

ENGINEERING

# Better Hurricanes Are New Trick of Motion Pictures

Modern Movie Storms Must Be Noiseless So as Not To Drown Conversation; Treadmills Also Silent

**N**EW tricks of the motion pictures were presented at the meeting of the Society of Motion Picture Engineers in Detroit.

A new type of silent wind machine, which will blow the blasts of a hurricane but keeps its noise level down so that speech recording is possible, was described by F. G. Albin of United Artists Studio Corporation.

The old type airplane propeller machines made so much noise, said Mr. Albin, that recording on the set was virtually impossible. The sound had to be recorded separately and then synchronized with the hurricane, sand storm or other scene. Moreover, the propellers blew over a wide area and could not easily be directed at a specific object or actor.

The new method utilizes a centrifugal air blower like those of ventilating systems. This blower is mounted outside the set and its blast of air directed inside by canvas ducts. The air comes in but not the noise.

## Artificial Reverberation

Artificial reverberation is now being introduced into sound recordings in motion pictures, declared S. K. Wolf, of Acoustic Consultants, Inc., New York, and president of the Society.

Some sound studios, Mr. Wolf indicated, are so sound absorbing that the voices of actors may seem "dead" when played back. To introduce "liveness" into the sound record, reverberations are put in.

A magnetic tape type of recording is used to bring more realism into sound motion pictures. By passing the tape under a series of pick-up devices, and then leading the various pick-ups into a common mixing unit, it is possible to achieve a time lag and the desired reverberation. After passing the last pick-up unit the sound is "wiped off" the magnetic tape.

## Silent Treadmill

The delicate microphones of sound motion pictures have required the development of silent treadmills, the much

used devices which enable the motion picture camera to take pictures immediately in front of walking actors, oncoming horseback riders and so on.

In the old days of silent pictures, said J. E. Robbins of Paramount Pictures, treadmills were no problem. But the task of building treadmills, which will be silent so that sound recording can be done, while they are—at the same time—supporting about 20 marching soldiers, an automobile, or several motor cycles, is a difficulty which has only recently been overcome.

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## Engineer Mixes Economics With His Technologic Work

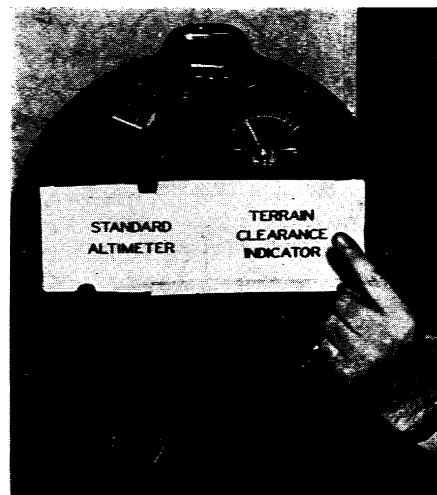
**T**O SOME PEOPLE an engineer is the man who runs a railroad engine. And a civil engineer is an engineer who politely tips his hat to a lady.

Of a different sort are professional engineers who might be called applied scientists. They are of various varieties from the civils who build dams, bridges, buildings, roads and other structures, to the chemical kind who engineer the production of new kinds of substances out of raw materials.

The engineer differs from a scientist in that instead of creating new knowledge he applies known technology to the tasks that need to be done in our busy world. The engineer also mixes with his technology a bit of management, finance and organization. In fact, most engineers consider themselves within neither the ranks of capital nor labor, but units in an intermediate managerial class.

Just as engine operators are called engineers, some who perform merely technologic functions are also called engineers. The professional engineers feel that there should be a category of technologists for those unconcerned with economic aspects.

This question of names and definitions provides perennial discussion. Latest description of an engineer is by President Karl T. Compton of Massachusetts



### FINDS MOUNTAINS

*This new life-saving device for the airplane pilot indicates, by means of a radio echo technique, the altitude of the plane above the ground instead of above sea level. (See SNL, Oct. 22)*

Institute of Technology in collaboration with a committee of the Engineers' Council for Professional Development:

"An engineer is one who, through application of his knowledge of mathematics, the physical and biological sciences, and economics, and with aid, further, from results obtained through observation, experiences, scientific discovery, and invention, so utilizes the materials and directs the forces of nature that they are made to operate to the benefit of society. An engineer differs from the technologist in that he must concern himself with the organizational, economic, and managerial aspects as well as the technical aspects of his work."

*Science News Letter, November 12, 1938*

GEOGRAPHY

## Polar Bibliography Now Being Compiled

**T**HE FIRST bibliography of works dealing with the Polar regions to be prepared in 60 years has been compiled by the Works Progress Administration working with the Explorers Club.

Listing in the first section, already published, more than 450 titles as against the 50 titles the Library of Congress was able to supply, the list includes all references from books, government documents and periodicals.

Vilhjalmar Stefansson, noted polar explorer and chairman of the club's section on polar exploration, and Leonard Outhwaite, chairman of the committee on bibliography, guided the project.

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