

PUBLIC HEALTH

Measles Preventive

War Department announces that the Army has gamma globulin, which is effective in controlling the disease. Comes from blood collected by Red Cross.

► THE WAR Department announced that it has on hand large supplies of a new, effective measles preventive that can be given soldiers exposed to the disease.

The preventive is known scientifically as gamma globulin. It is being obtained from plasma from the blood collected by the Red Cross for the armed services.

Research by Dr. Edwin J. Cohn, of Harvard Medical School, led to the development of this measles preventive. Dr. Cohn has succeeded in separating from blood plasma by chemical means various components or fractions. One such fraction is fibrin foam, now being used to stop bleeding in surgical operations (See SNL, April 29 and May 6). Another is the gamma globulin, which contains the antibodies developed in the blood to fight an invasion of measles

germs. Presence of these antibodies developed in a person's blood during an attack of measles explains why he ordinarily does not get a second attack.

Since most grown-ups have had measles, the blood they donate to the Red Cross contains these antibodies and also antibodies against other diseases to which they may have built up immunity.

Measles has so far been a very slight problem in the Army, with a very low occurrence rate compared with that of the last war, when at one Army camp alone hundreds of new cases developed day after day and every arriving troop train had from one to six cases in the eruptive, very infectious stage.

Memory of these thousands of soldiers who had measles, many of them dying from the pneumonia that fol-

lowed, led to establishment in 1940 of a Commission on Measles and Mumps under the direction of Dr. Joseph Stokes, Jr., of the University of Pennsylvania Medical School.

This Commission and nine others making up the Board for the Investigation and Control of Influenza and Other Epidemic Diseases in the Army, with Dr. Francis G. Blake as president, function under the direction of the Preventive Medicine Service of the Office of the Surgeon General.

For over a year members of the Commission on Measles have studied the new measles preventive. Most of the work, the War Department announcement states, was done at Army camps but a significant study was carried out during an outbreak of measles at an eastern girls' college. Among 67 students given the globulin, only one developed an average case of measles, while 18 out of 38 not given the globulin developed average measles.

Science News Letter, May 27, 1944

PUBLIC HEALTH

Whooping-Cough Epidemic Tests Vaccination Value

► BECAUSE whooping cough hits Iceland in regular epidemic waves at about seven-year intervals, it has been possible to make a test of the value of vaccination as a preventive of that disease, not possible under the less clear-cut conditions prevalent elsewhere. Story of the test is told in the *Journal of the American Medical Association* (May 20) by Dr. Niels Dungal of New York City and two Icelandic colleagues, Dr. Skuli Thoroddsen and Dr. Hreidar Agustsson, both of the University of Iceland in Reykjavik.

There has long been a considerable degree of uncertainty regarding the value of vaccination against whooping cough, the three investigators point out, because there is no way of knowing whether vaccinated children in most countries fail to develop the disease because they are actually protected or merely because they have not subsequently been exposed. The seven-year epidemics in Iceland, however, leave no doubts: when one of them is raging everybody is certain to be exposed, so that failure to develop symptoms can logically mean only that the person concerned is immune.

In a careful follow-through after vaccination of 770 fully vaccinated Icelandic children, it was found that 28.3% did not develop whooping-cough at all,



RECENT ADDITION—This is the eight-ton Armored Car M8, designed by the Ordnance Department to combine the speed and maneuverability of an automobile with the punch and armored protection of a light tank. It has a protectively low silhouette, resembling a turtle's back, and mounts both a 37 mm. cannon and .30 caliber machine gun. A crew of four handles this vehicle, which is intended primarily as a combat reconnaissance car. U. S. Army Signal Corps photograph.

49.5% had it in mild form, 16.9% developed it in "medium" severity, and only 5.3% were seriously sick. Among 122 children who had not been vaccinated, the corresponding numbers were 4.9%, 49.2%, 34.4% and 11.5%, respectively.

Especially noteworthy are the figures at the two extremes: of fully vaccinated children, more than five times as many remained without symptoms as among unvaccinated; and less than half as many became seriously sick.

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CHEMISTRY

Penicillin in Mexico

News brought to United States of new laboratory operated jointly by Mexican and U. S. manufacturing companies to make 10,000,000 units daily.

► A PRECEDENT in United States-Mexican relations that may have far-reaching good results has been set with the establishment in Mexico of the Wyeth-Stille Laboratories for the production of penicillin.

News of this laboratory, which was established in April and by the end of May is expected to be producing 10,000,000 units of life-saving penicillin a day, was brought to the United States by Dr. Jose Zozaya, director of the Mexican Institute of Public Health and Tropical Diseases and member of the Mexican Advisory Council to Science Service.

Dr. Zozaya is also chairman of the Committee of Penicillin Control established in Mexico by presidential decree. It was his idea to get an American drug manufacturing firm to join with a similar firm in Mexico for penicillin production. Having lived several years in Philadelphia, Dr. Zozaya was able to interest Wyeth, Inc., of that city in the project.

The Mexican part of the new penicillin production plant, Stille Laboratories, is 100% Mexican, Dr. Zozaya said. The Philadelphia firm, instead of establishing a laboratory or branch of its own, has joined with the Mexican firm to establish the new laboratory and is sending technical men to train Mexicans in penicillin production methods. The latter will work under Dr. Zozaya's direction.

This is the first time such an arrangement has been worked out and Dr. Zozaya hopes other firms will be encouraged to do the same.

"It will do a lot to take away the bad taste of American capitalism," he said.

Thanks are especially due the American Embassy in Mexico "which has broken a million barriers in getting

this accomplished," Dr. Zozaya declared.

Many lives will be saved in the coming months as a result of its efforts and those of other agencies in getting the penicillin production plant started at once instead of six months from now.

Dr. Zozaya is in the United States now to discuss with Army and Public Health Service authorities and medical school professors a plan he has for making the facilities of his Institute available to American students of tropical diseases. The Institute has not only a laboratory for research in tropical diseases but a 50-bed hospital and branches in other parts of Mexico where young doctors can see and study patients suffering from diseases that war may spread far beyond the tropics as soldiers and European refugees return to their homes.

Typhus fever, brucellosis or undulant fever, malaria, fungus diseases, and intestinal infections are among the diseases of which the Institute can furnish abundant material for study. Besides being of use to young doctors who may have to treat these diseases, Dr. Zozaya hopes that the Institute may have as guests, for six months or so each, medical scientists planning to specialize in the investigation as well as treatment of tropical diseases.

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AERONAUTICS

New Boeing Wind Tunnel Produces Super-Hurricanes

► A NEW concrete wind tunnel has just been put into operation at the Boeing Aircraft Company's Edmund T. Allen Memorial Aeronautical Laboratory.

The 18,000 horsepower electric motor,

built by Westinghouse Electric & Manufacturing Company, is capable of generating super-hurricanes in the 700 miles-an-hour range, about five times the force of an average hurricane.

In this wind tunnel, the largest operated by any private aircraft manufacturer, Boeing engineers will test the behavior of planes, wing shapes and other parts or sections of aircraft at speeds approaching the speed of sound, around 750 miles an hour.

The need for a wind tunnel producing high speeds became evident when air researchers discovered that the aerodynamic rules that hold good at present speeds may not apply to the planes of

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