

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.

Science News Letter, May 27, 1944

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.

Science News Letter, May 27, 1944

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

SCIENCE NEWS LETTER

Vol. 45 MAY 27, 1944 No. 22

The weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N. W., Washington 6, D. C. North 2255. Edited by WATSON DAVIS.

Subscriptions—\$5.00 a year; two years, \$8.00; 15 cents a copy. Back numbers more than six months old, if still available, 25 cents.

Copyright, 1944, by Science Service, Inc. Reproduction of any portion of SCIENCE NEWS LETTER is strictly prohibited. Newspapers, magazines and other publications are invited to avail themselves of the numerous syndicate services issued by Science Service.

Entered as second class matter at the post-office at Washington, D. C., under the Act of March 3, 1879. Established in mimeographed form March 18, 1922. Title registered as trademark, U. S. and Canadian Patent Offices, indexed in Readers' Guide to Periodical Literature, Abridged Guide, and in the Engineering Index.

The New York Museum of Science and Industry has elected SCIENCE NEWS LETTER as its official publication to be received by its members.

Member Audit Bureau of Circulation. Advertising Representatives: Howland and Howland, Inc., 393 7th Ave., N.Y.C., Pennsylvania 6-5566; and 360 N. Michigan Ave., Chicago, STate 4439.

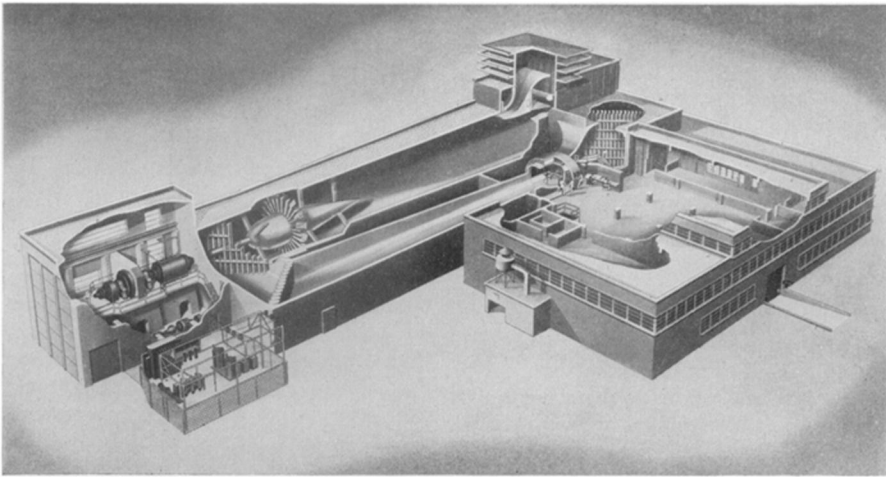
SCIENCE SERVICE

The Institution for the Popularization of Science organized 1921 as a non-profit corporation.

Board of Trustees—Nominated by the American Association for the Advancement of Science: Edwin G. Conklin, American Philosophical Society; Otis W. Caldwell, Boyce Thompson Institute for Plant Research; Henry B. Ward, University of Illinois. *Nominated by the National Academy of Sciences:* Harlow Shapley, Harvard College Observatory; Warren H. Lewis, Wistar Institute; R. A. Millikan, California Institute of Technology. *Nominated by the National Research Council:* C. G. Abbot, Secretary, Smithsonian Institution; Hugh S. Taylor, Princeton University; Ross G. Harrison, Yale University. *Nominated by the Journalistic Profession:* A. H. Kirchhofer, Buffalo Evening News; Neil H. Swanson, Executive Editor, Sun Papers; O. W. Riegel, Washington and Lee School of Journalism. *Nominated by the E. W. Scripps Estate:* Max B. Cook, Scripps Howard Newspapers; H. L. Smithton, Executive Agent of E. W. Scripps Trust; Frank R. Ford, Evansville Press.

Officers—President: Edwin G. Conklin. *Vice President and Chairman of Executive Committee:* Harlow Shapley. *Treasurer:* O. W. Riegel. *Secretary:* Watson Davis.

Staff—Director: Watson Davis. *Writers:* Frank Thone, Jane Stafford, Marjorie Van de Water, Morton Mott-Smith, A. C. Monahan, Martha G. Morrow. *Science Clubs of America:* Joseph H. Kraus, Margaret E. Patterson. *Photography:* Fremont Davis. *Sales and Advertising:* Hallie Jenkins. *Business Manager:* Columbus S. Barber.



PRODUCES HIGH SPEED WINDS—Gales approaching the speed of sound can be made in this new concrete wind tunnel, which has recently been put into operation at one of the Boeing Aircraft Company's laboratories, for testing the behavior of planes and their parts.

the future. It is believed that present-day aircraft at their moderate speeds affect the air ahead of them in such a way that the air can readily flow about their wings and bodies. The airplanes of

the future are expected to cruise at speeds from 600 to 800 miles an hour, and it is felt that a different type of air-flow occurs at these higher speeds.

Science News Letter, May 27, 1944

PSYCHIATRY

Electric Sleep

New treatment used for schizophrenia, common mental disease, results in improvement for 26 out of 34 cases. Differs from shock treatment.

► A NEW TREATMENT for the mental disease, schizophrenia, was announced for the first time at the Philadelphia meeting of the American Psychiatric Association. The treatment is called electronarcosis, or electric sleep. It was described by Dr. George N. Thompson of Los Angeles. Working with him to develop the new treatment were Dr. Esther Bogen Tietz and Dr. A. Van Harreveld, of Los Angeles, and Dr. C. A. G. Wiersma, physicist of the California Institute of Technology at Pasadena.

Of the first 34 patients treated, 13 were termed Grade A recoveries, another 13 improved to the point of social adjustment though retaining some personality defects, four were improved but not markedly, and four failed to benefit. Of the four failures, it was subsequently found that three had had previous attacks of schizophrenia more than two years before the treatment. The Los

Angeles doctors believe the treatment is likely to succeed only in early cases who have been sick less than two years.

The treatment differs from electric shock treatment in that the electric current passed through the patient's brain is controlled to produce first a convulsion and then to keep the patient unconscious for seven minutes. Although electric sleep had been given to animals and even used as an anesthetic during operations on them, it was not possible to give it to human patients until a method was found for automatically compensating for the moderate changes in the resistance of the patient's circuit. Credit for devising a machine to do this goes to Dr. Wiersma.

Electronarcosis is safe and practical, the California scientists reported. They have given over one thousand such treatments without a death or significant complication. They consider it superior to electric shock, stating that the

latter gave 43% recoveries and improvements compared with 76% for electric sleep which is, they stated, approximately the same as with insulin shock treatment.

The treatment is almost as fearful to watch as the various shock treatments. In moving pictures Dr. Thompson showed, the patients' bodies were drawn up in violent convulsion as the current went through their brain. In 30 seconds the current was reduced and the patients were quieter although one kept twitching her feet and another made walking motions with her legs. During the sleep phase carbon dioxide and oxygen were given through a mask. The patients breathed as if gasping for air, perspired profusely, had flushed faces and kept their arms drawn up rigidly. Within a few minutes after the current was cut they regained consciousness and a half-hour later one patient was shown smiling and relaxed, apparently on her way to recovery from the sickness that had locked her mind up in the shadows and delusions of insanity.

Science News Letter, May 27, 1944

Aiding War-Bereaved

► HOW TO HELP the war-bereaved mothers, wives and other close relatives of the fighting men who will not come back was told by Dr. Erich Lindemann, of Massachusetts General Hospital, at the meeting.

These people who have what psychiatrists term grief reaction are likely to suffer symptoms of physical distress and mental and nervous abnormalities, he said, on the basis of experience with surviving relatives of the Coconut Grove fire victims.

Tightness in the throat, choking and shortness of breath, need for sighing, an empty feeling in the abdomen, lack of muscular power and intense subjective distress described as tension or mental pain are common to all sufferers from grief reaction. Lack of strength and exhaustion with the complaint, "everything I lift seems so heavy," was universal among those studied. The reaction may come immediately or be delayed. A slight sense of unreality, which may make the person fear insanity, a loss of warm feeling toward other people, a tendency to isolate herself from social activities, are other features of the condition.

Sometimes the grief reaction comes at the time of separation when the beloved one goes overseas, in anticipation of and as safeguard against the notice of death.