

PHYSICS

Banish Atomic Dangers

This must be done before peaceful applications can be made. New weapons are believed to be sufficiently terrible to bring peace to the earth.

► PEACETIME application of atomic energy or any other scientific research activity will be of no importance whatever to the human race unless the danger of atomic bombs is banished from the earth, Dr. Harold C. Urey, Nobelist in chemistry, formerly of Columbia University and now of the University of Chicago, one of the scientists who worked on the atomic bomb, declared at the American-Scandinavian Foundation luncheon in New York, commemorating the birthday of Alfred Nobel.

The atomic bomb, in Dr. Urey's opinion, is sufficiently terrible to make possible the bringing of peace to the earth, a still unfulfilled hope of Nobel who invented dynamite.

Explaining that even if no improvement were made in the present atomic bomb a thousand of them, if properly placed, would destroy 33 cities of the size of New York, Dr. Urey suggested that with sufficient effort 10,000 bombs could be manufactured as a result of future improvements in known processes.

"If atomic bombs are used in the next war it seems certain that all the principal cities of the world, including those of the United States, will be utterly destroyed, and their inhabitants killed," said Dr. Urey.

By one means or another, Dr. Urey declared, the world must assure that no atomic bombs are made anywhere in the world. None must be in the possession of any government of any kind. We may be sure that if atomic bombs are made in one country they will be made

in all industrial countries of the world, and if atomic bombs are made in all these countries the whole world will spend all its days in deadly fear that they will be used. In time, Dr. Urey added, they undoubtedly will be used.

Quoting Maj. Gen. Leslie R. Groves, the Army's director of the atomic bomb project, that it would take from five to ten years for other countries to make atomic bombs, Dr. Urey gave his opinion that if the United States published all its atomic bomb data in detail, it would not shorten the time of foreign production by very much. This is true because it takes time to build plants, and it takes time to operate them.

Much more important than the question of the so-called atomic bomb secret is the policy back of it, Dr. Urey declared, asking:

"Do we intend to engage in an armament race with other countries of the world?"

The only possible solution of the atomic bomb dilemma, Dr. Urey declared, is a superior world government of some kind possessing adequate power to maintain the peace with the various divisions of the world relatively disarmed. This will involve a most efficient inspection service which will detect and report promptly any attempt to produce atomic bombs or other heavy arms and a sufficient police force to prevent such activities. Under this plan neither the countries of the world nor the United Nations organization will have atomic bombs and no one will need to fear them.

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MEDICINE

Athlete's Foot Remedy

Undecylenic acid, zinc salt and ordinary talc are mixed into a dusting powder for prevention of the fungus infection and treatment of mild cases

► A NEW remedy and preventive of athlete's foot has been announced by the Navy Department. Chief active ingredient is undecylenic acid, a fatty acid found in sweat.

This acid, its zinc salt and ordinary

talc are mixed into a dusting powder for prevention of athlete's foot and treatment of mild cases. Undecylenic acid and zinc undecylenate in a carbowax base, with water, propylene glycol and triethanolamine makes an ointment for

more severe cases of the fungus infection of foot and groin.

The undecylenic preparations proved better than a number of other standard preparations used to combat athlete's foot, including boric-salicylic powder and propionic acid preparations.

Tests involving more than 5,600 Navy men at Fort Pierce, Vero Beach and Melbourne, Fla., were conducted by Comdr. Henry C. Shaw (MC), USNR, of Rochester, N. Y.

Fungus infection of the foot, popularly called "athlete's foot", developed in 28% of trainees who used no prevention. Regular dusting with the new powder cut this to 4%. Under the same conditions 15% developed infection while using powder containing boric and salicylic acids, long a standard preparation for this purpose. Groin infections were cut from 10.3% to 0.7%.

Used as a powder for mild infection and as an ointment for more severe cases, the new preparations proved their value in curing as well as preventing infection. The ointment cured about 90% of moderate and severe foot and groin infections in two or three weeks, and the powder was much more effective than boric-salicylic powder in treating milder cases.

Fungus infections have been among the most stubborn medical problems in the Pacific war, accounting for as high as three-quarters of all sick-bay calls at some tropical bases. Some standard remedies, useful at home, were too irritating in the steaming islands, and none were effective enough to prevent large numbers of men from being kept out of action.

Searching for something better, Comdr. Shaw and two other Naval Reserve Medical Officers, Comdr. Marion B. Sulzberger of New York City and Lt. Comdr. Abram Kanof of Brooklyn, tested several preparations in a careful study in New York City. Undecylenic powder and ointment seemed the best. But because climate and living conditions are important factors in skin diseases, they had to be tested under field conditions in a tropical or subtropical climate.

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Peaches, pears, plums and apples may be canned with honey, in whole or part, instead of sugar, resulting in a delightful distinct flavor.

Harbor seals now are found from Massachusetts to the Arctic, and occasionally off Long Island where they were once abundant.