone to Essex, Surrey, Middlesex, Hertfordshire and Buckinghamshire, all of which show a very marked increase over 1921.

When the time comes for the preparation of the annual report for 1931, the new census figures will really come into use in health departments and by medical officers of health, and there will offer the opportunity of comparing, considering and discussing the differences between the results obtained by actually counting the population and those reached as a result of making estimates.

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The Variola-Vaccinia Flocculation Reaction.

BY none more than medical officers of health has the absence of a test that would help in the diagnosis of cases of smallpox been felt, and this because they are usually called upon to make the final decision and the responsibility they have to bear in relation to the disease in their district is so very great. None, therefore, viewed with greater interest the work done upon the "flocculation" test in 1925 by Dr. M. H. Gordon or have watched more closely or more expectantly the further investigations conducted by Professor Tulloch and Drs. Burgess and Craigie of Dundee. The hopes originally aroused by Dr. Gordon that in the flocculation test there was something that might readily prove of great assistance have been greatly added to by these other workers, and in a report by Professor Tulloch and Dr. Craigie just issued by the Medical Research Council* information is forthcoming that cannot but encourage belief that the test is one upon which absolute reliance may be placed and that in time will become available for use in cases of difficulty. Not only so,

*Special Report Series, No. 156. H.M. Stationery Office, 1931. pp. 129, illustrated. Price 3s. net.

but out of the work done there may develop results capable of conferring benefits very far reaching in the realm of preventive medicine. So far as the test is concerned, the findings of Professor Tulloch and Dr. Craigie leave no doubt as to the accuracy of the results obtainable, for the test has now been applied to over two hundred specimens of material with an experimental error of less than 1.5 per cent. It has also been definitely shown that the flocculation which occurs when antivaccinia serum is brought into contact with extracts of vaccinia or variola material is not due to adventitious antibodies reacting with secondarily infecting bacteria that may be present on the skin. Further, the serological identity of variola major and variola minor with both dermal vaccinia and generalized neurovaccinia has been established.

The mechanism of the test is discussed by the authors, and the influence of different factors upon the delicacy and specificity of the flocculation is described. The reaction resembles a precipitation rather than an agglutination, and on this observation is based the section of the report giving a detailed description of the methods both of preparing the reagents required and of making the test itself.

Special interest attaches to the last three sub-divisions of the report. Although admittedly incomplete, they break new ground in the study of immunity against smallpox. The questions dealt with are the action of antivaccinia serum upon vaccinia virus *in vitro*, the use of antivaccinia serum in giving passive protection against infection, and the production of immunity by the administration of vaccinia virus exposed to antivaccinia serum. Flocculating serum seems to form a moderately stable union with virus *in vitro*, and mixtures of the serum with infective material do not exhibit the so-called 'dilution phenomenon' on dermal inoculation. This suggests that the quality of the antibodies in active flocculating antivaccinia serum is different from that of the serum of animals which have acquired active immunity by dermal inoculation alone and which have not been hyperimmunized by the administration of large doses of virus material over a prolonged period. The dilution phenomenon is briefly discussed in the report, and a suggestion as to its mechanism is offered which, if it prove correct, may remove much of the misunderstanding that has hitherto retarded progress in the serological investigation of vaccinia.

The experiments on passive protection suggest that the flocculating serum has valuable anti-infective properties. This raises a hope that smallpox contacts might be passively immunized with a reasonable expectation that the disease would be aborted even in circumstances when vaccination might fail to prevent infection.

Finally it is shown that vaccinia virus sensitized by exposure to flocculating serum retains its vitality although unable on inoculation to produce dermal lesions. Nevertheless, this sensitized material has immunizing properties, even when quite small doses are given. It seems possible, therefore, that vaccinia virus might be successfully introduced under cover of its antiserum. By this means, the small margin of risk of abnormal sequelæ after vaccination would be still further reduced.

In general it may be claimed that this "variola-vaccinia flocculation reaction" is not only a valuable diagnostic test for small pox, but that the careful scientific study, by Tulloch and Craigie particularly, of its mechanism has opened up the possibility of a new method of immunization that may ultimately prove to have great importance as a safe protection against the disease.

The Maternity and Child Welfare Conference.

THE change of venue of the National Conference on Maternity and Child Welfare from London to the provinces raised grave doubts in the minds of many as to the wisdom of the move. All doubts were, however, dispelled on the opening day at Cardiff on July 1st, when it was unanimously agreed by delegates that the confidence of the Committee had been amply justified. The Public Health Department of the City of Cardiff, under the enthusiastic direction and example of Dr. Ralph M. F. Picken, the Medical Officer of Health, had thrown itself ardently into the task of offering and providing facilities for the edification and convenience of those attending the Conference. The palatial municipal offices in which the various sessions took place, afforded a setting which has never been equalled in London, except at the Guildhall meeting a few years ago.

Almost six hundred delegates attended, and the papers and discussions in general reached a higher level of practical common-sense than usual.

The first day was occupied with a discussion

on "An Effective Maternity Service for the Whole Population." Papers were read by Dr. Thomas Evans, Medical Officer of Health, Swansea; Dr. G. I. Strachan, of Cardiff; Mr. J. Bowen-Jones; Dr. F. H. Morison, Medical Officer of Health, County of Cumberland; and Dr. G. C. M. M'Gonigle, Medical Officer of Health, Stockton-on-Tees. The papers were subsequently keenly discussed and the interest of the audience in the subject was demonstrated by the fact that, at the close of the session, the conference hall was still well-filled. Most of the speakers who took part in the discussion really understood the subject, and the points raised were germane to the papers, and were not merely points of petty detail.

The Annual Dinner of the Maternity and Child Welfare Group of the Society of Medical Officers of Health is always held during the National Conference week. This function took place on Thursday evening (July 2nd) and proved, as usual, a most enjoyable gathering. Dr. Ethel Cassie, the President of the Group, was in the chair, and the guest of honour was Sir Ewan MacLean, whose delightful speech charmed everyone. The usual toasts were drunk and, in addition, Dr. Stephen, of Aberdeen paid a well-deserved tribute to the work of the Hon. Secretary of the Group, Dr. Grace Calver.

The organisers of the Conference certainly earned the gratitude of the numerous delegates for the efficient manner in which everything was prepared and arranged, and it was generally agreed that an occasional desertion of London for the provinces was all to the good.

The Minister of Health receives a Deputation on Vaccination.

MR. LEACH, M.P., acting as spokesman of a deputation recently received by the Minister of Health on the subject of vaccination, asked for one thing only: that was that compulsory vaccination should be abolished. They hoped that the Government would be willing to introduce, or give facilities for the necessary legislation, and believed that all they wanted could be achieved by a one-clause Bill.

The Minister, referring to a memorandum handed in by the deputation, said that it contained a number of statements with which he must not be taken to be in agreement, but he thought it was unnecessary for him on the present occasion to discuss the merits of statutory

vaccination. His position was that he was bound, as Minister of Health, to administer the law as it stood. The effect of the Local Government Act had been to place the administration of the Vaccination Acts in the hands of the larger local authorities, and he did not contemplate any drastic amendment of the law until those authorities had had time to gain experience of the operation of the Acts in force and furnish him with their views and advice. He could not admit that the object which the deputation had in view could be achieved by a one-clause Bill. On the contrary, he believed that complicated and highly controversial legislation would be necessary to secure what the deputation desired. In view of the many commitments of the Government and of the great pressure on Parliamentary time he was bound, in present circumstances, to prefer the claims of other more urgently-needed legislation to those of a Vaccination Bill. While, therefore, he could have no objection to the introduction of a Private Members' Bill as a means of testing public opinion, he could give no assurances—which would in any case require Cabinet authority—either of support for such a Bill or of the introduction at an early date of Government legislation.

The Prevention of Tuberculosis.

THE seventeenth annual conference of the National Association for the Prevention of Tuberculosis was held at Margate from June 25th to 27th, when one of the most important and comprehensive subjects that have ever appeared on its programme, namely, "The protection of the child from tuberculosis," was discussed.

After formal business, the vice-chairman of the council, Sir Robert Philip, delivered an introductory address. He assumed that tuberculous infection was contracted in childhood and that its influence, for better or worse, remained throughout life. On the whole, this was a beneficial thing, but it was desirable to find out by means of the tuberculin test whether it had occurred. The avoidance of massive infection and of milk-borne disease was essential. His attitude to B.C.G. was one of caution. He pleaded for a closer liaison between the child welfare and tuberculosis departments of the public health service. The address was an admirable prelude to the

further discussions, and anticipated most of the points that were subsequently raised.

Dr. Eugene L. Opie (Phipps Institute, Philadelphia) read a masterly paper on manifestations of the disease in childhood, while Dr. Letitia Fairfield surveyed the administrative side. The present death rate from tuberculosis in the age period 15 to 25 was practically the same as that of twenty years ago. For younger children, massive infection was the most important danger. The London County Council, for the last five years, had adopted the practice of boarding out children from families in which there was a sputum-positive case of tuberculosis. Continuous care of the tuberculous expectant mother must be developed further.

The remainder of the first day was occupied by a discussion of the milk problem, and this, as usual, proved to be one of the most controversial issues. Dr. Nathan Raw gave an outline of the scientific position and the consequences of bovine infection. He described his method of immunizing calves by feeding with killed bacilli of an attenuated strain, cultivated by him for twenty-four years. As an immediate remedy, he advocated compulsory pasteurization. A more extreme position was taken by Dr. Reginald Jewesbury, who believed that ordinary commercial pasteurization could not be relied upon, and that even "Certified" milk, the highest grade, was not absolutely safe. The vitamin content of milk was uncertain; orange juice and cod-liver oil should be added in every case.

The veterinary side of the case was very aptly put by Major D. S. Rabagliati, chief veterinary officer to the West Riding County Council.

The second day of the conference dealt with the protection of the child during the years before school and in the school life itself.

Dr. T. R. Elliott emphasized that children were the heirs of ignorance, and that infection must be prevented in the home. He had found boarding-out of children a difficult measure, but the segregation of the infant in a babies' home for the first twelve months was a practical possibility. After that age the protection devolved upon the health visitor. The chronic open case of phthisis, diagnosed or undiagnosed, was the chief danger.

Dr. Noel Bardswell objected to the great difficulty of Dr. Opie's proposals for examining every school child with stereoscopic film and the tuberculin test. He believed that the person

who developed tuberculosis in adolescence was not the one who was missed in school years. Sir Henry Gauvain described the interplay of infection and resistance. He advocated pasteurization of the milk supply under proper control.

The more limited sphere of the school was considered in two excellent papers by Dr. Ralph Crowley and Dr. Midgley Turner. Dr. Crowley gave an inspiring summary of the newer ideals in humanizing education. Caution and conservatism did not pay. More residential open-air schools were needed, equipped with every kind of facilities for physical diagnosis. The term "pre-tubercular" was an inaccurate label. Without accepting one or other view of the cause of adolescent tuberculosis, Dr. Crowley favoured a much more intensive study of this condition aided by every technical means available.

Dr. Midgley Turner referred to the danger of infection from school teachers. At present, although there were regulations governing the employment of a teacher once diagnosed as tuberculous, there was no provision for discovering new cases. He scouted the commonly held opinion that there was no pulmonary tuberculosis among children. They must not, at this period of life, look for initial infiltration, for the disease was confined to the root. Considerable institutional accommodation was necessary for children in this condition. Dr. L. S. T. Burrell stressed that it was essential to have a reinfection before tuberculosis could develop in adult life. He believed that the tuberculous child rarely became the tuberculous adult; progress would be made by looking back from the adult case.

Though views on technical points may differ, it is certain that expert and lay opinion is now focused on the adolescent period as probably containing the key to adult phthisis. The result of the conference has been to bring the main problems into prominence in a much clearer manner than is usually the case at gatherings of the kind.

DR. ALFRED GREENWOOD has been elected President of the Kent Branch of the British Medical Association.

THE London School of Hygiene and Tropical Medicine announce the establishment in the School of a University Chair of Medical Industrial Psychology, with Professor Millais Culpin as its first occupant.

Poor Law Hospitals—Their Past and Future.

By H. H. MACWILLIAM, M.B., D.P.H., Medical Officer, Walton Hospital, Liverpool.

Such a paper as this by Dr. MacWilliam, read at a meeting of the North-Western Branch, coming from one so well versed in the subject and interesting at any time, at the present moment is not only so but is likely to be found very helpful as well.

ACT 43, Elizabeth 1601, enjoined the appointing of overseers of the poor, among whose duties were the raising by taxation of every inhabitant, parson, vicar or other and of every occupier of landes, houses, tithes, impropriate or propriations of tithes colemynes or saleable underwoods in the said parish, in such competent sume and sumes of money as they shall think fytt and convenient—to sett the poor on work, and also competent sumes of money for and towards the necessorie relief of the lame, impotent, olde, blinde, and such others amongst them being poor and not able to worke.

In this Act the care of the poor became a definite legal duty of the community. The famous question of Cain was answered in the affirmative, and in spite of much criticism and many protests during the long history of the poor law, the position has been maintained, and to-day man is his brother's keeper to a greater extent than ever before.

It is probable that the word "impotent" was used to include the sick of all kinds, and this probability is increased when we read Act 39, Elizabeth, which gives power to every person seized of an estate in fee simple—to erect, found and establish one or more hospitals, meason de Dieu, abiding places, or house of correction, at their will and pleasure as well for the finding sustentation and relief of the maymed, poore, needy or ympotent people.

In spite of these powers, it is probable that there was very little provided in the way of medical treatment until well on into the nineteenth century. Criticism of the poor law, chiefly on financial grounds, in the period following the Napoleonic Wars, led to the appointment of the Poor Law Commission in 1832. After two years of very thorough investigation, the report was issued and the recommendations of the Commission were passed, with very little alteration, as the Poor Law Amendment Act of 1834. The Commission had set out to find means by which the high cost of poor relief could be reduced, and under the Act the poor law was definitely meant to be deterrent.

It was laid down that "the first essential of all conditions is that the situation of the able-bodied person on relief shall not be really or apparently so eligible as the situations of the independent labourer of the lowest class."

The Commission set out to make the poor law unpopular, in the interests of economy, and in this their success was extraordinary. One of the greatest obstacles those endeavouring to improve the service have had, has been the intense unpopularity of everything connected with it.

Out-relief was discouraged. Parishes were merged into unions, and workhouses to meet the needs of a number of parishes were built. The applicant for relief was offered an admission order for the house, which he entered with his wife and family: thus arose those huge institutions, the general mixed workhouses, which have so often been the object of criticism.

One of the most important features of the Act was the introduction of central control. This was foreign to the habits and ideas of the English people, and opposition to it was very active for a time. The power to make mandatory orders was given the Commission and their successors, the Poor Law Board, Local Government Board, and Ministry of Health. This power was strenuously used. The Commissioners were well supplied with information by a staff of very competent inspectors, who visited the institutions and attended meetings of the guardians at intervals, helping with advice and encouragement, as well as uttering warnings and threats. Detailed rules were made for the work of the guardians and officials.

No officer of importance could be appointed or removed, and no building could be erected, without the sanction of the Board. The policy of the Board varied from time to time, but, whatever the policy was, the whole service reflected it, and there can be no doubt that the action of the central authority made for progress and improvement.

It is evident that under the Local Government Act of 1929, there will be much less central control. Localities will be left to deal

with these problems without the help of Whitehall. The greater freedom may allow some specially progressive localities to advance beyond the average, but, on the other hand, the backward areas will have less inducement to reach a good standard.

The stern opposition of the Commission of 1834 to out-relief for the able-bodied was mitigated in the case of the sick, and soon medical practitioners were engaged to attend to the sick paupers. For a time these appointments were made on the same principle, as contracts were let—the doctor who undertook to supply medicine and service at the lowest price got the job.

The system was strongly opposed by the profession, and in 1842, the Commissioners issued regulations putting the parish doctor on the footing of a public official as “the district medical officer,” with a salary fixed at a fair rate. From the beginning the workhouses contained a certain number of sick. In a population so selected the proportion was sure to be considerable, although it was not intended that the sick or infirm should be brought in if they could be looked after in their own homes on relief.

To accommodate these sick, certain wards were set apart as infirmaries, and from these are descended the poor law hospitals of to-day.

For a long time the conditions of these workhouse infirmaries were very bad. The central authority did not take much interest in the care of the sick. The only medical service was given by the part-time visiting workhouse medical officer. The nursing was by inmates.

In 1865, the first Medical Officer to the Poor Law Board was appointed, and from this time progress was fairly rapid. The necessity for this was pressed by outbreaks of various infectious fevers, as in the absence of any other public health authority, the cases had to be cared for by the guardians. The first poor law hospital to have a staff of trained nurses was Brownlow Hill, Liverpool. Their introduction was due to the munificence of William Rathbone.

The Metropolitan Poor Law Act, 1867, allowed separate infirmaries, purely for the sick, to be set up in London, and the practice slowly spread to the provinces (Leeds, 1871; West Derby, 1884; Birmingham, 1888).

In the Nursing Order, 1897, it was laid down that “no pauper inmate shall be employed to perform the duties of a nurse in the sick or lying-in wards of a workhouse.”

Originally, of course, the poor law medical

service was intended purely for the pauper class, but the attitude of the authorities slowly changed.

In 1870, C. J. Gochen, President of the Poor Law Board, discussed the advisability, from the sanitary and social points of view, of extending gratuitous medical relief beyond the actual pauper class, but little official encouragement was given to this and, indeed, local practice tended to extend a little beyond the strict letter of the law.

The door to progress in this direction was opened when, in giving evidence before the Royal Commission of 1905, Mr. Adrian, Legal Advisor to the Local Government Board, then under the Presidency of Mr. John Burns, gave the following definition of destitution:—

“Destitution, when used to describe the conditions of a person as a subject for relief, implies that he is for the time being without material resources (1) directly available, and (2) appropriate for satisfying his physical needs (a) whether actually existing, or (b) likely to arise immediately. By physical needs in this definition are meant such needs as must be satisfied, (1) in order to maintain life, or (2) in order to obviate, mitigate or remove causes endangering life, or likely to endanger life, or impair health or bodily fitness for self support.”

By skilful application of this formula, it became possible for a much larger class to enjoy the benefits of the poor law hospitals.

Criticism of the poor law was greatly stimulated by the Royal Commission of 1905. Two reports were issued by the Commission in 1909. The majority report advocated the substitution of a new *ad hoc* authority for the guardians, but the minority advocated the complete break-up of the poor law system with the allocation of the able-bodied to a national government department, and the care of the sick, infirm, children and insane to the various committees of the county or borough authorities.

Although Parliament paid no attention to either at the time, the ideas of the minority have gradually permeated the minds of our legislators, and the Local Government Act, 1929, provides an opportunity for the break-up of the poor law. The extent to which this will be carried out depends on the qualities of each local authority.

The legal powers of the guardians to provide a medical service for the community were much less than those given to the councils by the Public Health Acts, yet at the time of their supersession they had created an organisation

that could be contemplated with a certain degree of pride.

There were in England and Wales, 3,500 district medical officers; 70 separate infirmaries with accommodation for 37,087 sick persons, and 624 institutions with accommodation for 78,842 sick persons. It must be admitted that the quality of this accommodation varied very much.

The general voluntary hospitals provided for 48,344 persons; isolation (port sanitary) for 37,351; and tuberculosis sanatoria for 21,409.

Reference is frequently made to the beds standing empty in the poor law hospitals, with the suggestion that the hospitals are not being fully used, but empty beds at times can be avoided only by having a waiting list. A poor law authority must provide accommodation for a peak demand, and cannot have a waiting list. When the pressure is relieved, some beds are empty.

Also, to those accustomed to small numbers, 100 empty beds may seem what Lord Moynihan in a recent broadcast called “rows and rows and rows of empty beds”; but in a hospital of 1,200 to 1,400 beds, with an elaborate system of classification, it may represent only a working margin.

The sick are treated in separate infirmaries or in mixed institutions. The term “institution,” by the Local Government Board Order of 1913, displaced “workhouse.”

The administration of both types of institutions is laid down in detail by the Public Assistance Order of 1930. Separate infirmaries are under complete administrative as well as medical control of a medical superintendent. Mixed institutions are under the administrative control of the Master, usually with the matron as his deputy. The medical officer has entire care of medical matters, and no matter how many assistants or consultants he has on his staff, he is ultimately responsible for the care of each individual in the institution. Each chief official has a position of some independence, and he has “security of tenure.” The medical officer holds his office until he resigns, dies, is removed by the Ministry of Health, or becomes insane.

By the terms of the Public Assistance Order, 1930, a person is admitted to a hospital: (a) By an order signed by the clerk or by the medical officer of health for the council's area, either on a particular direction of the council or on a general direction of the council, in a case in which the person or any person or body on

his behalf is able and willing to repay the full cost of his maintenance and treatment.

This is a new condition, and is obviously important, as it gives authority for the admission of private patients. For some years, private patients have been admitted to many hospitals, but the legality of the procedure was questionable.

(b) By an order signed by a relieving officer, accompanied (except in cases of sudden or urgent necessity) by a certificate of a district medical officer or other qualified medical practitioner, or

(c) By the medical superintendent—

(1) Without an order in case of *sudden or urgent necessity*, or in pursuance of any statute.

(2) When the person is chargeable to the council, and is transferred from another establishment on an order signed by the officer in charge of that establishment, accompanied by a certificate of the medical officer thereof, or

(3) In pursuance of an agreement with another council.

The conditions of admission to a mixed institution are not quite the same. The responsibility for admission rests with the master, but in cases of illness he will always act on the advice of the medical officer.

A patient can take his discharge on giving reasonable notice (usually understood to mean 24 hours), but the medical superintendent or master has no right to discharge a patient if he does not wish to go. The difficulty is got over by transferring him to another institution.

Under the guardians there was an obligation to recover, where possible, the whole or part of the cost of relief from the recipient or, the persons liable to maintain him, *viz.*, his children, parents, or grandparents. Actually large numbers pay nothing; some pay the full cost of maintenance, about 30s. a week.

There can be little doubt that the demands of the community for hospital accommodation will increase. There is a growing inclination among all classes to resort to hospital treatment. With the increasing complexity and cost of medical treatment, the resources of a modern household are not sufficient to deal with a serious illness, and the members of the public now know this.

Most of this increased hospital accommodation will have to be provided by the local authorities.

The staffs of voluntary hospitals are showing increasing reluctance to undertake the treatment of the destitute. The out-patient departments

of these hospitals are to provide consultation services for those armed with a letter of recommendation from a general practitioner, and those who do not come under the National Health Insurance, and are not sufficiently affluent to pay a private practitioner, are to be referred to the district medical officer.

Voluntary hospitals are unable to provide the amount of indoor treatment guaranteed under contributory schemes, such as the "Penny in the £," and it is only by an arrangement, such as that existing in Liverpool with the council that such schemes are prevented from collapsing.

The National Health Insurance scheme must some time be brought into relation with hospitals, and the beds needed are not likely to be supplied by voluntary contributions or from National Health Insurance funds.

Under section (13) of the Local Government Act of 1929, each council must consult with a committee representing the local voluntary hospitals, with a view to forming a comprehensive scheme for the hospital service of the area.

It is quite possible that schemes will be suggested with elaborate classification of cases by institutions. It may even be suggested that acute cases of various kinds should be treated in the voluntary hospitals, while the chronic cases are treated in the council hospitals. In his report for 1928, the Chief Medical Officer to the Ministry of Health suggested that councils should have some hospitals for acute cases, and others for chronic cases, and the London County Council in their original scheme proposed to follow this plan, but I am glad to see that this idea has now been given up, and each hospital is to have its proportion of acute and chronic cases.

I consider that the large general hospital should be the basis of any scheme of hospital service. An area too large for one hospital should be divided up, with a hospital for each part. It should treat all classes of cases—acute cases; general medicine and surgery in adults and children; maternity; gynaecology; mothers and babies; venereal diseases; tuberculosis, pulmonary and surgical; cancer; fractures and other injuries; chronic cases of all kinds, and some infectious disease and mental cases. Private patients will be admitted to some hospitals.

Sir George Newman, in his report for 1928, discourages the admission of private patients, suggesting that voluntary hospitals are better

able to cope with the difficulties arising from the entrance of a privileged class in a public institution.

Cases will be admitted because they are disabled by illness or because their admission is desirable on public health grounds, not because their cases are interesting or they will provide experience which will train the surgeon or physician. They will be viewed with the eye of the official, who considers the needs of the community as a whole, and the quality of all parts of the medical service.

He will not feel that a very high standard in one or more star hospitals will compensate for a poor general average throughout the service.

The large general hospital has many advantages. It is economical. Requirements are easily standardised, and purchasing can be on a large scale. Plant and equipment can be used to capacity. Overhead charges are a small item in the cost per head. Dealing with large numbers, it is possible to pay good salaries and obtain high grade officials. Transport charges are reduced to a minimum. The patients can be efficiently treated. No matter what complications may arise, the appropriate specialist can easily be consulted, and the staff will be in the habit of dealing with all sorts of emergencies.

A large staff can be organised in an efficient way. It is likely to be active; the more lethargic members will be stimulated by their more energetic colleagues.

The best use may be made of the beds. The maximum demand for one class of case may not occur at the same time as that for another class, and the hospital units may be switched about as required, while with special hospitals, one may be crowded while another is half empty.

It makes for smoothness of working. When different classes are allocated to special hospitals transfers are common and every transfer is a potential source of trouble. The patients and their friends do not like it, and disagreement will commonly arise as to the suitability of the case.

The administration of the staff is easier than in a small hospital. Holidays and illness average out better, and cause less violent fluctuations in the available staff. The staff can be advantageously distributed; a ward which happens to be busy will have its staff augmented at the expense of one that happens to be slack.

The nurses can be efficiently trained; too much time will not be spent in the nursing

of acute cases on the one hand, or of chronic cases on the other. The varied experience which is essential to thorough training will be obtained.

It is a great advantage for chronic cases to be treated in a general hospital. They are much less likely to be written off as "dead stock—irretrievably hopeless." A fresh eye will be turned to them from time to time, and whatever is possible in the way of treatment is likely to be done.

They may be largely nursed by probationers in training, a form of service that is cheaper and better than that given by assistant nurses.

It is an ideal of the nursing profession that all sick in hospital should be nursed by trained nurses or probationers in training.

Cases can be treated to a conclusion in one hospital, and by one set of doctors. It is a good thing for a surgeon to see the final results of his treatment, and it is better for a patient than if he is passed on to another surgeon, whose feeling of responsibility will probably be less, or to a doctor who may have no interest in surgery. Much labour is saved in the duplicating of records on transfer.

A large general hospital will support a large specialist staff. The formation of team will be easy and a healthy system of close co-operation has a chance of developing.

I may add that specialised hospitals are very troublesome from the point of view of the man who has to supervise a group. When a particular case cuts across the classifications there will be disagreement as to who shall admit it.

It is probably inevitable, from the spirit of the time, that the whole administration should be in charge of a medical superintendent assisted by a steward, but it is still possible to argue that the business of a doctor is with the care of the sick, and that lay administration should be entrusted to a secretary or lay superintendent.

The relation of the medical superintendent to the medical officer of health will no doubt sometimes give rise to disagreement when personalities clash. Speaking for my side, I think the medical officer of health should not concern himself with questions of internal administration. His right to general supervision is established, and he has a very large field for his activities in co-ordinating the work of different hospitals and securing harmonious working with other branches of the public health service. It is a bad principle in administration to have two men trying to do the work of one, and a system should not be established if it depends for

success on the possession of more than average pliability by the officials concerned. In small areas it may be satisfactory if the medical officer of health is the medical superintendent of the hospital.

In addition to the medical superintendent, there should be resident medical officers, senior and junior, and visiting consultants and specialists.

The consultants may be compared to the honorary staff at a voluntary hospital, but should be responsible to the medical superintendent, and should give more service than is usually expected from an honorary at the voluntary hospitals.

They should be given charge of beds, involving continuous responsibility, and should not be called in merely in consultation on selected cases. A condition of appointment should be that they shall hold not more than, say, one other hospital appointment, for each visiting man should spend so much time in the council hospital that his reputation will be closely associated with it, and the welfare of the hospital will be a measure of his success. It is probably better to have different consultants for each hospital, rather than to have one man attending a whole group. A little mild rivalry and competition may be useful.

The junior residents will correspond to house surgeons, and house physicians, with similar duties and responsibilities, and they should be appointed for six to twelve months at a time.

The senior resident medical officers should be of an entirely different order, with much more important duties and much greater responsibility. On the clinical side they should be related to the visiting consultants in much the same way as an assistant surgeon or physician is related to his chief, and on the administrative side they should rank as assistants to the medical superintendent. As they advance, some will bear to the clinical side, and become consultant physician or surgeons; others will bear to the administrative side and become medical superintendents.

In this way, an efficient organisation of the profession will be maintained, and a supply of well-trained men for the municipal hospital, as well as for the community in general, will be assured.

Among the consultants should be the tuberculosis officer and the venereal diseases officer of the council. They should be given charge of beds with similar responsibility to those of the

part-time consultants. Such services as a tonsil and adenoid clinic and refraction clinic may with advantage be associated with the hospital.

The visiting obstetrician should conduct an ante-natal clinic at the hospital, and indeed, the whole of the maternity and child welfare of the area may be connected up to the hospital.

Radiologists and pathologists may be on a whole-time or part time basis. A part-time pathologist is likely to give satisfactory service if, for the rest of his time, he is engaged in university teaching rather than exposed to the distractions of private practice.

The district medical officer for the area should be associated with the hospital and as far as possible the daily "surgeries" of the district medical officers should be held at the hospital.

The district medical officers should have the help of a service of nurses for such cases as they think may be treated in their own homes.

Out-patient departments are inevitable for several reasons. Formerly the majority of the patients in poor law hospitals, were in-patients, because they were destitute, and even if their illness or disability was slight, they remained as in-patients of the hospital until so far cured that they could be transferred to the "house" or an institution for the able-bodied. For years a change has been taking place, and this change is likely to go still further under the management of the councils. Many patients of a better class are admitted, and the patients of the lower classes, owing to unemployment insurance and out-relief, are in many cases in a position to attend as out-patients. It is obviously wasteful to admit these people for trivial diseases, or to keep them as in-patients when they have so far recovered that they are fit to be treated as out-patients. They will come for treatment, such as dressing of wounds and ulcers, massage, ultra-violet light, &c., treatment of eye and ear conditions.

When a poor law institution comes to be recognised in the district as a hospital, it becomes impossible to exclude casualties.

Cases who have had operations or courses of medical treatment will frequently be sent up by their own doctors for inspection or advice from the surgeon or physician under whose care they were while in the hospital.

An out-patient department must be used as a check on admission. At present on the strength of a certificate from a district medical officer, or a private practitioner, the relieving officer gives an admission order and the patient is

sent to a ward, although his case may be trivial and there may be a great shortage of beds at the time, or he might have to wait some time for operation, or for X-ray examination, because the time may be booked up for some days ahead. Again, the private practitioner may merely want a consultant's opinion, but in the absence of out-patients department, the only way to obtain this is to have a case admitted.

I think, therefore, that for the economical working of municipal hospitals, out-patients departments are inevitable.

Municipal hospitals must take a considerable part in medical education. It is obviously wrong that the opportunity given by such concentration of ill people for learning the various branches of medicine, surgery, midwifery and pathology should be denied to undergraduate medical students. Probably one of the greatest needs in the medical curriculum to-day is positions for resident students. It is possible that resident accommodation will be provided in some of the municipal hospitals. The hospitals will benefit enormously from the presence of students. These will provide a critical audience, watching every detail of the hospital work, and stimulating every member of the staff. Criticism is the price of our efficiency.

The appointments of house surgeons, house physicians or junior medical officers should be regarded as definitely educational. The appointments should be made at a time of the year that bears a convenient relation to the terms of the medical schools. They should be for a limited period, six months or so. Facilities should be given for study.

The senior resident medical officers, as already said, should be regarded as progressing to consultant rank, and study leave to take the courses necessary for obtaining higher qualifications should be granted from time to time.

Associated with the general hospitals in any scheme should be convalescent homes and an institution with wards for the infirm, that is where cases such as hemiplegia, cardiac valvular disease with compensation but little reserve, senile infirm, &c., may be housed, but I am strongly opposed to hospitals for chronic cases. It is impossible to train a nursing staff with only one class of case, and the effect on the medical staff is almost inevitably destructive of keen interest in medicine. The term "bed-ridden, infirm" is often used to include all sorts of chronic cases; these may not be very interesting to most doctors, but they provide valuable nursing experience; and the proper

place for them is special wards in the general hospital.

Section (5) of the Local Government Act of 1929, states that a council in preparing an administration scheme shall have regard to the desirability of securing that all assistance that can lawfully be provided otherwise than by way of poor relief, shall be so provided, and accordingly in any such scheme may declare that any assistance that can be provided by such acts as the Public Health Act of 1875, shall be provided exclusively by the appropriate Act.

This is a point that requires very careful consideration. It might happen that certain hospitals were appropriated by the public health or hospital committee to be administered under various Acts, leaving other hospitals to be administered under the poor law by the public assistance committee. This would be splitting up the hospital service under what would be practically two authorities, although one of the declared objects of the Local Government Act of 1929, was the unification of all health services. It would set up great administrative difficulties and would have the effect of lowering the standard of all hospitals left under the poor law. It would be a melancholy picture if the effect of this great Act was to place the destitute poor under worse conditions than they were before it was passed.

So far as I can see, the objection to the poor law is purely sentimental. The various disabilities under which recipients of relief suffered have been removed and, in Liverpool at least, the stigma of pauperism has gone.

A patient does not worry because the transferred hospitals are still under the poor law. They are city hospitals and all he cares for is the quality of his treatment, but if two types of general hospital were set up, we should very soon have distinction made between the work-house hospital and the public health hospital.

The poor law at present gives the local authority powers which are ample to provide all the hospital services of a community, and before the poor law is cast aside we should be certain that it is to be replaced by a scheme that will be in every way superior.

The future of the poor law hospitals is in our hands. Many experiments will have to be made. Some will succeed, some will fail. Skilful diplomacy will be necessary, and many wires will have to be pulled, but human nature being what it is, the sense of duty, the passion for excellence, or perhaps merely the personal ambition of the officials, will ensure a position

for state hospitals of the greatest importance in the life of the community.

HIS MAJESTY THE KING has been graciously pleased to appoint, as King's Honorary Physician, Surgeon Vice-Admiral Reginald St. George Smallridge Bond, C.B., M.B., F.R.C.P. (Lond.), F.R.C.S. (Ed.), D.P.H., K.H.P., Barrister-at-Law, who recently received promotion from the rank of Surgeon Rear-Admiral, and was appointed Medical Director-General of the Navy.

The death is recorded, with sincere regret, of Dr. William Knott, one of the senior fellows of the Society of Medical Officers of Health. Born at Wolverhampton in 1857, Dr. Knott was educated in Middlesbrough and afterwards at Edinburgh University, graduating M.B., C.M., and later M.D. He was for many years medical officer of health for the North Ormsby Urban District before that area was absorbed by the Borough of Middlesbrough.

THOSE interested in hospital library work are invited to attend the special sessions arranged in connection with the Summer School of Librarianship at Birmingham on August 22nd, and with the Annual Conference of the Library Association, to be held at Cheltenham, on August 31st, 1931. Full details of both meetings may be obtained from the Organising Secretary, British Red Cross Society and Order of St. John Hospital Library, 48, Queen's Gardens, Lancaster Gate, London, W.2.

THE Sixtieth Annual Meeting of the American Public Health Association will be held in Montreal from September 14th to 17th, 1931. Some two thousand delegates, representing official and voluntary health services in all parts of North America, are expected to attend. In addition, the Society of Medical Officers of Health will be represented by three members of its Council—Dr. George Buchan, who will submit a contribution entitled "A Brief Review of British Public Health Administration"; Dr. Charles Porter, who will discuss "Education and Training for the English Public Health Service"; and Dr. James Fenton, who will deal with "Maternity and Child Welfare Schemes and Work in Great Britain." It is greatly to be hoped that Sir Allan Powell, Chief Officer of Public Assistance, London County Council, will also be able to attend the meeting and submit a communication on "The Relation of Public Health to Public Assistance."

Ut Ita Dicam.

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

A New Birth-Control Circular.

A straw will show which way the wind is blowing, and Circular 1,208, Birth Control, addressed to maternity and child welfare committees, suggests that memorandum 153/M.C.W., issued last March and dealing with the same subject, has misled quite a number of people and upset probably as many more. "Misconceptions have arisen in regard to the views expressed in the memorandum," says the new circular, and very patiently it sets about explaining things. First it points out that local authorities have no general power to establish birth control clinics *as such*; only the powers they possess under the Maternity and Child Welfare Act, 1918, and the Public Health Acts are capable of being construed as giving them some sort of right to set up some sort of arrangements under which, under specific circumstances, birth control advice may be given to particular classes of women. Under the first-named Act, the powers of the local authorities are limited to the making of arrangements for attending to the health of expectant mothers and nursing mothers. This attention may be given at a maternity and child welfare centre, and may include the provision of facilities for giving birth control advice at the centre. The use of the facilities, however, "must be strictly incidental to the purpose for which the centre is established, and they can be made available only for *married women who are either expectant or nursing mothers already in attendance at the centre and in whose case further pregnancy would be detrimental.*" The italics are mine, as are any also in the following statement as to the position of the local authorities in this same connection under Public Health Acts. The action that can be taken is to establish a clinic at which medical advice and treatment would be available for women suffering from gynaecological conditions. The use of any facilities provided at the clinic for giving advice on contraceptive methods must be strictly incidental to the purpose for which the clinic is established, *viz.*, the treatment of sick persons. Only women who need medical advice and treatment for gynaecological conditions can properly be admitted to the clinic, and *contraceptive advice can properly be given only to married women in attendance at the clinic in*

whose cases pregnancy would be detrimental to health.

Making Things Clear.

Three additional very important points are made clear in the circular; one, that the clinic should be provided elsewhere than at a maternity and child welfare clinic, *e.g.* in separate premises or at a hospital to which women attending the clinic and in need of advice and treatment for gynaecological conditions could be referred; (2) that a medical officer specially experienced in the clinical advice and treatment needed at a gynaecological centre should be appointed to the clinic; and (3) that no existing officer of a local authority shall be prejudiced in any way by a decision of the authority to provide facilities for birth control advice within the limits laid down in the memorandum. The work is not to be regarded as falling within the scope of the normal duties of the medical officers of a local authority, who should be free to undertake or decline it. This last is the opinion of the Minister. It may be taken it is the opinion of the service generally. It is certainly mine; and it is mine also that this expression of view on this point is the most important in the whole circular; that it is as definite an example of a desire on the part of the Minister and the Ministry to protect the interests and position of local authority officers as any yet offered. Further, I think I may not be far wrong if I suggest that the necessity for making such a pronouncement was responsible entirely, or very largely at any rate, for the issue of the circular. Anyhow, it is a good and useful circular and should help local authorities to recognise exactly what the position is.

The Oldest Doctor in England.

A considerable amount of reference found its way into the Press during a recent week-end to Dr. J. H. Salter, of Tolleshunt D'Arcy, Essex, apropos of the fact that he is the oldest practising doctor in England. In one journal, it was stated that he was claimed as the oldest medical officer of health. This, however, is an error, though I, as several others in our service who know Dr. Salter, must, I feel sure, regret it very much. Not any of the several laudatory things said of Dr. Salter are exaggerated. Without exception he is one of the most remarkable

members of our profession now at work, not only from the professional point of view, his skill and qualifications being of an extremely high order, but on account of the extent of his interests and the degree of his culture. In spite of his advanced age he possesses a remarkable activity and carries on a practice that covers, because of his high reputation, a very wide area. Apart from this, he still takes part, or did until recently take part, in all types of country pursuits, and still possesses a very high reputation as a sportsman. When over 80 years of age, he would still from time to time be off duck shooting in the early hours of the morning, and was capable of playing his part with the youngest and most skilful at any kind of shoot. His garden is a lovely thing in which he takes the greatest pride and interest, and any who have experienced it will admit that there is nothing much more delightful than a tour of that garden with Dr. Salter—except, perhaps, to talk with him and to listen to his reminiscences. A famous breeder of dogs and horses, he has carried out many interesting and valuable experiments in this connection and has won in his time an infinite number of honours and prizes, amongst them, I believe, the Waterloo Cup itself. As a judge of sporting dogs, his fame is international, and he has many stories of experiences in this connection and of hunting parties in Russia in the days of the old nobility. I make no excuse for these references to Dr. Salter, but if I needed any, in addition to claiming him as a great doctor of a type now very rare, I might claim him as part of our service, having as a public vaccinator entered it by virtue of the Local Government Act in the evening of his days. I am very proud that I have known Dr. Salter, and I am all sincerity when I express the hope that he may be spared to doctor the people in his own corner of Essex and to add to the reputation that he has earned for himself and for the profession of medicine as a whole.

The late Mr. E. B. Turner.

Mr. E. B. Turner, whose death occurred the other day, was another of a fine type with which medicine is adorned. Well and widely known throughout the public service on account of his activities in relation to the work of the British Social Hygiene Council, Turner was greatly liked and highly respected. An excellent and effective speaker, he was in demand all over the country, and I am almost afraid to say, lest I should be thought to be exaggerating, how large the number of addresses he gave and

how big the largest audience he addressed. He was a very simple and kindly soul with very high ideals; an apostle of the clean-life and clean-living. In his day, he had been a great athlete, playing on more than one occasion for England in the Rugby International. This fact was largely responsible for the extraordinary influence he possessed over youth, and for much of the undoubtedly great amount of good he did during his life. He was a delightful man to know, was Turner, and he will be greatly missed and mourned by the many who liked and admired him, privately and in the many societies and bodies to which he belonged for which he worked so hard and, as he did everything, so conscientiously.

At the Glasgow Congress.

The Glasgow Congress of the Royal Sanitary Institute is referred to elsewhere, and this is my own private word about it. It is to the effect that it seemed to secure a remarkable success and to be little affected by the—to put it mildly—unsettled weather. The attendance of members of the Society was up to standard and all appeared to do their duty and to attend closely at least those sections that dealt with subjects of immediate concern to medical health officers. Such of us as read papers or took part in discussions did so creditably and in a manner calculated to add to the reputation enjoyed by the service as a whole. In the unfortunate absence of the President of the Conference (Professor Currie, of Glasgow) the first person, other than a President of the Society in my experience, to be invited to preside over this meeting, Dr. Bostock Hill, occupied the chair and contributed greatly to the success of the discussions. Other sections that attracted medical officers of health were, of course, those of Preventive Medicine and Maternity and Child Welfare. In the former, Dr. Parlange Kinloch's Presidential Address, and in the latter the discussion on Eugenic Sterilisation proved extremely attractive. Of other forms of entertainment, one that I personally found very interesting and amusing was the luncheon arranged by the members of the service who are Glasgow graduates. Those who were responsible for promoting this function deserve every congratulation on the success it achieved.

P.

THE Right Hon. Lord Balfour of Burleigh has been elected President of the Royal Sanitary Institute, in succession to the late Duke of Northumberland.

Venereal Diseases and the General Community.

By A. O. ROSS, M.D., D.P.H., Venereal Diseases Officer, Seamen's Dispensary, Liverpool; Honorary Surgeon, Lock Department, Royal Infirmary, Liverpool.

This paper, read at a meeting of the North-Western Branch, by an officer of so much experience as Dr. Ross, dealing, as it does, with matters of prime importance in relation to the venereal disease problem, is certain to be found of interest and real value by all health officers concerned in its solution.

IN this paper it is my intention to deal only with the incidence of venereal disease as seen in our clinics; the way in which it seems best to bring infected members of the community under treatment, and the correlation of this treatment with other public health services.

First, as to the incidence of venereal diseases in adults. I think we have every reason to be satisfied with the results of propaganda and the free treatment provided by clinics especially in the case of infection in the male. For the three years 1926, 1927 and 1928, after an apparent fall in the number of syphilis cases in the preceding five years, we have seen an increase, but I feel certain the main reason is that the all-day *ad hoc* type of clinic is proving a much more efficient and attractive treatment centre than the earlier arrangement which usually consisted of the basement of a hospital with no facilities for treatment except at odd hours. In Liverpool there were four hospital clinics functioning in 1923, and in 1924 an *ad hoc* clinic, called the Seamen's Dispensary, was opened.

In 1923 the fresh cases seen numbered 3,026, while in 1929 this figure rose to 4,289, of which close on one-half were registered at the Seamen's Dispensary. In 1923 the percentage of non-venereal cases included in the figure of 3,026 was 17, while in 1929, 23 per cent. of the cases reporting for the first time were non-venereal. This increase in non-venereal patients suggests that propaganda is having an educative effect upon the population and, further, that those who have exposed themselves to infection are prepared to come for treatment if infected. Another point of importance is that in Liverpool the average number of attendances per fresh venereal case has risen from 19 to 33 in these six years. From yet another aspect we can learn that things are going well, and that is the ratio of gonorrhoea cases to syphilis cases in the male. In the services, where in peace-time

we expect to find little or no concealed disease, the ratio of gonorrhoea fresh cases to syphilis fresh cases is somewhere in the region of 6 or 7 to 1. In civil life the same proportion should hold in males, but we still fall below that figure. In 1929 the proportion was 5 to 1—a very definite increase on the 3 to 1 ratio of 1923. From the type of case seen in the clinics to-day we gather that the average man is coming much earlier in the course of his disease. In 1915 most of the cases seen in venereal disease hospital clinics were florid syphilis showing skin and mucous membrane lesions. These conditions are not seen more often than about one in ten cases of syphilis to-day, and the bulk of our work is concerned with either sero-negative or sero-positive primary cases. Dr. Clements of St. Thomas's Hospital, has shown that between 1921 and 1927 the ratio of extremely early syphilis cases with blood Wassermann still negative to all other early cases had increased from 1 to 5.1 to 1 to 2.8.

Early treatment means cheaper and more effective treatment, and diminishes the number of possible contacts. It is of interest to note from Sir George Newman's Annual Report on the State of the Public Health in 1929 that of all patients marked off in the records of the clinics of England and Wales during 1929, 39 per cent. were classed as cured, and an additional 26 per cent. who might be called probably cured. In 1920 the known cures amounted to only 24 per cent. of the cases marked off.

There can be no doubt that this very welcome advance is decidedly cheering, and if it really betokened a general desire on the part of the infected person to be rid of the disease because he detested it, further and continuous progress would be assured. As it is, I feel that the real reason for the first attendance of our patients is fear of the consequences of the disease, and I believe that this fear is greater than the fear of notification. Quite

20 per cent. of all the defaulting cases are patients who attend once only to see the medical officer, and after a few intermediate attendances they vanish. These are men who, because urethral discharge has decreased or disappeared, imagine themselves cured, or who, after seeing so many people similarly infected, imagine that venereal disease cannot be so bad after all. There are others who do not realise the essential difference between venereal diseases and, say, abdominal colic. The fact that pain has gone means in the case of colic that there is no need to revisit the doctor; in fact, the doctor would be surprised if his patients did return to report complete cure. How different is venereal disease. Here we have pain as a symptom present only in the very early acute stage as a rule, and the absence of pain has no relation whatsoever to the cure of the disease. Perhaps in time the method adopted in sickness benefit under the National Health Insurance, where initial, intermediate and final certificates are issued, may accustom the patient to revisiting his doctor in spite of the absence of symptoms. Defaulting and irregularity in treatment were so serious a few years ago that at St. Thomas's Hospital, one of the best-managed clinics in the country, Colonel Harrison investigated the records of 3,598 cases of syphilis with a view to assessing the value of arsenic and bismuth treatment, and intended to divide those cases into 14 different groups, depending on the age of the infection, syphilitic manifestations, etc., but, largely because of defaulting, had to reduce his groups to four. There is no need for me to stress the importance of propaganda. All of you know that where active propaganda is continuous a larger number of cases come for treatment—many of them may be non-venereal but that is a good sign—patients attend better, even to the extent of double the number of attendances as compared with non-active areas, and I have no doubt that fear of venereal disease deters many others from taking any risks. I believe that propaganda should take the form of talks to small established audiences, for instance, a youths' social club, and cinematograph shows to large mixed audiences. The advent of the talking picture should make this variety even more valuable. As a preventive measure the education of adolescents of both sexes in the facts of sex should be most valuable, because the peak of fresh cases of venereal disease is in the

18-22 years age group. I am informed that only half of the population of the country is covered by efficient propaganda, while in a quarter of the country there is no propaganda whatever. It has been suggested that £1 per 1,000 of the population should be the amount spent on propaganda yearly, of which 5s. should be subscribed to a national scheme for propaganda, such as the British Social Hygiene Council, which is an experienced and influential body.

It is a melancholy fact that the mothers, actual or potential, of the nation, many of them innocent victims of venereal disease but still the most certain means of passing on venereal disease to the succeeding generation, whether as ophthalmia, vulvo-vaginitis, or congenital syphilis, are of all people least provided for in our present clinic system. The all-day clinic would, I am sure, be a great benefit to women patients because the usual hours for female clinics do not conduce to the regular attendance of housewives, maid-servants, barmaids, shop assistants and so on. The clinic hours in many areas seem to be set apart for the idle classes and for girls working in offices or factories. At present there is evidence to show that while the ratio of women to men attending for the treatment of syphilis is fairly good (1 to 1.8) the number attending for gonorrhoea makes poor showing (1 to 4). This is probably due to the difficulty of self-examination on the part of the woman, but is all the more reason for the establishment of better clinic facilities for them. Married women, it appears to me, present a field where earnest endeavour on the part of the health authorities would bear much fruit. Once the infected married woman is found she is a much better attender at the clinic than her husband, and is more amenable to reason if visited by a social worker in the event of her ceasing to attend. Of course, it is not much good to have a married woman attending a clinic if her husband is not under treatment, and possibly that is a very good reason for treating a woman in all her pregnancies if she has at any previous time suffered from syphilis. The possibility of paternal syphilis is thus counteracted. A great deal of good can be done if there is a working system between male and female clinics. When a male patient comes to the clinic and gives a history of infection contracted from his wife or some girl friend, I make it my business to influence the woman through the man to go

for examination to a female clinic. A card addressed to the medical officer of the clinic by name, stating the clinic hours and giving the short diagnosis of the infected male, "G" or "S," is given to the man to hand to his wife or friend. In the same way, when a man may have infected his wife or girl friend during the incubation period of his disease, a similar card is issued and I make it clear to the man that if he has infected or been infected by his wife it is useless going on with his treatment until his wife is also under supervision. The clinical venereal diseases officer treating any woman for syphilis should instruct her that at any time she becomes pregnant she should return for treatment. There is, however, a much larger opportunity for doing good work open to the administrative public health officer. He has now control over the large poor law hospitals with their maternity wards and children's wards. He has also under his charge corporation maternity homes, ante-natal clinics, post-natal clinics and the medical inspection of school children, and soon I expect he will have charge of the health of the children of pre-school age. In all of these wide-flung activities of public health there are responsibilities for discovering and treating diseases which concern the public weal. To my mind there is no good having health weeks and onslaughts of propaganda if we are not prepared to seize opportunities that already await us. In the memorandum prepared by the Maternal Mortality Committee in June, 1929, under the heading "Principles of Ante-Natal Care" we read: "Measures should be taken to include within the scope of ante-natal care the diagnosis and treatment of venereal diseases," and further: "Ante-natal care should include measures directed against infection and measures increasing resistance to infection." There are in England and Wales, fourteen maternity and child welfare centres treating venereal diseases in women, and if we are to do our best for this and succeeding generations, this number will have to be increased, and treatment with arseno-benzol preparations and bismuth given to every pregnant woman with a history of signs of syphilis or a positive Wassermann.

Professor F. J. Browne of King's College, London, states that 7 per cent. of the women attending the ante-natal department of the Royal Maternity Hospital in Edinburgh were proved syphilitic. Dr. Picken of Cardiff

states that 10.3 per cent. and Dr. Cruickshank of Glasgow 9.4 per cent. of the women attending their ante-natal centres are syphilitic, while in a rural district of Lincolnshire the percentage, according to Dr. Brunyate is 5. Dr. Kettlewell in Plymouth made a survey of school children and stated that 2.3 per cent. were congenital syphilitics. We are aware that the child suffering from congenital syphilis has less chance of survival than the normal child, and here I might give some figures collected by one of Mr. Lees' assistants in Edinburgh. One thousand and twenty-nine pregnancies in women suffering from syphilis resulted in foetal death in 293 cases (28.4 per cent. of the total). It is interesting to note, and this is characteristic of pregnancies in the syphilitic, that close on one-half of the foetal deaths were really premature births, since delivery of a stillborn infant occurred between the sixth and the ninth months of gestation. There remained 736 children born alive; 245 or one-third had died before attaining the age of five, 21 died later, and out of the remnant (469) 213 had positive blood Wassermans and 16 had stigmata of syphilis though the blood was negative.

It is of interest to assess the value of the preventive treatment of congenital syphilis, that is to say, the steps taken to find what pregnant women are suffering from syphilis, and the value of efficient treatment in such women. It is universally agreed that the earlier in pregnancy that treatment is instituted the safer for the child, and as Earl Moore of Baltimore has shown that in a series of 2,438 women suffering from syphilis, 47.5 per cent. were diagnosed on the evidence of a positive Wassermann alone, apart from a few who gave a suspicious history, it is absolutely essential that a blood Wassermann should be done on every pregnant woman at her first attendance at the ante-natal clinic. If this test proves positive, treatment by the arsenobenzenes and bismuth should be started and continued throughout the pregnancy. The figures of Boas and Gammeltoft, published in 1927 after careful scrutiny of 545 pregnancies in women suffering from syphilis, show that mercury is comparatively inefficient in preventing congenital syphilis; in fact, 72 per cent. of the children born were found to be infected if mercury alone was exhibited during the pregnancy. It is possible that a child may be normal at birth and for a year or more, and thereafter develop signs of con-

genital syphilis. Boas and Gammeltoft's follow-up system has kept continuous watch on children for fifteen years, hence the high figure. In Whitridge Williams' figures the results of treatment are plainly shown. 48.5 per cent. of infants born to untreated syphilitic women, 39 per cent. of infants born to partially treated women, and 7 per cent. of infants born to well treated women, were found to be suffering from syphilis. In France, where there are now 400 state-aided dispensaries working to prevent congenital syphilis, we find that the Baudillocque Maternity Hospital, which in 1919 originated the intensive treatment of infected pregnant women, has now an annual ante-natal death-rate of 14.5 per thousand as opposed to 23.7 per 1,000 for the 30 years prior to 1919. The fact that the patient has a negative Wassermann does not rule out syphilis, and quite often a child suffering from congenital syphilis is born to parents whose blood Wassermann is negative. It is therefore essential to examine patients physically, and to go into their previous history, obstetrical and general, before excluding syphilis. The history of repeated premature stillbirths strongly suggests syphilis, and some authorities proceed to treat such cases and frequently a live full-time child is born. Colonel Harrison has lately called attention to the Kline test as a substitute for the Wassermann. The test is actually done on finger blood and takes about half-an-hour to do. Several tests can be done at the same time, and the technique appears to be no more difficult than the Widal. This test should prove of great value in the case of children because of the ease with which the blood is obtained.

With regard to the diagnosis of gonorrhœa, Browne states that he treats all cases of purulent discharge from the vagina whether gonococci are found in cervical smears or not. The essential demanding treatment is the presence of pus, because of the twofold danger of ophthalmia and puerperal sepsis. The presence of free pus at the urinary meatus after stripping the urethra through the anterior vaginal wall, pyuria or the presence of shreds containing pus in the urine, should make one extraordinarily suspicious, as should a history of ophthalmia neonatorum in previous pregnancies. Special in-patient beds should be available in cases of pelvic damage from gonorrhœa, and for arthritis, which is said to be the most frequent complication in pregnancy.

In the maternity wards, and even in the midwifery practice of doctors and midwives in the homes of the people, the search for the syphilitic mother should not be abated. We have various methods of discovering the hidden plague. Blood from the cord may be collected and sent in a Wassermann tube to an approved laboratory. To popularise the system, doctors and midwives might be paid a small fee for their services. In Glasgow, up to 1924, a fee of 2s. 6d. per blood specimen sent for Wassermann test to the city laboratory was paid to encourage medical practitioners to be on the look-out for syphilis. Cooke and Jeans state that a cord blood Wassermann will discover 63 per cent. of syphilitic infants. Again, macroscopic examination of the placenta may reveal syphilis. Professor Browne says that the "greasy syphilitic placenta" of the text-books only occurs with a macerated foetus. It is the end result of syphilitic sclerosis of the chorionic villi. In the viable child it is the weight of the placenta which counts. A placenta weighing more than one-quarter of the weight of the child is syphilitic and suspicion attaches to one which exceeds one-sixth. Whitridge Williams states that micro-examination of the placenta reveals the presence of syphilis in 80 per cent. of all congenital syphilitic children, but Cooke and Jeans state that in their series the percentage discovered was 27, and that the Wassermann test of the cord blood was more reliable. Examination of the cord at the foetal end for tissue spirochaetes and peri-vascular infiltrations may be performed, and in the case of stillborn children all the organs are available for examination. In Liverpool and Blackburn this is systematically done, and where spirochaetes are discovered, valuable knowledge is gained as to the conduct of the next pregnancy, and, in fact, all succeeding pregnancies. Browne's observation that he had never found spirochaetes in the tissues of a child dead of syphilis where the mother's blood was negative, is to be borne in mind, and his statement that where prematurity or dead-born children are the rule in a family, it is well worth while giving arseno-benzol and bismuth in the succeeding pregnancies. Where congenital syphilis is discovered in the new-born babe, treatment should be immediate and continuous for from two to five years.

Congenital syphilis as seen in the school years is either static or so severe as to call

for immediate hospital treatment in most cases. The mere fact that the signs of syphilis are static, as expressed by rhagades, Hutchinson's teeth, bad molars, scrotal tongue, etc., does not mean that no treatment is necessary, but I feel that many cases are not reported simply because the lesions seen are the scars of battles long ago. The disease may have completely spent itself in the child under review, but there are probably brothers and sisters to be considered, and if these children are found to have a positive Wassermann, treatment should be instituted at once. In all cases where families are involved, we are justified in saying that syphilis can come from a grandfather or grandmother, and one can be certain that the guilty parent will pounce on this way out and make things easy for the treatment of the little patient. It is in problems such as congenital syphilis in a family that one sees the definite need for correlation of the various public health services, and it is here that a health visitor possessed of the necessary tact can do yeoman service, especially in a large town where the various departments tend to be too departmental. If she can be adopted as part of the confidential venereal diseases scheme, just as an orderly working in a venereal diseases centre is part of the scheme, and is also attached to the tuberculosis, maternity and child welfare and school medical inspection services, she would act as a very powerful link. In the counties and smaller boroughs I am aware that assistant medical officers work under all the schemes, and therefore control of the various cases is made much easier. It is, of course, entirely wrong to report a case of venereal disease by name to the medical officer of health, but that, I understand, does not hold in communications from one clinical department to another.

Mr. David Lees, the Venereal Diseases Officer of the City of Edinburgh, has been kind enough to send me particulars of the correlation of ante-natal and child welfare clinics with the venereal diseases scheme, and the following is a *résumé* :—

"At the Royal Maternity Hospital, where an ante-natal clinic is held, the venereal diseases officer of the city is on the staff, and one of his senior assistants is always on duty during clinic hours. This assistant is on duty at the Royal Infirmary evening clinic for males, where husbands of pregnant women found to be diseased are asked to report. All cases suspected of having venereal disease at the ante-natal clinic are referred to him, and if the diagnosis is confirmed he undertakes the treatment. All patients attending the

ante-natal clinic use the same waiting-room and the same nurses attend all patients. The two house physicians of the hospital have usually been residents in the female lock department of the Royal Infirmary. All patients have a Wassermann test done, and the blood is taken by the obstetrical staff.

After confinement, the infected mother is followed up by the venereal diseases department and her treatment is continued either as an in-patient, if necessary, or as an out-patient at one of the subsidiary centres.

Very striking success has attended the working of this scheme and not the least result has been the diminution of congenital syphilis in children of under one year by about 50 per cent. Further, as regards ophthalmia neonatorum, with the exception of one unfortunate case which was seen last month, no permanent damage has occurred to the eye of any baby born during the last eight years in Edinburgh and the Lothians. Still another indication of thoroughness is that attention has been directed to children blind through congenital syphilis, and continuous treatment is being given to them at the Royal Blind School."

To summarise—our task in public health would appear to include :—

(1) Greater efforts in propaganda which will reach the married woman and expectant mother.

(2) The provision in all large centres of all-day clinics for both sexes.

(3) Ante-natal clinics to be more actively engaged in the prevention of congenital syphilis, ophthalmia and vulvo-vaginitis. The routine testing of the sera of all women attending should be considered essential.

(4) The provision of beds for infected pregnant women with complications, and for neo-natal cases of ophthalmia, vulvo-vaginitis and congenital syphilis.

(5) Homes for unmarried girls suffering from venereal disease, especially if pregnant.

(6) Health visitors to be attached to women's and children's venereal disease clinics for social work.

(7) Encouragement of school medical officers and child welfare officers to attend post-graduate courses in congenital syphilis.

(8) Children of mothers suffering from syphilis to be kept under observation in the pre-school age.

I feel certain that the adoption of such measures in present-day public health work would show a striking decrease in the pre-natal and infantile mortality rate, and possibly in the maternal mortality and morbidity rates also, to say nothing of the greater health and happiness of a much larger proportion of the general community than is usually realised even by the most rabid of our venereal diseases officers.

The Society.

Reports, Proceedings and Announcements.

NOTICES.

PROVINCIAL MEETING.

A Provincial Meeting of the Society has been arranged to take place at Newcastle-upon-Tyne, by invitation of the Lord Mayor, on Friday and Saturday, September 11th and 12th next. The provisional arrangements are :—

Friday, September 11th. 4 p.m., Council Meeting (replacing that announced for September 18th on the sessional card). 5 p.m. General Meeting—subject and speaker to be announced later.

Saturday, September 12th. The President (Professor Harold Kerr, O.B.E.), is kindly arranging an excursion to the Roman Wall.

A full agenda for the meeting will be sent out with the September issue of PUBLIC HEALTH.

NOMINATIONS.

The following candidates have been nominated for election to the Society :—

As Fellows : Dr. R. N. Curnow, New County Offices, Derby; Dr. M. M. J. Maughan, City Hospital and Sanatorium, Lincoln; Dr. E. Dorothy Shaw, Shill Bank House, Mirfield, Yorks.

SCHOOL MEDICAL SERVICE GROUP.

The Annual Meeting of this Group has been provisionally fixed for Thursday, September 3rd, 1931, at 1, Upper Montague Street, Russell Square, W.C.1, for the election of officers for next session. It is hoped that a paper will be read, to be followed by a discussion. The subject and name of the speaker will be announced later.—*Dr. Louisa C. Adam, Group Hon. Secretary, Hotel Commodore, Pembroke Square, London, W.2.*

THE METROPOLITAN BRANCH.

President : Dr. John Macmillan, D.S.O., M.C., M.O.H., Woolwich.

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 May 22nd, 1931, the President occupying the chair. Eleven other members of the Branch Council were present.

The Branch Council had before them a letter from the Metropolitan Boroughs' Standing Joint Committee requesting to be furnished with their views on a proposal, submitted to the Ministry of Health by the Hammer-smith Borough Council, that legislation should be promoted in order to make it obligatory on a midwife to secure ante-natal examination of her patient by a doctor. It was pointed out, during discussion, that any legislation in this direction would have to apply to the country as a whole, and it was agreed that the Standing Joint Committee should be invited to communicate with the Central Midwives Board suggesting that midwives should be encouraged to make more use of ante-natal clinics.

The Branch Council referred to the Maternity and Child Welfare Group the following report submitted by a Sub-Committee appointed on February 27th, 1931, to consider the question of convalescent treatment for babies and children :—

A Sub-Committee of the Metropolitan Branch met on two occasions to discuss the question of convalescent treatment for babies and children. The members were Drs. Radford, Keith, Thompson and Browne.

It was decided to send a questionnaire to each of the 29 metropolitan medical officers of health. Twenty-five replies were received, of which the following is a summary :—

1. What provision is made by the council for convalescent treatment for babies and children up to 5 years of age?

11 boroughs arrange with various convalescent homes.

1 borough has its own home.

8 boroughs arrange with the Invalid Children's Aid Association.

6 boroughs make no provision.

2. Are the present arrangements sufficient?

16 boroughs—Yes.

7 boroughs—No.

1 borough—Yes, except during July, August and September.

3. Would the council be interested in the provision of a convalescent home?

7 boroughs—Yes.

8 boroughs—No.

1 borough—Unlikely.

2 boroughs—Possibly.

1 borough—No reason to be dissatisfied with present arrangements.

4. Is there a shortage in convalescent treatment for :
(a) children under 5?

13 boroughs—No shortage.

- 4 boroughs—Yes.
 (b) mothers with infants or toddlers?
 10 boroughs—No shortage.
 5 boroughs—Yes.
 (c) mothers?
 12 boroughs—No shortage.
 2 boroughs—Yes.

In view of the opinions thus expressed, there does not appear to be sufficient grounds to substantiate the claim made by the Finsbury Borough Council that the London County Council should provide for the convalescent treatment of babies and children.

From information obtained by the Sub-Committee there appear to be twenty-five convalescent homes with beds available for babies and children. This would account for sixteen medical officers of health stating that the provision of convalescent treatment in their respective boroughs was adequate. The Sub-Committee, however, considered that another reason for this apparently ample provision was the fact that many London boroughs spend comparatively small sums on convalescent treatment.

Should these boroughs desire to use their powers more fully in this respect, then the Sub-Committee were of the opinion that a shortage of accommodation would soon be apparent.

Furthermore, it would appear that the conditions of child life in overcrowded urban areas are such as to merit the serious consideration of members of this Society.

With this object in view, the Sub-Committee would ask the Metropolitan Branch to consider the advisability of referring the matter to the Maternity and Child Welfare Group.

The Hon. Secretary was directed to communicate with other Branches of the Society with a view to the collection of photographs of former Presidents of the Society on the walls of the Council Chamber being made complete.

The Hon. Secretary read a letter from the Manager of *The Medical Officer* offering to supply the tuberculosis pamphlet recommended for use throughout London on stout paper as an alternative to stiff card.

The Hon. Secretary mentioned that there had been conferences on district nursing between the London County Council, the Metropolitan Boroughs' Standing Joint Committee and the Central Council for District Nursing, and that the County Council representatives were in favour of a uniform rate of payment being adopted in London, and suggested that both the County Council and the metropolitan borough councils should pay district nursing associations one shilling per visit to a home by a district nurse at the request of a local authority, or that if a block grant be paid, it should be fixed approximately on the shilling per visit basis. The Branch Council agreed that a payment on this basis would be satisfactory and expressed

themselves prepared to recommend accordingly.

The meeting then adjourned and the majority of the members present proceeded to the Western Electric Company's private theatre at Bush House to view a "talking" film of an American surgeon performing a Cæsarean section operation. The film was of great interest, and the Hon. Secretary was directed to convey to the Western Electric Company the thanks of the Branch for granting them the opportunity of seeing it.

THE YORKSHIRE BRANCH.

President: Dr. L. Pickering-Pick, M.O.H., Spennborough.

Hon. Secretary: Dr. G. H. Pearce, M.O.H., Batley.

The annual meeting of this Branch was held at the County Hall, Beverley, on June 18th, 1931, the President occupying the chair. Eleven members were present. Apologies for absence were received from nine members.

The Council, after consideration, had fixed this date instead of the usual last Friday in the month, because it appeared to be the most convenient available, having regard to all the circumstances, and in particular to meet the convenience of Dr. R. L. Thornley, Medical Officer of Health, East Riding County Council, a Past-President of the Branch, who kindly made all the local arrangements.

Communications were received from (a) Dr. Rennie, Medical Officer of Health, Sheffield, expressing thanks for his election to the Branch Council, and (b) the Executive Secretary respecting the memorandum on the staffing and administration of maternity and child welfare centres. It was decided that this Memorandum should be considered at a special meeting of the Branch to be called for 6.30 p.m. in Leeds on October 1st, and the Hon. Secretary was instructed to make application to the Executive Secretary for printed copies of this memorandum for circulation to members of the Branch. It was the general opinion that the time above-mentioned would be more likely to meet the convenience of those colleagues who are specially engaged in maternity and child welfare departments, and the hope was expressed that a large attendance would result.

Drs. J. Mair and G. H. Pearce were elected Representatives of the Branch on the Council of the Society for the Session 1931-32.

A discussion was opened by Dr. Thornley

on (1) hospital accommodation for measles patients where the home circumstances are bad; (2) examination of milk samples for the presence of tubercle bacilli, and (3) smallpox.

A helpful discussion followed, in which Drs. Bates, Galloway, W. B. Hill, Mair, Munroe, Pearce, Pickering-Pick and Yule took part.

The Hon. Treasurer presented his statement of accounts, the consideration of which was adjourned to a later date in order that they might be examined by the Hon. Auditors.

Before business commenced, luncheon was served in the County Hall. Later, under the guidance of Dr. Thornley, the party was conducted through Beverley Minster and to other interesting places in the town.

Dr. H. L. Munroe, Medical Officer of Health for Beverley, invited the members to visit the Beverley School Clinic and Maternity and Child Welfare Centre, and showed them over the premises. Surprise was expressed that in a town with a population of only just over 13,000 such commodious premises and up-to-date methods were available, and Dr. Munroe was congratulated thereupon.

The members then returned to the County Hall for afternoon tea as Dr. Thornley's guests. At the conclusion, the President, on behalf of the Branch, warmly thanked Dr. Thornley for the excellent arrangements he had been good enough to make which had resulted in such a very enjoyable and instructive meeting.

Everyone present agreed that, if possible, an early return visit should be made to this interesting old town. Unfortunately, the geographical situation of Beverley makes it difficult of access from many other parts of the county.

THE NORTHERN BRANCH.

President: Dr. Charles Franks, J.P., M.O.H., Durham C.C.

Hon. Secretary: Dr. J. A. Charles, Deputy 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 30th, 1931. The President and fifteen members were present. Apologies for absence were received from six members.

The President sympathetically referred to the loss the Branch had sustained by the death of two members, *viz.*, Dr. John F. Gibbons, Durham County Council, and Dr. Edward Porteus, Newcastle-upon-Tyne. The Hon. Secretary was instructed to convey a message

of sympathy to the relatives of the deceased, the members standing in silence as a mark of respect.

Letters from the Executive Secretary on the following subjects were read, and it was decided to consider them at the October meeting:—

1. London School of Hygiene—Proposal to attach to the School a Research Fellow with the object of assisting field research work in connection with public health departments.

2. Memorandum of agreement in regard to the salaries of whole-time public health medical officers.

3. Memorandum on the staffing and administration of maternity and child welfare centres.

The following officers were elected for the Session 1931-1932:—

President.—The Chairman stated that Dr. Spinks, the present Vice-President, on account of health reasons, did not wish his name to go forward for the Presidency of the Branch. On the motion of Dr. C. Franks, duly seconded by Dr. R. MacLeod, Dr. J. W. Howard Morrison, Medical Officer of Health, Blaydon-on-Tyne, was elected President.

Vice-President.—On the motion of Dr. W. H. Dickinson, duly seconded by Dr. J. A. Charles, Dr. Kenneth Fraser, Deputy Medical Officer of Health, Cumberland County Council, was elected Vice-President.

Honorary Secretary and Treasurer.—Dr. J. A. Charles was re-elected Honorary Secretary and Treasurer.

Representatives on the Council of the Society.—A letter from the Executive Secretary stated that as the membership of the Branch now exceeded 150, the Branch is entitled under Article 19 (b) of the Society's Constitution to a second representative on the Council of the Society. Drs. Charles Franks and G. C. M. McGonigle were elected as the Branch Representatives.

British Medical Association.—Drs. A. S. Hebblethwaite and D. F. Macrae were elected as the direct public health representatives on the Council of the North of England Branch of the British Medical Association.

Drs. Mary E. Howie and J. A. Charles were elected as the Representatives of the Northern Branch on the Executive Committee of the Newcastle-upon-Tyne Division of the British Medical Association.

It was decided to invite the North of England Branch of the B.M.A. to elect a general practitioner direct representative on the Branch Council of the Society, and the Hon. Secretary was

instructed to express the high appreciation of the Branch of the services of the present representative, Dr. James Hudson.

A brief report was read from Dr. M'Gonigle on two matters of general interest that had been discussed by the Council of the Society.

The meeting then adjourned.

By this time several more members were present, and a very pleasant lunch followed at the invitation of Dr. Andrew Smith, who unfortunately was unable to be present. Dr. Harold Kerr expressed the thanks of those present for his kindness.

Afterwards several members took part in a bogey competition on the golf course, which was won by Dr. D. S. Rowlands (14) who was two up on bogey, Dr. G. A. Dawson (18) being second with one up.

THE MIDLAND BRANCH.

President: Dr. P. S. Blaker, M.O.H., Dudley.

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

The annual meeting of this Branch was held at Stourport on June 25th, 1931. Twenty-three members were present. Apologies for unavoidable absence were read from Professor Harold Kerr (President of the Society) and eight members.

The following elections took place for the session 1931-32:—

President.—Dr. Wyndham Parker.

President-Elect.—Dr. H. D'Arcy Ellis.

Vice-Presidents.—Dr. P. Stanley Blaker, Professor Bostock Hill, Sir John Robertson, Dr. E. H. Snell.

Elected Members of Council.—Dr. G. N. Anderson, Dr. A. Auden, Dr. W. D. Carruthers, Dr. J. M. Cowie, Dr. B. C. Haller, Dr. H. Gibbons Ward, Dr. A. Hamilton Wood.

Treasurer.—Dr. E. H. Snell.

Secretary.—Dr. R. H. H. Jolly.

Branch Correspondent.—Dr. G. N. Anderson.

Auditor.—Dr. W. M. Clendinnen.

Representatives on the Council of the Society.—Dr. H. Gibbons Ward, Dr. R. H. H. Jolly.

A communication was read from the Executive Secretary calling attention to the proposal of the London School of Hygiene to appoint a Research Fellow, and asking for suggestions for the subject of research. It was resolved that a copy of this letter be sent to all the members of the Branch with a request that any suggestions be sent to the Hon. Secretary.

Further communications from the Executive Secretary were:—

(a) The memorandum on the staffing and administration of maternity and child welfare centres.

(b) The memorandum of agreement in regard to the salaries of whole-time public health medical officers.

Both these memoranda had been referred to the Branches for their observations, and it was agreed that they should form the subject of discussion during the autumn session.

The meeting then adjourned.

Members and the ladies accompanying them were then taken for a tour of inspection of the Steatite & Porcelain Products Company's Works at Stourport. They were shown every stage in the production of electrical insulators, from the mixing of the raw materials to the various tests applied to the finished products. Finally the visitors were taken to the high tension research laboratory, where they were given a wonderful display of high tension electricity. In one of these tests there was an impulse flashover at 1,800,000 volts on a string of suspension insulators, giving the appearance of a violent thunderstorm with the attendant noise.

At the conclusion of the visit members and their friends were kindly entertained to tea by the Directors of the firm. The President proposed, and Sir John Robertson seconded, a very hearty vote of thanks for the entertaining and enjoyable visit, and for the hospitality extended, to which the Managing Director (Mr. John Christie) responded.

THE EAST MIDLAND BRANCH.

President: Dr. C. Killick Millard, M.O.H., Leicester.

Hon. Secretary: Dr. J. A. Stirling, M.O.H., Chesterfield.

A meeting of this Branch was held in the Town Hall, Leicester, on May 14th, 1931, the President occupying the chair. Sixteen members were present, and apologies for absence were received from three members.

Dr. J. E. O'Connor read a very striking and stimulating paper on "Our Attitude towards Variola Minor," and at the close of a very interesting discussion, in which Drs. Stevens, Millard, C. Banks, Jennings, Fairer, Tibbits, Barker, and Stirling took part, a cordial vote of thanks was accorded Dr. O'Connor on the proposition of Dr. Fairer, seconded by Dr. Jennings.

A meeting of the Council of the Branch preceded that of the Branch.

A further meeting of the East Midland Branch was held at Harlow Wood Orthopaedic Hospital, on June 25th, 1931, the President occupying the chair. Eighteen members and three guests were present. Apologies for absence were received from three members.

Dr. C. Banks and Dr. Fairer were re-appointed the Branch representatives on the East Midland Branch Council of the British Medical Association.

Mr. Malkin, Surgeon-in-Charge of the Hospital, demonstrated a very interesting series of cases, and afterwards showed the members round the Hospital. Dr. Millard conveyed the cordial thanks of the members to Mr. Malkin for arranging a visit of such an interesting and instructive nature, and to the Hospital Committee for kindly providing tea.

THE WELSH BRANCH.

President: Dr. E. J. L. Parry-Edwards, County M.O.H., Carnarvonshire.

Hon. Secretary: Dr. D. J. Thomas, Deputy M.O.H., Rhondda.

A meeting of this Branch was held in the Agricultural Department of the University College of Wales, Aberystwyth, on June 13th, 1931, when fifteen members and visitors attended. In the unavoidable absence of the President, Dr. Colston Williams occupied the chair.

The letter written on behalf of the President, to the effect that he was confined to bed and, therefore, unable to attend the meeting, was read, and it was decided that a message conveying the sympathy of the members of the Branch and their wishes for a speedy and complete recovery be forwarded to the President.

Various matters arising in the correspondence, including the memorandum on the staffing and administration of maternity and child welfare centres, submitted by the Maternity and Child Welfare Group, and the memorandum of recommendations in regard to salaries of whole-time public health medical officers, were referred to the Branch Council for further consideration.

An interesting discussion ensued on "Health Education," and, in this connection, Dr. F. T. H. Wood, O.B.E., Medical Officer of Health, Bootle, and Mr. T. Crew, F.I.H., Organising Secretary, attended the meeting on behalf of the Central Council for Health Education.

Dr. Wood, after outlining the evolution of health education, gave an account of the con-

stitution and activities of the Central Council, laying emphasis upon its advisory, co-ordinating and supervisory functions. Special note was also made regarding the publication, *Better Health*, of which 300,000 copies were circulated monthly, though only three authorities in Wales undertook its distribution. The work of the Central Council was commended for the consideration of all medical officers of health and social workers who were interested in health education.

Mr. Crew dealt mainly with the practical applications of the methods of health education, and emphasised the importance of the proper psychological approach to the public. Samples of satisfactory and unsatisfactory posters were shown, and it was mentioned that observations showed that posters with blue or brown as the predominant colours had proved most effective. In the organisation of lectures, the personality of the lecturers and the selection of appropriate brief titles were important, and the value and methods of application of slogans and epigrams were discussed.

Dr. Owen Morris (Director of Education and Chief Medical Lecturer, Welsh National Memorial Association for the Prevention of Tuberculosis) recalled his experiences in the early days of the campaign against tuberculosis in Wales. The subject was then a novelty and large audiences were the rule. Health exhibitions were usually overburdened and the royal road to health education commenced with the children, who should be taught by expert teachers of hygiene. The speaker had frequently grasped the opportunity of addressing gatherings which had congregated ostensibly for other purposes.

Professor Laurie (Professor of Zoology at the University College of Wales) advocated the approach to health education by the teaching of biology in the schools, such teaching to lead to the study of human physiology and its application to hygiene.

Professor Chapple (Professor of Education) emphasised the importance of the dissemination of the right kind of health knowledge, and the practice of the precepts of hygiene by those who undertook its teaching was also important.

Dr. Colston Williams remarked that health propaganda had outstripped the efforts of the medical profession and the public health services and was enlisting the aid of the Press and broadcasting by wireless. He agreed that the teaching of biology with a leaning towards human physiology would prove most effective.

Dr. Lewis (Director of Education, Cardiganshire) noted the difficulty in organising biological instruction in elementary schools, but the subject was easily taught in the secondary schools which, however, only embraced about one-tenth of the school population.

Dr. Ernest Jones (Medical Officer of Health, Cardiganshire) outlined a scheme which had been evolved whereby all secondary school pupils desiring to enter the teaching profession were required to study biology as a compulsory subject; this project made the study of hygiene or applied biology more effective in the training colleges.

Dr. T. Evans (Swansea) expressed appreciation of the visit of Dr. Wood and Mr. Crew, and also of the work of the Central Council for Health Education, in undertaking the publication of *Better Health*. He observed that propaganda work tended to cause the accumulation of arrears in the other work of a public health department unless an officer was specially appointed for the purpose.

On replying, Dr. Wood agreed that the education in health matters of the child population was most important, and announced that the Council were taking action in regard to the broadcasting of health talks. The disturbance in the work of health departments had largely been overcome in the Merseyside boroughs by the appointment of a specialist medical officer to undertake propaganda work jointly amongst the boroughs.

Mr. Crew also referred to various points raised in the discussion.

Mr. S. B. Thomas, M.Sc. (Dairy Bacteriologist, University College of Wales) gave an interesting address on "The Organisation of Clean Milk Campaigns," dealing almost exclusively with the work which had been done with the University College of Wales as a centre, during the past six years. Though there had been some resentment to the movement in the early days, considerable progress had been made in the education of producers and consumers regarding the production, distribution, storage and value of clean milk. Agricultural organisers and dairy instructors, who had undergone intensive courses of training at the Institute for Dairy Research at Reading, supervised the work in the counties, and short courses in the methods of clean milk production had been arranged at Aberystwyth and other places for sanitary inspectors. Since the commencement of the work, twenty clean milk competitions had been held in the Welsh counties and

thirty local authorities were regularly sending samples of milk for bacteriological examination. Though only eighty-three farms in Wales were licensed to produce the designated varieties of milk, it could be stated that nearly 60 per cent. of the milk produced on Welsh farms was now of "Grade A" standard. The main requirements for the production of clean milk were—intelligent milkers, sterilisation of equipment, cooling of the milk, sanitary condition of the cowsheds, and an adequate and wholesome water supply.

Dr. Colston Williams, in proposing a vote of thanks for the address, expressed his appreciation of the work done at Aberystwyth which had been so modestly described by Mr. Thomas. It could not be over-emphasised that the production of clean milk required constant and intelligent attention to details, whilst the application of the science of engineering to the production of dairy machinery had not been satisfactory in making the appliances foolproof and economical.

Drs. T. Evans, A. Thomas, Ernest Jones, Owen Morris and Miller also spoke.

The following officers were elected for the session 1931-32:—

President.—Dr. D. A. Powell, Principal Medical Officer, Welsh National Memorial Association for the Prevention and Treatment of Tuberculosis.

Hon. Secretary and Treasurer.—Dr. D. Jenkin Thomas, Deputy Medical Officer of Health, Rhondda.

Branch Council.—Drs. Picken, Colston Williams, Howard-Jones, T. Evans, T. Roberts, E. W. Richards and the President.

THE WELSH BRANCH.

ASSISTANT MEDICAL OFFICERS' AND SCHOOL DENTISTS' SUB-GROUP.

Chairman: Dr. C. J. McSweeney, Deputy M.O.H., Cardiff.

Hon. Secretary: Dr. W. E. Crosbie, Asst. M.O., Glamorgan C.C.

The annual meeting of this sub-Group was held in the City Hall, Cardiff, on May 8th, 1931. Fourteen members were present.

The Hon. Secretary presented (a) report on the work of the past year; (b) programme for next session which was fully discussed and resolutions adopted regarding the frequency, times of commencement and places of meetings.

The following were unanimously elected as office-bearers for the ensuing year:—

Chairman.—Dr. C. J. McSweeney, Deputy Medical Officer of Health, Cardiff.

Hon. Secretary.—Dr. W. E. Crosbie, Assistant Medical Officer, Glamorgan County Council.

Assistant Hon. Secretary.—Mr. J. Young, Senior School Dentist, Glamorgan County Council.

Committee.—Dr. D. E. Lawrence, Assistant Medical Officer, Newport; Dr. Mary Gordon, Assistant Medical Officer, Monmouthshire County Council; Dr. G. E. Harries, Assistant Medical Officer, Rhondda; Dr. Mervyn Jones, District Medical Officer, Cardiff.

THE SOUTHERN BRANCH.

President: Dr. R. H. Wilshaw, M.O.H., Worthing.

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

The annual meeting of this Branch was held at East Park Terrace, Southampton, on July 3rd, 1931, the President occupying the chair. Sixteen members were present.

The Hon. Secretary stated that the memorandum on the staffing and administration of maternity and child welfare centres had been referred by the Council of the Society for the observations of the Branch. Copies of the memorandum had been circulated to all members with the notice of meeting, and after discussion, and the reading of a letter, with comments on the memorandum, from Dr. Dora Bunting, it was resolved that the Branch offer the following observations:—

1. *Personnel*.—Emphasise (b) that experience may be obtained in training within the child welfare centre. Substitute "a" for "the most" necessary part of previous training (3rd paragraph). Delete paragraph referring to locums taking duty . . . should have suitable experience.

The remainder of the memorandum was agreed to.

The following officers were unanimously elected for the session 1931-32:—

President.—Dr. H. Leslie Cronk.

Representative on Council of Society.—Dr. R. H. Wilshaw.

Hon. Treasurer.—Dr. H. L. Cronk.

Hon. Secretary.—Dr. H. D. Kelf.

Executive Committee.—Dr. W. J. Hart, Dr. Percy Moxey, and Dr. H. Gordon Smith.

In a paper on "Tonsils and Adenoids in Relation to Dental Disorders," Mr. J. S. Roberts, L.D.S., discussed in detail the question whether septic tonsils were due to dental sepsis or vice-versa. He pointed out that there

was no doubt that mouth breathing, due to enlarged tonsils and adenoids, did cause malformation of the jaws and teeth, and might act as a predisposing cause of sepsis of the teeth.

A general discussion took place, followed by a hearty vote of thanks to Mr. Roberts for his interesting paper.

THE DENTAL OFFICERS GROUP.

President: Sydney J. Smith, Esq., L.D.S., Edin., Chief School D.O., Middlesex C.C.

Hon. Secretary: W. Leigh Breese, Esq., L.D.S., 328, Brixton Road, S.W.9.

On April 17th, 1931, an "open night" of this group was held, all members who intended coming having been asked to contribute any item of interest to the meeting. There was a good attendance, including a visitor to the Group, Dr. E. H. T. Nash.

Mr. A. E. Baker submitted the following description of an eruption caused by the presence of an upper anterior supernumary tooth. On September 13th, 1929, he was consulted by the mother of Master B., aged about 13 years, who, during school time, was under the dental care of Mr. R. C. W. Staley, of Southsea. An X-radiograph taken by this gentleman in 1928 showed the left upper central incisor to be blocked in its eruption by a supernumary tooth, having a somewhat tulip-shaped appearance. The corresponding deciduous incisor was still in position. Fresh X-rays of the case were taken by Mr. Eric Pedley at this time. These showed a similar appearance. On November 4th, 1929, in collaboration with Mr. E. L. Fickling, the deciduous incisor was removed under local injection anaesthesia but the outline of the supernumary tooth could not be defined. Considerable doubt was felt as to whether the left upper incisor was labial or palatal to the supernumary. After fresh X-radiographs were taken by Mr. Eric Pedley it was decided to postpone operating for several months. On April 2nd, 1930, fresh X-radiographs were taken by Mr. Fickling, after which Mr. Baker injected two series of 7½ per cent. Novocaine injections in the surrounding gum and palatal, m.m. seven in all, using probably 3½ to 4 c.c. Mr. Fickling removed the supernumary after considerable difficulty. It was on the palatal aspect of the incisor.

On January 8th, 1931, fresh X-rays showed that the left central incisor had worked down slightly. It is hoped that with the removal of the

obstruction it may erupt eventually. Space is being kept by a gold bar and collars cemented to the upper right central and left lateral incisors, adjusted and graduated by Mr. Staley. In the various X-radiographs the supernumary tooth appears to have the root portion extended tulip fashion. There is a central core presumably of dentine surrounded by a hollow globular portion of what may be cementum. No histological section has yet been made. The specimen was handed round, and in reply to questions, Mr. Baker said the strength of the Novocaine solution (7½ per cent.) had been strongly recommended to him by Mr. Paton Pollitt. Although the operation took some considerable time, nearly an hour allowing for interruptions, there were no apparent signs of shock at the time or subsequently. The wound healed satisfactorily and without delay. Weight of the supernumary tooth, about 9 decigrammes, horizontal circumference 37 millimetres, vertical circumference 50 millimetres.

Mr. F. Breese showed a full set of artificial dentures with very large deposits of tartar obscuring in places the teeth themselves; he also passed round models of the upper and lower jaws of a girl aged 5, smaller ones than which he had never seen. No history to account for the abnormally small jaws was obtainable of this girl, who had since died. All the deciduous teeth were badly decayed, the whole of the crowns of the molars being involved.

Mr. W. Leigh Breese passed round models from a girl aged 18 years who had consulted him because she was being refused dancing contracts owing to two misplaced teeth—upper laterals which were crowded internally. The two upper first permanent molars were missing, so room was made for the laterals by dragging back the premolars and canines on either side, and pushing forward the laterals into the spaces created. This case was of interest because of the age of the patient, and the fact that the irregularity decreased her earning capacity. He also showed X-rays and gave details of a case of a left upper central struck by a hockey ball with a resultant fractured apex. Fourteen days afterwards, the tooth was opened up, and the pulp, which had died, was cleaned out as far as the fracture and the root filled. The patient was not anxious to have an apicectomy performed so no further treatment was carried out. Six months after the tooth was perfectly comfortable, and it is possible that there may be some cementum laid down at the line of fracture.

Dr. Nash, who had been previously welcomed by the President, referred to the orthodontic scheme that he had initiated in Isleworth, the first of its kind in the country. An arrangement had been made with the Royal Dental Hospital for every orthodontic case to be sent there for examination and report by their orthodontist. The treatment advised was carried out at Isleworth. So far the scheme had been attended with considerable success.

DR. H. C. MAURICE WILLIAMS, the Deputy-Medical Officer of Health, has been appointed Medical Officer of Health of the County Borough and Port of Southampton.

THE forty-fourth Annual Conference of the Sanitary Inspectors' Association will be held in Bridlington from September 7th to 12th, 1931, under the Presidency of Sir Leonard Hill. An attractive programme has been arranged, and among the subjects to be discussed are methods of refuse collection and disposal; modern sanitary practice; housing; milk production and milk designations; insect pests and vermin; and meat and fish inspection. Full particulars may be obtained from the Secretary of the Association, 27a, Moreton Street, London, S.W.1.

THE Association of Maternity and Child Welfare Centres has recently published a pamphlet intended for husbands and fathers. This, it is believed, is the first attempt that has been made to deal in a simple outspoken way with some of the many problems of fathercraft. The contributors are doctors eminent in their profession and with special qualifications for dealing with the subject. Particulars with regard to cost, etc., may be obtained from Miss Halford, O.B.E., Hon. Secretary of the Association, 117, Piccadilly, London, W.1.

THE Housing and Health Exhibition hitherto organised by the Corporation of Glasgow, will, on the forthcoming occasion, be organised and administered by the *Daily Mail*, under the title of the Scottish Ideal Home Exhibition. This development will be carried out by arrangement with the Corporation and with its full support. The Exhibition will be held from September 30th to October 24th, 1931, at the Kelvin Hall, Glasgow.

The Literature of Preventive Medicine.

PUBLIC HEALTH PRACTICE IN THE TROPICS. By J. BALFOUR KIRK, M.B., Ch.B., D.P.H., D.T.M. and H., Director, Medical and Health Department, Mauritius. Churchill's Empire Series. London: J. & A. Churchill, 1931. pp. 498. 80 illustrations. Price 15s.

Apart from its value as a reliable guide to the practice of preventive medicine in the tropics, this work by Dr. Balfour Kirk, written in an exceptionally attractive manner, bears the imprint throughout of the author's long experience in colonial practice, which must impress the reader and convince him that, owing to certain conditions of environment, race, creed, religions and native prejudices, difficulties in efficient sanitary control are very real in tropical countries, and can only be met by a thorough understanding, not only of local conditions, but of the life and habits of native populations as well.

The volume is divided into two parts—preventive medicine and sanitation. A valuable chapter on tropical dietaries covers considerable ground on this highly specialised subject, which has not always in practice received the attention it merits, especially as to the energy requirements of the labourer engaged in agriculture or employed in mines and estates. Employers of labour in the tropics are more and more recognising the value of efficient and well-regulated dietaries in producing a healthier population and an increase in labour output, and they look to their public health authority for advice to this end.

The employment of epidemiological essentials to illustrate the preventive measures for each disease is happily achieved and is of great value to the student.

Special mention may be made of the excellent summary of the essentials of a malarial survey. The very full and clear description of the methods of obtaining the spleen rates, parasitic index and points to be noted as to the people living in the area under observation, will be helpful and of value to every intending malarial officer.

As to the vexed question of the value of quinine prophylaxis, the author is of opinion that if the administration is made sufficiently widely and in adequate dosage, it will be a great help as a measure auxiliary to anti-mosquito measures through its effect in reducing

the number of parasites in the peripheral blood of infected persons.

The section on sanitation deals in a practical way with important sanitary measures, such as town planning, the conditions of sanitation of markets, abattoirs and schools, milk supply, conservancy and water supplies. Few of the more recent sanitary requirements are omitted, although under conservancy some mention might have been made of the tube latrine, which has proved an undoubted success in America and in some of our colonies; and under refuse disposal, the system of controlled dumping might have been referred to.

When considering the problem of milk and milk supplies in the tropics, Dr. Balfour Kirk draws attention to the value of establishing and maintaining model dairies by local governments. A model farm and dairy, an excellent example of which is to be found in Trinidad and elsewhere, serves as an object lesson to farmers and owners of small dairies, while at the same time its great value lies in the establishment in the colony of strains of milch cows giving high yields of excellent milk.

There are many well chosen illustrations and, particularly, excellent charts and tables which contribute greatly to the value of the book, which should be in the hands of all health officers and sanitary inspectors practising in tropical and sub-tropical countries.

INSTITUTIONAL COOKERY AND DIETETICS. By HELEN B. WEIR, Glasgow and West of Scotland College of Domestic Science. London: Longmans, Green & Co., 1930. pp. 111. Price 3s. 6d. net.

This book is offered as a reference book for those who have to cater for numbers. The early chapters give a brief outline of the principles of dietetics on which all such catering should be based, and discuss the constituents of food, processes of digestion, and caloric values. Following on this is a practical lesson on kitchen management on an institutional scale, including directions how to buy and store and to estimate costs. The remainder of the book consists of recipes and sample menus based on the author's own experience. This is not an ordinary cookery book; it supplies the kind of information that is not readily obtainable, and should be very useful for the purpose for which it was written.

ANTE-NATAL CARE. By W. F. T. HAULTAIN, O.B.E., M.C., B.A., M.B. (Camb.), F.R.C.S.E., M.R.C.P.E., M.C.O.G., Senior Assistant Obstetric Physician and late Special Assistant to Ante-Natal Department, Edinburgh Royal Maternity and Simpson Memorial Hospital, etc.; and E. CHALMERS FAHMY, M.B. (Edin.), F.R.C.S.E., M.R.C.P.E., M.C.O.G., Assistant Obstetric Physician and Special Assistant to Ante-Natal Department, Edinburgh Royal Maternity and Simpson Memorial Hospital, etc. With Foreword by Professor R. W. Johnstone, C.B.E., M.A., M.D., F.R.C.S.E., F.C.O.G., M.R.C.P.E., Professor of Midwifery and Diseases of Women, Edinburgh University. Second Edition. Edinburgh: E. & S. Livingstone, 1931. pp. 127. Price 5s. net.

A medical publication which has embarked upon its second edition with the promptness of Haultain and Fahmy's "Ante-Natal Care" merits a full measure of congratulation.

On consideration of the contents of this book, there is the feeling that the authors, faced with the description of a relatively new subject, have adhered too closely to the subject matter of their basic reference—the Manual of Midwifery.

Thus, the administration of an ante-natal department—vital reading for the newly appointed officer—is disposed of in a bare five pages. The actual description of diseases of pregnancy, however, is thorough and illuminating and the treatment suggested is in accordance with the consensus of modern expert opinion. Particularly there may be commended the detailed description of the Aschheim-Zondek test in the diagnosis of pregnancy, and the very useful suggestions for differentiating between true toxæmia and chronic nephritis.

On the other hand, as matters which may not be accepted with equanimity by all readers, there may be mentioned the administration of pituitrin in cases of eclampsia and the advocacy of veratrine in the treatment of this disease. Again, the bald suggestion that vulval veins may be successfully sclerosed by injection treatment in the later months of pregnancy may lead the overcredulous reader to court disaster if only through injecting concentrated solutions of quinine during this critical period.

Dr. Haultain and Dr. Fahmy may be regarded as pioneers who have undertaken to

blaze a new trail; therefore, a greater measure of destructive criticism must naturally fall to their lot than to that of the writers on more conventional subjects.

SEX AND DISEASE. A Contribution to Sex Education and the Prevention of Venereal Diseases. By ROBERT V. STORER, M.R.C.S. (Eng.), L.R.C.P. (Lond.). London: John Bale, Sons & Danielsson, Ltd., 1931. pp. 150. Price 4s. 6d. net.

Originally published in Australia so recently as April, 1929, this book ran through three editions in just over a year. Because of this success it has been thought worth while issuing the fourth edition in this country. The aim of the book is mainly at ignorance and to make available in a handy, clear and readily available form such information as will get rid of such ignorance.

As evidence of the usefulness of the book in Australia and of the recognition it has been given, Dr. Purdy, Metropolitan Medical Officer of Health, Sydney, provides an introduction in which he praises and commends the volume. Generally this praise and commendation are deserved, and may be repeated here.

FANNY JANE BUTLER. Pioneer Medical Missionary. By E. M. TONGE. London: Church of England Zenana Missionary Society, 19-21, Southampton Street, Fitzroy Square, W.1. pp. 54. Price 1s. net.

Fanny Butler was the first qualified medical woman to go to India, in 1880, and this book, with a foreword by the late Dame Mary Scharlieb, describes her early life and training, and her eight years of pioneer work in Bengal and Kashmir.

She is first shown as the efficient and self-effacing member of a large Victorian family, distinguished by a wish for more education than was easy of attainment for women of that day, and by the strength of her religious and humanitarian convictions. An appeal by Dr. Elmslie of Kashmir for a woman medical missionary for India came to her notice, and determined the direction in which her convictions were to find expression. Although not in sympathy with women doctors, she proceeded to study and qualify herself at the London School of Medicine,

obtained practical experience in various hospitals in this country and in Ireland, and proved herself to be a brilliant student. Finally, at the age of thirty, she sailed for India, under the Church of England Zenana Missionary Society, and started work at Jabalpur in the Central Provinces. Her early struggles; the gradual progress of her works in various parts of India; her devotion to and popularity with her patients, and her premature death from dysentery at Srinagar in 1889, are eloquently described by the author.

Fanny Butler's work in India opened the way for many others, and in places where she opened small dispensaries there are now large hospitals with Indian medical women beginning to co-operate. The medical needs, however, are still not met, and the book ends with an appeal for more women medical missionaries for India.

In the Annual Reports.

DIPHTHERIA IMMUNISATION—DIVERGENT VIEWS. Although one or two districts in the State requested the Department to carry out active immunisation of children against diphtheria, it has not been considered advisable to undertake this work at present. A few years ago the Department embarked upon a campaign of active immunisation in various parts of the country, but owing to an unfortunate happening in a neighbouring State this work was discontinued. It is a fairly common practice when a case of diphtheria occurs in a family where there are other susceptible children to protect the latter by using antitoxin as a prophylactic. Usually no objection is raised by parents to the use of antitoxin in this way, but strong opposition still exists against any form of active immunisation. As there is at present little hope of achieving any progress in widespread active immunisation of the susceptible section of the population, it can hardly be expected that there will be any substantial reduction in the incidence of diphtheria. Use of antitoxin at the earliest possible moment when a child is suspected to be suffering from diphtheria gives the best chance of saving its life, and antitoxin used as a preventive for close contacts of the case undoubtedly serves a useful purpose in limiting the disease.—Dr. Robert Dick, Director-General of Public Health, New South Wales.

It is most encouraging to observe the favourable response to the campaign for immunisation against diphtheria. Recently, at the local authorities' conference, a very cordial reception was accorded to an address given by the health officer on immunisation, and at the conclusion of which the delegates showed themselves to be wholeheartedly in favour of this prophylactic measure. The very favourable results now being obtained from immunisation performed previous to the Bundaberg tragedy, together with the good work now being carried out by the Chief Medical Officer of the Department of Public Instruction, are most encouraging and, with the new and very

rigid technique, immunisation should become general, to the obvious advantage and well-being of the people.—Dr. John Coffey, Commissioner of Public Health, Queensland.

THE International Register of Spas and Medicinal Waters is the title of a booklet of twenty pages compiled by the Standard Measurements Committee of the International Society of Medical Hydrology, 55, Wellington Road, London, N.W.8. The object of the publication is the regularisation of data regarding spas and medicinal waters in all parts of the world. The amount of information given is very large, and must inevitably prove of extreme value. Copies of the first edition (1931), may be obtained from Messrs. Headley Brothers, 109, Kingsway, London, W.C.2, price one shilling each.

The Anti-Rheumatism Campaign.—Figures relating to the work of the British Red Cross Society's Rheumatism Clinic in Peto Place, Regent's Park, London, during last year suggests that the institution is fulfilling a need and is likely to become increasingly useful. Of 229 patients, referred to the clinic by approved societies, 41 per cent. of men and 55 per cent. of women were able to continue at their work throughout treatment. A further 29 per cent. of men and 25 per cent. of women were able to resume their normal work as the result of treatment. Thus, on the completion of treatment, a total of 70 per cent. of men and 80 per cent. of women had sufficiently improved to be able to follow their usual occupation. Of the remaining cases, a number were suffering from an advanced form of rheumatism, and it was not anticipated that treatment would be more than palliative. For the first five months the work at the clinic, which was opened by the Queen in February, 1930, was largely experimental. It was new, and had, therefore, to feel its way. During this period, numerous difficulties in connection with the arrangement of rooms, apparatus and staff were met and overcome. As a result of this experience, the clinic was closed for the month of August, and extensive alterations made to rooms, and additions made to staff and equipment. The average weekly attendance, which in June was approximately 740, rose in October to over a thousand. For the same two periods, the average attendances of private patients were approximately 134 and 213 respectively. Since September 1st, the maximum capacity of the clinic has been 450 patients per day.

Correspondence.

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

RICKETS IN LONDON SCHOOL CHILDREN.

To the Editor of PUBLIC HEALTH.

SIR,—I have just read with interest, in the issue of PUBLIC HEALTH, for July, an account of the Symposium on "The Pre-School Child," which took place at the meeting of the Society held on April 17th last.

I note that Dr. M'Gonigle, referring to the incidence of rickets, is reported as saying:—"The medical officers of the London County Council had stated that there was something like 80 per cent. among the children."

I presume that Dr. M'Gonigle was referring to the findings of the medical officers of this Department who examined 1,638 London children for the five "signs" of rickets described by him. Dr. M'Gonigle is of opinion that if two or more of these signs are present the child should be regarded as rickety. Among the London children, 66.1 per cent. showed more than one sign. As is stated in the Second Interim Report of the Board of Education's Committee on Adenoids and Tonsils, where a full description of the investigation is given, the presence of one or more of these signs does not necessarily indicate the presence at any period of the child's history of a recognisable form of the disease, but some degree of the vitamin deficiency which is the known cause of the disease. The statement attributed to Dr. M'Gonigle might lead to the conclusion that what is ordinarily known as "rickets" is very prevalent in London, whereas the truth is that the incidence of clinical rickets in the metropolitan area is relatively small.

I am, Yours faithfully,

F. N. KAY MENZIES,
County Medical Officer of Health
and School Medical Officer.

July 15th, 1931.

FREE SANITARY ACCOMMODATION FOR WOMEN.

To the Editor of PUBLIC HEALTH.

SIR,—May I take the liberty of pointing out one source of dirt, disease, ill-health and discomfort which exists in almost every London borough and in the provinces. This is, the

great lack of clean, free water closet and urinal accommodation for women. Men have large numbers of free urinals provided everywhere; women have to walk long distances to find conveniences and then have to pay pence to use them.

The one free water closet in a district for women is used by the very dirtiest women imaginable, and by children and poor women and girls who cannot afford 2d., 3d., and 4d. daily for the use of water closets when out on their work or for a day's holiday. Of course, there is a general prejudice against using free lavatories when only one is provided, but were many more reasonably clean ones provided, as in Westminster, their use would become as general as in the Westminster conveniences.

Women are being urged continually to drink more for the relief of their many ailments, and then they are penalised in the use of urinals and water closets.

In provincial towns such as Canterbury, Deal, Sandwich, Maidstone, and seaside towns such as Brighton and Herne Bay, one single free water closet would be very hard to find; on the railways and by the bus companies women are also penalised in this matter.

I have written a great deal on this subject, but so far only the London County Council can see any reason for more free water closets for women, and I now appeal for the position to be considered in all fairness, and that health committees be recommended to provide in future many more free clean urinals for the use of women who would thus be educated to the same standard of health in this matter that men at present enjoy. The lessened revenue from women's conveniences could be met by possibly less accommodation for men.

I am, Yours faithfully,

(MRS.) A. LOIS WYBORN.

3, Dulverton Mansions,
Gray's Inn Road, London, W.C.1.
July 13th, 1931.

[The Medical Officer of Health of St. Marylebone, though well aware of the danger, and futility, of claiming priority, nevertheless expresses the belief that the council of that borough was the first, in London at any rate, to instal free urinettes. This was at Oxford Circus Convenience in July, 1910. As a matter of fact, in St. Marylebone there is, at the moment, free accommodation in all of the women's lavatories, the actual total number of free urinettes being six.—*Ed., P.H.*]

PUBLIC HEALTH

THE JOURNAL OF
THE SOCIETY OF MEDICAL OFFICERS OF HEALTH.

No. 12. Vol. XLIV. SEPTEMBER, 1931.

PUBLIC HEALTH, the Official Organ of the Society of Medical Officers of Health, is prepared to receive a certain number of approved advertisements. Application should be made to the Executive Secretary of the Society, at 1, Upper Montague Street, Russell Square, London, W.C.1. Subscription price 31s. 6d. per annum, post free in advance. Single Copies, 2s. 6d. post free.

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Editorial.

Cerebro-Spinal Fever.

RECENT happenings suggest that the need exists for an authoritative statement with regard to the epidemiology and characteristics of cerebro-spinal fever ("spotted fever"), and the Memorandum of the Ministry of Health (Reports on Public Health and Medical Subjects, No. 65)* could not have arrived more opportunely. Amplifying and replacing that issued by the Local Government Board in 1918, this present publication discusses the subject under the two main heads of general considerations and characteristics of the disease, and control and treatment. Under the former are set out the known facts and particular theories with regard to clinical, bacteriological and pathological features, infectivity and mode of spread by healthy carriers. Particularly in the last-named con-

nection it is noted that under ordinary conditions the meningococcus is incapable of growth or survival at temperatures much below that of the human body, so that indirect infection is of relatively little importance. The great majority of infections, it is believed, are derived from persons who, for the time being, are unrecognised carriers of the meningococcus. Under the head of control and treatment is to be found information of the greatest moment to the health officer, although, unfortunately, it is not large in amount or particularly striking. The need for early and repeated lumbar puncture is stressed, and full instructions are given as to the method of carrying it out, reference being made particularly to the description given by the late Dr. C. B. Ker (he was not, as stated in the report, a professor) in his work on "Infectious Diseases." The use of the "one

* H.M. Stationery Office, 1931. Price 6d. net.

known specific remedy—anti-meningococcus serum” is urgently recommended, though one of the avowed objects of the review is to indicate the difficulties to be faced in endeavouring to assess the value of the available serums and of the different dosages and methods of administration employed. The great trouble is insufficiency of data, and the memorandum contains an appeal to medical officers of health, hospital medical officers, and practitioners, to supply the Department with information regarding the serum treatment of individual cases in the form indicated in the report. Some reference is made to the procedure in regard to contacts and also to general precautions to be adopted. Unfortunately, these do not amount to very much more than hints of a very general nature, under the latter head stress being laid upon the need for avoiding overcrowding, in dormitories particularly, where the space between adjacent beds should never be less than three feet. It is unnecessary to say that the memorandum is extremely well prepared and will be of real value to health officers.

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Mental Hospital Accommodation.

IN an important circular (761) on mental hospital accommodation the Board of Control draw attention to the fact that the Mental Treatment Act has been in operation since January 1st, 1931, and point out that as the facilities for mental treatment without certification under the Act become more widely known, there may be an increasing demand for treatment under those provisions, which will necessitate a review by local authorities of the accommodation available. At the same time, the shortage of mental hospital accommodation generally has become acute, and will oblige many local authorities to consider what steps should be taken if they are to maintain a reasonable standard of efficiency and progress in this service. Though there is no increase in the incidence of mental disorders, the number of persons under care continues to increase because the total population and the average age of the population are both increasing.

There is now practically no margin of accommodation in the public mental hospitals. On January 1st in the present year there were only 27 hospitals with ten or more vacant beds on the male side, and 19 with ten or more

vacant beds on the female side. There are practically no unoccupied beds the use of which authorities can obtain by contract with other authorities. Moreover, the practice of taking beds on contract, though useful in special circumstances, is strongly to be deprecated if it involves sending patients so far from their homes as to make visiting by their relatives prohibitive by the expenses.

The standard of accommodation laid down by the Board is a minimum standard based on long experience, and a departure from it would be injurious. Overcrowding is not only bad for the patients' mental and physical condition, but imposes unnecessary strain and may involve danger for the nursing staff.

Local authorities, therefore, will have to consider increasing the accommodation for mental patients and there are two main ways in which this can be done, *viz.*, either by redistribution of patients among the various types of institutions now under the control of the local authority, or by the provision of new mental hospitals.

As regards re-distribution there are four possible alternatives:—

(i) The utilisation of beds in public assistance institutions for the quiet chronic cases or senile cases, whose condition does not necessitate treatment of the kind that can only be given in the relatively more expensive beds of a mental hospital:

(ii) The removal from mental hospitals of mental defectives, who can be far more economically provided for in poor law premises or in mental deficiency colonies:

(iii) The granting of leave of absence on trial and boarding out, or discharging suitable patients to the care of relatives or friends:

(iv) The provision in connection with an existing mental hospital of an admission unit and convalescent villas where these do not already exist.

In this connection it is pointed out that every mental hospital, whether full or not, should have this accommodation which has become imperatively necessary in view of the provisions made for the treatment of voluntary and temporary patients under the Mental Treatment Act.

The second main alternative is the construction of new mental hospitals, and the Board point out that there will be some authorities who will find themselves compelled before long to build such institutions. Local authorities

who have no right of ownership in any mental hospital and who, therefore, have to secure by contract beds for patients for whom they are required to provide accommodation, are particularly concerned with this aspect of the question. As the shortage of accommodation generally becomes more acute, notices terminating existing contracts are being given and some authorities will have no alternative but to make provision themselves. The circular suggests that the problem could best be approached by means of local regional conferences when consideration might be given to the possibility of uniting for the purpose of providing a joint mental hospital. It is the Board's intention to stimulate the holding of such local conferences for this purpose; and the circular has been issued to assist the local authorities in envisaging the main considerations which should determine the extent and nature of any additional accommodation that may be necessary. Where new buildings prove to be essential, the expenditure involved is not likely to be serious and in most cases would represent only a small fraction in the local rates. The provision of accommodation for the insane is, moreover, a statutory obligation which local authorities are bound to meet, and the purpose of the circular is to assist them to frame plans to meet the existing shortage in a manner which will be, in the long run, conducive to the most efficient and economical administration of the service.

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Health Education.

EVER since the commencement of this century, there has been a change in the orientation of public health activities, and attention has been directed less to the environment and more to the individual and to ways in which he can be influenced to obey the laws of healthy living. This has been seen in the duties devolving upon local authorities with the passing of the Education (Administrative Provisions) Act, 1907, and the institution of the school medical service: of the Insurance Act of 1911, followed by the Tuberculosis Regulations of 1912, and the creation of the tuberculosis service: of the Notification of Births Act, 1907, and the rise of the maternity and child welfare service; and of the Venereal Diseases Regulations of 1916, and the inauguration of schemes for the treatment and prevention of venereal diseases. In all these matters, the

key-note of education in order to promote health and prevent disease can be clearly heard.

The public interest which had led to these enactments had also brought about the foundation of a number of voluntary societies, each concentrating on some special sectional interest such as tuberculosis, venereal diseases, milk, smoke, infant welfare, cleanliness, crippling, and so on, and from the point of view of the medical officer of health there was a risk of a disturbance of the balance of interest and importance properly attaching to each section.

For such reasons as these, the Society in 1927 felt it wise to create yet another body, whose prime functions, however, should be co-ordinating and advisory rather than executive, and the Central Council for Health Education accordingly came into being with a broad constitution, having some fourteen or fifteen medical officers of health nominated by the Society, together with representatives of the Ministry of Health, the Association of Municipal Corporations, the County Councils' Association, and the Associations of Urban District Councils, Education Committees, and Insurance Committees.

The object of the Central Council is to advise and assist local health education authorities and insurance committees in the work of health education, and to secure for this purpose the help of all bodies engaged in research in preventive medicine and in the diffusion of knowledge on health matters. It is, therefore, a body which has been formed, not to diffuse knowledge itself, but rather to assist others in doing so.

So far as regards co-ordinating functions, it may be noted that:—

(a) The Council has been so fortunate as to secure at the London School of Hygiene a room in which is displayed a permanent exhibit of material upon health education. The voluntary health associations and other bodies affiliated to the Council have co-operated by supplying their health propaganda material, which is exhibited in an attractive and instructive way, and the exhibit can be recommended to all medical officers of health seeking guidance in the health education of the public.

(b) The Council receives for comment and approval the posters, films, leaflets, etc., of the various voluntary associations, and gives its official seal of approval to such as merit it, in a number of instances after suggesting modifications.

(c) A handbook of health exhibits and of

health films, with synopses and invaluable information as to length of showing time, has been compiled. In connection with health exhibits an attempt has been made to get a balanced exhibition, formed by contributions from the various specialist societies, which should be available *en bloc* to local authorities.

(d) Private conferences of considerable educative value have been held with the National Union of Teachers, Industrial Insurance Societies and Friendly Societies as to methods of health education applicable to the individuals with whom they are respectively concerned.

(e) Certain health films and lantern slides have been placed in charge of the Central Council and are available for those who are desirous of using them, subject to payment of the cost of carriage. In this connection, the eclipse of the silent film has not been lost sight of, and discussions have taken place with certain commercial firms as to the possibility of production of health "talkies."

(f) A conference is held annually to keep health education before the public and to discuss with affiliated societies rational methods of health propaganda. The Central Council was so fortunate last year as to have Lord Riddell in the Chair, and the interest and support of one so closely in touch with the National Press have proved of distinct value.

It has not been possible, however, to limit activities to advice and co-ordination, and the Central Council has been regularly supplying to the Press Association articles written and signed by senior workers in the public health service, and these articles are extensively used by the London and provincial Press. The value of some of these articles as ordinary "copy" is so highly thought of by one or two of the big London dailies that they are, by arrangement, produced without acknowledgment to the Central Council, as it has been explained that the public fight shy of the article openly labelled "educational."

With all its activities, the Central Council is probably best known through its monthly magazine, *Better Health*, which has now reached a circulation of 300,000 copies. In its make-up, the magazine consists of a particularly well-produced inset, with a few pages of advertisements of national interest, followed in general by a local cover with locally written health pages and some local advertisements. The production of this magazine is widely and justifiably believed to be the most valuable

activity with which the Central Council is associated.

The work of the medical officer of health in the future will be directed more and more to the education of the public in the way of healthy living, and from what has been said it will be seen that the Central Council for Health Education possesses the machinery for helping in this work.

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Instruction in Tropical Medicine and Hygiene.

AFTER consultation with the Colonial Office and the Conjoint Board, the authorities of the London School of Hygiene and Tropical Medicine have now divided the course of study in these subjects into two parts:—Section A, a three months' course of Clinical and Laboratory Instruction, and Section B, a two months' course in Tropical Hygiene. Each section has been so designed that it can be taken independently of the other, and the Conjoint Board are arranging for the dates of the examinations to follow closely upon the end of the corresponding course of study.

The examinations for the School Certificate will be discontinued, and students will be encouraged to sit for the Diploma examination held by the Conjoint Board—the D.T.M. & H. (Eng.). Application has been made to the University of London for recognition of the revised course of study as a recognised course for Associate Students, and every student at the School, whether sitting for the Diploma examination or not, will be entitled to apply to the University for a certificate of attendance at the recognised course of study.

The dates of the courses for the Session 1931-32 are as follows:—

SECTION A.

(Clinical and Laboratory Instruction.)

1st course: September 29th—December 18th, 1931.

2nd course: January 4th—March 24th, 1932.

3rd course: April 11th—June 30th, 1932.

SECTION B.

(Tropical Hygiene.)

1st course: January 18th—March 18th, 1932.

2nd course: April 18th—June 17th, 1932.

The course of study at the School for the University of London Diploma in Public Health has been revised so that the period of study is now covered by nine months' whole-time work.

The course of study for the D.T.M. & H. and the revised course for the D.P.H., as well as the course for the Diploma in Bacteriology and other special courses, all commence at the end of September or the beginning of October. All inquiries should be addressed to the Secretary of the School at Keppel Street, Gower Street, London, W.C.1.

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The Welfare of the Blind.

THE Advisory Committee on the Welfare of the Blind, which has done so much in bringing about the closer association of the voluntary societies and the Ministry of Health, has recently issued its ninth report*.

It reviews the new position which has been created by the passage of the Local Government Act, 1929, and discusses the probable effect of the distribution of the block grant by the local authorities upon the development of work among the blind.

Whereas in the past the voluntary bodies were able to look to the Ministry for help and guidance in their affairs, and the duties of supervision of workshops, training schools, etc., were carried out by the Ministry's inspectors, these duties now devolve upon the local authorities, who have to satisfy themselves as to the efficiency of the voluntary services rendered in relation to the amount paid from the block grant, and it is thought that the result will be a closer relationship with the voluntary bodies than hitherto. The report mentions the desirability of retaining voluntary effort for financial and social purposes.

The claims of this unfortunate group of fellow citizens which, until the passing of the Blind Act, had been championed only by voluntary bodies, have now, since its gradual operation, been brought to the knowledge of the members of the local authorities, and some of the complicated issues which are involved in the matter have been brought into more general discussion.

The report does not mention the prevention of blindness in infancy. This may be because the great amount of success attending preven-

tive action by the public health departments no longer requires to be insisted upon.

Some concern is felt on account of the increased number of blind persons registered as too blind to perform work for which eyesight is essential. This is thought to be due to more effective registration rather than an increase in blindness, and the opinion is expressed that it is desirable to take further steps than have already been taken in connection with the prevention of blindness.

The education provision for the blind child has been so much increased that, with the supplementary admission of partially sighted children, the problems of this class have to be considered with the future of the totally blind child, and it emerges from the report that the major issue now before those interested in the matter is their future placement in industry; also the report points out that with increased attention being given to the blind the future occupation of trainable adults is an urgent question.

Associated with this the report points out that industrial organisation, perhaps ultimately even on a national scale, may be the necessary outcome of the present state of affairs in which a considerable group of relatively small workshops are endeavouring to purchase raw material, manufacture products and market them as individual units.

A research and placement committee is at work endeavouring to help in the solution of trading problems which have been increased by the industrial depression.

There is a short discussion on difficulties which arise from the aggregation of blind persons from adjacent areas in the centres where training or more generous financial assistance is to be obtained. The schemes for home workers are facilitated by the withdrawal of the Ministry's grant regulations which allow local authorities to place a wider interpretation on the occupations to be followed by the blind when working in their homes, and attention is drawn to the need for improved domestic training for all blind and partially blind girls in institutions in the hope that they may be able to obtain a possible opening in domestic service.

While some parts of the report would not be of interest to the general reader, the document is indispensable to those who are associated with the blind problems which are now engaging the attention of local authorities and voluntary agencies.

*H.M. Stationery Office, 1931. Price 6d. net.

The Ventilation of Cinema Theatres.

By WILLIAM E. HAIGH, F.R.C.S., D.P.H., D.T.M., Assistant Medical Officer of Health, County Borough of Derby.

The cinema, from the hygienic point of view and more particularly that of ventilation, is a problem that has troubled health departments for some time, and is likely to continue to do so. The investigations by Dr. Haigh constitute a most useful contribution to knowledge on the subject and in the direction of a solution, and will be as greatly appreciated by readers as it was when submitted at a meeting of the East Midland Branch.

THE perfecting of motion pictures led to the evolution of the cinema as a purely business proposition; there was money in it, and astute persons wishing to participate in the high returns arising from full houses obtained various buildings, such as derelict skating rinks, disused chapels, halls, etc., ventilated by natural means, for which they obtained licences, followed in due course by newer constructions *ad hoc*.

Increasing popularity led to the change from two or three repetitions to the continuous performance, the buildings being open from 1.30 or 2.30 p.m. with the disadvantages of absence of periodic flushing of the hall and the accumulation of warm, moist air, general stuffiness and wall condensation.

Being free-and-easy places, without restriction as to smoking, a general fogginess of the atmosphere was possible, and, in my opinion, at first, the introduction of exhaust ventilation as an accessory, when provided, and the use of accessory side fans, was borne in upon managements more for the removal of tobacco fumes than for real ventilation. Managers have pointed out with pride that their fans will clear away tobacco smoke in a very short time!

The more recent introduction of the "talkie" will rather tend to increase the difficulties by the use of methods which will deaden outside or corridor noises and further impede the natural inflow of air.

In accordance with our British practice, we only step in where there is direct danger, and control naked lights, risk of fires, provision for flight in case of panic, etc. Such matters as ventilation, stuffiness, danger to health or eyesight may be the subject of investigation after a series of complaints, but do not seem to be adequately dealt with in the control of designs or alterations of buildings submitted to our building committees or city architects, save in the most general way. Local bye-laws may be loosely framed, with the proviso that "the ventilation must be satisfactory."

It must be admitted that good ventilation is very difficult to define in any specific case until it has been tested.

The popularising of the cinematograph for public exhibition has produced a new series of factors of considerable importance to the public health. The halls are frequented by many thousands of people each week, including large numbers of children; the custom of continuous programme demands a supply of fresh air for adequate ventilation on a scale much greater than for ordinary public halls; the possibility of such congregations of people being a means for the spread of air-borne disease; the comparative absence of the purifying effect of sunlight.

In this matter of ventilation some local authorities have instituted investigations, but these have frequently been limited in outlook by the old theories of carbon dioxide increase. The bacteriologist may have been called in to take a hand, but his most difficult researches rarely determine the chance presence of pathogens, and find little but moulds, chromogenic cocci or the bacillus subtilis.

It is characteristic of all modern work in ventilation that the comfort of the individual has been taken as an index of good ventilation. Physiological and chemical analysis of altered metabolism, body heat, etc., may all be used in markedly uncomfortable conditions, but the absence of marked reactions of the human body is not a sufficient guide to comfort. There is no more delicate test of the healthiness or otherwise of any scheme of ventilation than the comfort of the individuals subjected to it. Flugge and his pupils studied the effects of temperature and humidity, and showed experimentally how these physical conditions were the chief factors in ventilation.

In the first decade of this century the classical work of Haldane and his colleagues stressed the chief problems of ventilation as the removal of excessive heat and moisture.

Probably no more important work in ven-

tilation has been done than that of Leonard Hill and his co-workers, who stressed the need of suitable air movement to produce comfort. His introduction and perfecting of the Katathermometer, and the wide application of this instrument by Vernon and others, has appealed to the scientific world, and has been a means of determining standards of comfort in industry or for measuring small degrees of air movement. Prior to this work, the wet and dry bulb thermometer was the only other means available, and whilst this instrument indicates the results of change in given conditions, the Kata helps in recording the rate of change of state in the air, at body temperature.

Part of Vernon's work has been the determination of sensations of air movement according to an agreed scale of Kata readings; he believes that "acclimatisation" is an important factor, and concludes that Hill's suggestion of a minimum "cooling power" of 6.0 by dry-Kata, for workers in sedentary occupations, is not necessary at moderately high temperatures.

The American school of workers on ventilation have dealt with the variables that go to make the conditions of a comfortable or uncomfortable atmosphere, namely, dry-bulb temperature, humidity and air movement, and have combined these variables to a single figure which they call the "effective temperature," but Vernon argues that the simpler dry-Kata reading is better, because we appropriately vary our clothing to neutralise temperature differences.

It is obvious that research into what is comfort will give different results in different climates, and we all know how the American can never keep warm in England, and *vice versa*, how the Briton always complains of the excessive heat of rooms in New York, etc., largely because we take with us our racial predilections and habits of clothing—in our case, woollen under-garments; in theirs, loose cotton or silk. By the same reasoning, if a standard method is applied in different countries, at different latitudes, with differences in prevailing humidity, the final adjudication of comfort must rest with the individual and not with the instrument.

When, in May, 1928, I was asked to undertake a research and report upon the ventilation of cinemas in Derby, I found that the field was almost untilled. Davidson had done some work in Birmingham, published in 1919; Liverpool had undertaken private enquiries

(unpublished), both by carbon dioxide estimations. Porter and Cluver carried out investigations in Johannesburg in 1921, at one season of the year only, in which, for the first time, Leonard Hill's work and instrument were applied, and in which they adopted Winslow's scale of personally recording comfort. They came to the conclusion that carbon dioxide estimations were useless under their conditions, and that a Kata standard was a suitable measure of controlling the ventilation of houses of amusement.

Badham, Medical Officer of Industrial Hygiene to the Government of New South Wales, in 1925, commenced a series of investigations of a most elaborate and scientific character, in which he employed the Katathermometer along with every other known means of testing ventilation, but it was impossible to obtain his report anywhere in London and I only received a copy through the courtesy of the Australian High Commissioner much later, after my work was finished.

My investigations were commenced in the summer of 1928, and, for purposes of comparison, were continued during the following winter; a full report was presented to the Estates and Improvements Committee of the Derby Corporation in 1929, which report will appear in the Medical Officer's annual report for 1930. The papers of Walton and Dixon, read at the Middlesbrough meeting of the Royal Sanitary Institute in March, 1930, are valuable, but their records, taken in 1929, seem rather scanty.

Badham's work in Sydney commenced with a survey of all cinema theatres as to seating capacity, volume of theatre, volume per person, situation and aspect, available natural ventilation, plenum ventilation and the calculated number of air changes per hour that it will give, exhaust ventilation and the calculated number of air changes per hour, plant for the production of local air movement, such as wall or ceiling fans, and observations as to the present state of the plant. Then followed observations for obtaining complete data of the ventilation, which was also assessed by the "comfort votes" of his staff, according to his own scale, precautions being taken to see that the observers became accustomed to the indoor conditions. His data comprised outdoor and indoor wet and dry bulb temperatures, wet and dry Kata readings and air movements computed from the dry Kata readings: carbon dioxide concentrations (Haldane,

Doherty or Pettenkoffer) and, in some cases, anemometer readings and carbon dioxide concentration in the fan chambers to find data for the air change per hour, the Sydney regulations demanding eight changes in any theatre.

Practical considerations in England demand much less, and one must devise something which shall be unostentatious, and without fuss, requiring easily portable apparatus, and which will not be likely to annoy the managements, whose co-operation we desire. The method of enquiry I adopted was successful, in that it achieved this co-operation and enabled me to visit and re-visit the cinemas for carrying out tests without any objection being raised.

Method of Inquiry.—Each cinema was first visited in the morning in order to establish contact with the management; to get as complete a survey as possible of structural details by a daylight view, and to observe the methods of cleaning. Information was obtained on the following points:—

Programme: hours of; whether continuous.

Seating: type and number.

Lighting: type; presence of windows; daylight admission.

Heating: type of radiator; position to air inlets.

Ventilation: general; inlets and outlets in detail; accessory air inlets; exit doors, etc.

Fans: principle and dimensions; number; accessibility; who controls.

Cleaning: methods; dry or wet; use of disinfectant; when done.

Projection screen: angle and surface; distance from nearest seats; angle to side seats.

Furnished with a mental picture of the hall, one made visits for assessing the conditions obtained during the continuous programme on popular nights; (a) during the warm summer months, often when the weather was sultry, and (b) during the winter, often in cold spells. A comparison was thus established between the conditions found with a moderately high atmospheric temperature and those obtaining when the building was artificially heated.

At each visit the approximate number present in different parts of the hall was noted, information obtained as to the number which had occupied the hall, and the relative degree of comfort as indicated by the senses was re-

corded. Note was made as to whether exhaust fans were in action.

It was decided at the outset to neglect any observations on the carbon dioxide present, but to take readings with the Katathermometer (used dry only) in those parts of the building which, by reason of construction, would be most difficult to ventilate adequately.

The outfit employed could be carried in a small bag, namely, the Kata; a thermos flask of hot water; a cloth for wiping the bulb; a stop-watch and a pocket electric torch; these can be manipulated in the half light of a cinema, in any part of the building with the minimum of obstruction and with little display to draw the attention of the spectators, and this quietness and unostentation were greatly appreciated by the managers. A practical point arises in certain halls; the red column of the instrument may be difficult to see, and the makers (Messrs. J. Hicks) have informed me that they are prepared to make a special instrument with a black column at a slightly increased cost.

At the time the readings are taken, the subjective feeling of the atmosphere is recorded, which I assessed according to Winslow's scale using the five designations: cold, cool, comfortable, warm, close, for the part of the building under test.

For greater accuracy of comparison, should continuous records of the "cooling power" of the air in any one place or part of a building be required, it would be necessary to determine the "cooling power" of the air immediately outside at about the same time; this would depend on the general temperature, because the "cooling power" of the air, as indicated by the dry-Kata, varies with the temperature. In practice an external observation is not often required under ordinary weather conditions.

The factor of temperature must be considered, because the velocity of the air movement impinging on the bulb must be greater under conditions of higher temperature to give the same cooling power. If we can arrive at a standard indicating adequate ventilation we thus consolidate the balance between the factors of air movement and temperature. For the most desirable conditions in our climate an indoor temperature of from 59° to 65° F. is usually accepted, and this factor of temperature has been most easily brought into line in the bye-laws suggested for the control of theatres and cinema halls in Johannesburg, viz., "provided that in no case shall the dry-

Kata reading indoors be required to be higher than 1.5 below that obtained in the open-air immediately outside the house." The practice of hanging a thermometer on the back wall of the auditorium and of the balcony is, therefore, desirable in order to control the conditions in cinemas.

What "Standard" to Adopt?—The wider applications of the Kata-thermometer to ventilation in special processes in industry, based on exhaustive researches, led to the general adoption of 6.0 as an attainable standard for dry readings. This figure can be attained where special means of exhaust ventilation are adopted, and where buildings are designed with adequate and properly placed air inlets.

It must be remembered that such a standard is applied where workers are hard at work, producing much body heat, and is not so essential if they are sitting or at rest.

The cinema hall is a much more difficult proposition as the air inlets are variable, and are controlled in part by the ingress and egress of the audiences, also variable; no open windows are possible save such as can be properly screened, and many cinemas do not possess windows. Under these circumstances a standard of 5.0 dry-Kata can be accepted as more likely of attainment. (Badham recommends for Sydney theatres that the dry-Kata reading should not be less than 6.1 at 61° F., and not less than 4.8 at 70° F. outside temperatures.)

The results obtained in Derby during 1928 and 1929, from observations made under differing conditions of outside climate and air movement, greatly differing sizes of audience and therefore of air ventilation, and widely differing types of control of inlet ventilation, with the general application of exhaust fans as the chief controlling factor to ensure air movement, show that such a standard (dry-Kata 5.0 as minimum) is very desirable, and can be attained in most of the Derby cinemas, under present conditions.

The recorded observations on which this report was based numbered 45; the minimum of 5.0 was obtained or passed in 14 out of 16 observations in winter, and 13 times in 28 observations in summer, a dry-Kata reading of 4.6 or more being obtained in 23 of the latter. The worst readings obtained were 3.53 in summer and 4.3 in winter, both in the worst ventilated portions of cinemas packed continuously on popular nights, and indicating that the ventilation was inadequate in that part

of the hall at that time. The best readings were 6.3 in summer, approximating to the condition of the open-air at the same time, and 6.5 in winter, when conditions were warm and comfortable. In order to avoid any bias, the personal estimate of comfort was made before any readings were obtained. With one exception, if the conditions were assessed as "comfortable" the "cooling power" of the air, as estimated by dry-Kata, was 5 or over.

Ventilation.—In properly designed buildings, natural ventilation is now replaced by artificial means for sucking out vitiated air, and the use of electrically-driven exhaust fans provides an adequate method of removing the products of respiration and combustion. Fans are generally placed in the false roof, for accessibility, and are so arranged that a current of air from the ceiling grids is constantly moving outwards, in some cases through the end wall, in others through ducts leading to the ventilating shafts in the roof.

With such fans, if of sufficient number and diameter, brought constantly into action there is no difficulty in removing vitiated air. The rapid removal of tobacco smoke from the atmosphere when fans are turned on provides ocular evidence of their value.

Working of Exhaust Fans in Derby.—Each theatre is fitted with exhaust fans which vary in number and diameter, also in position. No fans were found to be out of order. In some cases they are controlled from the operator's box; in others from separate switches downstairs; and the employment of the fans depends on the discretion of the management. Fans are not always brought into action during afternoon shows.

In one cinema an illuminated clock-face indicator placed by the side of the screen reads "Fans now working," and is, presumably, in circuit with the control switches of the fans.

The provision of a red light or similar indicator, in circuit with the fans, would be a very desirable method of control in all cases.

Air Inlets.—The provision of fresh air and the desideratum of at least four complete renewals per hour is a much more difficult problem. Too much reliance is placed on the exhaust fans for the conquest of all difficulties, and on the presence of the various exits which must be provided for safety in case of fire, whilst the provision of permanent openings for the admission of air varies greatly in number, position and superficial area, or may be entirely absent. Air enters in some cases

through grids placed in the side walls, either high up or at knee level behind hot water radiators, with or without means of closure. Others rely on windows which can be partially opened, or are provided with hopper tops; others again, on grids near the top of the stage or on movable doors behind the projection screen, to be opened at discretion. There is a noticeable absence of perforated bricks, Tobin's tubes, Sherringham valves and other simple forms of permanent opening.

A review of the conditions in any one place shows that the windows may be closed; movable doors, being out of sight, may be kept shut; the exit doors may be kept curtained, and some of them never used; these doors may lead into passages instead of into the open air, and little perfusion of air may be possible in such passages. The whole scheme of maintaining adequate ventilation becomes a matter of chance, and depends on the control of a busy management. As a matter of experience the "closer" the conditions of a theatre, the more those sitting near the doors resent their being open for fear of chilling; hence one cannot place great reliance on any of the visible air channels being opened and kept open for even short periods.

The conditions obtaining could be still further improved by due care, in many cases within the means at the disposal of the management, but in others further provision of permanent inlets is necessary. Given that the fans may or may not be put into action at the beginning of the performance, or may be shut off if the numbers present are small, and that the shows are of a continuous character, it is desirable that there should be occasional flushing with fresh air, at each repetition of the pictures, by the free opening of all doors and windows for a brief interval. Where this is done, the atmosphere is rapidly freshened, and the Kata reading becomes higher. Where balconies are provided, dead corners may occur, and there is a tendency for vitiated air to accumulate at the back. Conditions at the front of the balcony are as comfortable as in the body of the hall. In general terms, the conditions at the back of the balconies on crowded nights are less satisfactory than those in the bodies of cinemas, as indicated by Katathermometer readings, and as these contain the most expensive seats it behoves the respective managements to watch carefully the ventilation and comfort.

Agitator Fans.—The function of this type of fan is to set the air in motion locally. They do not assist the ventilation in the ordinary sense and might be looked upon as producing a false sense of security, but with our modern views of the need of air movement on the skin to aid skin evaporation, and the value of steadily moving air in comparison with stagnant air, these are of real value. They are essential in all offices, dining rooms, public rooms, etc., in warmer countries, and have a distinct place in modern schemes of comfort.

Windows.—Sunlight, with its known purifying effect, should not be excluded from halls where large numbers of people congregate, and the full use of windows, where present, unobstructed by curtains and kept open during and after cleaning operations, has great value.

Heating and Lighting.—Electric lighting is now general. Heating is generally provided in winter by hot-water circulating systems, with radiators placed in series along side walls; an air-inlet may be provided behind these if the structure of the building allows. Gas radiators, unless provided with individual fume outlets, are not desirable. As shown by the Kata readings, conditions are more satisfactory in winter than in summer, so that no fault can be found with the heating.

Cleanliness and Methods of Cleansing.—From the point of view of control of deleterious dust, the methods adopted are satisfactory in nearly all cases. Dry sweeping alone is not desirable. Impregnated shavings ("kildust" or other) are distributed prior to sweeping up, and a cresol disinfectant is sprinkled or used in washing down in most places; upholstered seats, carpets, etc., are generally vacuum cleaned, but the periodicity of this varies.

Projection Screens.—The clearness of modern pictures, and their freedom from flicker, is very satisfactory.

The position of the screen with regard to the front rows of the cheapest seats provided certain points for discussion, as the centre of the screen may be distant from the head of an observer on the front seat only 15 or 16 feet, whereas the best are placed 22 feet away. The angle of vision from the side seats in the front row is often very acute, as the alignment of seating is made parallel with the screen; this angle may be less than 45°.

It is a matter of common observation that these front seats are occupied by children in considerable numbers, and the question of eye-

strain has to be considered. It is very fatiguing for an adult to look upwards for long at a brightly illuminated picture slightly out of focus, and the position of the child is worse. Sir John Herbert Parsons, F.R.S., has reported on this matter: "Probably the worst source of fatigue is due to the screen being placed too high, or the front seats too close to the screen. This necessitates continually looking upwards, whilst at the same time converging." This particular muscular effort is the most tiring of all the eye movements. "Very lateral view of the screen is also to be avoided, especially near the front. It causes distortion of the figure of the picture, which also exhibits a mechanical jerkiness of movement." My own experience confirms the above.

There is no limit prescribed for the distance of eye from screen, but 15 feet seems to be too near.

Summary.—Following an investigation of this character, a summary of the conditions found in Derby may be of more general interest. A large concourse of people meet in the cinemas, much greater than in any other public buildings; upwards of 10,000 people can be accommodated in the ten halls licensed for regular cinematograph exhibitions (the number has since been increased). The programmes are continuous, and it may be accepted that more than 20,000 people will attend these spectacles on Saturday nights.

In these halls, the superficies of floor space allowed per person varies from 3·8 to 6·9 square feet. The minimum air space allowed per person (obstructions excluded) varies from 57 to 189 cubic feet. All save one approximate fairly to 120 cubic feet per head, which figure is recognised as a good standard.

Standards of air supply based on analysis of carbon dioxide in the air are considered to be inadequate and misleading.

The Katathermometer, used with dry bulb, provides a suitable means for determining the "comfort" conditions in a crowded hall, i.e., sufficiency of air change at suitable velocity, described as the "cooling power" of the air.

Readings taken with this instrument enable one to determine whether the ventilation is satisfactory at the time of observation. The use of this instrument is simple in practice, and causes no obstruction nor annoyance during manipulation.

A tentative standard of 5·0 dry-Kata, as a minimum, has been adopted for application

to such theatres in certain places in the Colonies in temperature conditions such as may occur in our climate.

The results so far obtained in Derby show that the minimum of 5 dry-Kata is generally reached in winter, when the houses are about full, but that there is much more difficulty in attaining this figure in the warmer months of the year.

Few houses are supplied with an ordinary thermometer as a ready means of temperature control in the warmest parts.

All the regular cinemas of Derby are provided with exhaust fans which seem to function satisfactorily, but which, in many cases, are brought into action at the discretion of the management.

There is no standard in evidence as to the position, area or number of orifices for the admission of fresh air. It would seem that the architects have designed or altered buildings in many cases without taking into full consideration the question of ventilation for continuous performances.

The provision of permanently open air inlets is very variable; no two buildings are alike, and some halls have no such inlets. Most halls depend to a great degree on the natural ventilation through entrances and exits, which are generally closed, and on accessory doors, windows or grids which can be opened for supplying fresh air to cover the deficiency in permanent openings.

The practice of flushing the building with fresh air by opening all apertures at the time of repetition of programme is rarely adopted.

It has been demonstrated in every case that the ventilation is better towards the front of a large hall, near the stage, becomes worse at the back, under the balcony, and is worst at the back of the balcony, both in winter and summer, unless special means have been adopted for removing the vitiated air which tends to lodge in the dead space at the back angles of a balcony, and such means are applied. Small agitator fans are installed in some houses, generally in places where air movement is defective. These are brought into action at the discretion of the management, probably to remove tobacco fumes. They are not always well placed, and in most cases are too small for the purpose of maintaining local air movement.

The ventilation would appear to be more efficient in all the halls in winter, as compared with warm weather conditions, and this is to

be explained by the more rapid flow of cool air through doors, passages and ventilators into the warm building, but, at the same time, is accompanied by draughts in certain parts.

Better ventilation could be secured in the majority of cinemas with the existing plant and inlets, if the managements took the necessary steps to ensure continuous and efficient action of fans, and the reasonable opening of inlets; but in others, efficient ventilation cannot be achieved under conditions of continuous crowding unless further provision of permanently open inlets is made, with or without increased fan power.

The use of windows, where provided, for the admission of light and air during cleaning operations and until programmes begin, has a distinct benefit from the point of view of the public health when scrupulously carried out. The use of a "kildust" prior to dry sweeping, and the careful use of disinfectant, with the regular application of vacuum cleaners for all upholstery and carpets, are commended.

The position of the front seats in certain cinemas is so close to the projection screen as to be likely to lead to eye-strain, especially in children and adolescents who spend many hours at such performances.

Recommendations.—The following recommendations have been made to the committee which authorised the carrying out of this investigation:—

(1) That efficient extraction fans be kept continuously at work during the performance.

(2) That an automatic indicator, such as a coloured light, be fixed in a prominent position in the building to indicate when the fans are working.

(3) That adequate inlet openings shall be provided and kept open in such situations as will permit of uniform distribution of fresh air, and that some such, when not provided, should be placed behind the hot water radiators on the side walls, if the structure of the building allows.

(4) That the flushing of the building with fresh air by the opening of all doors, etc., at the times of repetition is desirable, and should be established where not in practice.

(5) That accessory means for maintaining air movement in balcony corners, etc., by means of moderately rotating agitator fans, suitably placed, is desirable.

(6) That all staircases leading to balconies should be efficiently ventilated.

(7) That such a standard of ventilation be prescribed as would be indicated by a minimum dry-Kata reading of 5.0, provided that, in exceptional weather, in no case shall this reading be required to be higher than 1.5 below that obtained outside in the immediate vicinity of the theatre.

(8) That every house be provided with thermometers, placed on the back wall of the auditorium and on the back wall of the balcony, respectively.

(9) That the maximum possible introduction of light and fresh air is desirable during cleaning operations, and that such cleaning should be as dustless as possible.

(10) That no new cinema hall be constructed without provision of windows of adequate size and made to open, in order to allow the admission of sunlight and fresh air during the day.

(11) That as far as possible the space allowed per person should be a minimum of 120 cubic feet.

(12) That where the distance from the centre of the projection screen to the eye of an observer in the front row of seats is less than 18 feet, such interval might be adjusted by altering the position of the screen. In certain cases, where the screen cannot be adjusted to such a minimum, the removal of the front row of seats would reduce the chance of eye-strain to individuals, and, at the same time, increase the air space per person so as to approximate to the above standard.

(13) That any defects in fans or other means of ventilation should be reported immediately to the managers, and a book be provided in which records are kept, stating the nature of such defects, when discovered, what steps taken to effect the necessary repairs, etc. Such records to be available for inspection by the justices on application for the renewal of the licence.

(14) That the practice of occasional inspection, and of taking records of the temperature in the auditorium, the condition of the atmosphere and Katathermometer observations, is desirable for the maintenance of efficient ventilation and comfort, especially on crowded nights.

DR. HELENA M. SHANKS has been appointed an Assistant Medical Officer in the Greenock Health Department at a salary of £400 per annum.

Ut Ita Dicam.

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

Talk of Health Visitors and Sanitary Inspectors.

Dr. Ethel Cassie, in her presidential address to the Maternity and Child Welfare Group—which, because it has already appeared elsewhere, cannot therefore, as it should, find a place in this journal—had a great deal to say of the training, position and functions of the health visitor that is important and interesting. The thing about it that pleased me most was that she appeared to be perfectly satisfied with the description "health visitor" and did not hanker after that other title, "public health nurse," which, clumsy and inaccurate as it is, seems to appeal to a certain number of people here. The reason why Dr. Cassie might be satisfied with our own name is probably that she is exclusively concerned with maternity and child welfare work and has no school medical work to do. Even if she had, however, I should still hope that "health visitor" would be good enough for her. Personally, I like it as a name, and the people amongst whom the individual so named works, if they think about it at all, should like it too. It describes the job very fully: she is a visitor and she visits for health purposes. She has nothing to do with nursing, and I imagine the women in this country whom some would like to call or find an excuse for calling (ugh!) public health nurses, have mighty little in the nature of nursing to do either, in the vast majority of the houses they visit.

What's in a Name?

Who it was who invented the name "health visitor" I do not know: certainly, however, he was very much more successful than the individual who put the title "inspector of nuisances" or "sanitary inspector" on the statute book. So named, it seems to me, the office was almost damned from the beginning, and it is to be wondered how the persons adopting the calling have been able to triumph over it. In fact, that "inspector of nuisances" was an incomplete description was early recognised, and long before 1875 and the passing of the Public Health Act, which once more reintroduced the older and uglier name, it had been changed to "sanitary inspector." Why there

was chopping and changing in the early days I have never been able to make out. The reason for the change in recent years is, of course, well known and obvious. The office had become a very different thing from what it had originally been intended to be. The officers themselves, seeing the developments that occurred and how the field of their operations had extended from the mere policeman or inspector for nuisances to taking a share in the higher hygienics, epidemiological work, food protection and so on, considered, and rightly, that in their title there should be some indication of the fact. That they should have been satisfied with the word "sanitary" surprises me. They knew it, of course, to mean health, but why did they not press for "health" and press, too, for the abolition of the word "inspector"? Clearly they had become something more than inspectors. Inspection, in fact, was only a part of their work, quite a considerable portion of it being educational of all kinds of people in hygiene, environmental and personal.

An Improvement on "Sanitary Inspector" Wanted.

Dr. Cassie, who holds that the health visitor is mainly a teacher, since she suggests no alteration in this title, appears to think "visitor" sufficiently good as a description of one who goes into the homes to teach. What a pity, when changes were in the air in the days following the armistice, that the title "health visitor" was not made to apply to all non-medical officers in the health service, male as well as female! There is really no good reason against it: there is nothing actually womanish about it. So far as the men are concerned, it would have got rid at once of that tendency, evinced abroad, particularly, but here as well, to under-estimate the value and importance of the work done by the sanitary inspector and the position he occupies, and is certain to improve, in the service, simply because he is labelled "inspector" and the older-fashioned and more high-brow word "sanitary" is employed in place of "health." The people who have the greatest difficulty in understanding who and what is meant by "sanitary inspector" and why the office is given

so much importance are, of course, the Americans. To them the inspector's duties are purely police duties and his position is negligible. Working in or about a public health department here, the guest cannot avoid hearing of and coming in contact with the inspector. Over there, even at the end of weeks, unless special enquiry is made, no sign or sound of such an officer is given. In time, possibly, the officers in the States may come to assert themselves as their opposite numbers in the home service have done. If and when they do, I suggest they try to find some other word than "inspector" to describe the office.

Urban Powers for Rural Districts.

If one may believe certain party organs, the inclination of Government to accept recommendations of Royal Commissions and such like is not great. Apparently, however, it is not shared by all departments of the Government, and conspicuously not by the Ministry of Health. This has been shown recently by the issue of an Order (The Rural District Councils (Urban Powers) Order, 1931) in which effect is given, as far as is possible at present, to the recommendation in the final report of the Royal Commission on Local Government that the statutory powers, as distinct from duties, of urban and rural districts councils should be more closely assimilated. The enactments applied by the Order are contained in the Public Health Act, 1875, and the Public Health Acts (Amendment) Act, 1890. A copy of the Order has been sent direct to the medical officer of health for each rural district, and though it does not, on the surface, appear that many of the new duties will fall to be performed personally by him, with several he may be regarded as having a certain concern. The duty of handing a copy to the sanitary inspector is imposed upon the authority. The date upon which the Order comes into operation is September 1st, 1931, and upon that day it applies to every rural district. The fact that it does so is to be advertised by each such council, though in order to save expense it is permitted that two or more authorities may make joint publication of the fact. In the advertisement, specific reference is necessary to the various enactments that will apply, but in order to simplify procedure for the authorities and to save the officers work in preparing an advertisement, a draft is given in the circular (1199) which accompanies the Order.

The 1875 Act Powers Transferred.

Amongst the new powers in the 1875 Act conferred, those relating to the provision of public walks and pleasure grounds and clocks and offices and the licensing of pleasure boats and such like, though extremely interesting, from the health executive's point of view are less important than those dealing with the making of byelaws under section 44 (relating to the prevention of certain nuisances) and under sections 157 and 158 (relating to new buildings). The power conferred by sections 42 and 45, in relation to refuse collection and disposal may or may not be regarded as an unmixed blessing by the authorities, although unquestionably, if made use of, it might conceivably add to the convenience and comfort of the residents. Largely, in this connection as in several others, e.g., the power to make byelaws for preventing the keeping of animals on any premises so as to be injurious to health, it will be necessary for the councils to take into consideration all the needs and circumstances before deciding that it is necessary and justifiable to make a move. The power to provide public conveniences which will be secured when section 39 begins to operate as from September 1st is another that few rural authorities will employ until they are convinced as to the need. Even in deciding to make byelaws with respect to new streets and buildings under the powers granted by sections 157 and 158 as well as section 23 of the 1890 Amendment Act, the possibility will have to be considered that unnecessary burdens may be imposed upon persons likely to be affected, if the powers are employed and the byelaws made. The fact that there will certainly be expense involved in administering any byelaws is one not likely to be overlooked in these days of agricultural depression.

Powers in the Act of 1890.

Very many of the new powers acquired under the 1890 Act look like involving expenditure also, if they are put into operation: for example, those relating to tree planting in roads (section 43); the maintenance of statues and monuments (section 42) and of public clocks (section 46); the erection of cabmen's shelters (section 40); and so on. A number of the provisions have reference to the making of byelaws, e.g., under section 26 (2) for the prevention of nuisances in connection with the carriage of faecal or offensive or noxious matter or liquid; for preventing

danger from whirligigs and swings and shooting ranges (section 38); and so forth. Important new powers that it may be hoped will be made use of are those in section 24, which prohibit the occupation of a room over a privy, cesspool, midden or ashpit as a dwelling place, sleeping place or workroom: in section 27, enabling the council to cause any court or any passage leading to the back of several buildings in separate occupations (common courts and passages) to be swept and cleaned; and in section 35 requiring cellars and such like under streets to be kept in good condition and repair. These last powers, it may be noted, are not to be exercised except with the consent of the county

council. Similarly, the powers in relation to cabmen's shelters, statues and monuments and the provision of refuges, etc., in streets can only be exercised with the consent of the county council, who must also consent to the institution of proceedings against persons who may, without authority, as provided in section 26 of the Public Health Act, 1875, erect buildings over sewers or construct cellars under the carriageway. Gradually, it will be seen, as a result of the operation of orders such as this, the distinction between town and country procedures is being swept away. Which may or may not be a pleasant thing for contemplation by the councils and others. P.

The Position of the Sanatorium in the Treatment of Tuberculosis.

By RICHARD R. TRAIL, M.C., M.A., M.D., M.R.C.P., Medical Superintendent,
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This paper, which was found extremely interesting and attractive by the members of the Southern Branch to whom it was read, will be enjoyed equally by others, whether they are engaged exclusively in tuberculosis work or are working in the field of public health generally.

A PERIOD of residence in a sanatorium is still the most important link in the present-day chain of measures in the treatment of pulmonary tuberculosis. It is, however, but one link—the central link; it is not the be-all and end-all of treatment, and it can only reach its maximum of efficiency and attain its best result if it be supported by the very necessary links on either side: the link of diagnosis and choice of case, which ought to be the work of the tuberculosis officer, and the link of after-care, the work of the after-care committee, again under direct control of the tuberculosis dispensary. A sanatorium ought to be an institution devised on the essentials of return to nature; a place where patients are taught to live and work on hygienic lines. It is not a luxurious building, not an erection of bricks and mortar with a maximum number of windows for the production of draughts, not an extension of a lean-to in a back yard. It is a community of people living a healthy life, imbued with a single-minded purpose, and each strengthened in that purpose by the force of the community feeling. It is a training school where the patient is put on systematic

lines to teach him how to avoid re-infecting himself and infecting his fellow men, and to increase his resistance to such infection as he already has in an effort to return him to a wage-earning capacity at his own work.

Simple as these ideas may seem they are very difficult to apply. Sanatorium life is bounded by restrictions; it is certainly monotonous, and means a break with the distractions of home and social life to which the patient has been accustomed. It follows that it is at variance with most of the schemes that are still being put forward for home treatment. It implies the application of strong will and the inculcation of new ideas on careful routine, to be adopted not only while resident in the sanatorium but for after-life. The patient is purposely secluded from sympathetic, well-meaning relations; he must learn to put away the old ideas of coddling, because such ideas will lead to disaster. These points ought ever to be before the tuberculosis officer who advises sanatorium treatment; they ought to be considered in the selection of cases, and at least hinted at, if not elaborated, to a prospective patient. The moderately advanced

case who is thus prepared for treatment has a far better prognosis than the earliest case ever diagnosed who is not minded to submit himself to the hard school of an efficient sanatorium. Once the sense of routine has been taught and the patient has seen in himself and in others what it can attain, he may, by a further application of strength of will, carry out such treatment at home and so diminish the length of his residence and the expense to himself and the state; but he must have had the training in a properly equipped and organised institution, and such continued routine must be carried out under the expert guidance of the tuberculosis officer or consultant who saw him before his admission to the sanatorium and will see him at short intervals over a period of at least two years after his return to civilian life.

It is probable that most cases of tuberculosis, apart from the now rare case of "galloping consumption," can be definitely benefited by such treatment, but it is wrong to believe and to teach that every case of tuberculosis should be sent to a sanatorium. Granted that the cry of the "early case" has attained the weariness of the tale already told, some selection on extent of disease is still desirable. We all know there are very few early cases; the case that should be selected for treatment is one that is likely to attain such a result as to be restored to some wage-earning capacity and thereby justify the expenditure. The frankly advanced case is necessarily debarred; the fibrotic case with much superimposed infection in the late middle-age and elderly patient is also generally unsuitable; it is not a kindness to send a chronic bronchitic to the open-air life of the sanatorium; the effort of the institution is wasted and the patient is miserable, as even the present-day tendency to modify somewhat the worst rigours of the weather cannot well be adapted to his needs. On the other hand, there is no doubt that the vast majority of present-day sufferers can obtain distinct benefit from treatment during which, by a graduated scale of work and exercise or, as it is better called, "graduated rest," they can be fitted for a return to work and enabled to carry on for a sufficient number of years to repay the cost. In other words, there are very few cases of early or moderately advanced disease who cannot attain clinical quiescence and be returned to an eight hours' working day under present improved conditions, pro-

vided they have been adequately prepared for the sacrifices of sanatorium life and during their residence taught how to rest in non-working hours.

We are still faced with the problem that many physicians tell us that the disease is already too far advanced before the patient has sought advice, but we hope that this will become rapidly less true in the future through the propaganda work of the tuberculosis dispensary and the more adequate teaching of the early signs and symptoms in our medical schools. Fortunately, more attention is being paid every year to the teaching of students in chest diseases, although it is evident that a great deal more could be done. The present curriculum is exceedingly heavy; there is no doubt that the tendency to make it more practical and less specialised ought to be intensified, for in this lies the hope of the future for the practitioner, for the sufferer from tubercle, and for the state. Since its institution by that grand old man, Sir Robert Philip, the tuberculosis dispensary has done admirable work. It goes further than the hospital out-patient department; it not only provides diagnosis by an expert, but it visits the home through its health visitor and often through its medical officer, and so gives an opportunity for the examination of possible contacts as well as for drawing attention to insanitary conditions, thereby combating sources of possible spread of disease. The value of its propaganda can hardly be overestimated in these days when the press is widely used for misleading statements on the curative value of quack remedies and patent cough mixtures. The dispensary, however, requires more adequate equipment than it usually has to-day. It should be brought into line with every method of modern investigation, including X-rays, and it ought to be in continual touch with at least one sanatorium where ideas of prognosis and, as a result, ideas of proper selection of cases can be gathered by its medical officers. It will follow that the patient will no longer be told that he requires "three months in a sanatorium"; it will follow also that the advanced case which requires segregation rather than treatment will be relegated to a hospital or home for advanced cases and not to a sanatorium. In the past, diagnosis has far too often been followed up by the words "three months in a sanatorium" used as a mere shibboleth, in the same way as it has too often been followed up by the

consultant with the words "three months in Switzerland." It is not enough to tell a patient that all will be well when he gets into the institution. Even a sanatorium expert, with years of experience on prognosis, is never foolish enough to commit himself on the results of treatment until he has seen the response to at least one month's residence. The early case may go all wrong; the moderately advanced case may attain "arrest," or be so trained that he can return to many years of useful life.

Every sanatorium must modify its routine according to its type of patient. While the basis of treatment must be alike in all sanatoria, those for working-class patients cannot be compared with sanatoria for middle-class or sanatoria for rich patients. The demoralising effect of the convalescent home, deleterious as it is in all cases, must be rigidly excluded in an institution intended for manual workers. Interesting work or occupation must be found for patients in all sanatoria, graded and applied according to the needs of the individual patient and strictly supervised by his medical officer, in order to protect the patient from that loss of the will to work which gives rise to the loafing and idling too often cast up as the end result by the critics of sanatorium treatment. In this connection it is interesting to watch the developments under the Welsh National Board of the system of completing the treatment of housewives by allowing them to run small cottages in the grounds of the sanatorium; there is no doubt that the patients under such a scheme will leave the institution convinced that there is nothing in the accommodation or the life that they lead that is not capable of being copied at home. It is the duty of the sanatorium to avoid the bad effects of unemployment. The patient must have his mind disabused of the idea that health and idleness are synonymous. Rest is certainly essential, but it should be "graduated rest." It follows that in all sanatoria the point of view of the worker being treated must be ever before the medical officer. Unfortunately, this main idea of the workers of some 25 years ago has been so crystallised under the term "graduated labour" that it is now the belief of many patients, and many a medical man, that certain definite schemes, originally intended to avoid demoralising loafing, are part of a cure to be applied relentlessly to every type of patient, whatever his training mentally and physically,

his social standing, or the civilian conditions of work to which he must return. Such schemes, however, cannot be applied without reason. An attempt must be made to reach the intellect of the patient, and while a certain amount of manual or exercise tasks are good for all, such tasks as are set must have some appeal to the patient's reason, and be laid along lines compatible with his education and social standing. It is as necessary, for example, for the intellectual worker struck down with tubercle, to have his brain suitably occupied as it is for the manual worker to follow schemes that will prevent that loss of muscular vigour on which he will depend for his livelihood on leaving the sanatorium. What is suitable for one class is boring, detrimental, and even dangerous to another. In other words, the sanatorium is a school where the patient is taught to live healthily and also to work healthily; a place which makes a complete investigation of his individual case, gives him expert physical and X-ray examination, and uses every adjunct of modern methods in order to arrive at an assessment of his condition and prognosis, and from this basis starts him on a routine of graduated rest that will improve that resistance and better that prognosis, always with a view to returning him to his own work as soon as possible. It may not be amiss to elaborate this point—that the patient is to be treated with a view to fit him to return to his *own* work. One still hears too much talk of the "open-air life for the tuberculous"; a far better, as less dangerous dictum, would be "sedentary work for the tuberculous." We believe in, and preach, rest and graduated rest; we must apply our beliefs to after-treatment as well as to sanatorium treatment. Open-air work usually means hard work and consequent fatigue; no one has a more arduous job, from the fatigue point of view, than, for example, the farm worker, insurance collector, or the commercial traveller. Sedentary workers now have good conditions in airy offices: some hundreds of bank clerks have been treated in this institution and are carrying on well at their own work to-day. Two factors are to be borne in mind; thousands of able bodied non-tuberculous men are looking for work and ex-sanatorium patients do not stand a chance to compete; again, a new type of work brings two added conditions that fight against the benefit accrued—mental worry in the learning of a new trade or profession, and the lower

social conditions consequent on smaller earning capacity.

There are, nowadays, many adjuncts to the mainstay of treatment, which is rest. There has been a criticism recently that sanatorium experts have given up their masterly inactivity and gone on to active interference with pneumothorax, but a little thought will show that pneumothorax is nothing but a further application of the principle of rest; it is an attempt to "splint" the lung in the same way as the surgeon would splint the tuberculous knee. There is little doubt that it is, at the present moment, the most efficient method of returning the patient to work as soon as possible. It has come to stay, and come to increase in its application, and it would seem that in the future it will be more and more applied to the unilateral case as soon as definite physical signs appear, since it has been proved that by it the patient can recover his working capacity much sooner than he can hope to do with safety by the slower method of natural cure. Most successful cases of pneumothorax treatment can be at work in about six months from the time of induction, as by then they are likely to be on an interval of something like a fortnight between refills. The increase of this method of treatment is bound to call for a reconstruction of dispensary routine in the near future. The technique, although not difficult to learn, ought to be held in the hands of experts and the hope for its future lies with the tuberculosis officer: the time must soon come when every tuberculosis dispensary will have facilities for doing private cases. Any slight disadvantage that might accrue from alterations in rules of whole-time duties to his council will be more than counterbalanced by his increased interest in the progress of methods of treatment; he will become a more efficient servant to his employing body.

A most important part of the sanatorium medical officer's work is the attempt to outline a careful routine for the patient before he leaves the sanatorium. This means, naturally, individual work and the giving up of much time, but there is no doubt that it is work that repays itself ten-fold. It is sad to see a patient who has left a sanatorium, and who does not know the meaning of an exercise temperature and its indications for rest, who has not been told how, in his own individual case, he may regulate the amount of rest he requires following his daily work, who has not been aided to apply his

training in the institution to his civilian conditions. The conscientious patient who has left a sanatorium in a state of quiescence, who religiously follows such applied routine on his return to work, and has combined with it the benefit of a periodical medical examination by the tuberculosis officer or consultant who sent him to the sanatorium and who, therefore, knows his condition before and after, can, in most cases, carry on a comparatively long and useful working career, and will be going on the best lines to attain a complete arrest of his disease. It is my own belief that the good results of pneumothorax treatment are as much due to the fact that the patient with pneumothorax is continually reminded of his disease and the necessity for stringent routine, as it is to the fact that his lung has been put out of action by the treatment. The lesson to be learned is obvious; more and more hand in hand work between the tuberculosis officer and the sanatorium medical superintendent must come if full benefit of present-day methods is to be seen. The dispensary must develop in the town, and the sanatorium in the country; one or other must be for the patient a centre to which he can frequently return over a period of not less than two years after his residential treatment, if he is to gain all that he can and ought to gain from what we have to offer him in his fight against tuberculosis.

DR. MARGUERITE ELEANOR CLIFF has been appointed an Assistant School Medical Officer at Preston.

THE next Conference of the International Union against Tuberculosis will be held at The Hague from September 6th to 9th, 1932, when the following matters will be discussed: Biological subject—"The Relationship between Allergy and Immunity" (name of opener to be announced later); clinical subject—"Gold-therapy" (opening report by Professor Sayé, of Barcelona); social subject—"After-Care Schemes for the Tuberculous" (opening paper by Dr. B. H. Vos, of Hellendoorn). According to the method adopted at the Oslo Conference, ten speakers, selected from different countries, will be designated to open the discussion on each of the three main subjects. Full details of the Conference may be obtained from the Secretary of the Union at 2, Avenue Velasquez, Paris.

The Mouth as a Focus of Infection.

By H. N. TIPLADY, L.D.S., Senior School Dental Surgeon, Swansea.

This short paper, the chief aim of which, according to the author, is to put the present position of this subject by giving a short summary of the recent findings from the investigations of the bacteriological flora found in apical infections, was read at a meeting of the Assistant Medical Officers' and School Dentists' Sub-Group of the Welsh Branch, and gave rise to a useful discussion.

DR. WILLIAM HUNTER, speaking at the Royal Dental Hospital in 1900, on "Dental Science and Studies and their Importance in Relation to Health," stated that, in his experience as a physician from 1880-1900, he had had his attention drawn to the importance of the teeth only from the point of view of mastication. The index of the *Lancet* for the period 1890-1900 made three references to teeth: One on the swallowing of a dental plate, and two on the importance of the teeth as an indication of the health of the patient. The state of medical and dental opinion at that period was that general diseases preceded dental disease and were the commonest cause of the latter. Hunter began to take a keen interest in the effect of dental disease and introduced the expression "oral sepsis." His observations and studies led him to the belief that many of the general diseases owed their origin to oral sepsis and, as he says, "by a remarkable coincidence unknown to me at the time, the chief diseases and disorders which I found most frequently owing their origin to dental diseases and the septic infection underlying them were precisely those enumerated as being the antecedent causes of such dental diseases."

He speaks of the daily drama of infection of the body, streptococcal infection, with the teeth and bone sockets as seats of its many pathological effects, and with a wide-spread range of medical and surgical affections in the body as the field in which are displayed the manifold activities of its poisonous effects.

Since 1900, recognition of a septic infection of dental origin has gained increasing support from the dental, medical and surgical professions, and from some of the most eminent physicians and surgeons in this country and in America.

In 1905, Sir William Osler gave his first public address as Regius Professor at the University of Oxford on "The Ideal of Dental Studies," and in 1927, Lord Moynihan, in his address at the Lister Centenary as President of the Royal College of Surgeons, added his surgical testimony.

In 1923, Sir William Willcox in his "Clinical, Pathological and Radiological Aspects of the Teeth and Gums" gave a clear exposition of the whole subject in an open discussion held at the Medical Society of London. He gave many facts from several hundred clinical cases and supplied conclusive evidence that, as he said, "leads one irresistibly to the conclusion that a very large amount of disease is due to dental sepsis."

He drew attention to the grouping of streptococci found in mouth infections:—

1.—*Hæmolytic Group*, causing severe toxæmias and the anæmias resulting from dental sepsis.

2.—*Viridans Group*, including those streptococci associated with rheumatic infections—*S. Salivarius* and *S. Faecalis*. These are toxic, giving general toxæmic symptoms and may give rise to arthritis, fibrositis and to cardiac lesions. They have both been associated with malignant endocarditis.

3.—*Indifferent Group*, which are not definitely associated with any condition.

He also pointed out that an important factor in the consideration of the general effects produced by dental sepsis is the secondary intestinal infection which may of itself cause similar general disease, for, in practically every case of this kind, examination of the stool and intestinal washings shewed a marked preponderance of streptococci similar to those found in dental lesions. The clinical conditions observed were gastro-intestinal complications, cardiac lesions, eye complications, nervous diseases, altered blood conditions and rheumatic conditions.

The criticism by the President of the Medical Society (Lord Dawson of Penn) had reference to the lack of very exact evidence available on this subject and need for organised team work between the radiologist, clinician and the bacteriologist. In reply it was stated that the subject was difficult, and the stage of proof had not yet been reached in regard to a number of diseases. In rheumatoid arthritis, for example, one rarely found streptococci in the joint, and,

again, it was known that nephritis followed scarlet fever, but no one had found the germs in the kidneys.

The same conclusions have been reached in other countries, notably in America, and a mass of clinical data showing the connection between dental lesions and degenerative diseases is available. An attempt has been made by painstaking laboratory investigations to justify these conclusions.

Rosenow, speaking at the annual meeting of the American Dental Society in April, 1930, gave a summary of a long series of experiments carried out by different workers in his laboratory over a period of fifteen years.* He found that the incidence of a dental focus of infection was extremely high in a study of a large number of patients suffering from systemic disease, and that the infecting organism was invariably a streptococcus. Using a pulpless dead tooth as his standard, he made cultures, aerobic and anaerobic, from the apex, guarding against contamination from the supporting structures during extraction, and injected the isolated streptococci into animals (rabbits and dogs). His results shew a very high incidence of elective localisation and, in some thousands of experiments, the percentage varies between 44 and 76. To take one instance, *S. Viridans* isolated from 29 cases of sub-acute bacterial endocarditis produced arthritis in 15 per cent., endocarditis in 76 per cent., and myocarditis in 9 per cent. of 109 animals injected. These facts have been borne out by Haden and Price—all three workers in widely separated places. Price stresses the seriousness of a dental focus of infection—"The physical nature of non-vital tooth structure provides protection from the defensive elements of the body and contains food elements suitable for developing biological changes in the contained organisms. These are expressed as changes in virulence or changed affinities."

The recent research carried out by Mr. Arthur Bulleid† by means of a grant from the Medical Research Council is chiefly concerned with the organisms found in dental lesions. The work has been divided into four sections: (1) apical granulomata, (2) chronic apical osteitis (other than granulomata), (3) acute alveolar abscess, and (4) cystic new growths.

* Focal Infection (of dental origin) and Elective Localisation, by E. C. ROSENOW, Mayo Foundation, Rochester, N.Y.

† Bacteriological Studies of Apical Infection. (Not yet published.)

Group 1.—Cultures by aerobic and anaerobic methods were made with scrupulous care, and the significant fact that emerges is that a member of the streptococcus group has invariably been demonstrated in all the cases of dental granulomata. Out of 80 cases, nine were *S. Haemolyticus*, 26 were *S. Viridans* and 45 were non-haemolytic streptococci.

Group 2.—In 20 cases comprising either dead teeth with rarefied apical areas or live teeth with absorbed apices the corresponding proportions were two, eight and ten respectively.

Group 3.—In 16 cases of acute alveolar abscesses, four were *S. Haemolyticus*, seven were *S. Viridans*, and five were non-haemolytic. *S. Haemolyticus* is met with far more often in these "flare ups" and suggests the possibility that exaltation of virulence may in some cases lead to the mutation of the non-haemolytic into the haemolytic.

Mr. Bulleid states that mice were used for the animal experiments, and in all fatal cases death resulted from a general septicæmia and no evidence of a selective infective process, such as that postulated by Rosenow, was observed in any of the experimental animals.

THE Right Hon. Lord Leconfield, Lord Lieutenant of Sussex and Chairman of the West Sussex County Council, has consented to act as President of the Forty-third Congress of the Royal Sanitary Institute, to be held at Brighton from July 9th to 16th, 1932.

THE Minister of Health and the Secretary of State for Scotland have appointed a Committee to inquire into the working of the law as to the composition and description of articles of food other than milk, and to report what alterations, if any, in the law or its administration appear to be desirable. The members of the Committee are:—Sir Frederick J. Willis, K.B.E., C.B. (Chairman), Mrs. J. L. Adamson, Mr. W. Barratt, Mrs. E. Beck, Mr. J. N. Beckett, Mr. G. A. Birse, Mr. H. F. Carlill, Mrs. M. E. Cottrell, Mr. A. T. A. Dobson, C.B.E., Mr. H. E. Goodby, Mr. J. M. Hamill, O.B.E., M.D., D.Sc., Mrs. Jean Roberts, Mr. R. A. Robinson, T.D., Mr. H. Shaw, D.L., and Mr. G. Stubbs, C.B.E., F.I.C., F.C.S. The Secretary is Mr. W. J. Peete, of the Ministry of Health, to whom all communications on the subject should be addressed.

The Society.

Reports, Proceedings and Announcements.

NOTICE.

THE NEECH PRIZE.

The Neech Prize of the Society of Medical Officers of Health for the best paper read at a meeting of the Society during the session 1929-30, has been awarded to Dr. G. C. M. M'Gonigle of Stockton-on-Tees, for his address on "The Biological Concept of Preventive Medicine," delivered before the Northern Branch and published in PUBLIC HEALTH, May, 1930.

The Prize, founded in 1921 by Dr. James Thomas Neech, sometime Medical Officer of Health for the County Borough of Halifax, is open to the members of the Society of Medical Officers of Health. The prize is awarded annually for the best paper read before a Branch or Group of the Society. No such paper shall be eligible for award unless two typewritten copies are formally sent to the Executive Secretary of the Society, except that in the case of papers published in PUBLIC HEALTH it is only necessary to notify the date of publication.

The paper must have reference to public health subjects, and originality and research will be taken into consideration. No consideration of seniority of membership or professional standing shall influence the award of the prize, which shall be open to all members of the Society.

Entries for the session ending September 30th, 1931, should be submitted on or before November 1st next.

THE METROPOLITAN BRANCH.

President: Dr. John Macmillan, D.S.O., M.C., M.O.H., Woolwich.

Hon. Secretary: Dr. James Fenton, M.O.H., Kensington.

The annual meeting of the Council of this Branch was held at the house of the Society on June 26th, 1931, the President occupying the chair. Sixteen other members of the Branch Council were present.

The Branch Council made the following nominations in respect of the under-mentioned offices in the Branch:—

President.—Dr. G. Clark Trotter.

Vice-Presidents.—Dr. J. Macmillan, Dr. J. B. Howell.

Honorary Treasurer.—Dr. F. L. Keith.

Honorary Secretary.—Dr. James Fenton.

Honorary Auditors.—Dr. E. G. Annis, Dr. A. M. Hewat.

Representatives of the Branch on the Council of the Society.—Dr. James Fenton, Dr. J. B. Howell.

It was decided to recommend that the Council of the Branch should consist of the officers of the Branch, all metropolitan medical officers of health who are members of the Society, one representative of each Group of the Society, the Medical Officer of Health of the London County Council and one of his medical officers, and two assistant medical officers of health, namely, Dr. Bulman of St. Marylebone and Dr. Thomson of Westminster.

The Branch Council extended a cordial welcome to Dr. Lennane on his return after illness.

It was agreed to recommend the re-appointment of the Emergency Executive Committee as follows:—The officers of the Branch, including the Hon. Auditors, and Drs. A. G. G. Thompson and W. A. Young.

The Branch Council had before them a memorandum on the staffing and administration of maternity and child welfare centres, which had been prepared by a special sub-committee of the Maternity and Child Welfare Group, submitted to the Council of the Society and referred by them to the various Branches with a request for their observations thereon. The Branch Council decided that the memorandum should be considered by the sub-committee appointed on February 27th, 1931, to deal with the question of convalescent treatment of babies and children, and that Dr. Calver, the representative of the Maternity and Child Welfare Group on the Branch Council, should be asked to serve thereon.

The Hon. Secretary read a letter from the Executive Secretary of the Society, giving particulars of a proposal to attach to the London School of Hygiene and Tropical Medicine a Research Fellow with the object of assisting field research work in connection with public health departments. The Branch

Council directed the Hon. Secretary to inform the Executive Secretary that they welcome the suggestion put forward and would be happy to help in securing success.

The Branch Council had before them memorandum 153/M.C.W. in regard to birth control, issued by the Ministry of Health in March, 1931, and it was agreed that, before any recommendation could be made, the Hon. Secretary should send a questionnaire to all metropolitan boroughs to ascertain what action is being taken.

Consideration was given to a letter from the Metropolitan Boroughs' Standing Joint Committee asking for the Branch Council's views on a suggestion by the Bethnal Green Borough Council that a second Rat Week earlier in the year, in the breeding season, should be held in London. The Branch Council considered that a duplication of the present Rat Week held in November would tend to diminish its effectiveness, and the Hon. Secretary was directed to inform the Metropolitan Boroughs' Standing Joint Committee that the Branch Council were not in favour of the suggestion.

The Hon. Secretary reported that he had received, in his capacity of Medical Officer of Health, an application from a general stores to sell milk in sealed bottles. It was decided to recommend that such applicants should be registered as purveyors of milk, but that the premises concerned should not be registered as dairies, and the Hon. Secretary was directed to communicate this decision to all metropolitan medical officers of health.

Dr. Hewat drew attention to the unsatisfactory results of chemical and bacteriological examination of samples of milk taken on delivery at various London County Council general hospitals, and requested that metropolitan medical officers of health should take samples of such milk on delivery, communicate the results of examination to the London County Council, and institute proceedings in appropriate cases.

The annual meeting of the Branch followed the Branch Council meeting, the President occupying the chair.

The Branch adopted the nominations made by the Council in respect of the various officers as set out above.

On his election, Dr. Clark Trotter was installed by Dr. Macmillan, the retiring President. Dr. Trotter then moved a vote of thanks, which was carried unanimously, to

Dr. Macmillan for his valuable and untiring service during his year of office, to which the retiring President replied.

The Branch adopted the recommendation of the Council in regard to the constitution of the Branch Council, and it was also agreed to invite Sir William Smith to serve thereon.

It was decided to adopt the recommendation of the Council respecting the re-appointment of the Emergency Executive Committee.

The report of the Hon. Auditors and the statement of accounts were approved.

The Hon. Secretary reported that Dr. Harley Williams, Medical Commissioner of the National Association for the Prevention of Tuberculosis, had offered to read a paper to the Branch on "Health Propaganda," and the Branch directed the Hon. Secretary to accept this offer and to make arrangements accordingly.

The Hon. Secretary read an extract from a letter from the Associated Portable Sound Equipments, Ltd., giving particulars of their apparatus and offering to give a demonstration to the Branch. The President and Hon. Secretary were requested to arrange for a demonstration if they considered it desirable.

The Branch considered a letter from the Executive Secretary of the Society asking for their observations on the memorandum of agreement in regard to the salaries of whole-time public health medical officers, and it was decided to inform the Society that they accept the memorandum as satisfactory in all respects.

THE EAST MIDLAND BRANCH.

President: Dr. C. Killick Millard, M.O.H., Leicester.

Hon. Secretary: Dr. J. A. Stirling, M.O.H., Chesterfield.

The annual meeting of this Branch was held at Bulwell Hall Sanatorium, Nottingham, on July 23rd, 1931, Dr. Cyril Banks occupying the chair. Eighteen members were present, and one member sent an apology for absence.

The annual report of the Hon. Secretary and Treasurer was read and adopted, and the Hon. Secretary was thanked for his services during the session.

The following office bearers were elected for the session 1931-32:—

President.—Dr. B. C. Stevens, Medical Officer of Health, Grimsby.

Vice-Presidents.—Dr. C. Killick Millard, Medical Officer of Health, Leicester; Dr. C. Banks, Medical Officer of Health, Nottingham.

Hon. Secretary and Treasurer and Representative on the Council of the Society.—Dr. J. A. Stirling, Medical Officer of Health, Chesterfield.

Branch Council.—Drs. W. M. Ash, H. L. Barker, W. S. H. Campbell, J. A. Fairer, H. C. Jennings, G. Lilico, A. Morrison, A. S. Newth, W. B. Stott, and A. C. Tibbits.

Co-opted Dental Member.—Mr. V. C. Carrington.

Councillor Lee, Chairman of the Nottingham City Health Committee, had very kindly made arrangements for the social side of the meeting, which included an inspection of the Sanatorium, games of bowls and tennis, and last but not least a golf match between teams representing the Branch and the Nottingham City Corporation. The match proved a very interesting one, the Branch winning by the close margin of five matches to four.

The sincere thanks of the Branch were accorded to the Nottingham City Corporation and especially to Councillor Lee for the very excellent arrangements made and the kindly hospitality provided.

THE NORTH OF ENGLAND TUBERCULOSIS SOCIETY.

(Tuberculosis Section of the Northern Branch of the Society of Medical Officers of Health.)

President: Dr. J. W. Gray, Wolsingham Sanatorium.

Hon. Secretary: Dr. George Hurrell, Tuberculosis M.O., Newcastle-upon-Tyne.

Five meetings of this Society were held during the session, as follows:—

Stannington Sanatorium, on November 1st, 1930, where a demonstration of X-ray films and surgical cases was given by Dr. T. C. Hunter and Mr. H. M. Johnston. This was followed by a tour of the institution.

Medical Institute, Windsor Terrace, Newcastle-upon-Tyne, on December 5th, 1930, at which papers were read by Drs. W. H. Dickinson and C. G. R. Goodwin upon "Some Aspects of the Canadian Scholarship Tour."

Medical Institute, Windsor Terrace, Newcastle-upon-Tyne, on May 12th, 1931. The agenda of the Joint Tuberculosis Council was discussed in detail, and the financial position of the Society was considered and found to be satisfactory.

Wolsingham Sanatorium, on June 12th, 1931, at which a paper was read by Dr. J. W. Gray upon "Sarcocrysin Treatment," illustrated by charts, case sheets and X-ray films.

The paper was followed by a discussion, after which members were conducted over the Sanatorium.

Barrasford Sanatorium, on July 25th, 1931. Officers were elected for the ensuing year, and a paper was read by Dr. C. G. R. Goodwin upon "The Treatment of Pulmonary Tuberculosis by Artificial Pneumothorax." This was illustrated by numerous X-ray films, and was followed by a tour of the sanatorium.

The present membership of the Society is twenty-two. The President-elect is Dr. R. Cunningham of Wooley Sanatorium. The committee consists of Drs. R. Cunningham, W. H. Dickinson, J. W. Gray, C. G. R. Goodwin and G. Hurrell. The representative upon the Joint Tuberculosis Council is Dr. W. H. Dickinson. The average attendance of members during the past year has been ten.

THE COUNTY DISTRICT GROUP.

President: Dr. A. B. McMaster, Dover.

Hon. Secretary: Dr. C. E. E. Herington, M.O.H., Erith.

The annual meeting of this Group was held at Glasgow on July 9th, 1931. In the absence of the President, Dr. G. F. Buchan took the chair. Twenty-five members were present.

The following officers were elected for the session 1931-32:—

President.—Dr. G. H. Dupont.

Vice-President.—Dr. A. B. McMaster.

Hon. Secretary.—Dr. C. E. E. Herington.

Representative on the Council of the Society.—Dr. C. E. E. Herington.

Executive Committee.—Drs. Adamson, Brebner, G. F. Buchan, Linton, J. F. McDonald, Powell, Orr, and Tapper.

Representative on the Metropolitan Branch Council.—The choice of a nominee was left in the hands of the Executive Committee.

The following were elected as Hon. Secretaries of the Sub-Groups:—

Welsh.—Dr. Severn, M.O.H., Pontypridd.

Eastern.—Dr. Black, M.O.H., Lowestoft.

Midland.—Dr. Horsburgh, M.O.H., Nuneaton.

East Midland.—Dr. Barker, M.O.H., Ilkeston.

Northern.—Dr. M'Gonigle, M.O.H., Stockton-on-Tees.

North-Western.—Dr. Marsden, M.O.H., West Lancs. R.D.C.

A memorandum requested by the Council of the Society in regard to recent resolutions offered by the Group was considered and approved.

The Literature of Preventive Medicine.

STATISTICAL METHODS FOR MEASURING OCCUPATIONAL MORBIDITY AND MORTALITY. International Labour Office (League of Nations), Geneva, 1930. Studies and Reports, Series N (Statistics) No. 16. London: P. S. King & Son, Ltd. pp. 208. Price 5s.

CANCER AND RACE. A Study of the Incidence of Cancer among Jews conducted under the auspices of the Jewish Health Organisation of Great Britain. By MAURICE SORSBY, M.D., F.R.C.S.E., Hon. Asst. Surgeon, Ear, Nose and Throat Department, London Jewish Hospital; Hon. Surgeon, Ear, Nose and Throat Department, Plaistow Children's Hospital; Registrar, Ear, Nose and Throat Department, Guy's Hospital. With a Preface by Lieut.-Col. F. E. Fremantle, M.A., M.D., M.Ch., F.R.C.P., F.R.C.S., D.P.H., M.P., Consulting County Medical Officer of Health, Hertfordshire. Published for the Organisation by John Bale, Sons & Danielsson, Ltd., London. 1931. pp. 120. Price 7s. 6d. net.

Statistics of occupation, cancer and race are beset with peculiar difficulties. Both these books show how some of the pitfalls may be avoided; the first by laying down the correct methods for expelling fallacies from the data at our disposal; the second simplifies the issue by comparing the incidence of cancer among Jews with that of the non-Jewish inhabitants of the same countries and towns. This latter work, therefore, continues and expands that of Sourasky. The general conclusion is that the Jewish race exhibits no peculiar susceptibility to, or freedom from cancer, but that, on the contrary, the mortality of Jews from cancer shows variations similar to those of the other inhabitants of the districts in which they dwell. On the other hand, the anatomical distribution of cancer in the Jewish race shows peculiarities which the author associates with the racial habits rather than the racial constitution of the Jews.

The publication of the International Labour Office is a most valuable contribution to the difficult subject of occupational statistics, and will serve as a guide to students of the subject. Itself a compilation from numerous official publications, it is impossible to epitomise it. There are ninety-seven graphs

showing at ages the general mortalities of about fifty-eight occupations, and also the mortalities from certain diseases in selected occupations. There is no better clue to follow through the labyrinth of occupational morbidity.

LES PRINCIPES DE LA METHODE STATISTIQUE.

By LUCIEN MARCH, Professeur à l'Institut de Statistique de l'Université de Paris; Directeur Honoraire de la Statistique Générale de la France. Paris: Librairie Félix Alcan, 108, Boulevard Saint-Germain. 1930. pp. 807. Price 125 fr.

The appearance of such a book as this is gratifying to the *esprit de corps* of a statistician. Text-books of statistics a generation ago were, for the most part, either primers for the use of students of political economy or were largely concerned with the description of data rather than methods. The French literature of the subject was particularly arid because, although French mathematicians have always contributed at least their share—often far more than that—to the development of the theory of statistical methods, the practice of statistics, especially of vital statistics, in France has lagged behind the theory. In this large treatise, the distinguished statistician, who until recently was the executive head of French official statistics, has set himself the task of explaining the principles and practice of statistical operations and has restricted himself to the use of mathematical technique within the educational range of any sixth form boy who is not specialising in mathematics.

The first part of the book is devoted to the important preparatory work of a statistician—collection of data, classification, tabulation, etc. The second part deals with the principles of analysis, much attention being devoted to the measure of variability and the fluctuation of group-means. In the third part, ostensibly devoted to applications, much space is given to the analytical value of the method of correlation, and, although a chapter is devoted to illustrations which have some interest to a medical reader, the majority of the examples appertain to the industrial or business world.

It is almost unnecessary to say that anybody who reads this book seriously will acquire a

great deal of valuable information and, as already implied, no reader need be deterred by consciousness that his knowledge of algebra is not above the by no means lofty standard of, say, the London Matriculation examination. As a book upon which a medical officer of health might begin his statistical studies, however, it can hardly be held to be quite suitable. It is common form to compliment a French writer on his lucidity, and certainly Professor March writes clearly enough. But it cannot fairly be said that his matter is very well or concisely arranged and that the reader is sure to grasp the inevitability, or even the importance, of some of the investigations to which he devotes much space. These remarks apply particularly to the chapters on the variability of groups and association of series. Here the author is virtually covering the ground traversed by the late Professor Tschuprow in two classical memoirs which were published in the *Skandinavisk Aktuarietidskrift* in 1918 and 1919, and his inferiority in clearness and precision to the Russian author is obvious. Professor Tschuprow likewise only used elementary methods (except at one or two points not essential for comprehension of the general argument) but makes the path he is travelling over, and why he is travelling over it, much clearer. Again, Tschuprow (whose name only appears once, and without bibliographical reference, in this treatise) has also expounded, in an elementary treatise, the rights and wrongs of correlation in a more satisfying way than Professor March. Given as a personal opinion, this need not modify the high praise offered to M. March for providing actual arithmetical illustrations of the methods he discusses.

SCIENCE AND HEALTH. By W. B. LITTLE. London: Sir Isaac Pitman & Sons, Ltd., 1930. pp. 183, illustrated. Price 2s. 6d.

"Science and Health" is well worthy of a place among its predecessors on Science in the Home, the Country, and the City. The growing tendency of modern youth of both sexes is to seek for information upon the functioning of the various parts of the body, and Mr. Little gives this information in a very delightful manner. The volume is commended to all persons interested in general scientific and physiological knowledge.

ELEMENTS OF WATER BACTERIOLOGY. With Special Reference to Sanitary Water Analysis. By SAMUEL CAPE PRESCOTT, S.B., SC.D., Professor of Industrial Microbiology and Head of the Department of Biology and Public Health, Massachusetts Institute of Technology; and CHARLES EDWARD A. WINSLOW, S.M., DR.P.H., Professor of Public Health, Yale School of Medicine. Fifth Edition, Revised. London: Chapman and Hall, Ltd., 1931. pp. 219. Price 12s. 6d. net.

The bacteriological examination of water supplies has now become fairly stabilised, both as regards its procedure and interpretation. Additions are made from time to time in the way of new methods, and experimental evidence accumulates as to the value of existing procedure, but in neither direction are they numerous or important. At the same time, a book bringing our knowledge up to date is of considerable practical utility. The volume under review may fairly claim to do this, while it is a sound, reliable guide to American practice, and, with some reservations, to English procedure.

Three chapters are devoted to the quantitative examination, and its interpretation, and both gelatine counts at 20° C. and agar counts at 37° C. are recommended. Rather undue space is devoted to minute points, since the practical value of these determinations has diminished in recent years. Throughout, the recommendations of the American Standard Methods Committees are adopted with very few reservations. The estimation of bacteria of the colon group rightly is discussed in detail, as well as the question of standards for different types of potable waters, but the guiding data lack clearness and definition. English bacteriologists will note with surprise the entire absence of any consideration of the use of bile salt lactose broth, and of lactose bile salt neutral red agar, the media most widely used in this country for the enumeration and isolation of the colon bacteria. The media recommended in the book are usually considered in this country as far inferior.

The most important recent development in water bacteriology has been the stress laid upon the differentiation between the high and low ratio types of colon bacilli. The credit for the emphasis upon the value of the differentiation is mainly due to American workers, but the authors are somewhat sceptical as to whether the *Bact. aerogenes* type, as contrasted with true

Bact. coli, is found in unpolluted waters to an extent sufficient to cause erroneous interpretations. On the whole, they consider the evidence and information are at present inadequate to warrant the general use of this differential test.

Useful chapters deal with the bacteriology of sewage and sewage effluents and with shell-fish. The latter, however, only deals with oysters, and the examination of mussels and cockles is not considered. None of the three important English methods of examining oysters is mentioned, a regrettable omission, since there is an extensive mass of valuable data in connection with them and upon standards of pollution.

Even with these defects from the English point of view, the volume remains a valuable and useful one, and a helpful work of reference.

AN INTRODUCTION TO HUMAN EXPERIMENTAL PHYSIOLOGY. By F. W. LAMB, M.D., Reader in Physiology, Victoria University, Manchester. London: Longmans, Green and Co., Ltd., 1930. pp. 335, with diagrams. Price 12s. 6d. net.

Dr. Lamb has produced a book which stands alone in character among many books bearing similar titles. It is a praiseworthy attempt to place on record experimental methods and easily demonstrable facts of human physiology which have been described in innumerable publications during recent years, and credit is due to the author for the manifest pains he has taken to search out and sift the literature.

In a foreword to the book, written by Professor A. V. Hill, emphasis is laid on the importance of the study of experimental physiology with "man" as the subject. The volume is divided into three sections under the general headings: blood, respiration and circulation. In the first section, detailed accounts are given of the methods of investigating the physical properties of blood. Under respiration, metabolism and muscular work are treated, and a good account is given of the experimental method of Haldane and Douglas. The pulse, blood pressure, blood flow and electrocardiography are among the subjects treated in the section which deals with the circulation. At the end of each sub-section voluminous references to the literature are given. The book should prove of great value for routine practice work for medical students and for research workers in the field of industrial physiology.

It is to be hoped that Dr. Lamb will com-

plete his work by producing a second volume covering the nervous system, nutrition and the special senses on similar lines.

THE PURIFICATION AND DISPOSAL OF SEWAGE. By C. J. NURSE, A.M.I.S.E., late Engineer, K.A.R., Zomba, Nyasaland, Central Africa. London: Crosby Lockwood and Son, 1931. pp. 122. Price 4s. 6d. net.

The subject of sewage disposal is one that is necessarily ever present; no apology is therefore needed for another publication, providing it has special features.

The present volume has the advantage of brevity, and the author has undoubtedly condensed into its pages a very useful outline of sewage disposal as applied to civilised communities; but it must be clearly understood that the book is written, not for the expert, but for those requiring a general idea of how this difficult subject is dealt with in different parts of the world.

The author has certainly dealt with his subject in a very clear manner, including the principal systems of treatment at present in use throughout this country, and not omitting the most modern practice in sludge disposal and the utilisation of gas obtained therefrom for power purposes.

There are chapters on the activated sludge process and methods of analysis, but these are distinctly elementary in character. The illustrations are sufficient to make clear to the layman the general working of the various processes, and the work can safely be recommended as one suitable for those interested in sewage disposal, including health officers who have to deal with the matter only in a limited sense.

LASCAR HINDUSTANI FOR SHIP-SURGEONS. By S. CHALMERS PARRY, M.A., M.R.C.S., L.R.C.P. London: W. J. Clark and Co., 10 and 12, Hanway Street, W.1. pp. 48. Price 2s. 6d. net.

This small book, written from actual experience with Lascar patients by a ship-surgeon, who has seen long service with the P. and O. Company, will prove a valuable guide for those who have to deal with sick Lascars on board ship or in their homes, and should also be found of real service to medical men in India, and to port medical officers.

CANCER AND SCIENTIFIC RESEARCH. By BARBARA HOLMES, PH.D. (Cantab.), Biochemical Laboratory, Cambridge. With a Preface by Professor Sir F. G. Hopkins. President of the Royal Society. London: The Sheldon Press, 1931. pp. 160. Price 3s. 6d. net.

This is an interesting and instructive addition to the literature of cancer. It is intended for the non-medical reader but, like other similar works on the subject, can be read with advantage by the profession. The book confines itself to the study of the etiology of cancer, and does not consider its therapy. In this matter the authoress is probably well advised. There is also some reference to the subject of immunity to cancer. Governmental publications, more especially such as relate to occupational cancer mortality, are largely drawn upon; and the relationship between alcoholism and cancer, which was noted in 1926, is regarded as definitely established by the Registrar-General's Supplement and the Medical Research Council's Report on Occupational Cancers. The methods of experimental cancer production are described, and mention is made of Miss Slye's work on the inheritance of cancer. The volume is one of the Sheldon Books of Popular Science, and is altogether a very readable little work.

THE RATIONAL TREATMENT OF VARICOSE VEINS AND VARICOCELE. With Notes on the Application of the Obliterative Method of Treatment to Other Conditions. By W. TURNER WARWICK, M.A., M.B. (Cantab.), F.R.C.S. (Eng.), Surgeon to Out-Patients and Surgeon-in-Charge, Rectal Department, The Middlesex Hospital; Surgeon, Hertford County Hospital. London: Faber & Faber, Ltd., 1931. pp. 188. Price 5s. net.

In this book Mr. Turner Warwick outlines the practical observations on etiology, both of past generations and of recent times, and attempts to base on them a rational line of treatment of all types of varicosis. The plan of procedure and the prognosis in relation to each type are also given. New light thrown on the pathology of varicocele suggests that this condition is not so readily cured by injection as by operation. A new operation, best calculated to counteract the valvular defect, is described. The application of the injection treatment to other conditions is considered, together with details of suitable technique.

Extremely well and clearly written, the book may be strongly recommended.

THE NEWLY-BORN—CLOTHING. An illustrated Poster in Verse by M. C. D. WALTERS. London: John Bale, Sons & Danielsson, Ltd., 1930. Price 8d. net.

This is a rhymed and illustrated poster which is suitable for hanging on the walls of infant welfare or ante-natal centres, or in the domestic science departments of schools. The advice imparted is sound, and the poster may be recommended to those in need of teaching material of this nature.

Similar illustrated posters, also with verses by Mrs. Walters, deal with the newly-born under the headings—"The Perfect Egoist"; "Growth and Exercise"; and "Baths." The whole series has been approved by the Association of Infant Welfare and Maternity Centres.

PRACTICAL METHODS IN THE DIAGNOSIS AND TREATMENT OF VENEREAL DISEASES. By DAVID LEES, D.S.O., M.A., M.B., D.P.H., F.R.C.S., M.R.C.P. (E.), Surgeon-in-Charge of Venereal Diseases, The Royal Infirmary and Royal Maternity Hospital, Edinburgh; Lecturer and Examiner in Venereal Diseases, University of Edinburgh, etc.; Clinical Medical Officer, Edinburgh Corporation Venereal Diseases Scheme, etc. Edinburgh: E. & S. Livingstone, 1931. pp. 634. Price 15s. net.

No book by Dr. David Lees on venereal diseases really requires commendation, more particularly one that has passed into a second edition in a short space of time.

In the preparation of this edition, according to the author, the main characteristics of the book have been preserved. To keep it abreast of modern progress, recent advances, which have proved themselves of value, have been added, without appreciably increasing the size of the volume.

The principal object has been to lay down for students and medical practitioners sound principles of diagnosis and practical details of modern treatment. Staining methods for the demonstration of spirochaetes have been revised, and reference has been made to the flocculation tests and their technique in the diagnosis of syphilis. In view of the frequency with which practitioners are called on

to diagnose and treat cardio-vascular syphilis, a new chapter has been written on this subject. The chapters on neurosyphilis and its treatment have been largely re-written and brought abreast of modern teaching by including a statement as to the effect of treatment by tryparsamide, malaria, and other forms of pyrotherapy. Short additions to the text have been made on diathermy in the treatment of the complications of gonorrhoea and on the treatment of chancroid.

Eight colour plates, illustrating thirteen cases, have been added to the previous illustrations, and greatly increase the value of a volume that, as already stated, actually requires no recommendation.

In the Annual Reports.

VIEWS ON HOSPITAL POLICY.—In March, 1930, an important conference regarding the medical staffing of public hospitals was held. This conference was attended by representatives of the British Medical Association, the Hospital Boards Association, and the Department of Health. After complete discussion the following resolutions were adopted:—

- (1) That all members of the community requiring treatment in hospital be eligible for admission to public hospitals.
- (2) That patients in public hospitals who need, because of the nature of their illness, accommodation other than in the larger wards shall be provided for by an adequate number of one- to four-bedded wards.
- (3) That patients voluntarily availing themselves of such special accommodation shall pay the full cost of maintenance, including overhead expenses, provided that no distinction is made in the case of patients unable to pay.
- (4) That the medical attendance on patients be in the hands of a visiting staff, with the assistance of a requisite number of resident medical officers.
- (5) That each hospital board must determine the number of the visiting staff, but it be recommended that in arriving at a decision the board shall, consistent with the convenience and smooth running of the institution, appoint as many of the medical practitioners residing in the district as possible.
- (6) Subject to the approval of the board, that the right of attending their own patients admitted under resolution (3) be extended to all practitioners except such as may for special reasons be deemed unsuitable.
- (7) That in making appointments to the visiting staff and in determining the suitability or otherwise of practitioners for the privilege of attendance on patients, the hospital board should be guided by the advice of a special consultative body, or, in the case of the smaller hospital districts, by the advice of the Director-General of Health.

- (8) That such special consultative body comprise the consulting staff, if any, of the hospital, or in other cases should comprise the senior members of the medical profession of the district, selected by the hospital board with the approval of the Director-General.
- (9) Patients unable to pay the ordinary hospital fees shall be attended by the visiting medical staff in an honorary capacity.
- (10) Patients entering the hospital able to pay for medical attendance in addition to maintenance fees shall make their own terms with their medical attendant, who will be responsible for collection of his own fees.

I do not propose to offer any comment on these various resolutions except to say that it will be obvious that their adoption involves very radical departures from the present practice, but the primary consideration will be, as always, the medical needs of the patients.—
Dr. R. A. Shore, New Zealand.

THE Royal Sanitary Institute announce that the autumn session of training courses for examinations for sanitary inspectors, meat and food inspectors, smoke inspectors, associate-ship (general hygiene and sanitation), associateship (food hygiene), and in sanitary science, will commence on September 28th, 1931. Syllabuses of the lectures and of the examinations are obtainable from the Secretary of the Institute, 90, Buckingham Palace Road, London, S.W.1.

THE London County Council announce that the following appointments in the hospital service have recently been made:—Miss Dora F. Rose, M.A., M.B., CH.B., D.P.H., Temporary Assistant Medical Officer, Hackney Hospital; Miss Hilda Lindford, M.D., CH.B., Temporary Assistant Medical Officer, Mile End Hospital; Miss Joyce Morgan, B.Sc., M.B., B.S., Temporary Assistant Medical Officer, St. Andrew's Hospital; J. F. Sandow, M.R.C.S., L.R.C.P., Temporary Assistant Medical Officer, St. James Hospital; Miss Rosa W. E. Chamings, B.Sc., M.B., B.S., M.R.C.S., L.R.C.P., Temporary Assistant Medical Officer, St. Giles Hospital; J. H. B. Hicks, M.D., M.R.C.P., M.R.C.S., Pathologist, Lambeth Hospital Group Laboratory; W. G. Barnard, M.R.C.P., M.R.C.S., Histologist, Southern Group Laboratory; G. N. Allott, M.A., M.R.C.P., B.Sc., Pathologist, Lewisham Hospital Group Laboratory; G. W. Goodhart, M.A., M.D., B.Ch., Pathologist, Archway Hospital Group Laboratory; and Sir Thomas G. Carey-Evans, M.C., M.D. (Brux.), F.R.C.S., L.R.C.P., Medical Superintendent, Hammer-smith Hospital.