Radio of Yesterday and To-day

Comparison and Contrast at Chicago Radio Exhibition

Contrast and comparison are always interesting, and it is not surprising that when the main feature of the Chicago Radio Exhibition was a display of antiquated apparatus alongside the ultra-modern, that this was one of the most successful shows yet held in America. This unique display included relics of great value—original Fleming valves, a Marconi kite aerial which was used in the triumph of that inventor's life—the bridging of the Atlantic; the first telephony apparatus to span the "pond," and a model of the first neutrodyne. But this was not all, the newest all-electric circuits, remote and automatic controls, a device for visual tuning, and a totally new instrument, were in contrast. The accompanying article, from the viewpoint of a "more than casual" observer, tells in detail the story of this remarkable show.

TO the average visitor, the 1929 Radio Show was probably "just another show." But to the thoroughly inoculated radio enthusiast, veteran of many shows, there is just a little more than period furniture and suave demonstrators.

The veteran radio show-goer is on an errand, and goes almost directly to his objective, and moves on. He is looking for things that the blind enthusiast cannot see. He probes into chassis, goes behind the scenes of period cabinets and directs his inquisitive gaze into the "innards" of all apparatus.

This year he investigated the screen grid radio receivers. He knew, of course, that screen grid valves were listed as one of the show's "sensations." What he wanted to see, however, was

MR. OSCAR DYER,
A young tenor soloist. He has been heard from 2YA as a soloist and also as a member of the Mellow Fellows Quartet and the Wellington Orpheus Society.
—S. P. Andrew, photo.

the way in which these valves were used in radio circuits. So he looked for genuine bandpass filter circuits and to his astonishment discovered that only three, possibly four, manufacturers had worked it into their new models. He saw that there were several varieties of the same idea, and that there can be bandpass filters, and tuned filter bandpassers.

While looking for the new screen grid bandpass circuits, he discovered a receiving set that only used a single stage of audio amplification in push-pull, immediately after the detector, preceded by four stages of screen-grid amplification. This, according to quick figuring, should give amplification into the millions! He saw for himself power detection (anode bend) automatic volume control, installed both in radio and audio circuits, but because of the complexity of wiring, and the general unwillingness of engineers to divulge their "secrets," he went away comparatively uninformed on the "how" of the method.

THERE were other things that engaged his attention, which as an old-timer in the matter of show inspection and radio history, he was equipped to thoroughly appreciate. In a corner, for instance, and quite unobtrusively presented to the gaze of the onlookers that ignoringly glanced at it, he discovered the model of the original "neutrodyne" circuit receiver, as built by Professor Louis A. Hazeltine, the inventor. He recalled his own home-made neutrodyne set of many years ago, and observed that there were still many neutrodynes at the present show, though in modified or improved form.

Another sight which interested him as an old-timer was the early model veteran show-goer saw replicas of Marconi's first trans-Atlantic receiving receiver built by the amateur pioneer Alfred H. Grebe. In the "pile" of sets he saw also an amateur transmitter for short-wave work, one of the first commercial sets, and, he learned, the very one that an amateur used to speak directly with Europe for the first time. This was probably ten years ago! Compared to these relics, the crystal set that won the "radio relics" contest was a grown-up boy!

IT seemed that there were several other "historical" displays that are really part of radio history. For instance, he lingered long enough before the cases showing Dr. De Forest's Bunsen burner detector, which the good doctor himself says was the original step in the invention of the world-famous audion, which is shown in its original state alongside of the burner. A little farther along, the set, including one of the real kites used to support the antenna. Then, there was an "SOS" ("C.Q.D.") key, the same, indeed, which had sounded the s.s. Republic's call of distress. Here was a relic indeed!

Next, after finding that the miniature models of radio installations on ships were working models, and that the small direction compass could actually turn and has a needle in its base, the show-goer turned his attention to the newer devices of radio science.

For a long time he had wanted to see the recording machinery used for making talking pictures. Here was one of the instruments, bare of any covers, and easy enough to look over in great detail, since hardly anyone took notice of it! Aside from an automatic voltage regulator, which the show-goer had heard of before, and which seemed to actually work, though built on a transformer principle and labelled as something "really different and new," there were other novelties that engaged his attention.

THERE were remote and automatic controls for tuning in radio receivers that could be called new. The Motomatic remote control was worth a second look. Edison's device for visual tuning interested him, as did the remote tuning arrangement which permitted the tuning, at any distant point, of a receiver located any distance away. The idea used was probably not "new," as it consisted of a remotely controlled motor. The method of control was, however, although it did look a bit complex right there at the booth. There was also an automatic printer for typewriting news on a machine, as picked up by a broadcast set. It was fascinating for our show-goer to watch the precision with which these devices tuned in automatically the stations selected.

BARRY INGALL AND HIS HAWAIIAN ORCHESTRA.
A very popular feature of 1YA programmes.
—S. P. Andrew, photo.

MR. ARTHUR E. WILSON,
Organist and Choirmaster of the Baptist Tabernacle, Auckland, where regular organ recitals have been a feature at 1YA.
—S. P. Andrew, photo.

TRICK furniture, notably modernistic conceptions as applied to radio, relieved the monotony of too much woodwork, apparent everywhere. It wasn't until the showgoer could squeeze his way through a group looking under the top of a beautiful table in one particular booth that he discovered that it was a radio receiver built under it! An automobile receiver, for installation under the cowl, was another interesting development.

As becomes an onlooker who has seen enough, our veteran showgoer only casually looked at the television demonstration, to notice that it had visibly improved over last year's transmissions. He hard the automatic wireless transmitter and receiver, set up to