


RADIO NEWS

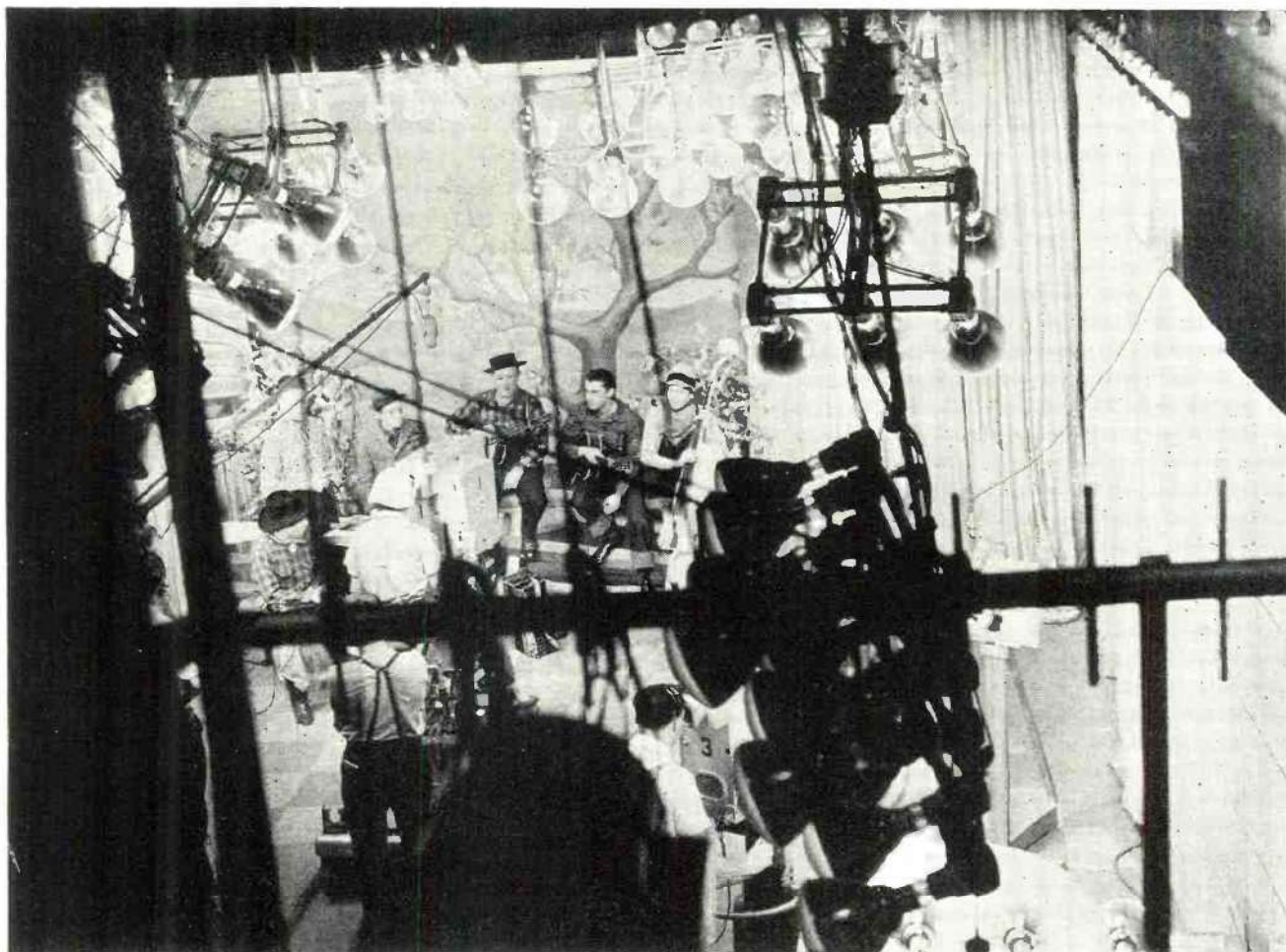
NOVEMBER
1941
25c
In Canada 30c



Television Antennae
Atop Empire State Bldg.

STAGING A
TELEVISION
PROGRAM

CONSTRUCTING A WEARABLE HEARING AID
★ PORTABLE SEMI-PRO RECORDER ★



View of the television studio from the production manager's control room from over the light bridge. The 17 foot high studio is lighted by 156 bulbs of 300 and 500 watt sizes connected in groups of 6 and 12. These are rigged so that the light men can direct the monster banks to illuminate any part of the studio.

Staging a TELEVISION PROGRAM

Television Broadcasting is set, technically, for full-time production. It must compete with moving picture studio technique.

“COME in one. Stick to the faces. That’s it. Get those gestures in the picture. Get ready three. Dolly one. Keep the heads in. That’s enough. Now nice long shot. Take those legs. Come in three. Nice close-up. Light man get that floor board out of range. Ready for two. Check focus. Boom Man—You have to make a quick switch. Fade out three and come in two on the American Flag . . .”

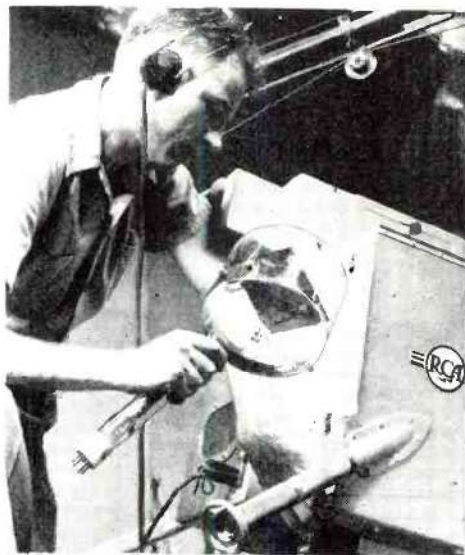
That jargon comes from the program director during the fever of

shooting and broadcasting commercial television. He talks continuously just like old time movie directors. But in television the director uses a telephone instead of a megaphone. His orders are heard and carried out by the cameramen and stage technicians while the video and audio control men get their commands direct because they are seated below the director in the million dollar control room perched over the studio.

Broadcasting television is technically set for full time production. But

the production is still limited to 15 hours a week of simple staging. Hollywood absorbed and climbed ahead of legitimate staging. Television must vie with the talking pictures and radio of 1941. It needs must take time.

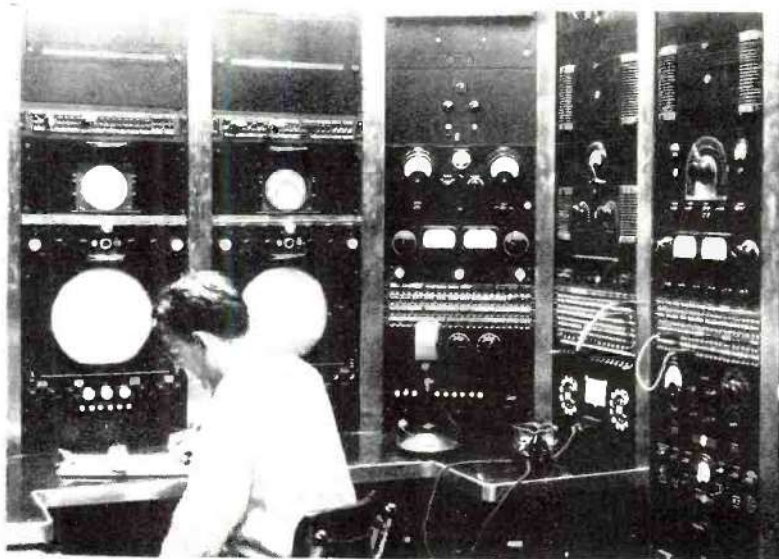
Nevertheless the moment the *Federal Communications Commission* gave Television the go ahead, three sponsors bought time and programs on NBC. They are a watch outfit, a yarn company and an advertising agency now signed up for telecasting.



The heart of the television camera is called the "Ike." The square plate inside the tube acts as a photograph negative. Cameraman is installing tube into unit.



The camera is focused on the test pattern designed to serve the purpose of stand-ins. This is more accurate, serves special television needs and saves wear and tear on the cast. The various technicians: cameramen, light men, technical director, video man, etc., line up their controls and the camera for deflection with a peculiar chart. Sharpness is still not perfected.



Television transmitting room on the 85th floor of the Empire State Building in New York. Here, at WNBC, the sync-generator makes electronic television possible. The test pattern is broadcast half an hour before show time to give the control men and listeners an opportunity to focus their television receivers in proper manner.



The stage manager uses red crayon to mark the places for the actors to stand. This is most important in closeups, such as this one of the model exhibiting the hidden pocket, a new gimmick for milady's new wardrobe.

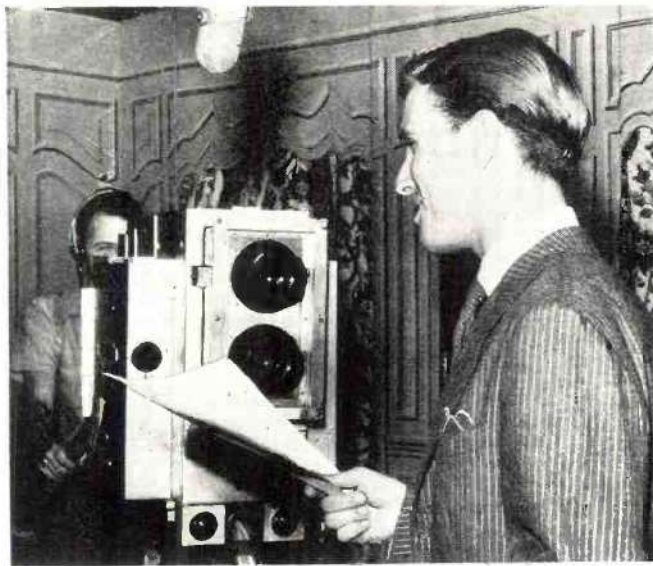
Finished acts demand so much work to stage that television is forced to avoid creating new ones. Hence old vaudevillians, night club performers, single features and circus acts hold the television stage of today. There is practically no television drama being produced. The entertainment value of the offerings rate poorly as a steady diet. As soon as more sponsors buy time and produce their own shows the quality will improve. The situation is similar to the pioneer days of radio. It wasn't until the sponsors

competed for the greater audience that production costs and entertainment valued advanced.

They shoot with three cameras, each designed to take a different angle so that the pictures may be varied. Unlike the ear, the eye demands much more variety. Besides which the quality of television pictures is constantly being compared with talkies. The three cameras are bossed from a panel in the control room from where the director may switch from one to another to liven production. Of course,

showings from the film studio and the mobile unit invite different problems. It's the mobile unit jobs covering prize fights and ball games that make television unique by permitting an almost unlimited audience to witness popular events the moment they occur.

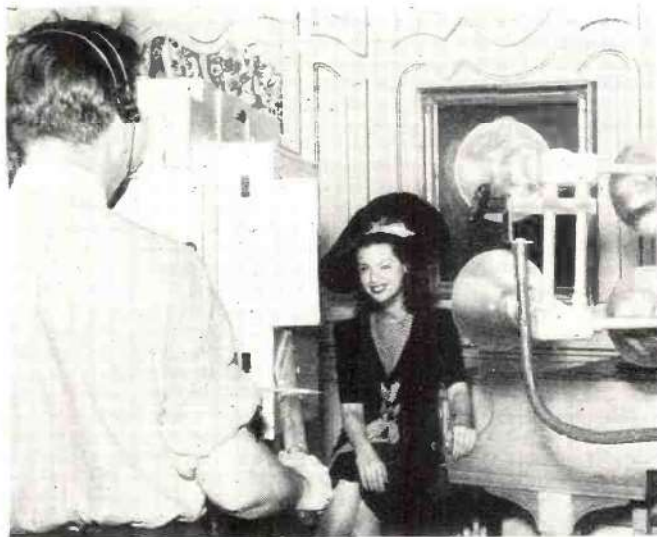
At the moment, the audiences are small. Television Broadcasting stations are few and set owners in the New York area, for instance, only number 4,800. The cost of sets and their limited manufacture due to defense are holding it up. Nevertheless



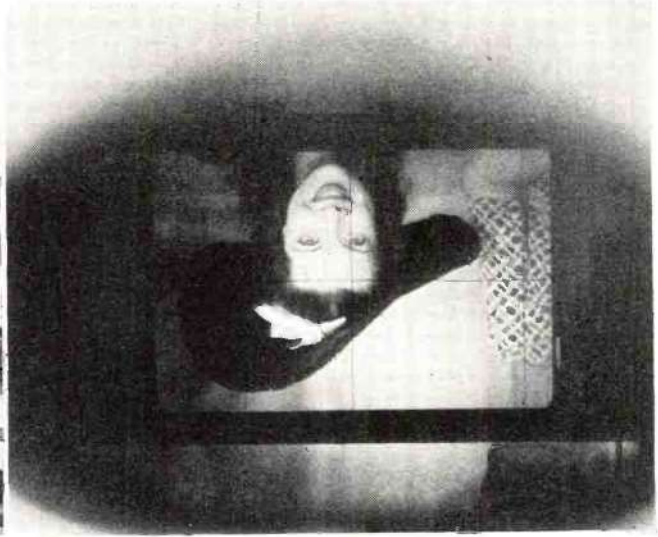
This picture allows us to see the "business end" of one of the \$3,000 television cameras. The upper lens is the cameraman's direct view-finder; the lower image lens opens onto the iconoscope tube. The lights below the lens mount are for cue signals.



The camera shown is fixed on a hand-operated dolly that performs gymnastics which make a wide range of camera angles possible. A dolly man drives the cameraman around the studio and hoists him up and down. Other lifts are electrically operated.



Hat model, Nina McLoughlin, watches the television birdie. Augmenting the ceiling wattage is the floor light broad, and we don't mean Nina! Here's the focusing handle at work. Headphone permits cameraman to receive his cues and orders from the director.



Upside-down television image as seen by the cameraman through the view-finder. Nina is bottom-side-up and in reverse. A light inside the camera tells the cameraman when he is on the air. The crossed hairline is identical in all standard cameras.

the Government is doing all it can to help because they believe that advancement of television may eventually prove valuable for defense.

The staff behind the scenes make the television studios look like sound stages. Sixteen technicians are used to operate cameras, booms, the Video, Audio, turntables and lights. Up at NBC, they are all men who have been with television at least nine years. Most are Amateur Photographers, one of the requisites for video jobs.

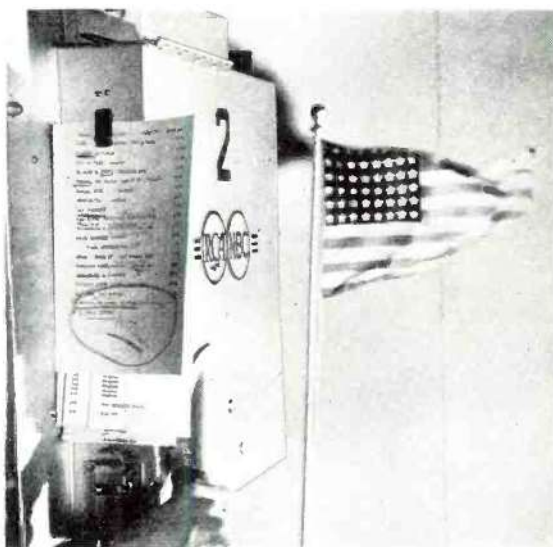
Though certain basic patents were

taken out in 1884, the science of Television took until July of this year to get Government okay for commercial showings. It was not until then that equipment standards won the Nod. NBC has invested \$15,000,000 in experiments to date.

Though the public has seen but few showings in the ten years of actual television, myths have mushroomed. Actors engaged for their first television jobs expect blue, purple and yellow makeup. They ask about black lipstick. This rainbow makeup was

tried out during the scanning-disk days. The electronic system employs straight panchromatic makeup, suntan powder and no eye shadow. Men use no makeup except when they have extra heavy beards.

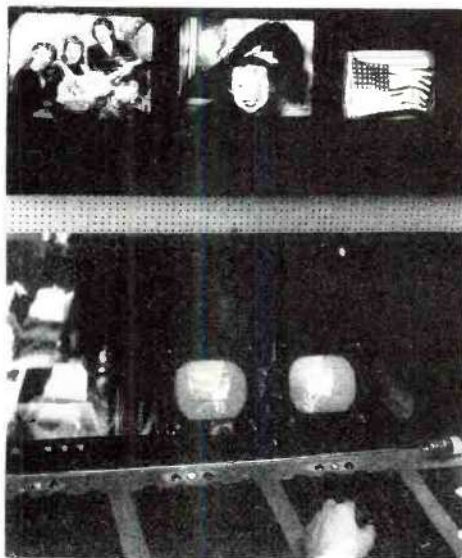
Just as radio stations broadcast sound, so television stations broadcast light. The heart of the new science is the Iconoscope, or Cathode ray tube. In the camera the Iconoscope converts light into electrical impulse. These impulses are broadcast and received by a similar Cathode ray tube in your



Every television program ends with a waving American Flag and a recording of the Star Spangled Banner. Attached to every camera is a cue sheet and a copy of the program routine. The backdrop is painted light grey.



Here is the control room during a nervous moment taken during air time. Al Protzman, left, with his trained fingers on the camera switches, and program director Ernest Colling, right, watching the action on the three kinescopes and the studio through the pliofilm. Control room is almost completely dark.



The top three images appear on the kinescopes in the control room. At Colling's orders any one may be put on the air. Number two is being previewed and the flag is being corrected.



Miss Listener tunes in the Radio City Matinee on her home television set. The image appears on a milky glass covering the Cathode ray tube. This is reflected by a slanting mirror on the back of the set. Miss Listener's left hand is on the "Brightening Dial." Note the reflection of her hand in the mirror above. She appears to be enjoying the show.

home set which reverses the process. That is, converting the electrical impulses back into light and forming images. The subject is shot by 525 lines of light, forming 30 frames per second as against motion pictures which is only 24 frames per second. The 525-30 are standard today.

Television studios are working intensively on developing formulas for future programs. What some of the participants may have up their sleeves is still secret. There has been nothing spectacularly creative—nothing to re-

flect that a great entertainment technique will be developed within the field of television itself. Rather, the program lads have been content to borrow methods of procedure from the movies, the stage and radio.

The easiest way to solve the program problem is to give television fans a little bit of everything, the video directors seem to believe. And they borrow a bit of talent and technique from here and a little bit from there and then they stir it all up with the result of obtaining a none too palat-

able hash for the video customers.

The potentialities of television programming are so enormous that the directors of experimental shows seem scared of their shadows. Television can be an original entertainment medium right from the start. The video art can develop its own technique—and it can be a polished, acceptable medium at the very start. The only requirement is that the holders of commercial television licenses will have to open their purse-strings for creative

(Continued on page 64)

"That damned little bus is ridiculous," I said. "Everyone—"

Al looked up. "Good morning," he said.

"Good morning," I answered. "Everyone laughs at me, and I can't stand it. We've got to keep some dignity in our profession, and it's a cinch we won't if we ride around in a car that's as conspicuous as a grapefruit on a billiard table. Get another bus—get our old one back—get a wheelbarrow—get anything—"

"Good work, Lee," Al said, handing his paper to me.

I looked at it, and sat down heavily. There was a big picture of a crowd of kids, rolling the Ajax down Foster Avenue! *The city needs playgrounds,*

the caption said. *Things have come to a pretty pass when our children have to take their toys out on the city streets. What are you going to do about it, Mr. Mayor?*—and so on, with a couple of columns of the delicious whimsy newspapermen like to lay on thick when they're given a chance.

"A quarter page," Al pointed out, "and our name on the side of the car, where lots of readers will see it and be amused. An ad like that would have cost us plenty. Subtract it from the cost of the car, and you'll see we got a bargain. But you'll have to stop being so thin-skinned!"

I looked at the picture again. The cop the *SS&S sign*—the people laughing—the kids having fun—and me, running excitedly into the left side of the photograph. It wasn't a bad shot of me, really.

"Coffee and!" I shouted to the counterwoman, to cover up a smile. I knew Al was looking at me and grinning, but I sort of hated to give in.

I ate one doughnut before I said anything. "You know," I said, "perhaps people do get a kick out of that bus!"

Al stood up, and started for the cashier's desk. "Atta boy," he said, slapping me on the back as he passed. "See you in the shop!"

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Staging a Television Program

(Continued from page 9)

writers, imaginative directors and top-notch talent.

In matters relative to writing, directing and casting programs, broadcasting has been playing up to the stage and screen for many years. And radio has developed a program inferiority complex as a result. So, at the start, television should realize that it is potentially a more powerful and far-reaching medium than plays and movies and should, right from the start, relegate Broadway and Hollywood to a contributory rather than dominating spot. True, stage and screen personalities will be in television demand—but their iconoscope ability is more important than marquee prominence.

We are bound to hear from Hollywood to the effect that the cinema city is the logical contender for talent leadership of the nation when, as, and if nation-wide video networks are placed in operation.

True, Hollywood has a load of movie names which may register as well over the kinescope as they do over the theatre screen. But movie names won't be enough to support a bid for leadership. New York has "on call" the cream of the crop in the way of radio, stage, concert and, yes, even movie names. It may seem odd to suggest that New York can compete with Hollywood in the television availability of movie personalities. But it's true! Mind you, we said *availability* and not *quantity*. And what good is quantity if just a very small percentage can be signed when needed for a television show?

Broadcasting experience of many years has shown that there are great difficulties in obtaining talkie stars for Hollywood broadcasts when they were seasonally engaged before the cameras; it's often hard for a star to find time away from the klieg lights for the countless rehearsals as well as the actual broadcasts. But, when they're in New York, there's barely a hitch in taking on the mike assignment that won't clash with other activities.

We've even known of movie stars who preferred a special flight to New York (all expenses paid by the sponsor, of course!) to appear on a radio program. And the same will hold true of television.

The video industry has already demonstrated its operating independence of the movie industry. While the movies may not exactly take a back seat in television rating, they apparently will have to be content with one off the center aisle. And it is very likely that a batch of broadcasters who have their eye on television allocations will be a bit disappointed, too, in discovering that telecasting won't be dominated by the present broadcasting fraternity.

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(Continued from page 31)

parts of the complete assembly. Most of the better recorders include a 1/20th horsepower motor, while some use a 1/4 hp. In any case, the motor must maintain an even speed and not work under an overload. Proper ventilation must be provided to prevent overheating of the motor.

Next month's article will be devoted to the subject of cutting and playback needles or, correctly, (cutting and playback styli). This is an important topic and should be understood by all who do recording, either for pleasure or for profit.

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Mfrs. Literature

(Continued from page 40)

IRC Replacement Manual

Copies of the new, up-to-the-minute IRC Volume Control Replacement Manual (Edition No. 3) are available to servicemen, through IRC Jobbers. Fully revised, printed in larger, easier-to-read style and containing a wealth of new listings and material, this Manual gives complete control replacement information in addition to including full details on the cabinet, handy resistor charts and information, and a complete catalog of all IRC standard control and resistor types.

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