knowledge about the life story of the eosinophil or the nature of its prominent granules. The standard methods of examining the blood and the tissues do not seem adequate for the solution of these problems, and we must wait on more novel or refined techniques for further advances.

MOSQUITOES OF THE AUSTRALASIAN REGION

Keys to the Mosquitoes of the Australasian Region: Including a Synopsis of their Distribution and Breeding Habits. By Kenneth L. Knight, U.S.N.R., Richard M. Bohart, U.S.N.R., and George E. Bohart, U.S.N.R. National Research Council: Division of Medical Sciences. (Pp. 71. No price given.) Issued by the Office of Medical Information, Washington. July, 1944.

The systematic entomologist is often accused of counting hairs, but it is safe to say that without his labours little progress could have been made in the study of disease transmitted by insects. This applies especially to the mosquitoes, where the habits of the different species play such a large part in the transmission of disease, and whose importance as vectors of malaria, yellow fever, filariasis, dengue, and possibly other tropical diseases makes their identification one of the first essentials to any research connected with the control of these diseases. Lieuts. K. L. Knight, R. M. Bohart, and G. E. Bohart, of the U.S. Naval Medical Research Unit, are therefore to be congratulated on their most useful revision of the Australasian Culicidae, the result of eighteen months' work in the regions concerned. The Culicidae of many parts of the world, and especially the anopheles mosquitoes, have now been exhaustively studied, and their identification made possible to all and sundry by the publication of authoritative synoptic tables. Even the difficult South American forms have at last been reduced to something like complete order. There still remained, however, a much-needed authoritative synopsis of the no less difficult Australasian species, now clearly and with precision set forth in the reference work published in Washington.

The area dealt with is the Australasian faunal area proposed by Wallace and modified by Swellengrebel and Rodenwaldt (1932), and includes, besides Australia, the Moluccas, New Guinea, and a large part of the Pacific, extending to the Hawaiian Islands, the Marianas to the north, and the Taumoto Archipelago (Society Islands) to the east. New Zealand, South and Western Australia, which possess a large endemic fauna of their own and were far removed from the zone of military activity, are not included in the revision. The whole of the Culicidae are dealt with, in all some 250 species and subspecies (8 *Bironella*, 41 *Anopheles*, 5 *Megarhinini*, 13 *Uranotaenia*, 3 *Hodgesia*, 28 *Tripteroides* (*Rachionotomyia*), 14 *Mansonia*, 100 *Aëdes*, 2 *Aëdeomyia*, 2 *Ficalbia*, and 42 *Culex*). Zoologically the most interesting feature of the fauna dealt with is the absence of certain genera familiar to students of the Oriental species—e.g., *Leicesteria*. But, as the authors note, of the nine genera given by Edwards (1924) as not represented, three have since been recorded. To the malariologist a feature of interest is the now quite large list of species of *Bironella*, that peculiar group of primitive anopheles uniquely confined to New Guinea. Following the various synoptic tables of the different genera is a list giving the distribution and recorded larval habitat of each of the species dealt with. The publication should be of the greatest value, and most helpful to all who may have to do with the identification or control of mosquitoes in this important zone.

Notes on Books

A little book *The Attendant's Guide*, by EDITH M. STERN (Oxford University Press; 3s. 6d.), might well be issued by mental hospitals to their junior nurses. It gives pleasantly worded advice about the handling of the patients, and about most of the problems that are likely to come the way of the mental nurse. Most handbooks of nursing tend to be uninspired and dryasdust on the subject of the attitude of the nurse to her patients, in contrast to which this booklet shows a refreshing humanity informed by knowledge and sense.

The Child Welfare Department of University College Hospital, London, has issued a useful pamphlet on *The Management of Older Babies* (post free 4d.). It covers the period of mixed feeding, from 5 months to 2 years, and deals not only with feeding but with such matters as training in good habits, play, teething, and prevention of illness. A useful section on the need of affection strikes just the right note.

Preparations and Appliances

AN IMPROVED ARTIFICIAL PNEUMOTHORAX NEEDLE

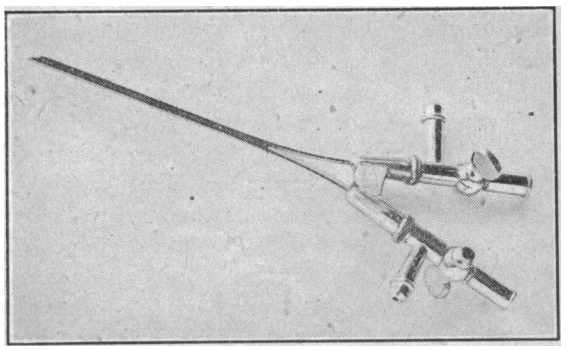
Dr. ALASTAIR ALLAN writes from Greenock:

Recent correspondence in the *Journal* has drawn attention to the occurrence of air embolism, the most dangerous occurrence that may happen during the administration of artificial pneumothorax refills. Air embolism develops with dramatic suddenness and without any useful warning signs; if the occurrence is not immediately fatal, total recovery usually takes place in a few days, but the whole picture is most alarming for all concerned.

With the usual type of pneumothorax needle, after the manometer is observed and read, it is by-passed until the refill has been given, then switched over into the circuit again, and the reading taken. During the refill—the dangerous period—no reading can be observed, and one hopes the point of the needle is still within the intrapleural space: usually it is, but when it is not accidents may happen without warning.

Cameron[1] urges "intelligent use of the manometer" to reduce risks, and Burrell[2] also emphasizes the importance of the preliminary manometer reading. The manometer supplies visible evidence of the presence of the needle-point within the intrapleural space, and it is illogical to be deprived of this visual sign when it is most required—during the actual refill.

Artificial pneumothorax as a specific therapeutic procedure was first carried out by Forlanini in 1888[3] by a method similar



in principle to present-day methods but without a manometer. This handicap was removed by Saugmann in 1904, who was the first to use a manometer to record the intrapleural pressure. Artificial pneumothorax apparatus has remained unchanged in principle since then, and the only changes have been various minor modifications. It may therefore be of interest to describe a needle I have been using, the main purpose of which is to reduce the risk of air embolism. It is simply a double needle with two complete and separate air channels; one is led to the manometer by rubber tubing, the other to the air-flow bottle of the A.P. apparatus. The illustration is approximately half-size linear.

When in use a constant manometer reading of the intrapleural pressure is obtained, before, during, and after the refill; and (it should be unnecessary to add) if no reading can be obtained, then no refill should be administered at that site. One has to experience the feeling of confidence which results to appreciate its value.

The only criticism which might be levelled at this needle is the increase in size of the puncture it produces. Theoretically this is true, but in actual practice it is negligible. "Humanity and common sense call for anaesthetization of the needle track,"[1] and this has always been my practice, and the increased size of the needle can genuinely be discounted. It may be noticed from the illustration that the shape of the point causes the end of one channel to be about 1 mm. longer than the other, and the longer is the one I always connect to the manometer: a "V" point instead of a bevel would bring both channels to exactly the same level. This is probably of theoretical importance only.

The needle was made for me by Vicarey, Davidson and Co., 162, Bath Street, Glasgow, C.2. My thanks are due to Dr. Alexander Johnstone, Medical Officer of Health, Greenock, for permission to publish this.

1 *Edinb. med. J.*, February, 1941, p. 94.
2 *Recent Advances in Pulmonary Tuberculosis*, by Burrell, 1937.
3 *Pulmonary Tuberculosis, Medical and Surgical Treatment*, by H. Morriston Davies, p. 209.