

Medical Matters.

FLEAS AS A NATIONAL DANGER.



At the opening of the winter session of the School of Tropical Medicine Sir Lauder Brunton, M.D., F.R.C.S., F.R.S., gave a most interesting address on the above subject, which is reported at length in the *Lancet*. He began by describing the manifestations of malaria, which, as is well known, is one of the insect-borne diseases, and then briefly alluded to yellow fever, which has almost been stamped out in some districts by destroying the mosquitoes in the same way as for malaria.

THE SPREAD OF SLEEPING SICKNESS.

The lecturer then gave an interesting detail in regard to sleeping sickness—another insect-borne disease which at the present time is attracting much attention. He said in part: "This disease appears to have existed from time immemorial on the West Coast of Africa, but it was confined there because the various tribes were at war with one another. It was impossible for anyone to cross the continent, and thus the eastern side was perfectly immune. But the stoppage of the intertribal warfare produced a result that no one could have foreseen. As Colonel D. Bruce, R.A.M.C., has expressed it, we have introduced the *Pax Britannica* to the districts surrounding the Lake Nyanza, with the result that the population has been almost exterminated by the pestilence which the stoppage of intertribal war, and increased facilities for commerce have introduced. This disease does not, as was at first supposed, attack only the natives. It attacks white men as well, and it threatens to spread along the Nile Valley, and how far it may do so, and with what results to the Soudan and Egypt no one knows.

"The disease germ here is a trypanosome which is transferred from one infected patient to another by the *glossina palpalis*, very similar in appearance to the tsetse fly.

A CHAIR OF SCIENTIFIC ENTOMOLOGY.

"If the trypanosome which causes sleeping sickness, could be destroyed by remedies, not only would the patient be cured, but the disease would be exterminated.

"What is true of the *glossina palpalis* is true of other flies also, and as ticks and bugs are likewise most important as carriers of other diseases, there really ought to be established by Government a chair, or still better an institute, of scientific entomology well endowed

and having attached to it a number of men who could carry on original investigations. Such a chair or institute, if thoroughly well endowed, and having money lavishly expended upon it, would repay the expenditure a thousandfold; for the study of tropical diseases is becoming to a great extent identified with the study of the insects which transmit them.

"It is very difficult indeed to arouse people to take an interest in, and to spend money upon, objects which they think do not directly concern themselves, and although malaria and sleeping sickness are of imperial importance, yet they do not directly affect the health or the well-being of the tax or rate payers of this country. But there is another disease which is liable almost at any time to do this—namely, the plague.

FLEAS AS AGENTS IN DISSEMINATING PLAGUE.

"Although the connection between mortality in rats and plague has been long observed, it is only recently that its nature has been ascertained. The disease germ which occasions plague is a short, thick coccus-bacillus with rounded ends to which the name of bacillus pestis has been given. It was discovered by Kitasato, and also by Yersin, and numerous experiments have proved without doubt that this bacillus is the cause of the plague. The idea was first proposed by Simonds that the real transmitters of the virus were fleas. These insects, having fed upon rats or patients infected with plague absorb the bacillus, which multiplies within them, and is transmitted to the next animal or person they bite. Simond's theory explains the propagation of the disease to the healthy from infected persons or their neighbourhood."

The advisory committee, appointed by the Secretary of State for India, the Royal Society, and the Lister Institute, found that "rat fleas bite human beings, and it seems to be demonstrated beyond the possibility of doubt that, although in some instances, infected food may possibly produce the disease, yet fleas are the main instrument of disseminating the infection of plague, and that in places where they exist in large numbers a nidus exists where plague once introduced may become more and more virulent and spreading like wildfire along railway lines may overspread the country.

"The great difficulties in the way of preventive measures are ignorance and apathy. The plan which I believe is now adopted in Hong-Kong and Bombay is to treat any house in which a dead rat is found as "plague infected" and to evacuate it and disinfect it with crude petroleum.

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