



### ***New Telephone Set for the Hard of Hearing***

Among the latest telephones being produced in the Western Electric Company's plants is a set with two characteristics that distinguish it from the other new 500-type telephones. This is the volume control set which is especially designed for people with impaired hearing. Its primary feature, from the customer's standpoint, is a small plastic knob with which the sound power can be turned up 100 to 200 times normal. An additional feature of the new set is the fact that operating current for the amplifier comes over the customer's line from the

central office battery, eliminating the need of a separate battery at the amplifier. The amplifying unit that permits the sound power increase contains the first transistor to be used in a telephone set. Except for this amplifying unit, a small box about the size of an ice cube, the volume control set is the same as other 500-types.

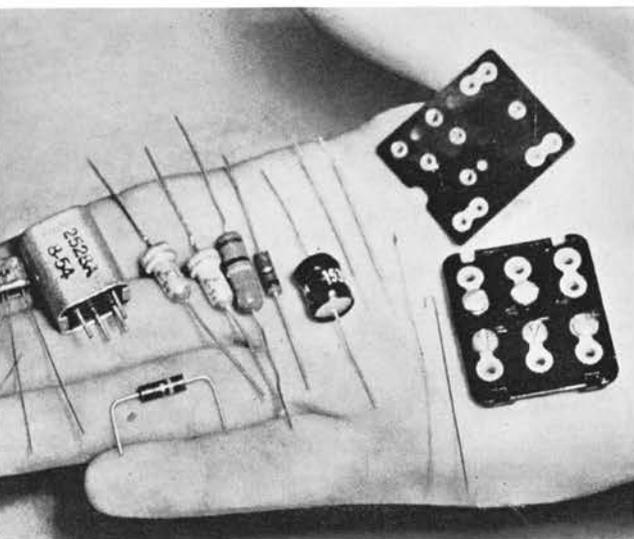
### ***Over-The-Horizon Radio System***

Plans for the construction of an over-the-horizon radio transmission system between Florida and Cuba, which may pave the way for international television service, were contained in a petition filed recently with the Federal Communications Commission by Long Lines Department of A. T. & T. Co.

This would mark the first commercial use of over-the-horizon radio transmission in the broad bandwidths required for multi-telephone circuits and television. While over-the-horizon radio transmission is still in the developmental stage, research by Bell Laboratories indicates that transmission for distances up to at least 150 miles without intermediate amplification is presently feasible in the frequency range of about 500 mc to 1,000 mc, and in the bandwidths required for broadband telephone and TV transmission. The proposed system would make use of a high-power transmitter and a large antenna to force signals beyond the curving earth surface — in this case, from a point on the southern part of Florida to a point on the northern coast of Cuba.

The proposed radio system would furnish many additional telephone circuits and provide diversification of facilities. It would have the further advantage of permitting experimentation with television transmission, looking forward to the establishment of international TV program service over this route.

To meet the requirements of the system, the petition asked for a change in FCC rules to permit fixed radio stations in Florida to use frequencies in the 470-890-mc band "subject to no harmful interference being caused to the broadcast service of the United States or other countries." Studies of the UHF allocations for Florida indicate that by proper selection of frequencies for the Florida-Cuba circuit there would be no interference with television broadcasting.



*Left — All components of amplifying unit in new 500-type volume control set can be held in palm of hand. Note transistor (far left) resting on tip of index finger.*