

Library and Laboratory

The Reduction of Domestic Mosquitoes.

This is an excellently written hand book, containing the history of, and instructions for, the destruction of the domestic mosquito. The writer, Dr. Edward Halford Ross, of the Liverpool School of Tropical Medicine, applied the rules contained in this book during his regime as health officer of the Port Said and Suez Canal districts; the book being written at the suggestion of Professor Donald Ross.

Dr. Ross points out that towns of the Suez Canal were cleared effectively of all kinds of mosquitoes and that the results gained at Port Said show the fallacy of limiting the mosquito reduction campaign only to malaria-conveying anophelines.

Dr. Ross describes the different species of mosquito and then deals with the domestic mosquito in a very interesting way.

He tells how in 1878 Vankroft and Cobbold suggested that the human blood worm *Filaria bancrofti* might be carried by mosquitoes, and how Manson in China came to the same conclusion; Donald Ross in 1897 also showing that the human malaria parasite of Laveran is similarly transmitted by certain mosquitoes of the dapple wing type. These conclusions were confirmed by Koch, Daniels, Bignami, Bastianelli, Stevens, Christophers, and many others, and serious attention was consequently drawn to the mosquito as a dangerous pest.

The discovery of the transmission of malaria by mosquitoes was rapidly followed by the discovery of the transmission of yellow fever in a similar manner.

The first suggestion as to the best way to extirpate mosquito-born diseases was made in a letter to the Government of India in 1899. The suggestion was published in the Indian Medical Gazette, and a few months later Professor Ross made similar proposals for Sierra Leon. As a result, a limited campaign against anophelines was begun at Hong Kong in 1900, followed in 1901 by the reduction of mosquitoes in Staten Island, near New York, and the

same year the first extensive campaign was started in Havana against all kinds of mosquitoes. This latter campaign was most successful and yellow fever was completely abolished.

"The existence of domestic mosquitoes," writes Dr. Ross, "in a town or village should be regarded as a sign of insanitation, and their numbers as a measure of that insanitation." The reduction of the domestic species of mosquito presents no difficulties. Given the necessary means, it requires only organization and perseverance, and Dr. Ross shows that mosquito prevention in towns has certain definite results if properly carried out; namely, first, it prevents certain diseases; second, it is a popular measure; third, it necessitates a regular weekly examination of houses, yards, latrines, ash pits, water closets, cess pools, and all unsanitary places by the sanitary authority—if the public believes that this examination is being carried on in order to prevent mosquitoes there will be no opposition—; fourth, it interests the inhabitants and encourages them to report sickness and the return of mosquitoes to the local authority.

The cost of such a campaign is not great; an average municipal rate of 6d. per head of population per year in each town generally covers the cost of up-keep of a mosquito campaign and the sanitary inspection that follows therefrom; and this cost will gradually diminish as it did at Port Said under the management of Dr. Ross.

Dr. Ross deals with his subject in twelve chapters, taking up in order: The Importance of Domestic Mosquitoes; The Life and Habits of Domestic Mosquitoes; The Fever Census; Estimating the Cost of Mosquito Reduction; Ways and Means; Preliminaries; The Starting of the Mosquito Campaign; Progress; Mosquito Reduction; Reporting Progress; Finance; Results. His 114 pages are interspersed with 111 well-chosen illustrations, and the book is certainly one which should be read by everyone interested in public health