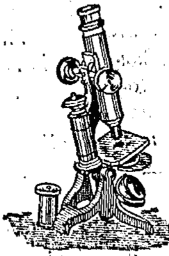
Medical Matters.

MOSQUITO BITES AND MALARIA :—THE TRANSMISSION OF DISEASE.



In the course of his report on the medical department of the British Central Africa Protectorate, Dr. G. D. Gray gives some further information on the transmission of malarial fever by mosquitoes. He says that the endemic malarial fever of British Central Africa is caused by the small unpigmented malignant quotidian ring parasite and the small pigment ring parasite with crescent formation. This is the worst form of malarial parasite there is, because of its malignant tendency. It is but rarely that this parasite runs a definite course, in part because individuals usually get more than one infection about the same time, and in part because a subsequent attack is complicated often by a fresh exacerbation of a previous one. Frequently parasites are to be found in different stages of growth in the blood, and thus the administration of quinine in such cases is not attended with the same good benefits.

Fresh proofs are constantly to hand of the *rôle* played by mosquitoes in transmission of malaria, and efforts have been made all round to limit their numbers. The cleaning of river banks in the vicinity of the townships of Fort Johnston and Chiromo has been attended with an appreciable diminution of the mosquito pest, and drainage in other stations has also made a certain amount of difference. It has been curious to note the quiet persistence with which the anopheles variety of mosquitoes clings to the interiors and the immediate surroundings of houses. The mosquitoes of the swamps are mainly the vegetable-eating culices, who will suck blood when opportunity offers, but are not dependent on it. For every one culex found lurking in some shady corner of a house during the day there will be six anopheles, and when laying their eggs the latter variety prefers the water-butts, or any vessels holding water which are on the verandah or close beside the house.

The principles of self-protection against mosquito bites are being more carefully attended to by all classes of Europeans, and there are in every station instances to be found where individuals have been living fever free ever since arrival in the country. Formerly, 98 per cent. of white immigrants suffered attacks of fever soon after arrival—an attack being looked upon as an inevitable concomitant of life out here. There are, however, some spots in the Protectorate from which fever can never be eradicated, at least as far as we can at present see. One hot-bed of fever, viz., Kota Kota, is a large town; it is the headquarters of a wide rice-growing district, and mosquitoes swarm during the greater part of the year. Of thirty-five mosquitoes sent to Zomba from Kota Kota, twenty-four were anopheles. Unfortunately, it would be impossible to destroy the swamp there, or materially alter the conditions under which the important rice industry is carried on. To alter the housing of the native population, put them under mosquito nets, and to ensure a systematic proper regulated dosing of quinine, would also not be possible. We must, therefore, give in to the fact of this (so far) permanent focus of malarial infection in the Protectorate, and look to a reasonable segregation of Europeans to diminish the danger.

We hope that precautions against infection will be increasingly taken by Europeans.

POST-SCARLATINAL DIPHTHERIA AND RHINORRHŒA AND OTORRHŒA.

An interesting article appeared in the *British Medical Journal* by Dr. Williams, Medical Superintendent City Hospitals, Sheffield, in which he establishes the frequency by which this disease is spread amongst convalescent scarlet fever patients, by means of infection due to persistent nasal and aural discharges which have become infected by the bacilli of diphtheria or bacilli resembling that form.

He advises, therefore, that in all such cases the patient should be examined for such bacilli, which, if found, should lead to the isolation of the case, and that this practice may be reasonably expected to reduce the post-scarlatinal incidence. The writer further suggests that these discharges unassociated with sore throat, and easily overlooked, may be the cause of the often unaccountable outbreaks and the persistence of the disease amongst school children. The cases upon which the paper is founded were inmates of one of the Metropolitan Asylums hospitals, where for so many years the disease has been unhappily rife.