



NUTRITION STUDIES—Dr. Frederick Sargent of the University of Illinois Health Service Research Unit and Mrs. Evelyn Robbins, clinical technician, are using "heavy water" in research aimed at finding the best all-purpose survival ration for the Air Force. The "falling drop apparatus" reveals how much of the known proportion of "heavy water" taken in by a subject is used by him.

MEDICINE

Negative Ions Cut Sneeze

► **HAY FEVER PATIENTS** of the future may equip their rooms and offices with air ionizers, instead of air filters, to get relief from sneezing, sniffing misery.

They will, that is, if recent research is confirmed.

Breathing air that is negatively ionized gave partial to complete relief of symptoms to 33 out of 53 hay fever patients, Drs. Igho H. Kornbluh and George Morris Piersol of the Graduate School of Medicine, University of Pennsylvania, and Forrest P. Speicher, chief biologist, advanced studies group, Philco Corporation, Philadelphia, have reported.

The patients got relief even though a ventilating fan at the window brought as much pollen into the room as there was in the outside air.

"Of particular interest," the scientists pointed out, was a group of 19 patients with severe symptoms at the time of treatment. Of these, 11 got marked relief, seven became free of all symptoms and one did not respond.

Negative ionization is not a cure for hay fever. Symptoms returned to most patients within 20 minutes to two hours after they were back in a normal environment.

Negative ions in the air are molecules of such gases as oxygen, nitrogen and carbon dioxide which have gained electrons. Posi-

tive ions are similar molecules which have lost electrons. Equal numbers of negative and positive ions are continually being formed in nature.

As long ago as 1931 scientists were reporting a beneficial effect on human health from negative ions. In 1947 Drs. Kornbluh and Piersol suggested that the beneficial effects of many health resorts and mineral springs was due to the inhalation of radon or to the ionization resulting from its rapid decomposition.

After preliminary studies showed that 17 of 27 patients with hay fever or asthma or both were helped by negative ions, a joint program with the results announced was started.

The patients getting negative ionization simply sat in comfortable chairs around a table with reading material. The ionizer was on the other side of the table from them. There were no face masks. The patients just breathed normally and sat and waited for 20 minutes to half an hour.

Positive ionization of the air was also tried. This not only failed to give any relief but in many cases caused increased discomfort and irritation.

The electrostatic ionizer and a monitoring device to record continuously the ion levels were built by Philco.

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NUTRITION

All-Purpose Survival Ration for Air Force

► **AIR FORCE CREWS** forced down in the future on water or desert, on arctic wastes or dense tropical jungle will probably have survival rations with the same proportions of food elements as the normal American diet.

The new all-purpose survival ration will probably be made up of 52% starches and sugars, 33% fats and 15% proteins in addition to water. A minimum of three quarts of water for 90-degree or hotter temperature is required.

These are the ration proportions expected on the basis of tests so far at the University of Illinois Health Service Research Unit. Data from a third test, a summer study, are expected in December.

The tests have been made with college students at the University of Illinois and with airmen.

Drs. Robert E. Johnson, Frederick Sargent and others of the physiology department have worked on the project since 1951.

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TECHNOLOGY

Housewives May Need Map for Future Kitchen

► **TODAY'S HOUSEWIFE** may need a road map to find her way in the pushbutton kitchen her daughter or granddaughter will have 20 years from now. But she will enjoy it, if it is like the one the Frigidaire division of General Motors envisioned for a group of home economists and nutritionists.

Today's electric ranges and ovens in the wall will be replaced by a marble counter top that heats to roast the meat or bake the pie and then, in a moment or two, is cold enough to touch and use as a counter or table.

Ultrasonics, silent sound waves, will wash dishes in three minutes. This development may be ready in ten years, and could be even sooner if costs could be reduced to make it practical.

Ready sooner, presumably, will be a serving cart with self-contained motor that runs by itself into the dining room with food and returns with the empty dishes.

An electrically-driven and partly refrigerated turntable at the kitchen entrance will receive milk and groceries to save the housewife from having to leave the telephone or other activity to answer the door and put the groceries away.

A kind of electronic "brain" will produce the day's menus, the housewife merely pushing button two or five or whatever she feels like.

The road map or guide will be needed to show today's housewife where to touch the colorful, sliding-paneled walls to get the cake that has been baking, the clean dishes or the washed and ironed clothes.

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