Audio Engineering Awards

Reports of the various committees of judges show the reasons for the selection of the award winners announced last month.

Caption under picture of Dr. Schachtel receiving the award certificate. "Dr. Irving I. Schachtel, president of Sonotone Corporation, accepts hearing aid award."

Hearing Aids

The committee studying the design and construction of hearing aids did not attempt to evaluate the performance of the instruments in the alleviation of the hearing loss—that is the function of the otologist. Since there are many types of hearing loss, with many of these requiring specialized equipment to provide satisfactory hearing, it was felt that it would be unwise to perform the function of a research laboratory in evaluating the various instruments. Furthermore, the scope of the award is not intended to make any such comparison. It should be pointed out specifically that the opinion of this committee should not be considered an endorsement of the instrument *as a hearing aid*, but that it should be considered solely as an evaluation of the circuit design and its embodiment in a manufactured product.

In studying these instruments, the committee kept in mind the various criteria by which they should be judged. If the award were to be given for lowest cost of operation alone, obviously one of the all-transistor hearing aids would be chosen. If size were to be the governing factor, then the internal design might have to be skimped to keep the over-all dimensions of the instrument within the limits established. The general points studied included both size and cost of operation, but these were not made of maximum importance.

While the all-transistor hearing aid undisputedly offers somewhat lower cost of operation, it is felt that the present status of development does not warrant the use of transistors in the low-level first stages of a hearing aid because of increased noise. It is considered probable that this defect will be remedied at some time in the near future.

Considering the mechanical and electrical features of all of the hearing aids studied, it is the unanimous opinion of the judges that the major effort in hearing aid design and production has been achieved by Sonotone Corporation in its Model 1010. The judicious use of a transistor in

the output stage, where its high electrical efficiency is most advantageous, is commended. Cost of operation is reduced considerably below that of the all-vacuum-tube hearing aid without sacrificing quiet operation. Also noted were desirable mechanical features such as separation of volume control from the on-off switch, and the sturdy plug connections between the instrument and the earphone, the accessory microphones, and the telephone pickup device. With respect to weight and compactness, the instrument compares favorably with all others studied.

Audio Engineering, June, 1953. pp. 28-29