



RADIO NEWS



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Radio in 1923

THE year just closed has been one of the memorable ones, for radio, not only in the United States, but in nearly all civilized countries. Radio seems to have come into its own in 1922. Even the most sanguine and the fondest well-wishers of radio never foresaw the tremendous interest that was displayed by the public in all matters radio, in the year just passed. As we have stated before, in these columns, the boom in radio was only to be compared with the boom times of the Texas Oil Fields. In one short year the radio telephone broadcasting stations, that numbered less than six in the United States, increased to almost six hundred at the end of 1922. Every state of the union, with one exception, has its broadcasting stations, sending out regular schedules of entertainments.

As for the advance of the art during 1922, it has been very material, but no very great scientific discoveries in radio have been made. The announcement of Major Armstrong's Super-Regenerative Circuit, by means of which it is possible to receive from over hundreds of miles, using only a single vacuum tube and a loop, was one of the achievements of the art. Aside from this, there were no great radio discoveries, and if there have been any, they have been more theoretical than practical. It is true that a great many new radio patents have been taken out during 1922, but it is as yet too early to say whether any of these will prove epoch-making or not. In transmission, a great advance has been made, all sending, and particularly broadcasting, sets having been improved greatly during the year.

Another milestone in radio for the year was the advent of the high power vacuum tubes, one of these tubes being able to handle no less than 1,000 kilowatts! We are safe in saying that this tube spells the doom of our present high frequency alternators used heretofore in hurling radio waves across land and oceans. Indeed, the best one of the type, the Alexanderson alternator, is already doomed, and will be obsolete in a few years.

The year just closed has been particularly interesting from the point of view of the public. Inventions and developments in radio were stifled more or less on account of this radio boom. It seemed as if everyone, whether he knew much about radio or not, and providing he had a few thousand dollars to invest, promptly embarked upon some radio enterprise or other, with the sole idea of making money out of the game. Naturally, under such conditions, the engineers did not have much time left for research work. It was a case of getting out some radio equipment somehow, at any price. As long as the apparatus could be assembled there was a ready sale for every radio article, good or bad, in the late winter and early spring of 1922.

We stated editorially in our March, 1922 issue—the beginning of the boom—as follows:

"Tremendous efforts are being made by manufacturers to meet the situation, and with all the new capital being poured into the business, we estimate that within six months at the most the supply will exceed demand. In other words, everyone, unless he buys carefully, will be overstocked, and the usual hardships will follow. This not only holds true for the dealer who will find himself loaded with material on his shelves that he cannot move rapidly, but for the small manufacturer as well, who will have all his money tied up in merchandise for which the sale is not as brisk. We shall then witness the next cycle, price cutting, when real competition will begin in earnest."

As will be seen, every word of this prediction came true. There have been tremendous failures in radio, and it is safe to say that less than one-half of the concerns that embarked as manufacturers into the radio industry are alive now. Of the 50 per cent that are still going, 25 per cent of these newcomers are finding themselves in financial straits at the present time of writing.

The answer is two-fold: Over-production on the one hand—exceedingly poor apparatus, made to sell and not to work, on the

other hand. In many cases the public was caught unawares and bought radio material that proved a detriment to the entire industry. In many cases the public began to think that radio was a swindle, due to such poor equipment that sold at high prices and gave no results.

What about the future? What will 1923 spell to radio?

There is no question that during the coming year the research in radio will once more become important with our engineers, and that a great many important improvements in radio inventions will be made during this year. For one thing, we are quite certain that the day of poor equipment has gone for good. The radio industry is becoming exceedingly wary of poorly-built instruments, and will have none of it. We predict that only those concerns that turn out first class material will survive in 1923. Slowly our manufacturers are beginning to see that radio is more of an art, than a manufacturing proposition. *Precision and accuracy* are the words that every manufacturer should take to heart for 1923.

Whereas we used to be content with wooden boxes and fibre bases, the all-composition moulded instrument is coming into vogue more and more. The radio public wants something that stays put, that is not influenced by temperature changes, and that will not come apart of its own accord.

We predict also for 1923 that radio frequency amplification will be used much more generally than it is now. Radio frequency does not give rise so much to distortion as do regenerative circuits. This is said with no idea of discouraging people from experimenting or buying outfits which have regenerative circuits, but rather to urge the manufacturers to so improve their regenerative outfits, that distortion is done away with.

In 1923 we shall, no doubt, see the single control outfit. The public at large, particularly the lay public, wants an outfit with a single adjusting knob. The average layman does not cherish the idea of six or seven knobs and dials, which are apt to confuse him, and lead him nowhere, for the reason that he does not know how to get results from an otherwise good outfit. Every woman or housewife knows how to operate a phonograph. How many, out of a hundred, know how to operate a vacuum tube set? The percentage is exceedingly small. Our manufacturers who wish to steal a lap on their competitors should work along these very profitable lines.

The next great improvement needed in 1923 is the outfit or appliance that will do away with interference. Whether it is the vacuum tube or crystal set, there is entirely too much interference now. Only an expert can tune out the unwanted station. With a four- or five-tube receiver it is possible to pick up stations several thousand miles distant. Within such a radius are three or four hundred broadcasting stations. Any evening, between 8 and 10 o'clock, a great majority of these stations is operating. What chance, then, has the average layman to pick out any of these stations and tune to any one he wants? The chances are mighty slim that he can do it. As a rule, with the present outfits, there is horrible interference. Of course, a loop set will help greatly, but this is NOT the solution of the problem. There must be something in particular that we have as yet not learned, and somewhere, somehow, some genius will no doubt effect a satisfactory solution.

The next and most important improvement upon which our manufacturers should concentrate, is the loud talker. It is safe to say, and experts agree upon it, that one cause of the slump in 1922 was directly traceable to the abominable sounds emitted by nondescript loud talkers, which were not constructed upon either mechanical, electrical, or acoustic principles. 1923 will probably see a great change in our loud talkers. It is safe to say also that the loud talker, at the end of this year, will be a totally different appliance from what we have now. We predict that it will not be of the horn type at all, but that it will be constructed upon entirely different principles.

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