

advance information supplied by Mr. Barker, with Prof. von Fedorow's kind permission, in the writer's "Crystallography and Practical Crystal Measurement" (Macmillan and Co., Ltd., 1911), the account now definitely published in German requiring nothing to be corrected in that forecast.

A. E. H. TUTTON.

MALARIA IN INDIA.

THE fourth number of *Paludism* (Proceedings of the Committee for the Study of Malaria in India), published last March, begins with an interesting account of the proceedings of the second meeting of the general Malaria Committee held in Bombay on November 16-17, 1911. This meeting appears to have been of a very important nature. The president was the Hon. Surgeon-General Sir Charles Lukis, C.S.I., the new Director-General of the Indian Medical Service, and his introductory address is well worth the close attention of all sanitarians in tropical countries. After some preliminary remarks, he proceeded to say that he viewed with concern the tendency amongst malaria workers to divide into two camps, namely, those who advocate anti-mosquito measures, and those who pin their faith on quinine prophylaxis. He directed attention to a previous speech of his, in which he said that—

"whilst agreeing that quinine prophylaxis, properly carried out, was one of the most valuable weapons in the fight against malaria, and whilst admitting that in rural areas it might be the only weapon at the disposal of Government, I felt bound to express my opinion that, if they were to place sole reliance on this measure in Indian villages, they were doomed to disappointment. Quinine prophylaxis should go hand in hand with general sanitation and with the destruction of anopheles breeding grounds wherever this can be accomplished at reasonable expense, and it seems to me that recent observations justify us in thinking that this destruction is not likely to be as costly as has hitherto been supposed. Quinine has undoubtedly conferred inestimable benefits upon the individual; but it never has, and never will, be of equal value to the community as a whole, and you cannot get away from the fact that if there were no mosquitoes there could be no malaria. I fully realise that in some of the hyperendemic areas mosquito destruction may be a counsel of perfection, but even there much good may be done by reducing the numbers of the special species which acts as the carrier, and, I ask you, should we halt in our activity because we cannot attain to an ideal perfection? I recognise the fact that no one method will suffice as a general anti-malarial measure; I recognise the power of each in its proper place, but I hold strongly that wherever possible anti-mosquito measures must be carried out. I also recognise the importance of preliminary investigation, but it must not be carried to extremes; the time has come for definite action on well-considered and practical lines."

This official pronouncement will be looked upon with gratitude by all those who have been urging the wider policy in India for years past, and will, we hope, prove to be the starting point of a new era. The Director-General proceeded to give some

good advice on many other points; for instance, that actual operations may with advantage be carried out in conjunction with investigation (page 6), and that, indeed, in certain instances the former may be the only method of investigation—a point which has long required emphasising. He added that—

"if we wait until our experts have made a complete investigation of all the problems connected with the epidemiology and endemology of the disease, there is the danger that India will remain for many years practically untouched. We require then two classes of men—the scientific experts and the practical workers."

The other proceedings at the Conference showed that this advice is already being largely followed in India. The various provincial organisations for dealing with malaria are described, and several good articles and discussions are given. Both Sir David Semple and Major Robertson (the new Sanitary Commissioner for the Government of India) strongly supported the Director-General's remarks. Captain McKendrick, the Statistical Officer of the Indian Sanitary Department, furnished a very interesting paper on the pathometry of malaria according to the mathematical studies which were discussed by myself and Mr. A. J. Lotka in *NATURE* of October 5, 1911, and February 8, 1912, respectively. Captain McKendrick, who is a capable mathematician, has also added some interesting remarks on the subject, but these cannot be discussed except at some length. References were made to Major Christopher's very interesting researches in the Andaman Islands and to Dr. Bentley's Report on Malaria Prevention in Bombay; and Colonels Dyson and Adie, Majors Wilkinson, Glen Liston, and Robertson, and others added original information on details. I have only one fault to find, and that is that the printing and get-up of *Paludism* are so very much inferior to the excellence of the matter contained, a fact which may explain why the Director-General has been obliged to ask for more scientific contributions.

RONALD ROSS.

THE 250th ANNIVERSARY OF THE ROYAL SOCIETY.

THE celebrations in connection with the 250th anniversary of the Royal Society opened on Monday last with an evening reception of the delegates in the rooms of the Society. On Tuesday there was a commemorative service in Westminster Abbey at noon; a formal reception of the delegates and presentation of addresses in the library of the Royal Society in the afternoon, and a banquet in the Guildhall in the evening. Yesterday visits were paid to places of interest in London; a garden-party was given by the Duchess of Northumberland at Syon House and a conversation was held at Burlington House at night. To-day further visits are being paid to places of interest, and fellows of the Society and the delegates are being entertained by their Majesties