MEDICINE

Valley Fever Epidemic

Warning issued to medical officers regarding relatively uncommon but important disease after outbreak among troops on maneuvers.

➤ AN EPIDEMIC of 75 cases of Valley Fever among troops on maneuvers, with a loss to the military service of about 5,500 man-days, is reported by Major David M. Goldstein and Captain Stanley Louie, M.C., A.U.S., in *War Medicine*. (September)

They warn that medical officers both in this country and abroad should be on the alert for this relatively uncommon but important disease and should be given every opportunity to investigate areas selected for maneuvers with extreme care before approval.

Valley Fever and San Joaquin Fever are popular names for the condition which Major Goldstein and Captain Louie report under the technical name of primary pulmonary coccidioidomycosis. It is caused by inhaling the fungus *Coccidioides immitis*. This fungus can exist only under certain climatic conditions which, so far as is known, occur in this country only in parts of California, Texas and Arizona. It may exist elsewhere and not yet have been recognized, or may go under some other local name, which is one reason for warning medical officers generally to be on the lookout for it.

The other reason is that, although the chances of recovery are excellent, the disease is a protracted illness. The 5,500 man-days lost in the epidemic reported represent an average length of illness for each of the 75 men of well over two months.

Pain in the chest, chills, fever and cough are the usual symptoms at the beginning of an attack. The disease may be mistaken for pleuritis, bronchitis and various other lung diseases. The fungus may also invade the body through cuts of the skin, in which case it causes a skin disease. A highly fatal form of the infection, coccidioidal granuloma, occasionally follows the benign lung infection.

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PHARMACY

Atabrine Tested

Persistent rumor that American product causes more nausea, vomiting and diarrhea than the German-made drug is proved to be unfounded.

➤ AMERICAN-MADE atabrine, the synthetic drug used in prophylaxis and treatment of malaria, is no more dangerous than the German drug, Dr. Elmer H. Loughlin, Dr. Richard H. Bennett, Dr. Edward Santora and Dr. Silvio Mattucci, of Long Island College of Medicine and Riker's Island Hospital, N. Y., report in the military medical journal, *War Medicine* (September), published by the American Medical Association and the National Research Council.

Atabrine was originally made in Germany, but since the beginning of the present war most of the atabrine used in non-Axis-dominated countries has been manufactured in the United States from basic American materials.

A rumor has persisted that this American product caused more symptoms of poisoning, chiefly nausea, vomiting and diarrhea, than the German drug. The rumor, according to the New York scientists, started from results of preliminary, unpublished investigations claiming that the American drug caused these symptoms in a considerable number of persons getting it as prophylaxis against malaria.

The New York scientists investigated the matter by studying the effects of the two drugs on two different groups of people. One group consisted of 85 tuberculosis patients at the Brooklyn Thoracic Hospital who would be expected to show adverse effects if anyone did. The other consisted of 64 volunteers at Riker's Island Penitentiary, healthy prisoners actively at work. Neither the doctors giving the medicines nor the persons getting them knew when American-made atabrine, German atabrine or colored sugar and starch pills looking like the atabrine tablets were being used.

No appreciable difference was found in the clinical toxicity of atabrine made by American processes of manufacture from basic American materials and atabrine made from German basic material by either American or German processes. A certain number of both healthy prisoners and tuberculous patients had n sea, vomiting and diarrhea while getting the drugs. The amount of indisposition was about 2% of man-days, regardless of which drug was given. The healthy subjects were able to carry on their assigned work while getting the drug.

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MILITARY SCIENCE

Tanks Need Thicker Hulls If They Are To Survive

➤ SLOWER but tougher tanks with thick armor plates that have been cast and welded will probably be the future trend if the lumbering giants are to retain their place in modern warfare. This development was forecast by L. E. Carr, technical director of the British Ministry of Supply Mission, Washington, D. C., in a report to the American Society of Mechanical Engineers and the Engineering Institute of Canada, meeting in Toronto.

"If the tank is to survive as a weapon of war," he said, "there is no doubt whatever that such survival will rest primarily on its ability to withstand punishment rather than high speed performance."

Mr. Carr, who has been associated with tank development for 25 years, urged that plans should be made for using castings in future tank design to assure rapid production and to facilitate design changes found necessary after battle experience.

This change would imply hand welding of the plates which has already replaced riveting in the United States; riveting is now also being eliminated in the United Kingdom. Such welding requires special skill, although simpler automatic or semi-automatic methods are now coming into use in many plants.

"The use of welding simplifies fabrication," Mr. Carr pointed out, "eliminates much machining and reduces production labor."

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There are no known poisonous *lizards* in the tropics.