

ON THE COVER!

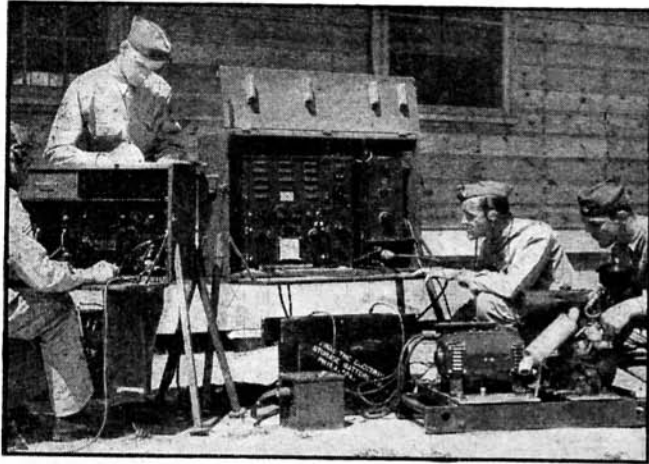
A U.S. Signal Corps soldier using the Army's "Walkie-Talkie", the light portable transmitting and receiving radio set which may be strapped to a man's back and carried about with him. It will keep him in constant two-way communication with other radio equipped personnel. The set may be placed upon the ground and its metal antenna extended to secure better operation. It weighs considerably less than the regulation Infantry pack.—Photo United States Army Signal Corps.

West Coast Television

First film transmission from the new \$250,000 W6XAO Television transmitter from the top of Mt. Lee were flashed across the airplanes in Hollywood recently, opening what is expected to be a very extensive movie telecasting season, according to Thomas S. Lee, station owner.

A large quantity of films has been obtained for the 500 home teleceiver set owners in Southern California. Prior to moving to its new home atop the 1,700 foot mountain, station W6XAO televised more than 11,000,000 feet of picture film from its Seventh and Bixel Streets location. A highlight of the season this year will be television transmission of the winners in the "home movies" annual amateur contest.

In addition to the heavy film schedule W6XAO plans to offer its "lookers" a number of outdoor events, said the Director of Television Harry R. Lubcke, who next month will celebrate the station's Tenth Anniversary on the air. W6XAO transmitted its first video-sound signal December 23, 1931.



New Magnet Steel:—New alloys for permanent magnets are about thirty times better than the best carbon steels used a decade or more ago, William E. Ruder, head of the metallurgical and magnetic section of the General Electric Research Laboratory, stated recently.

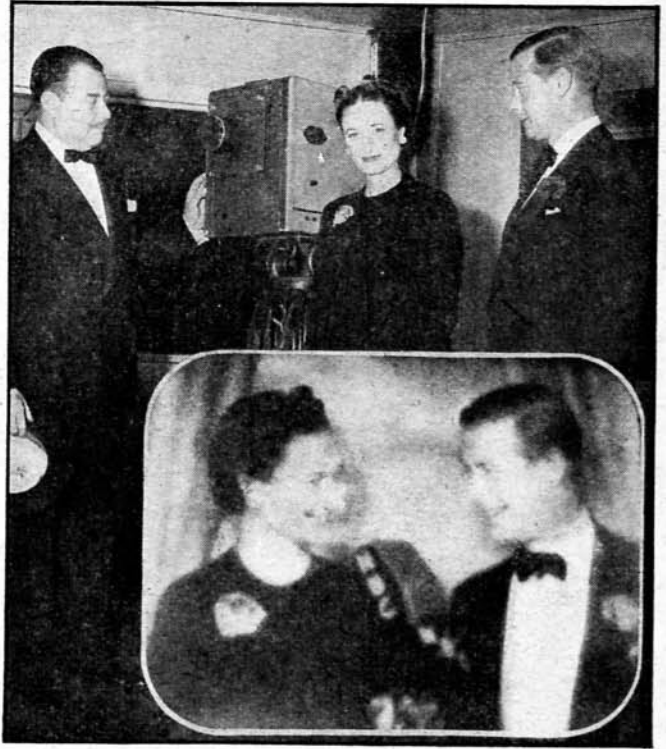
Part of this advance, he explained, has been achieved by heating the magnet material and then slowly cooling it in the field of a powerful magnet.

The latest alnico, an alloy generally consisting of iron, aluminum, nickel and cobalt, he stated, was first proposed by a laboratory in Holland and developed by the General Electric Research Laboratory. This may contain a small amount of copper as well. With magnetic cooling, its maximum energy is about five times greater than that of the best alnico alloys of a few years ago.

The new alnico contains a higher percentage of cobalt than the old, making the cost per pound relatively high. However the high energy content with the resultant saving in size, brings the cost per unit of available energy to a figure quite comparable with the other alnico compositions. He also

WINDSORS SEE TELEVISION!

The large photo at the right shows the Duke and Duchess of Windsor on their recent visit to New York, where they saw a demonstration of N.B.C. television. Clay Morgan of N.B.C. explained the mysteries of television to the Duke and Duchess. The inset photo shows the television image of the Duke and Duchess as they appeared on the television screen in the N.B.C. Studio, where they posed before the iconoscope camera and permitted photos to be taken of their images.—N.B.C. photo.



told of the achievements reached with another kind of magnetic alloy, used to make the thin steel strips for cores of transformers.

W47NV—First Commercial FM Station

Under the direction of Tom Stewart, Director of W47NV (Nashville, Tenn.)—America's first "commercial" frequency modulation station—more than 50,000 people in the W47NV coverage area have been told about frequency modulation and had it demonstrated to them.

W47NV's caravan of two trucks, frequency modulation sets, a tent, a display showing the steps taken during sixteen years of radio progress, and other features has shown at fourteen fairs this season, including the Tennessee State Fair.

With rural areas depending solely upon the radio for the majority of their entertainment, information, and news, the people in the smaller towns are very interested in anything that will give them better reception. The interest shown by them in *Frequency Modulation* was very evident in the W47NV contacts.

Present plans call for further exploitation of Frequency Modulation through dealers. Plans are also being formulated for city promotion of Frequency Modulation.

W47NV, of Nashville, is owned and operated by the National Life and Accident Insurance Company, Nashville, Tennessee.

U.S. SIGNAL CORPS SCHOOL

The photo at the left shows one of the larger portable U.S. Signal Corps' radio sets, power for which is supplied by a generator driven by a gasoline motor, seen at the right of the picture. The U.S. Signal Corps is using radio more than ever before, both for transmitting code and phone messages. The set shown requires four men to operate it and a truck to transport it.—Photo by Rudy Arnold.

TELEVISION IN NATIONAL DEFENSE

Photo at the right shows CBS cameras televising an Air Raid protection group, part of the civilian and volunteer organization in New York City who will chart the course of approaching enemy bombers in war time. Telephone reports from 40,000 civilian spotters will be checked by this group.—C.B.S. photo.

