letters, many of them written to this aunt, show her to have been a woman of strong intelligence, who, though afflicted with the prejudices of her rank and age, strove to be impartial. She had many digs at the court physicians and surgeons, but she must have been a difficult patient. After she had become a widow and old enough to know better, she wrote to her sister, "When I chose my doctor, I warned him that he must not expect blind obedience from me. I would allow him to express his opinion, but he must not get angry if I did not always follow it. My health and my body are my own, and I expect, as I told him, to rule these after my own fashion." The letters have a certain importance to history, but are read because they are amusing.

Dr. ALFRED ADLER of Vienna, originally an adherent of Freud, is the founder of one of the post-Freudian schools of psychopathology, and his teachings in regard to the causation of neurotic illnesses differ considerably from those of psychoanalysts. His work is not so familiar to medical psychologists as Freud's, but it is of interest and importance, and English readers will no doubt welcome a volume entitled *The Practice and Theory of Individual Psychology*,[7] which contains a translation of a number of Adler's essays written during the years 1911–22. These essays do not provide a systematic account of the author's views on organ inferiority and its compensation, but they cover a variety of topics and serve to demonstrate how his fundamental principles assist towards the elucidation of many individual and social problems.

In *Studies in Evolution and Eugenics*[8] Dr. S. J. HOLMES, professor of zoology in the University of California, expresses his own views on some aspects of these subjects, but makes no pretence at furnishing a complete textbook. Some of the chapters originally appeared as articles in American periodicals, and although there is no definite underlying scheme in the book, yet the author's views on present tendencies in evolutionary theory, birth control, and heredity should be of interest to those engaged in these studies.

Miss FLORA KLICKMANN, the editor of *The Girl's Own Paper and Woman's Magazine*, has written a homely little book entitled *Mending Your Nerves*,[9] which contains much practical and common-sense advice for women and girls who are nervous and depressed. There must be many such in these days when women are subjected to so much strain, and a few hopeful and reassuring words by one who understands may do much to dissipate those fears which are apt to arise in moments of fatigue. The simple suggestions made in this book might in some cases prevent a severe nervous breakdown, and we can thoroughly recommend it to the working girl or woman. A short preface is provided by Mr. Albert Carless, who comments favourably upon the religious atmosphere which pervades the work.

Dr. T. W. E. MORETON, in his little book *Field Sports of the Month*,[10] revives a series of pleasantly written sporting articles appropriate to each month of the year. Thus, in January and February he deals with pike fishing, in March with making a fishery, in April with a sportsman's wardrobe and outfit. May, June, and July are devoted to trout fishing, August to wood-pigeon shooting, September to partridge shooting. A sportsman's library is considered in October, fox hunting in November, and pheasant shooting in December. The articles originally appeared in the *Chester Courant* and are written in a very pleasant manner. The book should appeal to the sportsman who is poor in the sense of possessing few worldly goods, but yet takes an interest in all that appertains to sport.

A manual of human embryology, entitled *The Development of the Human Body*, by Professor MCMURRICH of Toronto, has long been well known to students both in America and in this country. A seventh edition[11] has just been published. The text has been carefully revised so as to embody all recent additions to knowledge without increasing the bulk of the volume. Improved trade conditions have made it possible to use better paper, so that the illustrations are clearer and the text easier to read.

Estudios médicos,[12] the official organ of the Royal Academy of Medicine of Murcia, of which the January number has been sent us, contains an article by the late Dr. Fermín Muñoz Urra on the development of the optic sensory tract, with numerous beautiful coloured drawings and microphotographs, a thesis by Dr. Jose Avoca y Garcia on the intestinal changes in achlorhydria from the coprological aspect, and an address by Dr. Pablo Martinez Torres on medicine and music. The supplement contains abstracts from current literature, society intelligence, and medical news.

[7] *The Practice and Theory of Individual Psychology.* By Alfred Adler (Vienna). Translated by P. Radin, Ph.D., Associate Professor of Anthropology at California University. London: Kegan Paul, Trench, Trübner, and Co., Ltd.; New York: Harcourt, Brace, and Co., Inc. 1924. (Demy 8vo, pp. viii + 352. 18s. net.)

[8] *Studies in Evolution and Eugenics.* By S. J. Holmes, Ph.D. London: G. Routledge and Sons, Ltd. 1923. (Demy 8vo, pp. v + 261. 12s. 6d.)

[9] *Mending your Nerves.* By Flora Klickmann. With a Preface by Albert Carless, C.B.E., M.B., M.S., F.R.C.S. London: Religious Tract Society. 1924. (Cr. 8vo, pp. 136. 3s. 6d. net.)

[10] *Field Sports of the Month for Poor Sportsmen.* By T. W. E. Moreton, B.A.Cantab., M.R.C.S., L.R.C.P. Chester: Phillipson and Golder, Ltd. 1924. (Cr. 8vo, pp. 102. 1s. net.)

[11] *The Development of the Human Body.* By J. Playfair McMurrich, A.M., Ph.D., LL.D. Seventh edition, revised and enlarged. London: Henry Kimpton. 1924. (Demy 8vo, pp. x + 507; with 290 illustrations, several of which are in colour. 18s.)

[12] *Estudios médicos.* Año II, 2a Epoca, Enero, 1924. Núm. X. Murcia, Barcelona: M. Marin. (Yearly subscription: Spain, 40 pesetas; abroad, 50 pesetas.)

MEDICAL AND SURGICAL APPLIANCES.

Safety Guard for Poison Bottles.

MESSRS. FURNESS AND RICHARDSON, of 61, Tweedy Road, Bromley, have patented a mechanical metal cap on a spiral spring to be fitted over the corks of poison bottles. When it is desired to remove the cork the cap must be depressed first; this safety guard should diminish the risk of confusing poison bottles with others. The price of this simple and ingenious apparatus is 6d. The accompanying illustration shows its method of operation.

Nova et Vetera.

MRS. JEM'S ATTACK OF SWINE-POX.

IN *Pepys's Diary* are to be read the following entries:

January 9th, 1660.
Thence to Mrs. Jem's, and found her in bed, and she was afraid that it would prove the small-pox.

January 11th.
I went to see Mrs. Jem, who was in bed, and now granted to have the small-pox.

January 13th.
I went to Mrs. Jem, and found her up and merry, and that it did not prove the small-pox, but only the swine-pox; and so I played a game or two at cards with her.

Mrs. Jemimah, or Mistress Jem, was the eldest daughter of Sir Edward Montagu, afterwards Earl of Sandwich, and Pepys seems to have been charged by Montagu to have an eye on his daughters during their father's absence from London.

What, then, was the disease from which the lady suffered, and which was feared to be small-pox, but turned out to be swine-pox? Well, in the first place swine-pox has no more to do with swine than chicken-pox has with chickens. In the seventeenth and eighteenth centuries, perhaps also earlier, various names ending with the word "pox" were given to skin eruptions, no doubt accompanied at their onset by the febrile symptoms which made Mistress Jemimah fear she had small-pox. The terms horn-pock, nirle-pock, stone-pock, wind-pock, water-pock, chicken-pock, and swine-pock are all to be met with. In those days the belief was very general, if not universal, that small-pox could be taken only once in a lifetime, one attack absolutely protecting against a second. Jenner appears to have had that impression when he began vaccination, but in course of years, when indubitable cases of post-vaccinal small-pox began to occur, he sought for their explanation in the fact that inquiry and investigation proved that in a few instances a second attack of small-pox did occur. He remained convinced that cow-pox, being small-pox of the cow, gave the same protection as small-pox itself, which protection he regarded as lifelong. Therefore he held that these occasional recurrences of

small-pox after vaccination found their explanation in the same kind of idiosyncrasy—though doubtless he never used that word—as made a few individuals liable to small-pox after small-pox. In short, he made the one notable mistake of his life in failing to realize that the protection conferred by cow-pox was shorter than that conferred by small-pox, altogether independently of any analogy with cases of liability to a second attack of small-pox. Something is to be said in explanation of his error. In his *Inquiry into the Causes and Effects of the Variolae Vaccinae* he gave a number of examples in which attempts to inoculate small-pox failed where the subjects had previously suffered from cow-pox. The intervals between the cow-pox attack and the resistance to small-pox ranged from a few months up to 10, 20, 25, 30, 37, and 53 years. But milkers, who were the usual victims of casual cow-pox, were not infants or young children. They were adolescents or adults, and their protection had its analogy in revaccination, not in primary vaccination. The immunity conferred by casual cow-pox on a dairymaid or other milker would, indeed, be normally lifelong.

Reverting to the various poxes mentioned above, the cases probably differed in their nature. After, in childhood, an unquestionable attack of small-pox of average severity, leaving an obvious pitting—*variolosus in facie*, as a writer of the tenth century is said to have termed it—any second attack in late adult life would presumably be much modified in character, running a mild and shortened course. The current view being that small-pox came only once in life, and it being known that the patient had had small-pox in infancy or childhood, the comparatively trivial attack in later years would be called by some such name as horn-pox or stone-pox if the eruption did not reach the vesicular stage, or chicken-pox or swine-pox if it did. On the other hand, if an adult had an ordinarily severe attack of the classical disease, certainly variolous, and if he himself or friends who had known him in childhood recalled the fact that he had then been affected with an eruption which had been denominated small-pox, the opinion might well be expressed that, the man having undoubted small-pox, the disease of childhood could only have been water-pox or some other such trivial malady, as it was well known to everybody that no one ever took small-pox twice.

Many cases may be accounted for on these lines, but it is safe to suppose that then, as now, true chicken-pox prevailed as well as true small-pox, and that there was some confusion in nomenclature. The question with which we started, as to what was the disease which seized Mistress Jemimah, is not very easily answered. One patent fact is that she had not previously suffered from recognized small-pox—otherwise she would not have been in the least afraid of the threatened attack being variolous. Possibly, however, she had some very mild attack of small-pox in childhood or infancy which had not been so regarded, and if so the adult visitation might also have been variolous, but much modified by the mild infection in childhood. The quick change which the symptoms exhibited between the visits by Pepys on January 11th and on January 13th would rather agree with this view. There were the comparatively severe early indications, leading to the fear of small-pox. Then there would be the appearance of a few pimples or vesicles, with the customary return to normal temperature and feeling of well-being, so that, disregarding the spots, she was up and merry, and played a game or two in her light-hearted relief from the threatened danger. Otherwise the "swine-pox" may have been severe chicken-pox, with the same speedy improvement when the rash came out. It is impossible to say now, and it does not matter, as the lady and Pepys are gone long ago, but the speculation is not without interest. The apparent indifference of her visitor to any risk of infection on his own account is, however, rather striking. He could not have been protected by small-pox inoculation, which was not introduced into England till sixty years later by Lady Mary Wortley Montagu. If Pepys had already had small-pox his freedom from anxiety would be accounted for, but the present writer has no information on that point. He wonders if anyone else happens to know.

J. C. M.

THE INTERNATIONAL HEALTH ORGANIZATION OF THE LEAGUE OF NATIONS.

I.

THE Health Committee of the League of Nations, which for the last three years has been acting as a provisional Committee of the Health Section of the League, has just held at Geneva its first meeting as a committee of a permanent International Health Organization, established at the end of last year by agreement between the Council of the League of Nations and the Paris Office International d'Hygiène Publique. The time is therefore opportune for reviewing the position of international health activities, as since the war there has been a considerable amount of overlapping, if not actual confusion, in the work of the various official and voluntary organizations which have been dealing with international health problems.

INTERNATIONAL HEALTH WORK PREVIOUS TO THE WAR.

Previous to the war the international Congresses of Hygiene and Demography and of Medicine helped to maintain friendly and scientific communion between the sanitary experts of different countries, and were recognized by Governments by the appointment of official delegates. The permanent officials of the Medical Department of our Local Government Board constantly studied and kept in touch with the progress of epidemics in all parts of the world through consular and diplomatic agencies and by other sources of information. Similarly the Medical Department of our War Office was in possession of information regarding the health of armies in other countries from the published statistical reports, in connexion with which an international statistical code, suggested by Dr. J. Billings of the United States, had been accepted by Governments. An international nomenclature of causes of death in the case of civil registers had also been agreed upon.

International Sanitary Conventions.

All this helped to maintain a certain amount of international exchange of information regarding health conditions in different countries. There was, however, no co-ordinated effort on the part of responsible Governments to deal with health problems internationally until the introduction of International Sanitary Conventions, the first of which was signed in 1892 and has been revised and modified from time to time, notably in 1897, 1903, and 1912. Bills of health for sea-borne traffic, which appear to have been introduced in the seventeenth century in consequence of plague in the Near East, were previously the defence, associated with quarantine, against the introduction of epidemics into British and other ports. The International Sanitary Conventions were framed with a view to avoiding unnecessary restrictions on sea-borne traffic imposed by quarantine regulations, and at the same time safeguarding Europe from the danger of plague and cholera being brought by sea from Eastern countries. In the more recent conventions of 1903 and 1912 yellow fever was included, while there is now before Governments a proposal for a new convention which will include typhus, relapsing fever, and small-pox, and the control of overland routes and inland waterways.

The Office International d'Hygiène Publique.

One of the results of these Conventions was the establishment of a central international health office, supported by contributions from the contracting Governments, for the purpose of collecting information as to the progress of infectious diseases from the health authorities of the States signatory to the Convention. An article to this effect was introduced into the Convention of 1903, and subsequently effect was given to it by a Convention signed in Rome in 1907, in accordance with which the Office International d'Hygiène Publique was organized and established in Paris.

The Rockefeller Sanitary Commission.

These were the measures taken by responsible Governments before the war for dealing internationally with health problems. But voluntary investigations into the distribu-

tion and prevention of disease from an international standpoint had been initiated by the Rockefeller Foundation. Mr. Rockefeller in 1909 organized a Sanitary Commission for the eradication of hookworm disease in the United States, and the success of its work induced the Rockefeller Foundation to create in 1913 an International Health Commission, the designation of which was changed in 1916 to International Health Board, in order "to extend to other countries the work of eradicating hookworm disease and, so far as possible, to follow up the treatment and cure of this disease with the establishment of agencies for the promotion of public sanitation and the spread of knowledge of scientific medicine."

International Health Organizations after the War.

During the war the work of the Office International d'Hygiène Publique was carried on, so far as was compatible with world conditions, by an inter-allied hygiene committee, which met periodically in Paris. After peace was declared an entirely new situation in connexion with international health problems came about, and a period of overlapping and confusion, now happily ended, arose. The Office International d'Hygiène Publique resumed its functions; but the Covenant of the League of Nations encouraged the formation of new international and voluntary organizations for the welfare of peoples and the prevention of disease.

The League of Red Cross Societies.

The first response was the creation of the League of Red Cross Societies, financed by a large grant of money from the American Red Cross Society, which had amassed huge sums after America had entered the war. The League of Red Cross Societies established itself in Geneva, with the late Sir David Henderson as its director-general and Colonel Strong of the United States Medical Services as its medical director. It entered enthusiastically into the work of preventing diseases, such as typhus, relapsing fever, cholera, and venereal diseases, which were widespread in consequence of the war. Collection and distribution of information, health propagandism, child welfare, and other social reforms were also included in its activities. It was duplicating, in fact, some of the work of the Office International d'Hygiène Publique. The extent, however, of its undertakings gradually became more and more restricted as funds decreased, and the attempt to combat by voluntary effort the extensive epidemics of typhus and other diseases in Eastern Europe was manifestly impossible. The work of the League of Red Cross Societies, which has now its headquarters in Paris, consequently gradually dwindled so far as it affected problems of international health, until now it is chiefly confined to health propagandism, child welfare work in backward countries, and the training of nursing services in them. The League acts as a clearing house for information and guidance of national Red Cross Societies in these spheres of work. All these activities constitute useful work in themselves, and are now associated with the International Health Organization in creating amongst nationalities that are less advanced than Western European States an atmosphere favourable to the reception and application of sanitary regulations by municipal and State authorities.

Health Section of League of Nations.

While the League of Red Cross Societies was thus ceasing to become an effective agency for dealing internationally with serious outbreaks of epidemic disease, the Council of the League of Nations was taking active steps in matters of international concern, entrusted to it by Article 23 of the Covenant, for the prevention and control of disease, and created a Health Section as one of its three technical organizations. It summoned in April, 1920, an international conference of health experts to draw up the constitution of a Health Organization of the League. At that time typhus and relapsing fever epidemics had spread into Poland from Russia, and were becoming a serious menace to Western Europe.

Pending the constitution of an International Health Organization to deal with the situation, the Council of the League appointed an Epidemic Commission to work with the local health administrations in Eastern Europe. The draft of a constitution for the Health Organization of the League was accepted by the first General Assembly in November, 1920. It contemplated making the Office International d'Hygiène Publique, with a larger number of members and wider powers, the supreme council or conference of the League's Health Organization, with an executive committee elected by it, and a secretariat as a section of the Secretariat-General of the League. Owing, however, to an objection by the United States, which is a member of the Office International d'Hygiène Publique but not of the League of Nations, the constitution of a permanent international health organization was postponed, but a provisional health committee, composed to a great extent of members of the Office International and thus in a position to co-operate with it, was appointed by the Council of the League in 1921.

The International Organization of the League of Nations.

A further step was taken in September, 1922, when the Third Assembly of the League expressed a desire to see the Health Organization placed on a permanent basis, "with a constitution which would prevent overlapping with other institutions created for similar purposes." This led to a mixed committee of the Office International d'Hygiène Publique and the provisional Health Committee of the League of Nations being appointed for the purpose of drafting the constitution of an International Health Organization to meet those requirements. The mixed committee met in Paris in May last and drew up a constitution which was accepted by the Fourth Assembly of the League in September and by the Office International d'Hygiène Publique.

The International Health Organization of the League of Nations, thus constituted on a permanent basis, consists of an advisory council, an executive committee, and a secretariat. The Office International d'Hygiène Publique, while retaining all its previous organization and functions in accordance with the statutes of the Rome Convention of 1907, acts as the Advisory Council. The League's provisional Health Committee becomes the Executive Committee, and is composed of the chairman and nine members of the Office International and six members appointed by the Council of the League of Nations. The Health Section of the General Secretariat of the League becomes the secretariat of the organization, with Dr. Ludwig Rajchman as its director, assisted by a technical and clerical staff.

II.

The Work of the International Health Organization.

In the first part of this article the course of events which led up to the formation of the International Health Organization was traced. We will now give an account of the work which its various elements have been and are engaged in carrying on.

It is of a wide and varied character. The Office International d'Hygiène Publique, with its headquarters in the Boulevard St. Germain in Paris, has been revising the Articles of the International Sanitary Convention of 1912 with a view to framing a new convention on the lines indicated above. It is collecting information on the incidence of cancer mortality in different countries, the incidence of goitre and its treatment, the effect of anti-typhoid vaccinations in countries such as Rumania and Bulgaria, the epidemic prevalence of disease in various parts of the world, and matters of importance internationally in connexion with health problems and the prevention of disease. It is also considering questions connected with the standardization of bills of health and of prophylactic and therapeutic serums, with the control and preparation of antisyphilitic remedies in different countries, and with the revision of the international nomenclature of causes of death, as well as other subjects.

The Health Committee of the League of Nations has been carrying out executive work in connexion with many of these subjects. For example, it has arranged for serological standards and tests to be centralized in the State Serum Institute in Copenhagen under the direction of Dr.

Madsen, who is president of the committee as well as a member of the Office International. It has been suggested that this central laboratory shall receive periodically from serological institutes of other countries specimens of their antitoxin products, examine them at least once a year, and send samples of the international standard to national laboratories, at the same time drawing attention to variations from it in the specimens received from these laboratories. National serological institutes are thus linked up through the Health Committee in a manner which will ensure uniform standards and tests throughout the civilized world. The standardization of a variety of biological products, such as insulin, pituitary and thyroid extracts, and potent drugs, is also being investigated. The Medical Research Council in this country acts as a clearing house for these investigations, the results of which will be examined by a technical conference with a view to submitting proposals for international agreements between the Governments of different countries.

But the most important work hitherto carried out by the Health Organization of the League of Nations has been that undertaken by its Epidemic Commissions. The object of these commissions was not so much the control and eradication of epidemics by the League of Nations' own experts as the development of a mutual understanding between the health administrations of the countries concerned, helping them to establish suitable quarantine stations, hospitals, and means of cleansing and disinfesting, and supplying them with food, clothing, motor transport, and other necessaries where required.

The Eastern Europe Conventions of 1922.

The first Commission, composed of Dr. Norman White, Dr. Rajchman, Dr. Gautier, and others, went to Poland in 1920 and continued its work until the end of last year, when it closed down. It extended its activities to Latvia and Russia, opening offices in Moscow and Kharkov. Poland was the key point of the sanitary defence of Central Europe, and the work of this Commission was the first experiment in effecting international sanitary co-operation on a large scale. The Commission succeeded in strengthening and supporting the efforts of the public health services of the States concerned, including Soviet Russia. This work was further developed in 1922, when the Council of the League of Nations placed the services of its secretariat and Health Organization at the disposal of the Polish Government for holding a Health Conference at Warsaw. Some of the recommendations of this Conference for stamping out the epidemics which had their origin in Russia fell through for want of funds, but effect was given to recommendations for strengthening the medical personnel, training public health officers, and framing sanitary conventions between the border States and Germany, Czecho-Slovakia, Hungary, Austria, Yugoslavia, and Bulgaria. Rumania had formed its own defence by means of a military cordon. These conventions are of great value and importance. Not only do they strengthen the sanitary defences, but they also promote collaboration between the health administrations of the respective States, who notify to one another direct, instead of through the diplomatic channels, the incidence of diseases and the measures taken to combat them. Where differences arise as to the interpretation or application of the conventions the contracting parties resort to the Health Organization of the League as mediator.

Greek Refugees.

In 1922 also the Greek Government applied to the League of Nations for the help of its Epidemic Commission in dealing with the large number of refugees pouring into Greece from Asia Minor, estimated to be equal in number to one-fifth of the total population of Greece. Two centres of work were organized—one at Athens and the other at Salonika. The Commission organized Greek doctors, medical students, and sanitary inspectors into ten vaccination columns and distributed them amongst the refugee camps. Some 500,000 (60 per cent.) of the refugees were in this way vaccinated against small-pox, cholera, and enteric fever.

East Mediterranean, Black Sea, and Mecca.

Another Commission, composed of Sir G. Buchanan, Dr. Ricardo Jorge, Dr. Madsen, and Dr. Jitta, was sent to inquire into international arrangements for the prevention of epidemics in the Eastern Mediterranean and Black Sea ports, and its report emphasized the need of revising those parts of the International Sanitary Convention of 1912 which are concerned with the Mecca pilgrimages, so as to control the spread of epidemics by annual pilgrimages to Moslem holy places in Palestine and the Hedjaz along overland routes, which are becoming now more and more commonly used.

Far East.

A third Commission, of one member only, Dr. Norman White, was sent last year to the Far East, on the suggestion of the Japanese member of the Health Committee, to study the different methods in force, with a view to considering measures for the control of the spread of epidemics by seaborne traffic in Eastern waters. Dr. White returned with a mass of information, which will be of value in framing a sanitary convention for co-ordinating sanitary and anti-epidemic work in Far Eastern countries.

Other Activities.

While these activities indicate briefly the chief and more important work of the International Health Organization, its Committee has been active in various other directions, mainly through subcommittees. One of these has undertaken an inquiry into the average amount of opium and dangerous drugs required annually in each country for medical and scientific purposes. A Waterways Subcommittee is associated with the League of Nations Technical Transit Committee in drafting a convention for the sanitary control of inland waterways; and a Malaria Subcommittee is examining the incidence of malaria throughout the world, and especially in Europe. In this connexion Dr. Haigh, a member of the Epidemic Commission, was sent to make a preliminary study of the malarial situation in Albania, and the Greek Government has applied for technical advice in organizing an antimalarial campaign in Greece. The Health Committee also co-operates with the International Labour Organization, as part of the machinery of the League of Nations, in matters concerning the health of industrial workers.

THE INTERNATIONAL HEALTH BUDGET AND THE ROCKEFELLER GRANT.

The money required for carrying on all these activities of the International Health Organization is provided in a budget passed annually by the Assembly of the League of Nations. The sum allotted for the year 1924 amounts approximately to £33,600. But the Rockefeller Foundation has supplemented this by a grant of over £19,000, of which £12,540 is for the purpose of interchange of public health personnel and individual fellowships. The Rockefeller International Board of Health has allotted sums for this purpose for three years; and the first interchange of public health officers took place at the end of 1922 by visits to Belgium and Italy under the auspices of the Health Organization of the League. Twenty-one public health officers, chiefly from Eastern European countries, participated in these visits. The second interchange took place early in 1923, when thirty medical officers from fifteen European countries and from Japan and the United States visited England and followed a programme of work organized by the Society of Medical Officers of Health. They subsequently visited Austria. A third interchange was to Italy in May and June last year for the study of malaria by malarial specialists. This was followed by visits of bacteriologists and laboratory assistants to the Institutes of Tropical Medicine in London and Holland; and of twenty-four medical officers of health to the United States in September. Four collective interchanges have been arranged for this year—one, which is now taking place, to Great Britain, a second to the Netherlands and Denmark, a third to Switzerland, and a fourth to the Far East; in addition there will be two special interchanges of experts in tuberculosis and school hygiene.

The balance of the sum granted by the Rockefeller Foundation to the International Health Organization of the League of Nations is for the purpose of establishing and maintaining in its Health Section at Geneva an epidemiological intelligence service. Sums are granted for this purpose for five years, and Dr. Sydenstricker of the Public Health Service of the United States was appointed early last year to take charge of this section of work. The scheme proposed for carrying it on encroaches to some extent on the work of the Office International d'Hygiène Publique, and how far the two bodies will co-ordinate their functions without duplicating and overlapping has yet to be ascertained.

CONCLUSION.

In all this work of establishing an International Health Organization of the League of Nations in agreement with the Office International d'Hygiène Publique, British representatives have taken an active part. Sir George Buchanan, of the Ministry of Health, has represented the British Government, and until recently Sir Havelock Charles the Indian Government, both on the Office International and on the Health Committee. Dr. Granville acted as chairman of the Mixed Committee which drafted the constitution, and represents the Conseil Maritime et Quarantenaire of Egypt on the Office International and also on the Health Committee. South Africa is represented on the former by Dr. P. G. Stock, and Australia by Dr. P. Norris. Canada, so far, has not appointed a representative.

As the Executive Committee has power to co-opt the services of experts in all branches of its work, we may confidently look forward to a marked advance in future in the control of epidemics, and in the general prevention of disease by regulated and co-ordinated international effort throughout the world. There is no attempt to force the pace unduly. In any case the measures already taken, and the methods adopted by the International Health Organization, will go far towards promoting mutual confidence and respect amongst nations. It thus forms an important element in achieving the objects for which the Covenant of the League of Nations was framed.

BRITISH EMPIRE EXHIBITION.

MEDICAL SECTIONS.

THE Wembley Exhibition would be only an incomplete record of the history and achievements of the Empire did it not include some demonstration of those researches into the prevention of disease and the ingenious contrivances of sanitary science, without which in many places there could have been but little European colonization. In the Government Pavilion, therefore, side by side with the representations of great historical victories won by the fighting forces, there will be a scarcely less dramatic portrayal of conquests over disease during the last twenty-five years in particular. The object of the whole Exhibition is by recording the past to envisage the future, and the medical exhibits are especially worthy of attention, since, by tableaux, models, specimens, charts, and descriptions, the lines of research that are illustrated point not uncertainly to further triumphs in the future. In so large an area of exhibits it would be inevitable that the visitor, uninstructed in advance, should overlook some, and so we propose during the next week or two to describe those of more particular medical interest, including those relating to tropical diseases, sanitary engineering at home and abroad, improvements in health administration generally, and the new and improved weapons that are being forged in laboratory and workshop for the use of the doctor of to-day. In this present article one section only will be considered.

Tropical Health Section.

The elaborate exhibition which deals with tropical health has been organized by a committee, of which the President of the Royal College of Physicians of London (Sir Humphry Rolleston) is the chairman, and the Director-General A.M.S. (Sir William Leishman) the deputy chairman. Specimens and illustrations have been supplied by various individuals and the following institutions: Natural History Department of the British Museum, the Liverpool School of Tropical Medicine, the Royal Army Medical College, the Royal Naval College, the Wellcome Bureau of Scientific Research, the Imperial Bureaux of Entomology and Mycology.

The Tropical Health Section is situated in the building belonging to the Overseas Branch of the Board of Trade, and on the other side of the court, which contains the large sunken map of the world showing the trade routes, are the royal apartments. The general secretaries are Dr. S. H. Daukes (Tropical Diseases) and Lieut.-Colonel Clemesha (Tropical Hygiene).

The Tropical Health Section may be said to consist of four parts: at the entrance to it on each side of the door is a tableau—the one on the left representing an English explorer twenty-five years ago, dying of malaria, outside a native hut in the tropical jungle, a sluggish weed-covered stream wandering across the foreground to illustrate the breeding place of the mosquito. The second tableau, on the right, represents a similar spot twenty-five years later, when the discoveries illustrated within the section have been applied and have so remedied the conditions that the river has ceased to breed mosquitos; improved sanitary native huts replace the primitive "beehive" type; the white man has a bungalow well protected against an occasional mosquito, and has even dared to bring out his wife. The second part of the disease section includes twenty-seven diseases, each of which is described by pictures, photographs, models, and specimens, and a short printed summary in each case gives the main points of interest so that the visitor will know exactly what to look for. Amongst the diseases thus illustrated are malaria, yellow fever, plague, relapsing fever, intestinal infections, including typhoid and cholera, food deficiency diseases, such as scurvy, beri-beri, and pellagra, whilst yaws and leprosy are very fully displayed. In the case of malaria, models of the different stages of development and actual specimens of anopheles are shown. Both yellow fever ("yellow jack") and dengue are spread by *Stegomyia*, the domestic mosquito which breeds in collections of water in rubbish and tubs rather than in streams. The attempt to control these diseases by the introduction of certain small fish to eat the larvae is shown.

The plague exhibit contains some specimens of historical interest, including two lead crosses which were buried with plague corpses, the costume worn by the doctor in attendance on plague cases, and the reproduction of some ancient pictures relating to this disease.

The value of preventive inoculation against typhoid fever is particularly well shown in an illuminated statistical comparison of the South African war with the recent war. Representations of preventive measures against sunstroke and Malta fever illustrate different lines of prophylactic treatment. Each of these diseases is one in which skilful hygienic precautions bring about a certain measure of prevention, and in each case these methods are indicated and are still further elaborated in the hygienic section.

An attempt to meet the difficulty of persuading visitors to take any interest in statistics, which yet have such value in showing what has already been done in preventive work, has been made by the use of an ingenious system of illuminated devices. The model of an Assam tea garden shows the way in which bungalows can be designed so as to secure as much coolness as possible, and to keep out various infections. Illustrations of town planning and housing will also be shown, including the treatment of oriental bazaars; the precautionary measures adopted in the case of pilgrimages and marine quarantine are also set out.

The fourth part of the section, dealing with plant diseases, though on a smaller scale, is yet of considerable interest since it deals with those diseases which affect the plants that are of special importance to human health.

A book describing the whole section will be on sale; it will contain a full account of the various diseases illustrated and the methods of prevention, and will enable visitors after seeing this Exhibition to recall to their memory at home the interesting points that have been demonstrated.