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SCIENCE NEWS LETTER

THE WEEKLY SUMMARY OF CURRENT SCIENCE



Deadly Armament

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A SCIENCE SERVICE PUBLICATION

Adventurers in Research..

Dr. J. A. Hutcheson

SCIENTIST-ENGINEER

Director of the Westinghouse Research Laboratories. After graduation from the University of North Dakota in 1926, he came directly to the Westinghouse graduate student training course. In 1940 he was named Manager of the Radio Engineering Department, three years later Associate Director of the Research Laboratories, and in 1949 was appointed to the Director's post. In 1950 he became Vice-President.



In a conversation with Dr. J. A. Hutcheson about research, you will hear him express his guiding philosophy, "The more we know about a subject, the more intelligently we can deal with it". This philosophy probably explains why he is head of one of the world's largest industrial research laboratories—a position reached via engineering instead of test tubes.

Dr. Hutcheson's career was launched in radio engineering in the design of radio telephone and broadcast transmitters. He developed radio, radar and other electronic equipment that played a vital part in the successful completion of World War II.

Both during and after the war, Dr. Hutcheson was in intimate contact with the nuclear research program. He was one of the civilian observers at the postwar atomic tests at Bikini.

Dr. Hutcheson's outstanding ability to guide the work of others, in addition to his brilliant engineering and research record, made him ideally suited for the job of directing a large research institution. One might think that with a background predominantly

engineering, he would emphasize applied rather than fundamental research. Such has not been the case. His years as a designer made him keenly aware of the limitations placed on the engineer by lack of fundamental knowledge.

An example illustrates this. Many devices involve the passage and extinction of current in gases. An enormous amount of research effort has been spent to improve switches, fuses and breakers with considerable success. But Dr. Hutcheson, following his premise of the value of knowing more about a subject, decided that was not enough. Without disturbing the group concerned with improving existing devices, he set up another whose sole function is to study the fundamental mechanism of current conduction in gases.

Under the dynamic leadership of Dr. Hutcheson, Westinghouse research is opening new horizons for industrial progress. This research enables Westinghouse and industry as a whole to deal more effectively with their problems. Westinghouse Electric Corporation, Pittsburgh, Pennsylvania.

G-10239

YOU CAN BE SURE...IF IT'S Westinghouse



Here's the easy way to add sound to your films

the new RCA 16mm Magnetic Recorder-Projector

Now add a SPARKLING, new sound track to every 16mm film you use. And do it in minutes—with the new RCA magnetic recorder-projector.

It's the easy, low-cost way to make your films work harder, offer more. With your own sound track on film—old films can tell a new story . . . a general message can be made specific . . . scratched optical sound tracks can be replaced . . . films can speak two languages—one on optical track and the other on magnetic sound track.

With this new RCA projector you can now add sound to your silent films after duplicating on single perforated stock. Or, put a new commentary on your sound films—without impairing your present optical sound track. Add a simple narration, or prepare a complete production in sound.

It's magnificent sound, because it's magnetically recorded sound. And it's just as easy to prepare as a tape recording. To make your own sound track with the RCA magnetic recorder-projector, here's all you do.

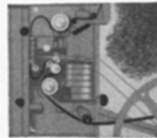


1. HAVE MAGNETIC STRIPE ADDED TO YOUR FILM

Laboratories are set up to add a narrow magnetic stripe to your films quickly, expertly—for only a few cents a foot. Exposed film or raw stock can be striped. Sixteen- or 24-frame speed can be used. Double-perforated films (films with two sets of sprocket holes) must be duplicated on single-perforation stock.

2. THREAD PROJECTOR AND SET CONTROLS

Thread the RCA projector as you would for a regular showing. Turn knobs to "record" position, thread film over magnetic recording heads and you're ready to record. No extra gadgets to attach. No extra equipment to set up.



3. WATCH PICTURE—SPEAK INTO MICROPHONE

Record your message on film as you watch the picture. Stop . . . erase . . . re-record at any time. You can plan your recording for a single showing—or use it over and over again.

Compare sound reproduction before you buy

Listen to the magnificent sound reproduction from the RCA magnetic recorder projector before you buy any type of sound projector. You've never heard such faithful sound on 16mm film. And RCA's quiet projector mechanism—the famous "thread-easy" mechanism—keeps irritating projector noise out of your recording. For a superb presentation of either optically or magnetically recorded films, listen to the RCA magnetic recorder-projector. Listen . . . compare . . . before you buy.

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