

# Are we Bringing Radio Down to a Price?

## Danger of Sacrificing Tone

**DURING** the last three years the great broadcasting stations of the world have spent tremendous sums to install transmitting equipment which will send out the complete range of the sound waves produced in the studios by vocal and instrumental artists. It is this widening of the sound-wave range which makes for fidelity of broadcasting—in other words, "makes the broadcasting sound real!"

From the lowest bass note of the viol or drum (about 16 vibrations per second) up to the high notes of the piccolo or organ, and overtones of other instruments (some 7500 vibrations per second), all of the complex musical oscillations are now faithfully reproduced by the electro-magnetic vibrations in the ether.

But how much of this wonderful tone-quality that is now "in the air" can the listener get?

The answer is: Exactly as much as can be received by the radio set he is using—and no more! In other words, no matter how perfect the music may be in the form of radio vibrations, his set will allow him to listen only to those vibrations which filter through its audio circuits and be reproduced by its loud-speaker. All the latter-day miracles of tone fidelity in the broadcasting transmitters are therefore wasted, unless his receiver is capable of tone reproduction throughout the full range of the scale, from 40 cycles per second to at least 5000 cycles per second. A listener who has a radio set which furnishes less than full-tone acoustic reception is like a man viewing a beautiful sunshiny woodland scene through amber-coloured glasses. He gets the outlines—but he misses most of the tone and colour beauties of the picture, and envisions only a narrow band of distorted colour effects.

To tune-in an inferior set on the riches of radio-signal vibrations coming in over the air these nights is like seating a great master musician before an undersized piano and expecting him to produce music other than the tinny tones of the toy instrument. Even the maestro can get no other tones than those from an undersized piano.

On the other hand, if his set is a modern, well-engineered receiver, he will receive, in his own living room, the music exactly as it is being played in the distant broadcasting studio. But if his set is one in which "corners have been cut" and fidelity skimmed, the listener will be listening only to musical distortion.

### Broadcasting Under Test.

**A**MERICAN broadcasting is under test because of too large an admixture of advertising, and the remark is not infrequent, "I don't listen to the radio any more, because it's all advertising." Especially does this criticism come from discriminating folk who ought to be among radio's staunchest supporters.

Unless a high value of tone value in reception apparatus can be maintained, the same class of listeners will become further alienated because of lack of tone fidelity. To highly organised and temperamental people, tonal inaccur-

acy becomes a form of torture and sharp discomfort.

It is for the radio trade, both distributors and dealers, to see that the public is supplied with receiving sets which are faithful and correct in their reproduction.

During the past year, owing to comparative efforts at price reduction, tone quality has in places been sacrificed, and, as the result, many sets are slipping back in tone quality to the place where the radio industry found itself in 1926 and 1927. This tendency is unsound, and marks a trend which, if allowed to run on for a year or more, will do incalculable harm to radio.

On the one hand it will bring in a false standard of sound reproduction, which will disgust the public with radio as an artistic and emotional medium. And the broadcasters who have thus far invested millions in ripping out old equipment and installing new "full-range" transmitters, will shortly become discouraged and relax their efforts at first-quality tone transmission, if such transmission is to fall largely on acoustically deaf ears. Meanwhile popular interest will diminish, "listening time" will be reduced, and gradually reduction in the number of feature events and artists will take place.

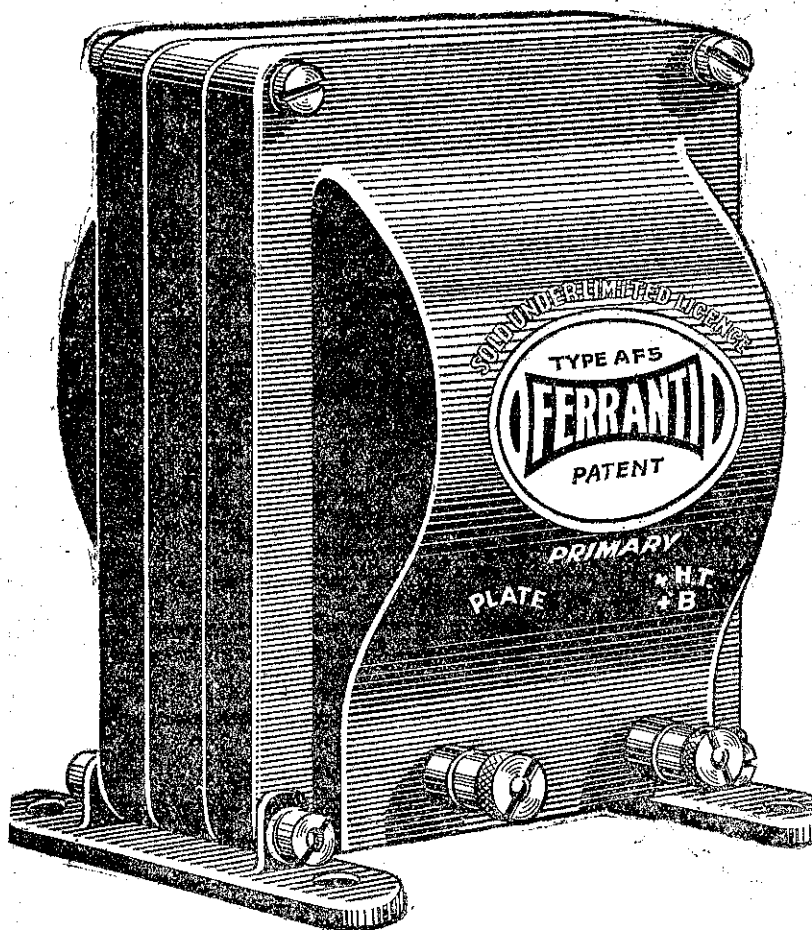
On the other hand, increased naturalness of reproduction has always brought wealth to the industry achieving it. Radio prospered proportionately as its fidelity improved during the years from 1927 to 1929. Again, the moving-picture industry doubled its box office receipts by the introduction of the "talkies," which brought greater realism and naturalness to the screen. New realism will always bring new floods of the public's money.

But to part deliberately from present high standards of realism is eventually to invited financial disaster to radio. The standards of tone must be kept rising.

### Future of Radio.

**T**HE future of radio and the future of the radio business itself is thus largely in the hands of the radio distributors and radio dealers during the next twelve months. It rests with them as to whether they elect to distribute quality sets which will ensure tone satisfaction and a permanent investment for the public. Or whether they will be satisfied to sell merely a few pounds of wire and metal pared down to a price, and so "get away with it" for the time being. The latter course will mean trouble ahead for everybody. It will result in the collapse of radio and radio broadcasting into a minor business of negligible prestige and volume, instead of fulfilling its present destiny as a dominant art.

Lowering of tonal standards will alienate the discriminating public, reducing our audience; relax broadcasters' present efforts at tone perfection; reduce number of present feature programmes and artists; result in collapse of radio into a minor business, instead of fulfilling its destiny as a dominant entertainment art.



Radio is steadily improving. Transmission embodies greater skill and more efficient apparatus. Better components, better sets and more responsive speakers, with fuller knowledge of their proper use, ensure reception considerably in advance of that which satisfied not very long ago. The Transformer plays a vital part in this advance. A good set must have a good Transformer.

The FERRANTI AF5 is supreme and is the final choice of the experts.

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