

## INSECTS AND DISEASE.

"THE PREVENTION OF MALARIA," by Ronald Ross, with contributions by other authorities. XIII—669 pp., with plates. (London: John Murray.)

INSECTS AND DISEASE," by R. W. Doane. XIV—227 pp., 112 figs. (American Nature Series, New York: Henry Holt & Company.)

If the goal of civilization is the supremacy of man over the antagonistic forces of nature, then the part which the entomologist is playing in enabling the human race to reach that goal is no small one. No other branch of entomological study has drawn the attention of men, and in particular of statesmen, to the importance which insects play in the economy of mankind, as that which deals with the direct relationship of insects to man as the carriers of disease. When an insect-borne disease is responsible in India alone for an annual mortality of over a million people, when another exacts a penalty of fifty thousand lives from the French as a toll for cutting a portion of the Panama canal, and a third disease in a few years results in the loss of over two hundred thousand lives in Central Africa, it is then that the importance of insects, as the necessary hosts of such diseases as Malaria, Yellow Fever and Sleeping Sickness, is recognized. At the anniversary meeting of the Royal Society, held in December, Lord Robson gave an indication of the forcible manner in which these questions are appealing to men of to-day. He remarked that it is the man of science who is to decide the fate of the tropics, not the soldier or the statesman with his programmes and perorations, but the quiet entomologist. He is the man of science who above all others strikes popular imagination the least and gets less of popular prestige, but he has begun a fascinating campaign for the sanitary conquest of those enormous tracts of the earth, and before long he will have added their intensely fertile soil, almost as a free gift, to the productive resources of the human race. Coming from one who is not a scientist, this statement is all the more significant of the trend of opinion among our public men. The mosquito is shown to be the factor which has prevented the opening up of enormous areas of Africa, and likewise the tse-tse fly by its attacks upon domestic beasts of burden; the flea is proven to be the means of disseminating the plague bacillus; the house-fly is condemned as a serious menace to public health as a carrier of the germs of typhoid and other infectious diseases, and so the story is