

## METEOROLOGY

# Change Hawaiian Climate

► ONE HUNDRED tons—200,000 pounds—of common table salt is being tossed into clouds over Hawaii in a three-month period in an effort to make rain.

This is a result of Nobel Prize-winner Dr. Irving Langmuir's suggestion that the climate of tropical islands such as Hawaii and Puerto Rico can be considerably changed by tossing ground-up table salt into clouds which might not otherwise produce rain.

No one directly connected with the experiment will talk about it to reporters, but SCIENCE SERVICE learned about these vast amounts of salt being thrown at clouds from authoritative sources. Reason for reluctance to talk is the controversial nature of Dr. Langmuir's theory as to the effects of throwing salt at clouds. Many scientists do not believe that such large scale effects can be obtained.

The effort is being supported by one cattle ranch. The machinery for throwing it into the clouds is on the top of a 4,000-foot mountain situated on the ranch.

The salt, bought from a company which makes the table salt usually sold in retail grocery stores for about 15 cents for two pounds, is ground up into quite tiny salt crystals. The effort is made to duplicate the crystals tossed up from the surface of

the ocean around which most rain is believed to be formed.

The experiment will be over at the end of this month.

Only after several months of arduous pouring over statistics will those in charge be able to know whether or not the salt actually produced any change in the rate of rainfall over the ranch in question. This will also be true of more large-scale effects some scientists expect to be produced.

The salt is not tossed into the sky every day. A strictly objective method of picking out random days in the three-month period was used. Only on those random days is the attempt made to make rain with salt. It is the theory that these days can be compared with similar days in past years to show whether or not an increase in rainfall was achieved.

Science News Letter, February 14, 1953

## MEDICINE

# Diphtheria Immunization

► OLDSTERS, WHO in recent years have become the primary target of diphtheria, can now be immunized against the disease without the usual painful local and general body reactions.

This is reported by a group of doctors of the University of California School of Medicine, San Francisco, who have successfully tried a new technique of immunization in 163 persons, most of them elderly.

Thirty years ago diphtheria was a disease primarily of childhood, the great majority of cases occurring in the first few years of life. Since then, however, immunization programs have made diphtheria uncommon in childhood.

As a result of decreased incidence of the disease, the California doctors point out, there is less chance to acquire or maintain natural immunity by exposure to the diphtheria agent.

Older persons thus have become the prime target of diphtheria, and complications and mortality are at a maximum among the elderly. In San Francisco at present, about 60% of diphtheria cases are over 30 years of age.

Large scale immunization of adults to diphtheria by the methods used for children has never been feasible because of the high incidence of severe local or general reactions to the immunizing material. The dose for children is usually three monthly injections of one cubic centimeter each, under the skin.

The California physicians used three very small doses at monthly intervals—.1 cubic centimeter per dose. The doses were injected into, not under, the skin.

Blood tests showed that all but seven patients were successfully immunized. There

# Questions

**AGRICULTURE**—How many tons of land products are required each year for each person in the U. S.? p. 100.

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**DENTISTRY**—Why do women lose fewer teeth than men? p. 101.

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**GEOPHYSICS**—What is the energy equivalent stored in the lunar atmospheric tides? p. 102.

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**PUBLIC HEALTH**—How are cosmetics dangerous to inquisitive children? p. 101.

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**PUBLIC SAFETY**—How long is the danger zone in front of an automobile moving 40 miles an hour? p. 106.

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were no severe reactions, and only six minor reactions.

The California research team consisted of Drs. Henry D. Brainerd, William Kiyasu, Mirra Scaparone, and Louis O'Gara. Their report was made in the *New England Journal of Medicine* (Nov., 1952).

Science News Letter, February 14, 1953

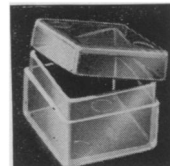
## PHYSICS

## A-Power No Help For Space Travel

► ATOMIC ENERGY will not help in powering space rockets, Dr. Fritz Haber of the U. S. Air Force School of Aviation Medicine, Randolph Field, told the Institute of Radio Engineers meeting in San Antonio, Tex. The atomic power source would be as heavy and bulky as chemical fuels conventionally used.

Science News Letter, February 14, 1953

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