

## ● RADIO

Saturday, Sept. 8, 1951, 3:15-3:30 p.m. EDT  
 "Adventures in Science," with Watson Davis, director of Science Service, over Columbia Broadcasting System.

Watson Davis, Director of Science Service, will discuss the highlights of the chemical meetings which are being held in New York Sept. 3-15, and which he will cover during the week of September 3-7.

## INVENTION

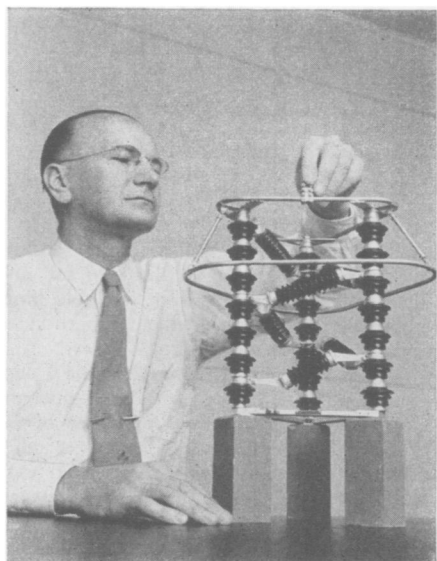
### Cheese-Flavored Bread Made Without Cheese

► BREAD OR crackers with a pronounced cheese-like flavor, but which may contain no cheese, are made from any of the various types of flour used in leavened bakery goods by the addition of leucine, an essential amino acid, in a conventional dough formula.

The cheese-like flavor may disappear in a few days if crackers are left in an open container. However, if together with the leucine a mild domestic cheese is used in the mix, the flavor will last. Ordinary cheese-flavored bakery products contain expensive, so-called strong cheese.

Peter Kass, Great Neck, N. Y., received patent 2,564,763 for this invention. Interchemical Corporation, New York, has been assigned the patent rights.

Science News Letter, September 1, 1951



**SPIRAL STAIR FOR LIGHTNING**—Model of a new type lightning arrester, developed by Westinghouse Electric Corporation, which sends a stroke in a spiral down the insulated conductors which angle between the vertical columns. The full size arrester is only half as tall as those formerly used and does not require large structural steel supports.

## BACTERIOLOGY

# BW Research Neglected

Government not spending enough to find methods of combatting biological warfare, to which U. S. is vulnerable by sabotage, bacteriologist charges.

► THE GOVERNMENT is not spending nearly enough on finding out ways to combat biological warfare to which, in terms of sabotage, we would be much more vulnerable than to the A-bomb.

This is the charge of Dr. Walter J. Nungester, president of the Society of American Bacteriologists. In addition, he told SCIENCE SERVICE, too much information which might be useful in protecting ourselves against BW attacks is still being held in secrecy.

"It is not a classified secret," Dr. Nungester said, that there is now no adequate vaccine for brucellosis and tularemia, two diseases which might be used in BW. Yet adequate funds have not been made available to do the work to find and produce an adequate vaccine.

"You cannot bring an A-bomb into this country in your vest pocket," he went on. "Yet it is possible to bring the right cultures inside our borders in small amounts and then an enemy agent could cook up his own home brew of disease almost as was done with real home brew back in prohibition days."

Dr. Nungester said that any "beginning bacteriologist" with the right culture and the right "cookbook" could do the job.

The University of Michigan medical school professor declared that something of the same kind of effort should be put into preparing defenses against BW as is put into A-bomb defense. More funds for research and development, more information disseminated to bacteriologists, and more publicity as to the importance of the problem, were three steps he suggested.

"The enemy might not hit us with the A-bomb, the expected weapon," he pointed out, "but with BW, the surprise weapon."

Dr. Nungester had sent a letter to the Federal Civil Defense Administration, with a copy to the Defense Department, asking that more information be made available to bacteriologists and that more funds be spent on research.

"The answer from Civil Defense was satisfactory," he said, "but they do not have much more information than we have."

He also received a letter from Deputy Secretary of Defense Robert A. Lovett stating that funds for this purpose had been doubled. However, Dr. Nungester did not believe this was yet an amount which would adequately meet the problem.

Science News Letter, September 1, 1951

## PHYSICS

# Artificial Moon Station

► IN NOT so many years to come a giant "doughnut" 200 feet in diameter may be travelling constantly around the earth 1,075 miles up in the sky.

Dr. Wernher von Braun, Army rocket expert, describes such a "space station" in the new book, "SPACE MEDICINE" (See SNL, Aug. 25), edited by Dr. John P. Marbarger, research director of the University of Illinois' Aeromedical and Physical Environment Laboratory.

Dr. von Braun is a top German World War II rocket expert, credited with inventing the V-2 rocket, who was brought to this country to work for the Army after the war.

Men will live in the outer rim of the doughnut, according to Dr. von Braun, kept in place by a synthetic "gravity" provided by its rotation slowly around the hub. It can be used to spy on both the earth and the heavens, it can drop bombs on any part of the earth, and can be used as a way station on the road to the moon.

The space station will be made of plastic,

assembled in space by men in pressure suits, Dr. von Braun says. It will have spokes leading to a hub containing a spherical steam boiler. A large silvery disk on top of the hub concentrates solar heat for the boiler. With the steam, according to Dr. von Braun, a turbine may be driven for the generation of electric power.

How does this space station get 1,075 miles up into its orbit? Dr. von Braun believes that it can be carried, broken down into collapsed sections, in a three-stage rocket, which he describes.

"With the tremendous advances recently achieved in aerial defense," declares Dr. von Braun, "it appears to me that in the atomic age the nation which first owns such a bomb-dropping space station might be in a position virtually to control the earth. The political situation being what it is, with the earth divided into a western and an eastern camp, I am convinced that such a station will be the inevitable result of the present race of armaments."

Science News Letter, September 1, 1951