Radio Broadcasting

Science and Invention, vol. 9 no. 12

April 1922

A GREAT change has come about in the last two months. Overnight, the public seems to have "gone mad" over Radio. Laymen and others who have never paid the slightest attention to Radio before, are storming the Radio supply houses in a frantic search for Radio instruments, only to be disappointed as a rule because there is not enough material to satisfy the tremendous demand. There are now close to eighty broadcasting stations in the United States, new ones being added daily. These stations supply free entertainment to the masses and It is estimated that there are already over 1,000,000 Radio outfits of every sort and description in the United States.

This art is so new that it would be futile to guess what it will be like in ten years to come, but we can make certain prophecies that we are sure will be verified. At present let us say Newark or Pittsburg is sending out some information or entertainment. We sit in our parlor and our friends listen to it by means of a loud speaking receiver. It may be a dry lecture or some other form of entertainment that we do not like. The best we can do at present is to turn off a switch which will silence the loud-talker. In the future we will not be dependent upon just one form of entertainment. but we will be able to choose for ourselves as to whether we should have jazz, grand opera or a sermon. The present broadcasting stations use a wave length of 360 meters. In the future, each broadcasting station will have a dozen or more laboratories from which different forms of entertainment will be sent simultaneously, each on its own wave length.

For instance, the latest jazz selection may go out on 36025 meters; a sermon will be broadcasted at 360.87 meters; a grand opera selection will go out at 360.50 meters. In other words, our tuning will be so refined that the different variations, differing by less than a fraction of a meter, will be perfectly distinguished and separated by the recipient, and will be reproduced without interference at the receiving end.

In the next few years it will be possible for us to take our meals with music, if we choose to do so, and after consulting the daily program we will only need to set the knob at the prescribed wave length, in order to get the form of entertainment desired.

If we wish, we can set our alarm clock in the morning. which in turn will set off the Radio outfit, and instead of being disturbed by a harsh alarm bell, our awakening will be to any tune that we have selected the night before. One of the important things confronting the broadcasting stations is: How will they be paid for their service?

This applies particularly to broadcasting stations which cannot get indirect results from the sale of Radio apparatus, use of Radio patents, etc. Of course, some such stations, owned by department stores and newspapers, will continue broadcasting from the advertising motive. but let us say that the Metropolitan Opera Company of New York desires to broadcast their entire program. They would wish to be paid for the service. It would be impossible to force everyone who listens to pay, because everyone would listen-in anyway, unless means were found to prevent them. Such a means will be found very shortly; as a matter of fact one means exists to-day.

It is very simple. Suppose the Metropolitan Opera Company were to make a charge of say $3.00 per month for listening in to their broadcast. They would not publish in the newspapers or in any other manner the wave length on which they would broadcast. Such information would be sent by mail to subscribers only. After every act the wave length would be changed. Now we are all aware that if we do not know at what wave length a station is sending, it is difficult to quickly tune in. By trial we may succeed, but much of the music would be lost during our struggles with the tuning. Most people would pay a certain amount for the information, which would enable them to listen to the entire entertainment wrthout having to hunt for a certain wave length.