QUOTATIONS

A WATCH ON DISEASE

THE League of Nations is achieving work of great importance and of abiding utility in the field of international hygiene. The Health Section of the Secretariat, indeed, has already established itself in the regard of every health department in the world and is acknowledged as an indispensable link between nation and nation. This position has been achieved by a policy which reflects credit upon those who originated it. From the beginning the Health Section has recognized that its sphere of action is necessarily limited, even though, paradoxically enough, the limits set upon it are conditioned by the fact that it claims the whole world as its field. It has not sought to interfere in any country or to exercise any kind of superior control. Its object has been to supply all countries with information which no country could easily obtain for itself, and to advise every country of dangers threatening in neighboring or even in far-distant states. A further object has been the study of those conditions which, in all parts of the world, exert an influence upon health or favor the onset of disease. In pursuit of these aims the Health Section has established and perfected a vast intelligence system. In hundreds of areas throughout the world "spies," trained to observe the slightest indications of coming trouble, watch for any "movement" of disease and report to headquarters at frequent intervals. Every day, in consequence, the Health Section is fully informed about the prevalence throughout the world of those immemorial scourges of mankind—plague, cholera, typhus fever, malaria and typhoid fever. It is fully informed also about every outbreak of influenza and about every unusual manifestation of diseases which do not, commonly, assume epidemic form. This information is broadcast as soon as it has been received. To-day the health departments of the world know in advance what dangers they must be prepared to face. They know in which of the ships, approaching their coasts, disease has manifested itself, and in what areas, from which supplies come to them, epidemics are threatening or have already occurred. The medical officers and captains of ships on the high seas are also kept informed about the hygienic condition of the ports to which they are sailing.

It is obvious that this sleepless watch on disease is likely to be the means of preventing many calamities. Epidemics in the past have usually had ample time to develop before a concerted attack was made on them. To-day every health department recognizes that it is its brother's keeper. The tendency to wait until such scourges as cholera and plague have crossed the frontier is giving place to the determination to meet them and defeat them before, in military phrase, they shall have had "time to deploy." This determination has already found expression in the station which the Health Section has established at Singapore. The Far East, as is well known, is an important breeding-ground of disease. A scheme of prevention, of world-wide scope, must necessarily provide means of obtaining and coordinating information in the center of the "enemy's country." It must also have the means of sending help to any area in which help is required. The recent epidemic of dengue in Greece, for example, has been the subject of careful investigation by officers of the Health Section, who have advised the local authorities, have offered them assistance and have in addition kept the health officers of all neighboring countries fully informed about the progress of the malady and about the means of prevention. In a recent issue of the *Epidemiological Report* of the Health Section the situation in Greece is discussed and full information is given about the prevalence throughout the world of plague, cholera and enteric fever. This information supplements the reports which have already been sent out by wireless telephone. The Health Section is engaged at the present time in making surveys of various countries where epidemic diseases are prevalent. It is about to extend its operations to India. The object of these surveys is to gain information about the circumstances which favor the beginnings of disease in different lands, and to arrive at means whereby, when disease manifests itself, a *cordon sanitaire* may be instituted.

But the Health Section is not concerned only with disease. A shrewd judgment has decided that the study of the vital statistics of the world is necessary to a real grasp of the world's health problems. Recent work on the birth-rates and death-rates in Europe illustrates the wisdom of this policy. It has been found, for example, that national frontiers do not delimit areas in which the birth-rate is high or low. Areas in which the birth-rate is high or low extend from one country to another. Thus in Italy the whole of Piedmont and Liguria possesses a birth-rate lower than the average birth-rate of France, whereas the birth-rate in the valley of the Po below Cremona and in the district of the Alpine lakes is high. The population of Southern Italy is very prolific and birth-rates of from 30 to 40 per 1,000 of the population prevail in this area. In France, on the contrary, the highest birth-rates are found in the north, the lowest in the center and in the south. These observations suggest that the type of population is undergoing change in many European countries, since there is a tendency for population to "flow" from a more con-

gested to a less congested area; but against this consideration must be set the fact that, generally speaking, a high birth-rate is accompanied by a high death-rate among infants and young children. By watching closely the ebb and flow of populations throughout the world the Health Section is gaining a new knowledge about the ebb and flow of disease. It is also gaining a new knowledge about those conditions which lead to international friction. "In less than twenty years," says the *Epidemiological Report*, "the pressure of population in the western and center parts of Europe will almost certainly have terminated."—*The London Times.*

SCIENTIFIC BOOKS

The Mosquitoes of the Americas. By HARRISON G. DYAR. The Carnegie Institution of Washington, 1928, Publication 387, 616 pp. of which 123 are printed as plates of illustrations.

THE taxonomic volumes of the four-volume monograph of "The Mosquitoes of North and Central America and the West Indies" were published by the Carnegie Institution of Washington in 1915 and 1917. In the eleven years since Volume IV appeared there has been great activity in work relating to mosquitoes, and large numbers of new forms have been described. The great bulk of this descriptive work has related to forms from other parts of the world. The U. S. National Museum has remained the center of the American work, and Dr. Dyar, of the museum, has written the present volume. He has found it possible to include South American forms; hence the title, "The Mosquitoes of the Americas."

The material additional to that studied in 1917 has been gained largely in North America, Panama and the north coast of South America. Some additional collecting has been done in the West Indies and in continental South America south of the Guianas. Dr. Dyar himself, during these years, has personally collected through Canada and the northwestern United States, making great additions. Workers in Panama have also contributed largely. Dr. Dyar states that now the great need is for original unworked collections from tropical America. It is hoped that the publication of this volume will encourage South Americans to take up this work.

It may seem strange that, in spite of the greatly increased geographic range of the present volume, the number of species included is but little greater than that described in the former work. This, of course, indicates the need for intensive studies all through the American tropics, and it should be pointed out that another reason for the unexpected smallness of the list is that Dr. Dyar found it necessary to make wholesale reductions in the specific names, especially in Culex and Wyeomyia. The volume includes 544 species, as against 380 in the former monograph. Dr. Dyar informs me that he has now in press a paper describing two additional species.

Although many specific names have been relegated to the synonymy, the genera remain comparatively unchanged. The author has included many subgenera based upon the structure of the male genitalia and has given these subgenera careful study from the point of view of relationship.

In the former volume only two tribes of the Culicinae were recognized. The present volume recognizes five tribes: namely, Anophelini, Uranotaeniini, Sabethini, Megarhinini and Culicini.

With regard to one of these tribes, the Sabethini, a curious situation arises. In the American fauna this group is well marked, but Edwards, of the British Museum of Natural History, contends that, taking the mosquitoes of the whole world into consideration, there does not exist at present a known character by which the Sabethini as a tribe can be recognized. Dr. Dyar really founds his tribe on a peculiar larval character which holds for the Americas, and thinks that it may yet be found reflected in some adult structure. That this character (the absence of a median ventral brush on the anal segment) is not due (as with many other larval structures) to some peculiar method of life in the larval stage, is shown by the fact that species of other groups having the same larval habitat, namely the confined spaces between leaves and bracts holding water, have not acquired even a trace of a similar characteristic.

It will be remembered that the authors of the earlier monograph introduced the rather radical novelty of separate synoptic tables for the male genitalia and for the larvae. In fact, Dyar's interest in mosquitoes was an outgrowth of his early efforts towards a larval classification. This idea, followed in the careful tables in the present volume, has really brought about the stability of the present classification of mosquitoes. Edwards, of the British Museum, through his own independent studies of a very different fauna, has come to practically the same conclusions. His sole divergent view now rests upon his non-acceptance of the Sabethini as a tribe. The harmony between London and Washington in regard to mosquitoes is now so complete that dreams of the past seem nightmares!

The same format and practically the same type and paper are used as in the four-volume monograph, and in fact this volume should really be considered as a