

BROADCAST NEWS

July 1938

JUL 2 1938



FRANKLIN INSTITUTE
PHILADELPHIA

"I have in mind a plan of development which would make radio a household utility' in the same sense as the piano or phonograph. The idea is to bring music into the house by wireless . . .

"The receiver can be designed in the form of a simple 'Radio Music Box' and arranged for several different wave lengths, which should be changeable with the throwing of a single switch or pressing of a single button.

"The 'Radio Music Box' can be supplied with amplifying tubes and a loudspeaking telephone, all of which can be neatly mounted in one box. The box can be placed on a table in the parlor or living room, the switch set accordingly and the transmitted music received.

"The same principle can be extended to numerous other fields as, for example, receiving lectures at home; also events of national importance. Baseball scores can be transmitted in the air by the use of one set installed at the Polo Grounds. The same would be true of other cities. This proposition would be especially interesting to farmers and others living in outlying districts.

"By the purchase of a Radio Music Box' they could enjoy concerts, lectures, music, recitals, etc., which may be going on in the nearest city within their radius. While I have indicated a few of the most probable fields of usefulness of such a device, yet there are numerous other fields to which the principle can be extended."

(Excerpts from a letter written in 1916 by David Sarnoff.)

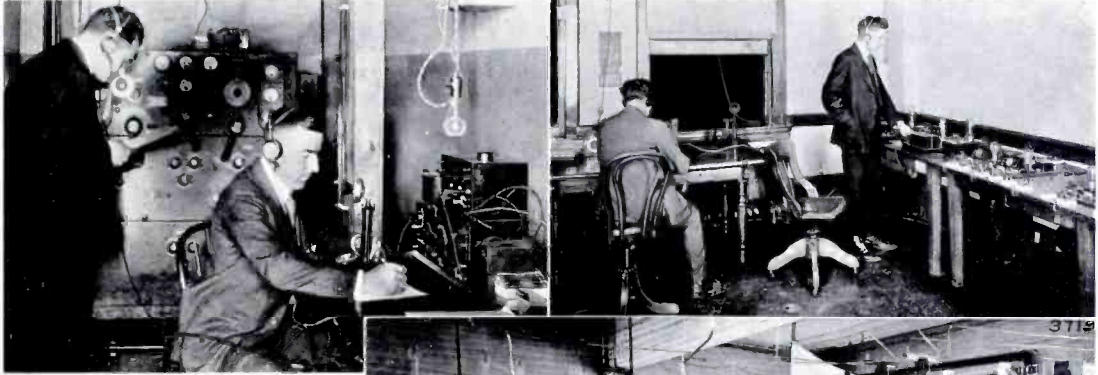
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RCA MANUFACTURING COMPANY, INC.
CAMDEN, NEW JERSEY, U. S. A.

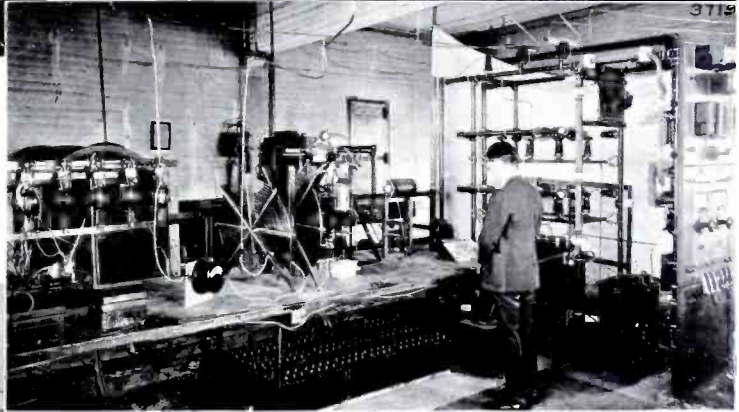
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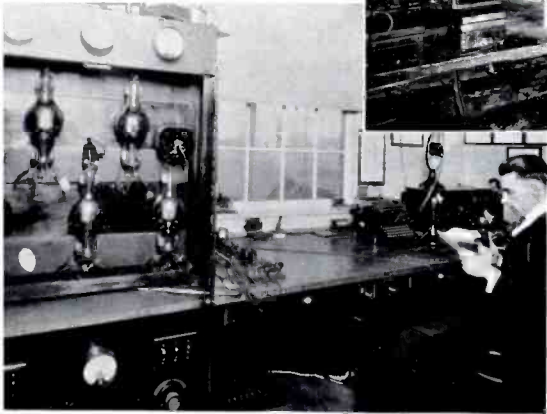
EARLY TRANSMITTER INSTALLATIONS



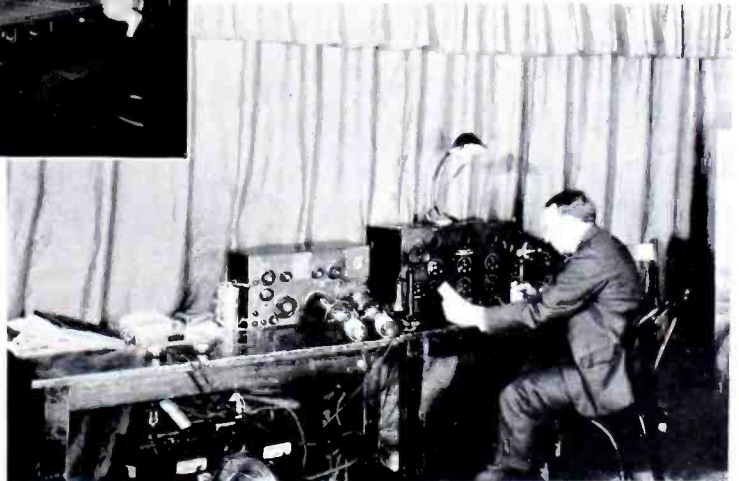
(Above) Tubes, circuits and switches were spread over a wide area.



(Above) Transmitters were operated at a great risk of personnel injury.



(Above) Tube changes were easy, even way back in 1922.



(Right) Operators needed several pairs of eyes to handle equipment.

In a day when skirts were getting shorter and eyebrows were being raised over the "flaming youth" generation, radio broadcasting made its modest bow. Greeted with mixed emotions by the press, buffeted by criticisms not

unlike those directed at television today . . . radio nevertheless gained a foothold in public favor. Soon, like "Avalon," it was the rage . . . and building home receivers became the nation's number one hobby.

LOOKING AT EARLY RECEIVERS

(Right) Scenes like this were heralded by the trade as "Radio Keeps the Family Together."

(Below) A new world of interest and entertainment was opened to those who had been forced to live on memories.



(Above) A great advance was made when trailing wires, leaking batteries and other paraphernalia were hidden from view.

(Left) Receivers had not yet escaped the "music box" stage.

Few now long for the "good old days" in radio, or mourn the passing of receivers like these. Yet, in their day, they did their job well and taught America the listening habit which persists as the basis of the radio industry.

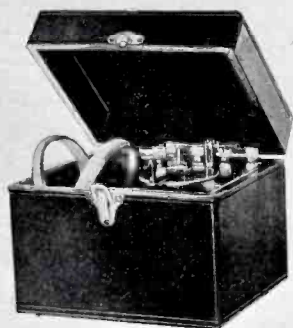
The first chain broadcasts . . . the first political convention broadcasts . . . and the radio debuts of stage and screen stars made history for listeners who were the proud owners of these instruments.

EARLY RECEIVERS WERE CRUDE BUT AWE INSPIRING

"AERIOLA Jr." COMPLETE RADIO RECEIVER

(For the Radio Novice)

STYLE NO. 307421



The entire design provides a degree of selectivity not usually found in this type of receiver.

"AERIOLA JR." (Style No. 307421)

Size: 7 in. x 8 3/4 in. x 7 1/4 in. Weights: Net wt.

"AERIOLA JR." is the latest development in unit radio receivers. It is a complete radio receiving outfit, and is so compact that it may be carried with ease as its weight is only five pounds. When the cover is closed, the receiver is entirely protected by an attractive walnut-finished case.

To use "AERIOLA JR." it is only necessary to connect it to a single-wire aerial and a ground. No additional equipment is needed, for the receiver includes all the essentials—a variable tuner, a fixed condenser, a supersensitive crystal detector, and a high-grade set of head telephones. The simplicity of "AERIOLA JR." makes it easy to understand and operate.

This outfit is a single circuit receiver involving a variometer tuner with fixed series condenser. The detector is sensitive at all points, assuring easy and dependable operation. An extra set of crystals is supplied. A single indicating arm operating over a graduated dial assures quick and accurate tuning for telegraph or telephone stations within its range of 190 to 500 meters. The head telephones are connected to the usual stopping condenser. A special compartment is provided in the case for the head telephones, so that the unit is always complete and ready for instant use.

(Left) One set of ear phones created a family problem. Everyone usually wanted to listen at the same time.

(Below) Equipment such as this delighted the early radio fan's heart. One touched with the spark of genius could operate it.

RECEIVER, IP-501

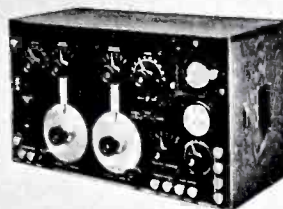
THE IP-501 Receiver shown in the accompanying illustration is a compact unit containing the radio frequency and detecting circuits in a single case.

Normal wave length range: 300 to 7,500 meters. This receiver is equipped with six binding posts (normally short-circuited for 300 to 7,500 meter reception) to which loading coils may be attached for the reception of wave lengths up to 21,000 meters. The proper loading coils are: Primary, 50; Secondary, 100; Ticker, 30 millihenries.

The receiver is similar in mechanical design to the IP-500, with the untuned circuit omitted. The capacity coupling between primary and secondary circuits is eliminated in this type by heavy sheet copper boxes separately enclosing the two circuits.

The panel is of Bakelite-dilecto. The coils are bank-wound inductances, of high frequency cable wound on threaded Bakelite-dilecto tubes, impregnated and baked.

The condensers are of the self-balanced plate type. The wiring is of rigid copper enclosed in varnished enameled tubing. All switch points are heated beneath the panel. The detector is mounted on a shock-proof support. The feature of condenser dial pointer control by inductance switch is included in the design.



RECEIVER, IP-501, INCLUDING HIGH GRADE CRYSTAL DETECTOR \$550.00

Overall dimensions: 20 in. x 11 in. x 9 in.

Shipping weight: 55 lbs.



(Left) Much simpler in design but still creating a family problem since only person could listen.

A lusty, fast growing infant . . . nursed on successes such as the Dempsey-Carpentier Fight Broadcast . . . radio soon became "big" business. And, the day of

the home set builder began to fade as vastly superior commercial receivers appeared on the market backed by advertising that packed plenty of power in its time.

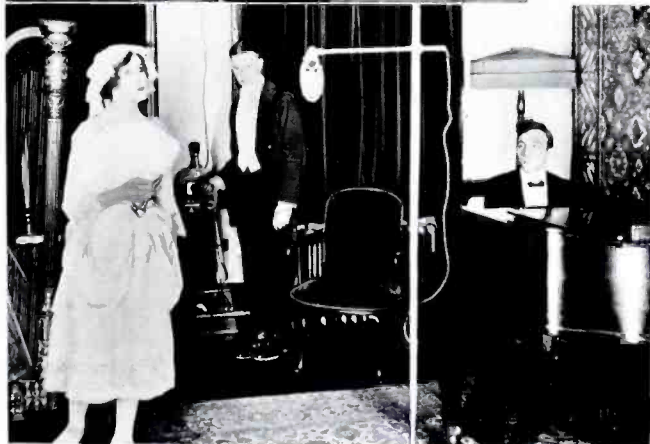
STUDIOS OF ANOTHER DAY



(Left) Performers in that far-off day kept eager listeners up through the long hours of the night. Note the microphone which hadn't yet decided whether it was a mechanical gadget or a musical instrument.



(Above) A few short years ago this was perfection as studios went. Heavy drapes were used for sound insulation.



(Above) Ready to go on the air! Equipment in studios, other than microphones, at that time was the usual thing.

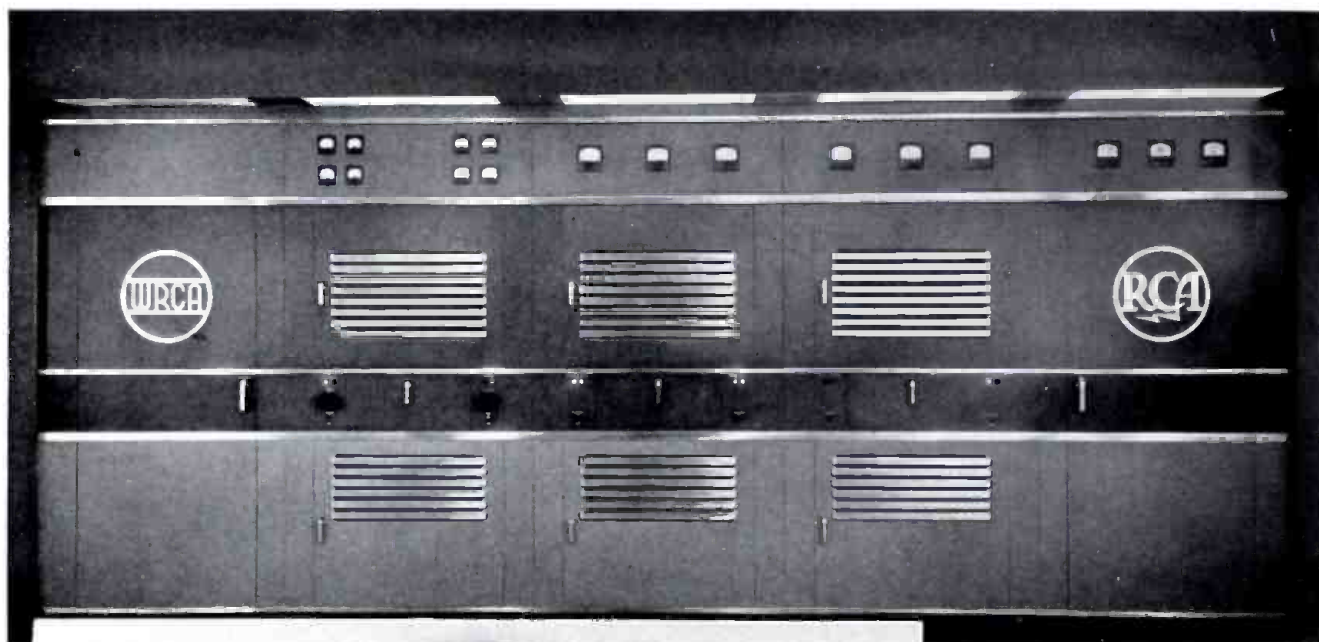
(Right) Performers were dressed in the height of fashion and if you think this is funny look at hats anywhere today.



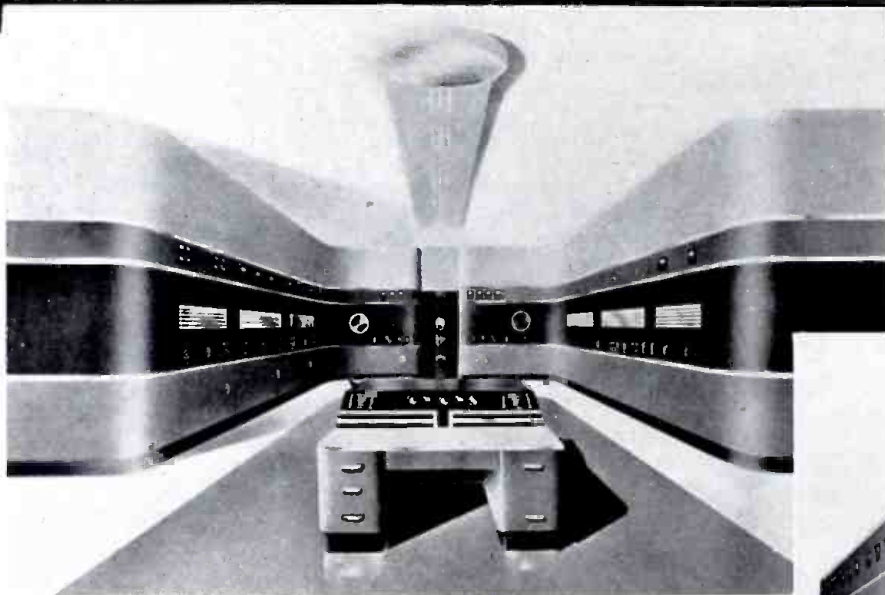
America's first president to speak on the radio addressed his remarks through equipment such as this. Hot "jazz" picked up by these microphones electrified some listeners, shocked others. Broadcasts of symphonies and educational features began to convince many that radio

was potentially a great cultural force. Called upon to originate many new types of programs this equipment carried on with stout heart and a rather surprising freedom from breakdown. The American Way of Broadcasting was just beginning to find itself.

DESIGNS HAVE BEEN REVOLUTIONIZED

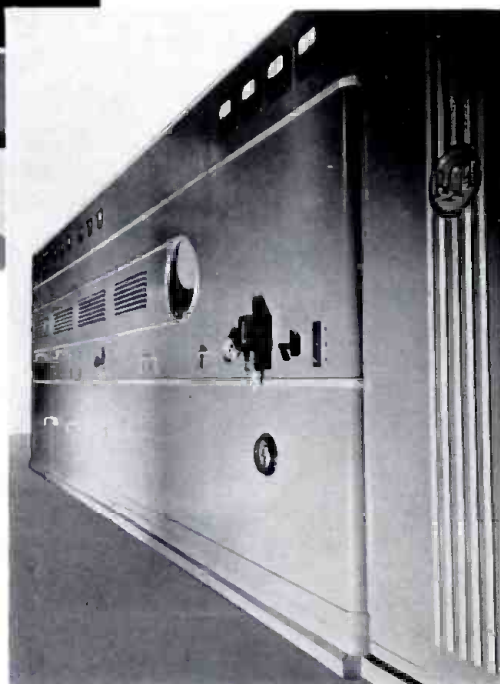


(Above) The RCA 5-DX Transmitter in which all equipment is housed behind a unified front.



(Above) The U-shaped RCA 50-D and control desk which gives the operator full view and "finger-tilp" control.

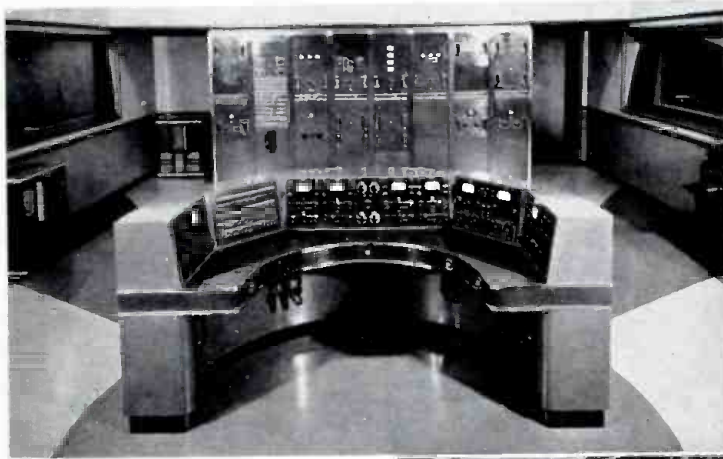
(Right) A section of the RCA straight line type 50-D, showing the streamline construction of this modern transmitter.



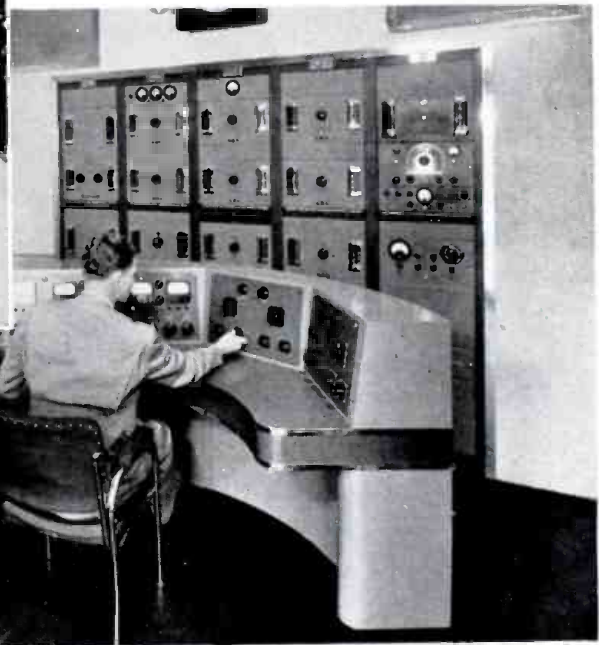
Not only were stations banding together to give better service . . . but they were also replacing old equipment with new. Radio engineering was moving ahead with 7-league strides. And the willingness of station owners to discard usable equipment in favor of new and better equipment acted as a constant spur to the ingenuity of

manufacturers. The tonic of competition kept the industry on its toes, kept it in mood for progress. These were the prime movers that led to the development of broadcasting equipment such as this magnificent modern RCA equipment. Showmanship in equipment was demanded by the American Way of Broadcasting.

MODERN STATIONS OF TODAY



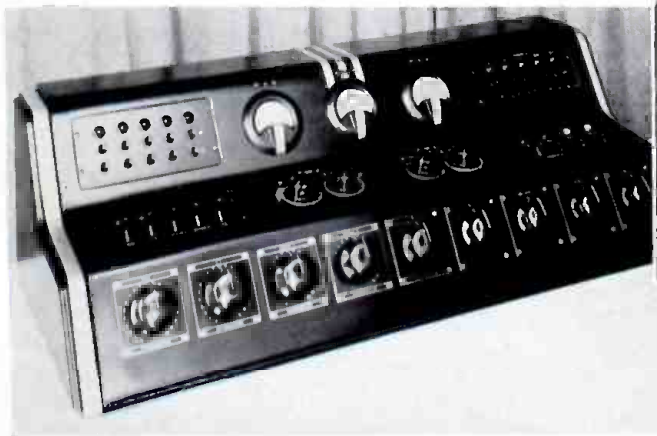
(Left) Speech Input Master Control Desk and Racks at WFBR.



(Right) Speech Input Master Control Desk and Racks at the Golden Gate Exposition.



(Above) Master Control Desk at WWNC.



(Above) A Studio Control Console and Rack built for WFBR.

(Left) Master Control Console at WHBC.

Back when broadcasters never quite knew whether or not they had a listening audience . . . and before sponsors had appeared to furnish free tickets for studio audiences . . . stations wore their working clothes. This homespun character vanished when studios found it necessary to dress up for visitors. Bright, stream-lined mod-

ern stations discover that it is easy to surpass their pioneer ancestors in design, equipment, programs, and in everything else except in transmitting the overpowering thrill which was wrapped up in every program in the early days. New equipment marched abreast in the advance.

NEW WORLDS FOR EVERYONE



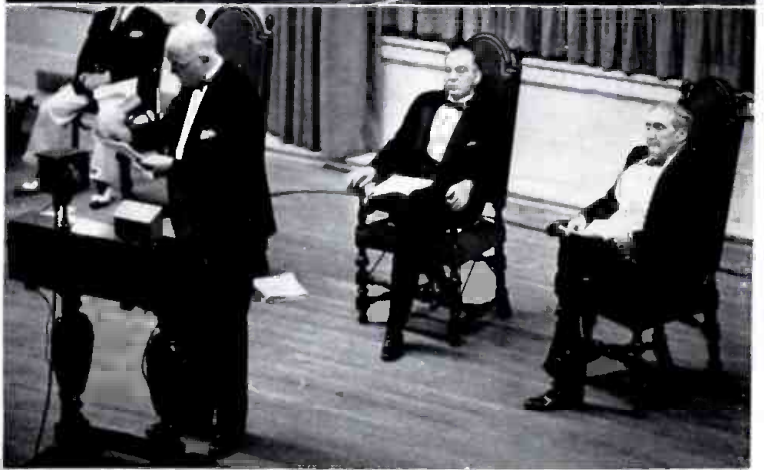
(Left) The NBC Symphony Orchestra, one of the finest in the country, with Toscanini conducting, is available to millions.



(Above) When Byrd went to the Antarctic he was "just around the corner" for untold millions. John Dyer, of CBS, was the newscaster.

(Right) Town Meeting of the Air gives voice to American thought and opinion.

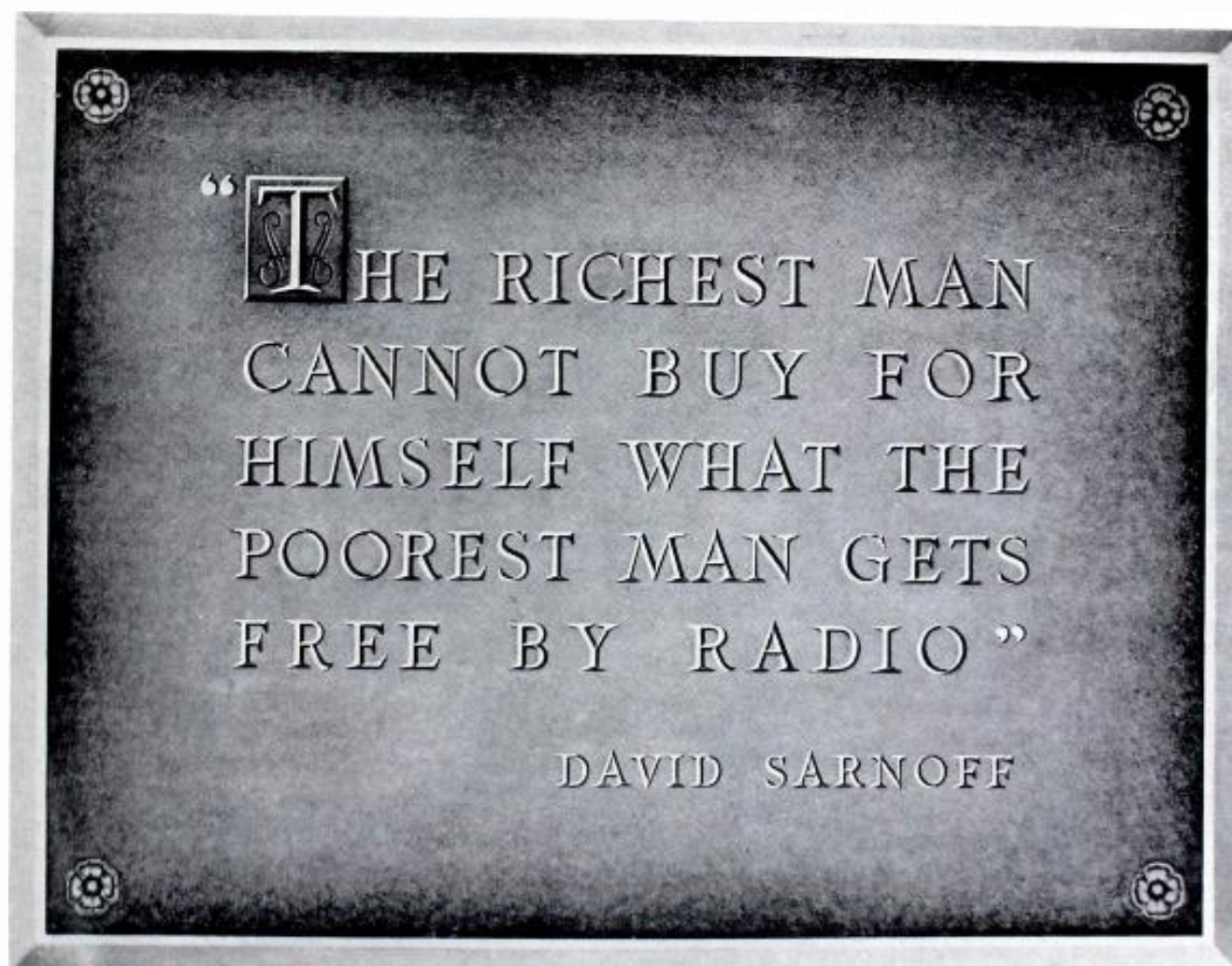
(Below) Another famous orchestra, the Philadelphia, has been heard by millions who would never have enjoyed it without radio.



Since its inception, the radio industry has been conscious of its obligations as a public servant. Adopting a completely non-partisan policy, broadcasters have kept Americans vastly better informed about their government and the issues at stake in making democracy function better. The Radio Corporation of America has

played an important role in rendering this vital service. In addition, RCA helps make radio of utmost service to farmers, educators, government agencies, and to religion. The cultural efforts of RCA are exemplified by the famous NBC Symphony Orchestra. Every American has a box seat in the world's theatre of the air.

TWO DECADES LATER



Incredible as it seems scarcely more than 20 years elapsed between the time Mr. Sarnoff foresaw the wireless "Music Box" as a means of making radio useful in

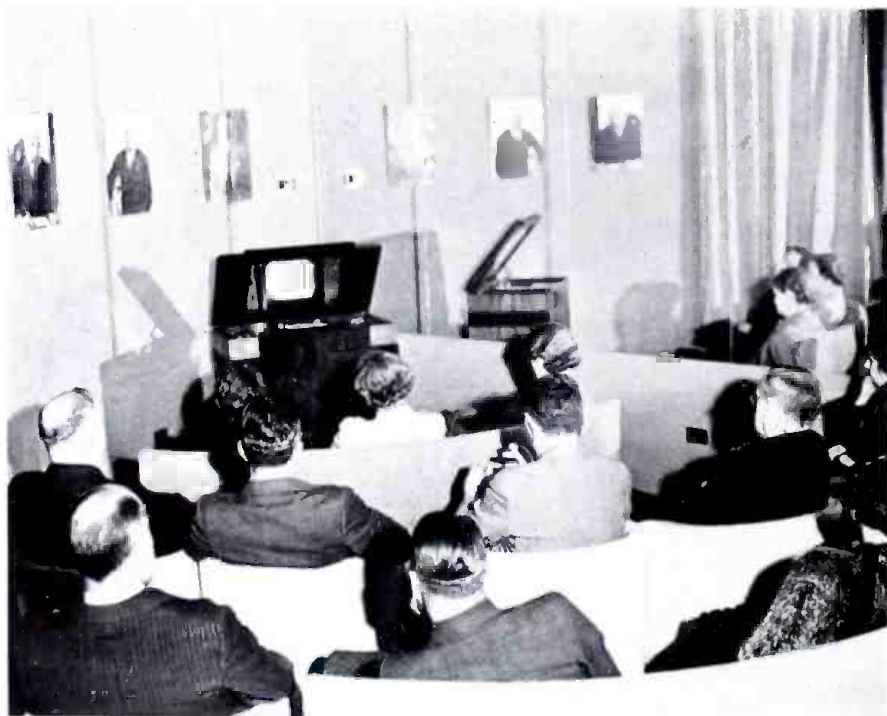
the home and the day when he penned the above statement of fact. Jack's Beanstalk grew at a pedestrian rate in comparison with the American Radio Industry.

TELEVISION IS HERE



(Left) The RCA 1 KW. Television Transmitter—the first to be announced for general sale. Styled in the modern manner it is a unit as up-to-date as the new science it symbolizes.

(Below) The RCA Television Camera. The seeing eye of this new art represents years of tireless research.



(Left) Groups of this sort are intrigued by television and its future possibilities.

In RCA Television, recently introduced in the New York Metropolitan Area, are the seeds of another giant industry. In developing television the radio industry shouldered the staggering costs of research and testing. The public was not asked to pay for an experiment.

Backed by a 7-year \$2,000,000 Field Test, RCA Television is a hit at both Fairs where thousands are having their first opportunity to see and hear the wedding of sight with sound. In Television, as in radio, the American Way will prevail.

TELEVISION HISTORY IN THE MAKING



(Left) Getting ready to watch one of the first big events in television's debut—the Baer-Nova fight.



(Above) A group so fascinated by this new outgrowth of radio that even the photographer could not steal their attention.



(Above) Eager eyed crowds like this one stormed every television receiver to see a great event in early television history. Remember the Dempsey-Carpentier fight and its place in radio history?

(Right) Dealers were forced to admit customers to private showings of television so keen has interest been in New York and vicinity.

The service the radio industry has rendered in pioneering television has not gone without recognition both on the part of the public and of the government. Encour-

aged by favorable comment, the industry is bending every effort and investing more millions so that television will give maximum service as quickly as possible.

TELEVISION RECEIVERS ARE HERE



(Left) The RCA Victor Television Attachment is designed to bring the wonders of modern Television to radio owners at a minimum cost. Sound is heard over your present radio; pictures are viewed on the RCA Victor Television Attachment.

(Below) The RCA Victor Television Console Model TRK-5 provides complete picture and sound reception of Television programs, plus all the entertainment of an 8-tube, 3 band RCA Victor Radio.



(Below) The RCA Victor Television Console Model TRK-12 is designed for those who demand the best in television.



(Above) For those who want an excellent Television receiver plus the finest in radio, the RCA Victor Model TRK-9 will be found to be the logical choice. It is housed in an attractive modern-type console-type cabinet.

One has but to compare the first RCA Victor Television Receivers with the first radio receivers to appreciate what RCA's 7-year, \$2,000,000 field test means to the consumer. No one can now foresee the future of tele-

vision . . . but, with such a beginning, it seems safe to predict television will go hand in hand with radio as one of the nation's greatest public servants. Its services will be common tomorrow.

FACSIMILE—JOURNALISM ON THE AIR



immediately. Everybody liked the new style, liked the additional news it brought them and liked the opportunity it gave them to sit at their breakfast table in the morning and hastily skim through the cream of the news in ultra-condensed form. You must remember, of course, that facsimile today is a tabloid with a vengeance. Stories MUST be short. There are no runovers or jumps—a story has to stay on one page. And with present space limitations, there isn't much room if a variety of news is to be included in the day's transmission. Little space can be devoted to backgrounds and rehash." . . .

"In the first place, let me say that I am firmly convinced facsimile broadcasting is here to stay. I believe that most of us here will live to see the time when the newspaper of the air will be an accepted institution. Just when this will come about, I am not prepared to say. Facsimile is a logical development of radio, just as television is a logical development. All the bugs will be ironed out of it some day and when that day comes, it behooves every newspaper man to be on his toes with respect to this new form of competition."

(Excerpts from an address by Guy C. Hamilton, Vice-president and General Manager, McClatchy Newspapers of California.)

(Left) RCA Facsimile Transmitter.

"When it came to actual broadcasting, we, like newspapermen naturally would, prepare our copy along the lines of traditional newspaper, style, that is with banners, heads on each story, etc. But after we had been broadcasting two or three weeks, we began to realize that even in this phase of our experiment we were on entirely new ground, that the old tried and true methods perhaps were not just what we were after. So, after some discussion and experimentation, we decided that in order to save space and to make for greater readability, and greater volume of news, we would cut out the banners and heads and prepare our news in brief, running commenatry paragraph form." . . .

"We made the change in form about the first of March, and public reaction was felt

(Right) An RCA Facsimile Receiver.



Another development, promising to extend the limits of the services radio renders, is facsimile. Equipment designed and built by RCA is now in operation in various

sections of the country. Radio may soon revolutionize the newspaper business. The day's news at your fingertips is no longer a dream.

THE NEWSPAPER OF TOMORROW

Late City Edition of the

3 Cents

Gist

of Today's News

Vol. 96, No. 32,900 Wednesday, March 3, 1939

Lewis Wins U. S. Steel Recognition, 40-Hour Week and \$5 Minimum Pay

Labor

Charles Lewis has won for the United States Steel Corp. a 40-hour week and \$5 minimum pay. The agreement was quickly announced in Pittsburgh last night by Philip Murray, chairman of the Steel Workers Organizing Committee and chief lieutenant of John L. Lewis. The Committee for Industrial Organization of the agreement also provides for a minimum pay of \$5 a day and a forty-hour week, both to take effect March 15. Eight other steel companies signed similar agreements in the early part of the week, probably preventing the major strike in the steel industry which many had thought in the offing.

None of the agreement stated President Hoover's other administrative leaders in Washington. Officials of the Navy Department said they had been in contact with the steel industry in the past, but that they had not been in contact with the steel industry in the past.

Unofficial opinion is that the agreement will result in the steel industry as a result of \$100,000,000 in new steel production in the next few months. The new steel production will be about 100,000 tons a month, or about 1,000,000 tons a year. The new steel production will be about 100,000 tons a month, or about 1,000,000 tons a year.

Today's Headlines

- Roosevelt comes out for new wage-and-hour laws this session; sends Congress N.R.A. post-mortem urging new regulation of business to be more flexible. **Labor, page 3**
- Steel's 40-hour week hailed in Washington by Administration leaders; Navy Department holds it clears way for immediate ship construction. **Labor, page 3**
- Shutdown strikes a blow to major parts plants in Detroit setting Ford Motor Co., which is revealed as early C.I.O. objective. One strike settled. **Labor, page 3**
- Amblerberg backs Wheeler-Rose Amendment in radio speech attacking Roosevelt's court plan. Business employers justices to quit. **National News, page 3**
- James Roosevelt may attend coronation of George VI as secretary of American delegation; President says idea is new to him. **Foreign News, page 3**
- Niagara Falls Power Co. defies order of state commission not use of river water to new fourth. **Business, page 3**
- Mysterious death of four-year-old Queens girl caused attack in "most brutal murder in 27 years?" **Crime, page 3**
- N.L.A. charges Germany has secret debt of 2 billion dollars cautions investors in new bond issue. **Foreign News, page 3**



THE VIGILANT the steel agreements John L. Lewis (left), head of the Committee for Industrial Organization, and Myron Taylor, chairman of the board, U. S. Steel Corporation.

New York City

Two 1938's summer city hall will be Chubbuck Marine in College Point Park Queens. Mayor LaGuardia announced yesterday by Paul Blumenthal, Commissioner of Public Works.

Embarkment, updated financial conditions, and a political system in the Kings County Board's office under previous administration were reported in the Mayor yesterday by Paul Blumenthal, Commissioner of Public Works.

At least 1000 more beds are needed immediately in the city's hospitals for tuberculosis patients. Dr. Haven Emerson declared yesterday.

Sports

Tommy George Seewagen upset J. Gilbert Hal 8-2, 2 & 10-8 in the national indoor singles championship here yesterday. Herbert B. Green and Frank Parker also advanced. **Sports, page 13**

Bernie Max Schmieding got in the Bertranga last night. In the night of the heavyweight title he of being for French of contract. **Sports, page 13**

Hockey The Detroit Red Wings defeated the Montreal Maroons 7-4 at Montreal yesterday. The A. V. announced it would deny access to the Hershey Bears for their scheduled track meet if their hockey team played the scheduled Baltimore Orioles play. **Sports, page 13**

Baseball After a season of wild pitching the team of Thomas and Robert took undisputed leadership of the 100-day race at Madison Square Garden last night. **Sports, page 13**

Bill Bate helped speed cruising with a...

The State

Here came the... **State, page 3**

National News

The Senate... **National News, page 3**

The Senate... **National News, page 3**

Foreign News

The Senate... **Foreign News, page 3**

Crime

The Senate... **Crime, page 3**



An interesting experiment in news writing and...

Constantly extending its frontiers facsimile is developing a new pioneering element in journalism. Life speeds of a foster pace and the story must be terse. A suggested format for a "Newspaper of the Air" has been

proposed at the Columbo University School of Journalism. "Gist" may well be the type of newspaper a future generation reads. In the lower right a sample of facsimile reproduction is shown.

SAFETY IS SERVED BY RADIO



From the moment of taking off until the happy landing planes are in continuous contact with airports by means of radio. Without the factor of safety that radio provides aviation progress would have lagged greatly.



Law enforcement agencies turn more and more to radio. The press has long since ceased to dramatize police radio but the drama is still there. Millions of dollars worth of property have been protected, lives saved and criminals caught through the use of radio.

At sea radio performed its first great work. Today the perils of the sea have been minimized. Even smaller ships carry radio as necessary equipment.

Today no one marvels at these services of radio. They are accepted as common-place. But picture for just one moment any of these fields without radio. A tenuous

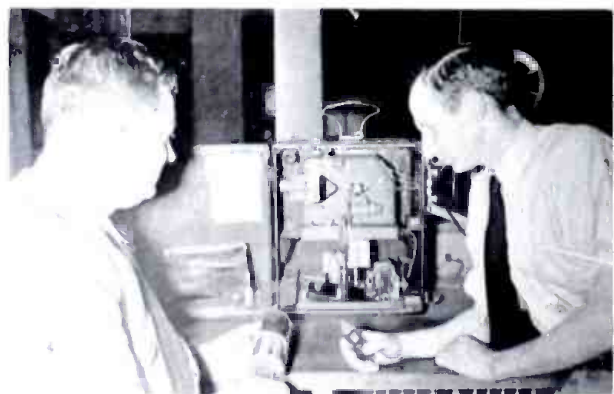
wave in the air has aided humanity and aided progress in every field. New fields of service open as radio advances.

RADIO ENTERS LIMITLESS FIELDS



(Above) The Infra-red Telescope.

(Below) Dr. Zworykin and Point Microscope.



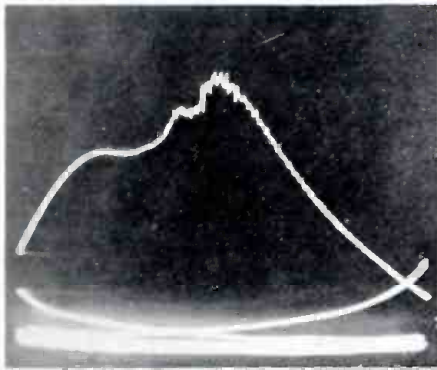
(Above and right) Research goes on unceasingly in the vast field opened by radio.



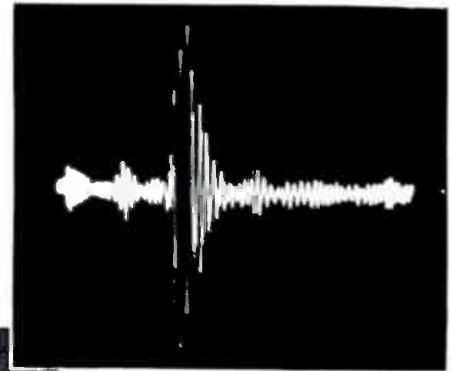
To the general public radio and television seem to mark a limit. But to the scientist they are merely steps in a vast field whose limits no one can know. Ultra-short

waves will be used in the future to an extent that even the vivid imagination of the romancer can not conceive. Tomorrow will bring new accomplishments.

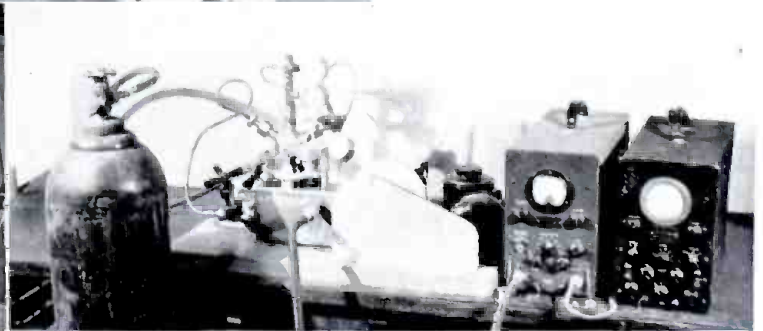
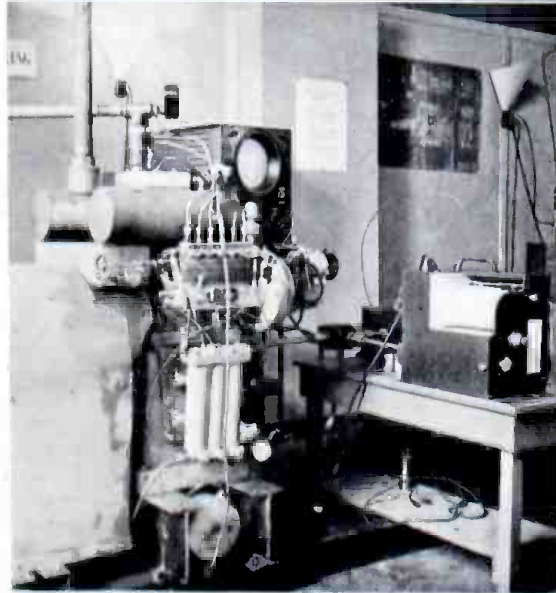
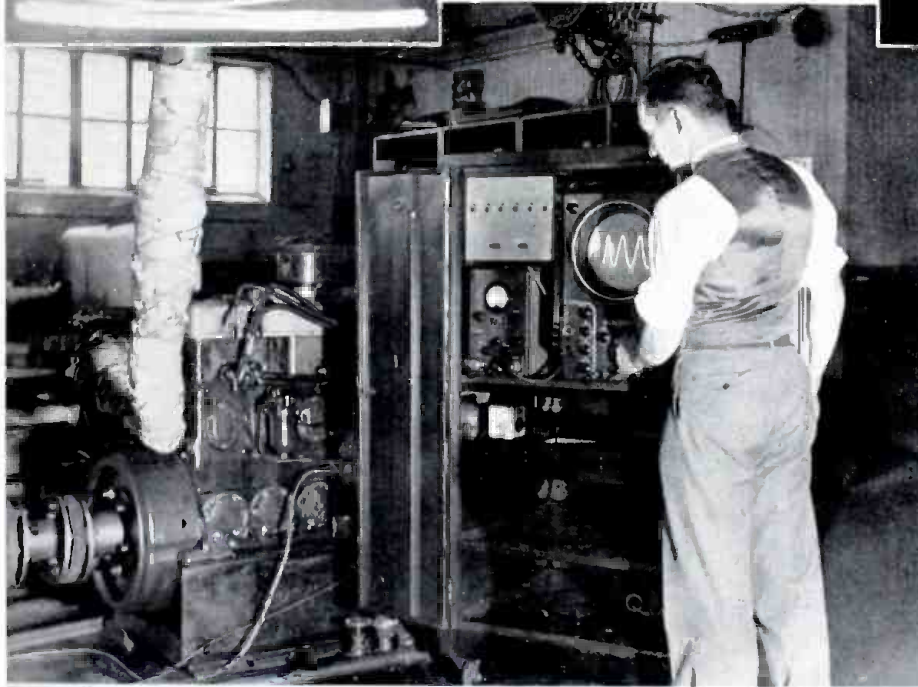
RADIO AIDS INDUSTRY



Wave forms in tests on modern industrial equipment.



New uses for equipment growing out of radio's development will lead to new standards in the factory of tomorrow.



In every phase of industry applications for electronic equipment will be found.

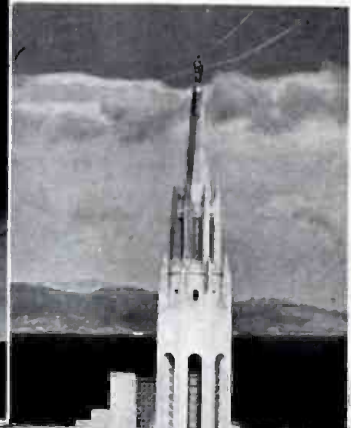
Not alone in the fields of entertainment and culture has radio been an important influence. Developments unforeseen at the time are now being applied in every phase of everyday life. Business, science, education —

all benefitted through the research that primarily began as an offshoot of radio. The world of tomorrow will be amazingly improved by the dream of the "music box" which would utilize wireless.

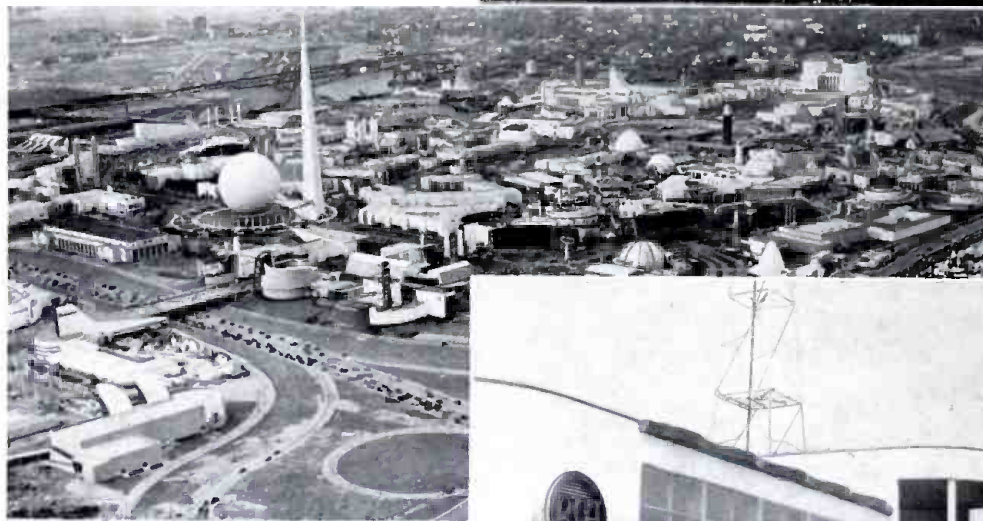
AT BOTH FAIRS—IT'S RCA



(Above) RCA's exhibit building at the Golden Gate Exposition.



(Right) RCA sound is employed on Treasure Island.



(Above) RCA sound is official equipment at the New York World's Fair.



(Right) Official opening of the RCA Building at the World's Fair.

Radio . . . television . . . facsimile are scoring major triumphs at the two Fairs. RCA Exhibits at both Fairs are focal points for thousands eager to see the latest scientific achievements in these fields. Yet . . . perhaps

only the surface of progress has been scratched . . . for future developments in the field of ultra-high frequencies may provide exhibits at some future Fair which will dwarf the accomplishments of today.