

been found in the Tehuantepec Isthmus nor in the area between the foci in the State of Oaxaca and the States of Puebla and Veracruz. No studies have been made of certain other areas on the route (from Matamoros, Puebla, to the interior of Oaxaca, and along the descent from the Oaxaca plateau to the Isthmus, and the western *Sierra Madre* range in Michoacán, Jalisco and Nayarit.) In considering preventive measures, it should be recalled that the mere passage through infected zones is of no danger to tourists. White people are apparently partially immune to onchocerciasis, requiring prolonged exposure (that is, to bites of many infected insects). Although onchocerca infection does not endanger the life of the patient nor decrease his working capacity considerably in the first few years, it still requires the Mexican Government to maintain a special medical service at a considerable expenditure, which would increase with the spread of the disease. Well-planned campaigns against onchocerciasis were started a few years ago by the Public Health Departments of Mexico and Guatemala, and recently a medical research laboratory and a special hospital in Huixtla (Chiapas) were added to the facilities. It is felt, however, that further research is needed, and in the plan presented by the author to the Congress on Indian Life, he suggested the establishment of a well equipped research laboratory in either Chiapas or Oaxaca, preferably with the support of Guatemala and of some of the scientific organizations of the United States, for the purpose of studying immunity, existence of cysts in internal organs, longevity of microfilariae in the human body, effects of certain drugs, distribution of the vector (*simuliidae*) in Mexico, etc. Other recommendations included: an increase in the number of personnel in infected regions for removal and sterilization of cysts and in antilarvae work and control of the movement of population in zones infected by onchocerciasis, to avoid the entrance of carriers into healthy areas. The use of larvicides is extremely effective, especially in the case of the principal vector, the *S. ochraceum*, as its larvae are bred almost exclusively in small streams with a volume of one liter or less per second. Such small streams can be easily sterilized with creoline by a dripping process. During the dry season all the streams of a Chiapas *finca* (plantation) can be sterilized in one day at small cost, and a repetition of the process at an interval of 15 days will eliminate the newly hatched larvae and also the no longer reproductive flies. This work, however, is impossible in the rainy season. In the interest of the Indian races, as well as internationally, the onchocerciasis problem deserves serious attention from the Governments of Mexico and Guatemala. Cooperative effort, such as that which brought about the extermination of the *Anopheles gambiae* from Brazil, should be able to free Mexico and Guatemala from the *Onchocerca volvulus*, which at the present time, parasitizes 20,000 persons in the State of Chiapas and 11,000 in the State of Oaxaca, and is a potential threat to other American countries.

A FEBRE AMARELA NO BRASIL*

Pelo Dr. WALDEMAR ANTUNES

Diretor do Serviço Nacional de Febre Amarela

O Dia Panamericano da Saúde, que se comemora hoje pela primeira vez no Brasil, vem pôr em evidência os seguintes conceitos sobre a atuação do Serviço Nacional de Febre Amarela:

(1) A febre amarela, que já foi mancha negra no grande mapa do

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Brasil, hoje—graças às possibilidades administrativas permitidas ao Serviço de Febre Amarela pelo actual Governo Brasileiro, deixou de constituir—quanto à forma urbana da doença—um problema para o país, porque os seus técnicos, com os métodos especiais de profilaxia aplicados em todas as suas áreas povoadas, varreram-na, desde 1934, de todo o território nacional.

(2) A descoberta, em 1932, no Brasil, da existência de uma forma silvestre da febre amarela, além de estabelecer rumos novos e seguros à profilaxia da doença, veio demonstrar a necessidade imperiosa de uma ação conjunta de todos os países do continente americano, para que mantenham todas as suas cidades, aldeias, fazendas ou quaisquer outros núcleos de população permanentemente livres de *Stegomyia*.

(3) Em 1932, pela primeira vez nas campanhas de febre amarela em todo o mundo descobriu-se no Brasil uma técnica de combate intensivo ao *Stegomyia*, pela qual é possível eliminar completamente a espécie em qualquer localidade. Em consequência dos trabalhos executados de acôrdo com aquela orientação, o Serviço de Febre Amarela já não encontra, há vários anos, *Stegomyia* nos Estados do Maranhão, Espírito Santo, Goiaz, Paraná, Santa Catarina e Distrito Federal. O actual programa do Serviço Nacional de Febre Amarela visa, assim, a eliminação completa do *Stegomyia*, dentro de alguns anos, em todo o território Brasileiro.

(4) O único recurso profilático de que se dispõe, no momento, contra a forma silvestre da febre amarela é a imunização específica. O Serviço Nacional de Febre Amarela já vacinou contra a doença, com a vacina que está sendo preparada no seu laboratório, 2,084,839 pessoas, residentes, em quasi a sua totalidade, nas zonas rurais do Brasil.

(5) O Serviço Nacional de Febre Amarela, em 1940 com apenas 2,948 funcionários conseguiu manter, com toda a eficiência, os trabalhos de profilaxia da doença em 6,024 localidades do Brasil, inclusive o Distrito Federal.

YELLOW FEVER IN BRAZIL

Summary.—The first celebration of Pan American Health Day in Brazil has been the occasion for a brief review of the yellow fever situation, and the work done by the National Yellow Fever Service. Special control measures applied to all inhabited zones have resulted in the disappearance of urban yellow fever from the country since 1934. The discovery in 1932 of the existence in Brazil of a jungle form of the disease called for coordinated measures to be taken by every American country in the fight against the *Stegomyia* mosquitoes. Due to the work carried out in Brazil by the Yellow Fever Service, no *Stegomyia* mosquitoes have been found for several years in the States of Maranhão, Espírito Santo, Goiaz, Paraná, Santa Catarina and in the Federal District. Specific immunization is so far the only protection against jungle yellow fever, and the National Yellow Fever Service has already inoculated 2,084,839 persons against this disease. In 1940 the Service had 2,948 employees working in 6,024 different places in Brazil (including the Federal District).