NOVEMBER-DECEMBER • 1945

Televiser

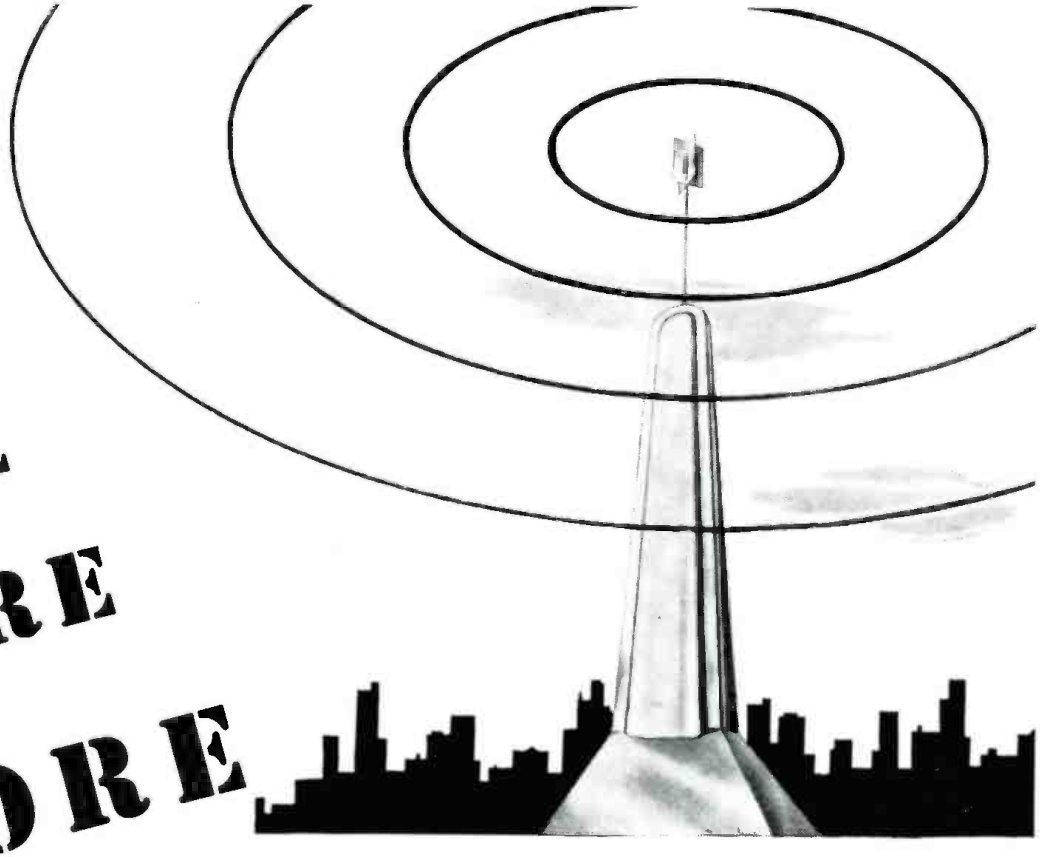
JOURNAL OF TELEVISION

FIFTY CENTS
SUBSCRIPTION: $3 PER YEAR

MACY'S XMAS PARADE IS TELEVISED BY NBC USING NEW IMAGE-ORTHICON CAMERA

1946 FORECAST ISSUE

ARTICLES BY: AUSTRIAN, MOWREY, BALTIN, SHUPERT, RAIBOURN, EDDY, GOLDSMITH



MORE MORE MORE

TELEVISION "*Know How*" THAN ANY OTHER COMPANY!

DuMont engineers have designed and built more television stations than any other organization...are now completing the world's first "Television City" in New York.

During more than four years of operational trail-blazing, DuMont equipment design has been steadily improved to keep pace with increasingly elaborate programming experimentation. Today, DuMont design boasts incomparably simplified precision controls...provides high efficiency, extreme flexibility and rugged dependability at *low operating cost.*

DuMont experience assures the finest craftsmanship for the least outlay...offers a pattern of station operation for your study and a plan for training your personnel...starts you off in television on the right foot!

DUMONT *Precision Electronics and Television*

ALLEN B. DuMONT LABORATORIES, INC., GENERAL OFFICES AND PLANT, 2 MAIN AVENUE, PASSAIC, N. J.
TELEVISION STUDIOS AND STATION WABD, 515 MADISON AVENUE, NEW YORK 22, NEW YORK

Vol. 2, No. 2 . . .

Nov.-Dec., 1945

The television pot is boiling. Increasing activity marks television's faltering progress forward. Hardly a week passes by without an announcement in the press of a new development. First there was the DuMont-Wanamaker announcement. . . . Hot on its heels come the RCA-Gimbel announcement of intra-store television. . . . Then came the FCC hearings and news of CBS' color developments. . . . This was followed by TELEVISER'S *two-day "Television Institute," attended by radio executives from all parts of the U.S.A. . . . And now the most recent "epoch" making development unveiled is the Aladdin's Lamp of television, RCA's new orthicon "1-match-power" tube, which will do much to further television programming, and perhaps ultimately help eliminate the need for ultra-brilliant studio lighting. . . . Yes, the television pot is boiling. Keep your eye on it!*

IRWIN A. SHANE
Editor & Publisher

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Televiser

JOURNAL OF VIDEO PRODUCTION, ADVERTISING & OPERATION

Published by TELEVISION PUBLICATIONS, 11 W. 42nd St., New York City

1: PROGRAMMING AND PRODUCTION:

2: OPERATION AND MANAGEMENT:

3: ADVERTISING AND MERCHANDISING:

4: REVIEWS, SCRIPTS AND VIEWS

NEXT ISSUE: The talks of more than twenty television experts who spoke at the "Television Institute." Hotel Commodore. New York City.

LETTERS TO THE TELEVISER

Beg Pardon . . .

SIRS:

I have just received the September-October issue. In reading the article entitled "Training Tomnrrow's Video Personnel Today," I note that you comment on Station WHK's recent television presentation at WRGB, Schenectady, characterizing it as a "bit of Shakespeare in modern dress."

Like all writers, I am perhaps jealous of my work, even unto the Bard. WHK's presentation at WRGB was not a "bit of Shakespeare," but an original television script, written by myself and entitled "Soliloquy."

The action occurred in the dressing-room of a presumably modern day theatre, and it was the story of the players' own lives after they had just finished a performance of Shakespeare's "Hamlet." Part of the action was based on a bit of the soliloquy from that estimable classic: "Death, the undiscovered country from whose bourne no traveler returns." Thus, the title. As fnr "modern dress," the players involved wore the traditional costumes of Hamlet, Ophelia, and the Grave Digger.

However, thanks much for having reported nn our performance at WRGB in your excellent magazine. We are gradually evolving what we hnpe will be a well-trained television personnel here at WHK.

GARDE F. CHAMBERS
United Broadcasting Company
Cleveland, Ohio

Inre: The Institute . . .

SIRS:

My sincerest congratulations on the outstanding success of your first "Television Institute." I agree with Mr. Hubbell's statement that "it will go dnwn as a milestone in the history of television progress and achievement."

Of the more than 400 who attended I, apparently, was the only Canadian. This fact is indeed regrettable and a disgrace to the Canadian broadcasting industry. However, I feel certain that this country will be in a position to make a very substantial and representative showing at next year's session.

You will be interested to know that I was one of the seven who took the trip to Schenectady on Wednesday and spent a very informative and very delightful time at Station WRGB. The General Electric Company was exceedingly cordial and certainly spared no effort to make our visit as pleasant and as instructive as possible. I hate to think that so many people missed this truly delightful adventure into television.

The amount of television knowledge I gained at the "Television Institute" cannot be measured in words alone. I am extremely grateful.

ANDREW NIXON McLELLAN
Royal Canadian Corps of Signals
Barriefield, Ontario, Canada

SIRS:

Congratulations on "Television Institute," two days which are certain to make viden history. This was exactly the kind of shot-in-the-arm that television has been needing, and it was gratifying to see the industry roll up its sleeves and get down to work with facts and figures instead of vague theorizing.

Please let's have one every year—and in as many cities as possible.

ELINOR LENZ
New York, N. Y.

SIRS:

I want to say a few words about the "Television Institute." It was a beautifully run affair, and a definite punctuation to the picture of television today.

I think most people who were there are grateful for the npportunity of getting together. Those for whnm television was new, probably found it most rewarding.

Ynur speakers were excellent, and I think the general spirit of the get-together was of a high calibre. You certainly did yeoman's work in arranging the Institute —and I, for one, am indeed grateful to you for having been able to share the scene.

MARGUERITE TEMPLE
New York, N. Y.

From Puerto Rico . . .

SIRS:

We just received copies of the TELEVISER. To a team of army announcers and producers who have been traveling overseas for what seems an eternity, it answered all our questions and more.

Thank goodness the contributnrs write in a language which can be understood by others besides those in the technical departments.

Congratulations! You can expect our regular subscription as sonn as we return to normal life, which should be in a few weeks. Again, let me thank you in behalf of the whole team.

SGT. FRANK TOMASELL
Antilles Dept. Signal Service
San Juan, Puerto Rico

Wants Window Display . . .

SIRS:

As a subscriber to TELEVISER I see that it is possible to borrow the circulating television window display. We realize that you probably have hundreds nf requests for this display and that Aberdeen is many miles from New York. However, we are vitally interested in televisinn and feel that this display would create great interest in our community.

RUTH POINDEXTER, *Adv. Mgr.*
George J. Wolff Co.
Aberdeen, Wash.

Praise and a Gripe . . .

SIRS:

It might interest you to know that I reread all issues of TELEVISER chronologically each month. I use my most recent copy first, then go back over the entire issue. Since we have no television set-up here at WJW I'm trying tn absorb as much information as I can and store it oup against the future date when I'll be able to apply it. An ex-newspaperman and trade journal writer and editor, I have never seen a magazine capable of doing the educational and informational job TELEVISER does.

Now—a gripe. In the current issue, the article on "Lighting" is incomprehensible to me, lacking the opportunity of seeing various items mentioned. I think illustration would have made the article's appeal more catholic in scope.

DON BELL
Cleveland Heights, Ohio
Radio Station WJW

SIRS:

We wish to express our appreciation of the fine service you are rendering to those sincerely interested in the tremendous new industry, television. The cnntribution TELEVISER is making is invaluable.

DORIA BALLI
Radio Arts Acadamy
Hollywood, Calif.

SIRS:

I have had the pleasure of "hanging around" the DuMont and CBS Studios in New York while on leave and also the Don Lee Studio in Hnllywood and learned a lot that way, but the ideas are changing so fast that every bit of information is welcome.

I read your magazine from cover to cover and one darn fine publication it is, to be sure . . . too bad it can't be printed more often than bi-monthly.

CAPT. LAWRENCE L. ODLE,
Signal Corps
AAF Supply, Army Air Base
Rapid City, South Dakota

EDITOR'S NOTE: TELEVISER *would like to hear from as many of its reader's at possible. W'on't you send us your views? But please limit letters to 150 words.*

BUY MORE WAR BONDS

ELECTRONIC TELEVISION IS AN RCA DEVELOPMENT

This is the fourth of a series of advertisements showing that RCA engineers developed the basic essentials of the electronic television system—*including tubes and circuits.*

RCA built the first all-electronic television transmitters and receivers—the first commercial television station — established the first television relay system — presented the first electronic theatre television—was the first to televise a baseball game and a Broadway play—and was first to televise from an airplane.

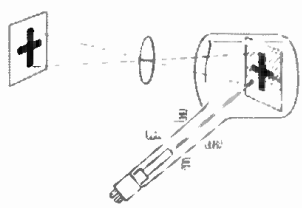
RCA is, and will continue to be, the leader in practical, successful commercial television. You may expect the best of all kinds of television transmitting and receiving equipment from RCA.

4. THE STUDIO CAMERA

IN ORDER to use conveniently the magical powers of the Iconoscope, an elaborate camera assembly is needed. Included in this must be (1) an arrangement for focusing the desired picture on the mosaic; (2) deflecting circuits that will cause a beam of electrons to scan the picture; and (3) a means of amplifying the relatively weak signal to a magnitude that can be satisfactorily fed over a cable to the control room. Moreover, all of these, and the Iconoscope itself, must be mounted in a relatively compact assembly capable of being moved easily about the studio.

Deluxe studio cameras of the type shown above were first designed and built by RCA. Cameras of this type, produced by RCA before the war, are used today in the studios of WNBT, the world's leading television station, and in a number of other television stations. Cameras of very similar design are used in nearly every station.

When production of commercial television equipment is resumed, RCA will offer new television cameras surpassing any now in commercial use. With these new RCA cameras, using improved circuits and tubes, full freedom can be given to artistic considerations in studio programming.



The Fountainhead of Modern Tube Development is RCA

RADIO CORPORATION OF AMERICA

RCA VICTOR DIVISION • CAMDEN, N. J.

In Canada, RCA VICTOR COMPANY LIMITED, Montreal

WASHINGTON VIDEO-NOTES

By Larry Carl
Televiser's Washington Bureau

THE FCC, ON OCTOBER 24, granted Westinghouse Radio Stations, Inc. authority to operate five developmental radio stations to test Westinghouse's "stratovision" plan.

Four transmitters will be installed in an airplane, to be manufactured by the Glenn L. Martin Co., which will fly over a designated area at 30,000 feet above the earth. Two of the transmitters are to be used for FM tests, one for television, and a fourth for relaying tests to another plane. The fifth station will be on the ground for the purpose of relaying test signals, programs or other necessary communications to the plane in flight. Frequencies will be assigned by the FCC Chief Engineer. 5-kilowatts power is authorized. The chief items of experimentation wil include:

1.) Study of ground reflections effect on signals transmitted from moving planes, especially with respect to fading, fluttering and ghosting.
2.) Feasibility of relaying programs from one moving plane to another.
3.) To check effectiveness of antenna designs and other compact equipment installed in planes.
4.) To determine the area served by transmission from 30,000 feet.
5.) Determine best methods of transmitting programs and other communications from ground to plane in flight.

* * *

BY NOW THE "BATTLE OF THE towers" along the banks of the placid Potomac should have cooled a bit. At present, the House District Committee is inquiring into the location of these towers and the need for new legislation.

The problem has arisen because all the high ground in the National Capital is located in the Northwest area, which is a choice residential section. The zoning laws amended early this year permit video towers in residential areas under certain conditions. Federal park areas adjacent to this area are suitable for tower locations but the National Capital Park & Planning Commission is opposed. The Zoning Adjustment Board has approved two towers, but has not yet approved the 500 foot minimum proposed by the FCC. Maximum tower height approved by the Zoning Board is 350 feet. While the problem of tower location probably won't be as complicated in other cities, the problem provides much of interest to applicants elsewhere who may be faced with somewhat similar problems, especially if towers are proposed for location in residential areas.

* * *

LOOK FOR AN ANNOUNCEment linking DuMont's new experimental station in a studio deal with a prominent Washington department store. The deal, when it goes through, will parallel the WABD-Wanamaker tie-in in New York. Similar deals may be made in other cities where DuMont is an applicant.

W3XWT debut date has been moved ahead to December 15th, the same day WABD is due back on the air in New York. DuMont's Washington tele tower has been installed on the Hotel Harrington roof. Three of the hotel's suites on the tenth floor are being remodeled as studios. Work should be finished by mid-November.

W3XWT's program fare at first will consist 90% of programs relayed from New York. The other 10% of the time will be used for educational and public service films televised locally. As video sets become available during early Spring there will be a gradual transition to live shows originating in Washington. Despite the lack of tele sets here at the moment, W3XWT is going ahead with its plans to be first on the air in Washington with "sight and sound" service.

* * *

DEBUT DATE OF NBC's PROposed Washington video station, originally planned for around the first of the year, has been pushed back to late Spring because of the indecision as to tower height. NBC has received an okay from the Zoning Adjustment Board for a 350 foot tower at Wardman Park Hotel. Higher tower height as now required by FCC would require further hearings before the City Board. NBC's application for an experimental tele station on Channel 4 in Washington was one of six experimental applications turned down by FCC during the latter part of September. This in no way affects the company's application for a commercial station on the same frequency. FCC hasn't yet acted on this commercial request.

Meanwhile George Sandefer, the station's tele liaison man, has conducted ten one-hour seminars during October to keep NBC department heads abreast of current video developments.

* * *

ZONING ADJUSTMENT BOARD has approved Bamberger's request for local video transmitter at 40th & Brandywyine Sts., N. W. They had applied for a 300 foot tower. Board told them to limit its height to 200 feet. This again may result in complications and further hearings before the municipal body if the FCC adopts its 500-foot height proposal for metropolitan stations.

* * *

SCRIPPS-HOWARD RADIO, applicant for Channel One in Washington, plans a 5-story adition to the 'Daily News" building for television and FM studios. Transmitter for the projected tele station will be in Falls Church, Virginia.

* * *

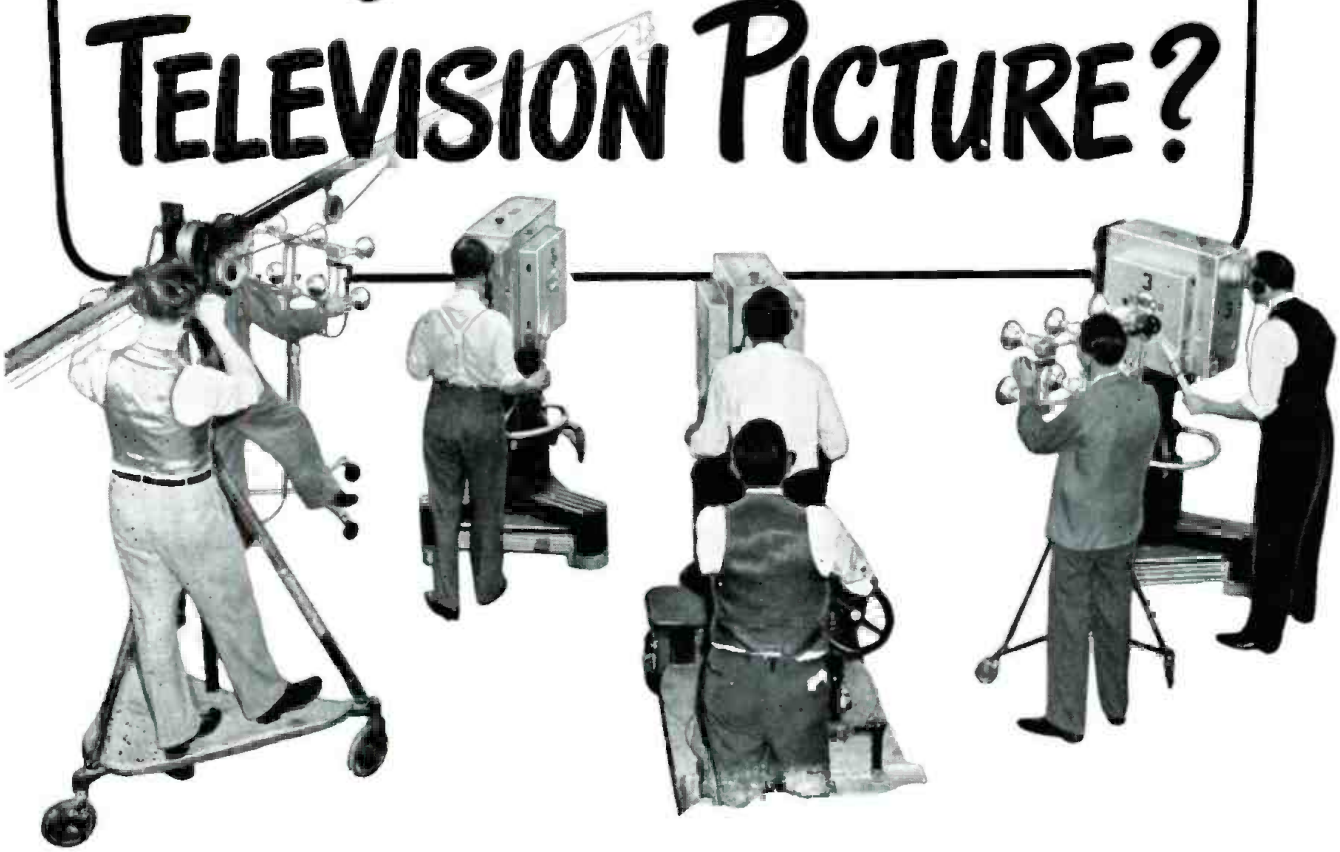
THE PHILCO'S WASHINGTON outlet has been given until March 16, 1946, to go on the air. The radio relay network linking Washington and WPTZ, Philadelphia, has been in operation since last April. Network exchange programs are planned between W3XAF and WPTZ.

On August 24, WMAL (American) applied for a video station, using General Electric equipment, on Channel 6 with 3kw aural — 4kw visual power. Where those WMAL tele studios are to be located in the $64 question in Washington radio circles.

* * *

TEN TELE WRITERS WANTED:— Zurhorst Public Relations Agency is seeking ten good tele writers for a film company client. One script of 10, 20 or 30 minutes of any type suitable for video is sufficient as an entry. Those selected will most likely work in New York where the films will be produced. All scripts should be mailed to Charles Zurhorst, Heurich Building, 1627-K St., N. W., Washington, D. C.

When are YOU going to get into the TELEVISION PICTURE?



Clients Now Regularly Sponsoring NBC Television

GILLETTE SAFETY RAZOR CO., INC.
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FIRESTONE TIRE AND RUBBER CO.
PAN AMERICAN WORLD AIRWAYS
ELGIN NATIONAL WATCH CO.
UNITED STATES RUBBER CO.
WALTHAM WATCH CO.
BULOVA WATCH CO.

IN LESS TIME THAN YOU PERHAPS SUSPECT. That's why there'll never be a better time than *now*—to gain a practical, working knowledge of this complicated sight medium. There'll never be a better time than *now* to equip yourself to make the most successful commercial use of television, to adapt your advertising skill and experience to this new medium.

Today it is still possible to learn how to adapt your advertising techniques to sight transmission—*for only negligible expenditures.*

We're ready to work with you—whenever you're ready to step into television. The same NBC program, production and technical expertness already winning trade and audience applause for NBC television is available to help you solve your video problems.

NBC TELEVISION

WNBT NEW YORK Television Channel No. 1

NATIONAL BROADCASTING COMPANY
A SERVICE OF RADIO CORPORATION OF AMERICA

TELE-HIGHLIGHTS

By
STANLEY KEMPNER

WILLIAM ESTY & CO., INC., New York ad agency, announced intentions to begin active television production soon. . . . An insight into the color research developments achieved by the Columbia Broadcasting System during recent years was broadcast to the nation by Dr. Peter C. Goldmark, CBS director of engineering research and development work, during the intermission period of a recent CBS Symphony program. . . . Chicago public schools are planning to use television as an integral part of its educational program according to George Jennings, director of the Radio Council of the Chicago Board of Education. . . . The Lee De Forest Laboratories Internacional was reported established in Mexico City with a capitalization of $250,000. . . .

GILBERT Seldes, well-known director of television programs for CBS, resigned to do independent work in the video field . . . Television course stressing programming ideas and executing was begun for the second year at the City College of New York with Gerald O. Kaye, sales promotion manager, Bruno-New York, as instructor once again . . . NBC was granted permission by the House of Representatives to place its video cameras in the House gallery, where the activities of the governmental body can be telecast . . . For the sixth consecutive year, Philco television station WPTZ will televise all University of Pennsylvania football games played at Franklin Field in Philadelphia this season.

TELEVISION will require more than five years before it can enjoy the the status of sound broadcasting today, according to Edgar Kobak, Mutual Broadcasting System's president . . . WABD-DuMont closed down to shift from channel 4 (78-84 megacycles) to the new channel No. 5 (76-82 megacycles), only to learn that the FCC was proposing to eliminate channel 5 in New York . . . Philo T. Farnsworth, "one of the BIG names in television," resigned as vice-president of the Farnsworth Television and Radio Corp. to devote his time to research in his lab at Fryeburg, Maine . . . Fox West Coast Theatres Corp., Hollywood, Calif., filed with FCC seeking permission to erect and operate a commercial television station.

FILMS showing the Japanese surrender were televised on WNBT, NBC station in New York. . . . Plans were announced for the first television theatre to be built in Newark, N. J. . . . Use of reflective metallic backgrounds instead of the usual flat grays which result in black tones being blacker when televised is advocated by Chet Kulesza, technical supervisor of art and production at Batten, Barton, Durstin & Osborn, Inc., and Ted B. Grenier, chief engineer of Metropolitan Television, Inc. Through the use of a reflective silver background—or gold, copper, bronze—the clarity of vari-colored objects was brought out more vividly, and required less light for the cameras. . . . Westinghouse Electric Corp. has announced plans to test "Stratovision" "before the snow flies." . . . Rudolf Bretz, CBS video director, inaugurated "An Informal Course in Television" at the City College of New York.

PLANS for the Second Convention of the Television Broadcasters Assn. were announced by J. R. Poppele, president, with the event to take place either in March or April of 1946 . . . Pilotless bombers with television eyes were declared a reality by Brig. General David Sarnoff, president, Radio Corporation of America . . . DuMont signed a five-year contract with the Television Studio Broadcasting Employees Union, Local 794 of the International Aliance of Theatrical Stage Employees. The wage scale is from $41.60 to $80 for a 40-hour, five day week, as against a 48-hour week previously prevailing. There are also provisions for wage increases of five per cent at the end of the first year, 15 per cent at the end of the second, and 10 per cent at the end of the third and fourth years . . . Gimbel Brothers, in cooperation with Victor Division of the Radio Corporation of America, announced plans to install the first intra-store television system in Gimbel's, Philadelphia. . . .

Production of new television receivers are being held to a minimum this year because sets now in use and those to be made in the very near future would be difficult to adapt, if they could be changed at all, should the FCC soon decide to change the technical standards. Possible decision to put video in the higher frequencies very soon, thus making obsolete all receivers manufactured for present standards, was seen major cause of producers' reluctance to produce sets in any appreciable quantity. . . .

COMMERCIAL television is ready to begin a valuable public service on a broad scale but needs a governmental attitude of encouragement and sympathetic support with maximum flexibility and minimum restriction of its development," declared Niles Trammell, NBC president, before the FCC hearings. . . . Television stations in 187 key cities, with a consumer demand exceeding one billion dollars at end of five years, was forecast by Paul Porter, FCC chairman, at a dinner party for Justice Miller, new president of the NAB. . . . The manufacture of receiving and transmission equipment for color television is already in progress, Dr. Peter C. Goldmark, CBS engineer told the FCC, disclosing that GE had entered into a cooperative arrangement to produce receivers using the CBS assured at least ten years' use of the television receivers purchased in the immediate future.

Television is a big business and you cannot make it a little business, James Lawrence Fly, former chairman of the Federal Communications Commission told more than 450 persons at the "Television Institute" luncheon sponsored by TELEVISER *magazine. . . .*

ADMIRAL of the Fleet Chester W. Nimitz on hero's tour of New York City was televised in NBC-WNBT studios. . . . Immediacy of practical color television was foreseen by Paul Kesten, executive vice president of the Columbia Broadcasting System, who told FCC members that he had witnessed actual color demonstrations in New York prior to his trip to Washington. . . . Color television on a practical day-to-day basis is several years away, according to Larry E. Gubb, chairman of the Board of Directors of the Philco Corporation. . . . President Truman's "Navy Day" address in Central Park was televised by NBC, using RCA's new tube.

5 Courses To Choose From!

1: STATION MANAGEMENT AND OPERATION

(Mondays, 7-9 p.m.)

- Locating a Television Station
- Designing a Tele Station
- Operating Problems
- Programming
- Studio Personnel Training
- Studio Lighting
- Networks
- Black-White vs. Color
- Time Sales
- Remote Pickups

2: PROGRAMMING & PRODUCTION

(Tuesdays, 7-9 p.m.)

- Types of Programs
- The Television Audience
- Script Preparation
- Casting
- Acting for Television
- Directing for Television
- Costuming & Make-up
- Music for Television
- Use of Films in Programming
- From Radio to Television

3: ADVERTISING & MERCHANDISING

(Wednesdays, 7-9 p.m.)

- Types of Commercials
- Some Current Tele Commercials
- Setting Up a Television Dept.
- Use of Film in Commercials
- Use of Gadgets and Props
- Use of Marionettes
- A Comparison of Media
- When Will Tele Advertising Pay?
- The Hidden Commercial
- Writing the Commercial

4: PROGRAM WORKSHOP

(Thursdays, 7-9 p.m.)

- The Variety Show
- The Dramatic Program
- The Fashion Show
- The Educational Program
- The Sports Program
- The Travelogue
- The Newscast
- The Children's Program
- The Audience Participation Show
- The Special Events Program

5: GENERAL SURVEY COURSE

(Fridays, 7-9 p.m.)

- How Television Functions;
- How Tele Differs from Radio, Screen, and Stage;
- Techniques Employed in Television;
- Jobs and Careers in Television;
- The Television Commercial, Etc.

• In Washington, D. C., attend Televiser's 1st Regional "TELEVISION INSTITUTE," Hotel Statler, January 29, 1946 Sponsored by the Advertising Club of Washington

Some of the 450 Persons Who Attended "Television Institute" at Hotel Commodore in New York

Enroll in the

"TELEVISION INSTITUTE"

•5 Professional Courses for Televiser Readers

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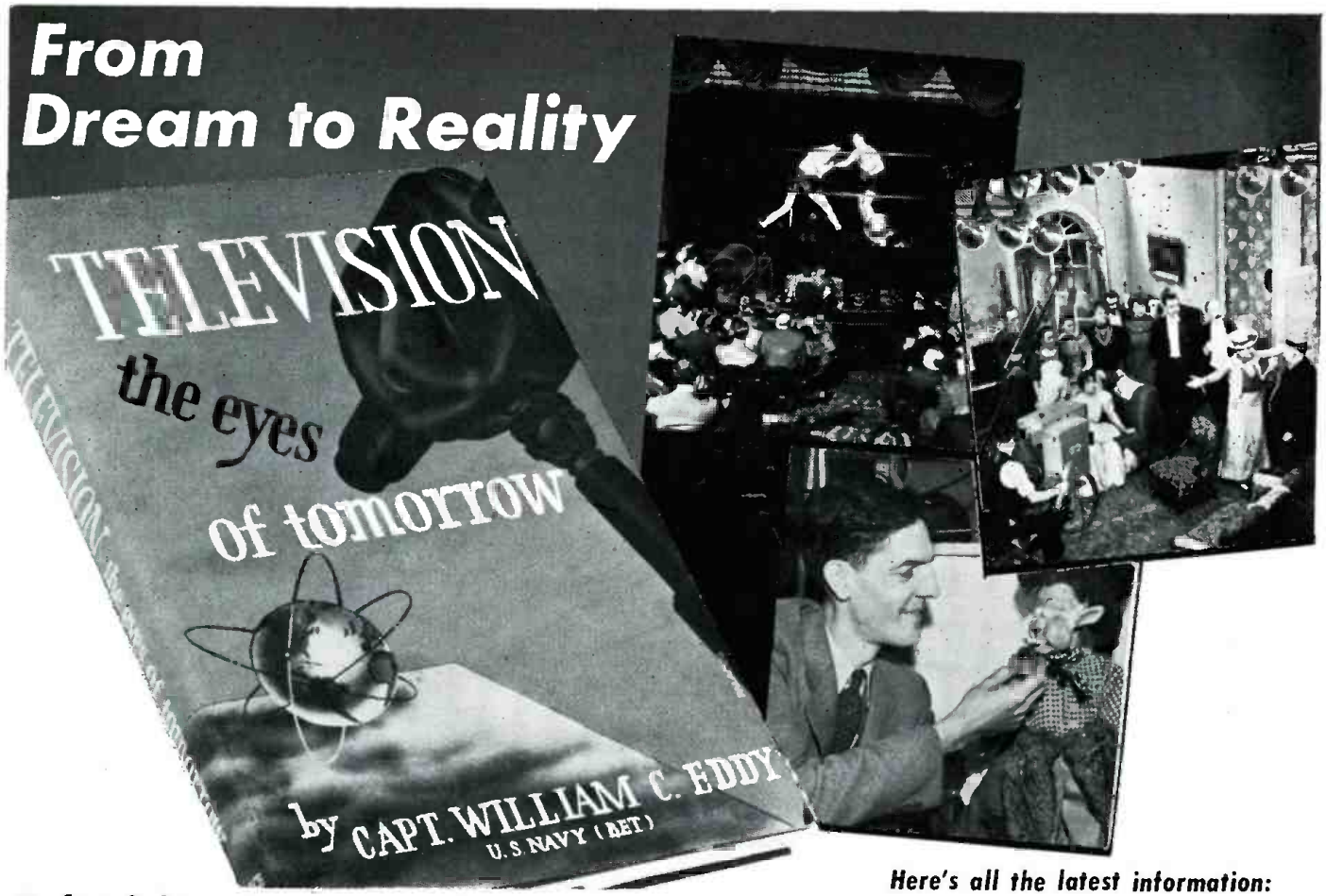

Television is an outstanding development promised our post-war world. It will open up new entertainment media, new careers, as well as functioning as a proving ground for research. And in TELEVISION — The Eyes of Tomorrow — we have a definitive and authoritative compilation of television's history, nature, and future.

Captain Eddy is an expert in his field, having worked in it from its early pioneering days to the present. He is not merely interpreting scientific data; he is relating his own experience and solutions as a man who worked with Philo Farnsworth, was chief of video effects for NBC and director of Television Station WBKB which he built in Chicago.

TELEVISION—The Eyes of Tomorrow —traces television's birth and growth, with special attention to present-day technical aspects, giving detailed scientific answers to numerous questions that have arisen in the making it a practical invention rather than an experimental dream.

Here is a detailed study of lighting techniques, a variety of visual effects, a proposed coaxial network plan, and a means for solving one of the biggest problems: how to get wider coverage. A complete section on color television is one of the outstanding features, opening up a whole new trend in this direction. The enormous advertising potentialities are fully discussed. The future possibilities of televised, on-the-spot reporting are completely explored.

Here's all the latest information:

- **Radical concepts of camera techniques in color-work**
- **The television camera and its associated circuits**
- **Methods for transmission**
- **Receiver equipment — especially the cathode ray tube**
- **Control room difficulties**
- **Ramifications of televised lighting**
- **Techniques of color and color response**
- **Motion picture sources**
- **The importance of studio design**
- **Visual effects—connecting bridges and optical dissolves**
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- **Economic factors**
- **The television commercial**
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Send me at once for free examination TELEVISION — THE EYES OF TOMORROW. I will remit $3.75, plus postage, in 5 days, or return the book.

Name.....

Address.....

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☐ Check here if enclosing remittance, in which case we pay postage. You may return the book in 5 days and receive full refund.

I: PROGRAMMING AND PRODUCTION

Scene from "The Copperhead," presented by NBC television station WNBT, New York. (NBC Photo)

"Behind Television Programming"

By David A. Wilkie *

SHORTLY after commercial television became ripe for popular acceptance in the late '30's, it was cut off from further growth by the outbreak of the war. However, since then and hand in hand with the rapid technical advances of the war-born electronic industries, great strides have been made in the scientific perfection of this newest and most magical means of communication. The recent FCC decisions have given television a green light both for experimentation in programming in the present broadcast bands and for study of the use of extremely high frequencies for the transmission of more finely defined pictures and pictures in color.

In spite of the important technical improvements in light sensitive camera tubes, transmission lines and booster towers, and in large screen receivers for the home, there has been little study of how to make television socially workable. The burden of responsibility for artistic merit has as yet no sound basis in television programming.

In fact, nobody knows exactly what television is. It is very elusive because it combines so many of the elements of other entertainment and communication media. Some critics consider it merely an extension of cinema; in other words, that programs for television should be made on film and put up in cans. It is true that, if reception is good, television pictures look just like clear home movies. However, from another point of view, the advocates of live studio broadcast see the basis of television programming in the theater. They find there the best source of actors, acts, and talent for showmanship and stagecraft. But, it is equally easy for the tradition-minded owners of broadcast companies to think of television as merely radio with pictures added. Undoubtedly its presentation in the home and its economics will be very similar to those of radio.

All of these points of view, if taken arbitrarily, are wrong; but none of them is totally wrong. Television is a fusion of practically all of the arts of showmanship, and out of these it develops its own characteristics. To name only one of them, it can present information to the public faster and more clearly and concisely than any other means yet devised. It proved this when, at the outbreak of the war, thousands of air raid wardens were trained expertly in first aid from a central television studio.

The technique of television camera work in live broadcasting is exactly the same as that used in the making of movies. The main difference in getting the production is that, where film is edited with a scissors in the cutting room, the television show must be edited from preview monitor pictures, which show what various cameras are looking at simultaneously. A television program is cut out of the whole cloth of a continuous action that goes on before a battery of photo electric cameras. The producer-director, instead of cutting with a scissors, pushes buttons.

* *Formerly fellow of Yale and Harvard Universities in the Fine Arts and formerly member of the production staff of NBC Television.*

This means that there can be no prompting and no retakes. A television show must be made up in one piece and carefully rehearsed. There is no reading from scripts in a good television show. Appearing on television means acting. Revolving and hydraulic stages are simple devices in comparison with the mobile machinery that will eventually be needed to keep action steadily flowing in front of the broadcast cameras and microphones. For these reasons, the experience of the theater in all its techniques and methods is of great importance to making television programs.

Because the main outlet for programs will be in home receivers, the psychological factors that control the timing and the more intimate content of radio programs will have their influence in television. All seats in television are front row centers; yet, what is more, there are no box office receipts. Like radio, television in America will be financed by the sale of products through advertising. Television is more "homey" than either stage or screen.

For all these reasons television does not need to be defined in terms of any one of our three major entertainment media—the movies, theater, or radio. It will borrow something from all of them, but it will not actually resemble any of them in particular.

More Emphasis on "Book"

If drama in television is to take on the significance that it has in the best theater, there must be more emphasis on "the book" and less on "the stars." "The play is the thing wherein to catch the conscience. . . ." The writer and the producer-director—with the actors—must have their due. If there is to be great music on television, as there is on radio, a prodigious labor must be put into adapting ballet and opera to the requirements of television studio methods. If the news of the world, travels in distant lands, and the knowledge of neighborly nations is brought into our home, then millions of feet of new film must be taken and edited to tell these stories. Though people prefer to be amused than instructed, there is eye fascination in the ways in which things are done. "Doing a good job," is a phrase repeated again and again every day by everyone. Skillful presentation—showmanship in instruction—can make education entertaining. Looking at things requires a lot more thought and attention than does mere listening. When the fascination of television as a gadget wears off, the audience will want things worth looking at. If sponsorship of programs is to rest in the hands of commercial advertisers, they must learn to clean up the obtrusive techniques used in selling products on the radio, which will show up badly in any kind of visual presentation.

Television can become the mirror of the life of the nation, or it can become one vast grab bag of variety acts, emotive drama, clowning, and tasteless advertising.

Between Two Pressures

The problem of television programming today—in addition to being bounced back and forth between stage, screen, and radio—is squeezed between two pressures. From one direction comes the solid public demand for not only good entertainment but also for considerably more public service than is given by radio. Silent and menacing, the FCC holds a big stick which it may wield in the interests of society as it grants licenses to broadcasters and renews these licenses. One hears constantly of the great new cultural horizon presented by television. Today that horizon is very dim—perhaps, lost in the clouds rising from commercial and technical concerns. Public demand in what it wants from television is still inarticulate.

The other pressure bearing upon the problem of television programming comes obviously from the direction of the commercial sponsors, who will only foot the bills if they see that they are getting their money's worth of publicity. The sponsors are frequently represented by advertising agencies who dope out the methods and means of catching the public fancy. The commercial sponsor, through his agency, tries to gear his programming to the level of popular appeal where he sells his product. Also, the fact that science plays such a huge role in our everyday lives makes manufacturers of almost any kind of a product resort to scientific jargon in building up their claims. The package-type program is a combination of such pseudo-science, jingles and "quickies," emotive drama, "human interest" stories, and forced humor or "gaps." All of this stuff will creep into television if conscientious effort is not put into a study of public interests.

The Broadcaster

The broadcaster is caught between these two pressures. He wants to give the public the services and entertainment which it wants, but his hands are tied all too frequently by the "bright boys" of advertising. He has to make a living, and often he has an ax to grind in the way of selling the electronic equipment manufactured by affiliated companies. Thus the broadcaster has to walk a kind of tight

Scene from "Soliloquy" by Garde E. Chambers, presented at WRGB (Schenectady) by WHK, Cleveland.

rope stretched at one end by economic necessity and at the other end by public opinion.

The British long ago solved their problems of public radio by turning all broadcasting over to state control. This solution is also true for British television. We might argue that this solution deprives British programming of the "brilliance" resulting when sales and competition supposedly force the producers and sponsors to keep their fingers on the public pulse. However, the British in turn can argue that we in America seek the least common denominator of appeal and put forth little effort to make broadcasting socially and culturally significant. Both points of view are correct.

Toward "Creative Consumption"

However, certain noteworthy changes have been taking place in the publicity methods of some leading American manufacturers who are trying to build up long-time popular good will towards their products and services rather than to achieve spot sales. For example, one large copper and brass company has been publishing for the past two years a series of booklets on home and town planning. The authors of these publications have been chosen from among the best architects in America. Public response has been enthusiastic; and the circulation, extending even into foreign countries and to the armed forces abroad, is rapidly approaching the 1,000,000 mark. A large medical supply house has been conducting a publicity campaign which involves demonstrating in every way possible the best use of newly discovered pharmaceuticals. This company has even commissioned artists to travel to all the battle fronts and make vivid records of the surgeon and physician in the war. A large electrical supply company is sponsoring a musical education program on the radio. Automobile and rubber manufacturers are backing radio programs of symphonic music. It is not impossible to conceive of more and more being done with social studies, the sciences, and the arts on television by the more farsighted and socially conscious manufacturers. After all, more and better housing means more use of copper and brass. It might be said that here is one instance where art and commerce meet squarely. There is a tendency, today, on the part of both manufacturer and public alike to turn from conspicuous consumption of goods and services to creative consumption.

Yet, if the pressures behind television programming are not eased and if the problem of what television is in society is not faced squarely, a tower of Babel will rise from the confusion of purposes. Soap machines will suds away in order to impress housewives. Specially trained little actors will lap up bowls of cereals and smack their lips greedily. Whole sections of the country will be inundated by floods of bean soup and carbonated beverages. Wave sets, nail polishes, and beauty creams will be dabbed and smeared before the cameras for the benefit of the glamour seekers. Vitamins and other pills will be swallowed, and radiant health sold by the box. The X-Ray be employed to reveal new and wonderful virtues in cathartics and alkalizers. The only answer on the part of the public will be: "For prompt relief, turn off your television set."

Thus, this embryonic industry is beset by two main problems: (1) it does not know exactly what it is, and (2) it is, so far, a poor relation of radio and as such is caught between various social and economic pressures.

(Part II will be published in the next Issue)

TELEVISION "QUOTABLES"

"OF ALL the post-war commodities which a waiting nation has been anxious to acquire, television will probably enjoy the least, if any, sales resistance, and unquestionably will be the 'main attraction' on every dealer's floor.

"In fact, it might even be correct to say that sales resistance to television is likely to be non-existent, since no household item— including refrigerators, washing machines, vacuum cleaners, etc.—has aroused the curiosity and 'purchase-temptation' of the average person more than this miracle invention of the country.

"That's why a new wave of prosperity will hit the radio market next Spring when television receivers begin to arrive in dealers stores in quantity. And the public is not going to be disappointed. The new receivers will provide pictures of superb quality, brightness and almost imperceptible line structure. They will be all-electronic, which guarantees reliable reception."

WILL BALTIN, *Secy.-Treas.*
Television Broadcasters Assn.
New York City

"TELEVISION is destined to become a utility in the American home and a revolutionary force in worldwide communications. It will bring visual entertainment to the homes of the rich and poor alike; it will flash historic events, letters, documents and pictures around the world, while the television eye in factories will enhance safety and speed industrial processes."

BRIG. GENERAL DAVID SARNOFF,
Radio Corporation of America

"TELEVISION will open up a field for the man or woman who will accept responsibility, is willing to work five times as hard as the remuneration calls for, has imagination, tolerance, and can maintain a sense of discipline. I welcome television, and hope that I am worthy of it . . . for it won't be easy . . . producing for television is a challenge, and one which I shall be glad to answer."

BOB EMERY, *Producer*
WOR-Television, New York

"TELEVISION will be the 'biggest and most fascinating' of the countries newest industries. It will provide new employment for many thousands of ex-service men and women. It will furnish a broad public service of information and entertainment that will be just as new and original and different from anything in the past as were the automobile, the airplane, the motion picture and the radio when they were introduced. Yet none of these important inventions, when first offered to the public had been so thoroughly tested, or had reached a degree of advanced technical development comparable to the television which now is ready for the people of the United states."

NILES TRAMMELL, *President*
National Broadcasting Company

Appearing here in "In Memorium" (Ruthrauff & Ryan via Station WABD), Lee Wallace, though youthful, is already a veteran televison actor

ACTING FOR TELEVISION

By LEE WALLACE

FOR a long time, when anyone discovered I was a radio actor, it would usually elicit a few guffaws, and then the remark, "What will *you* do when television arrives?" For years I puzzled over a sensible answer to this, but never could find one. That is, not until about three years ago, when I decided to take the "ike" by its lens and get *into* television

I remember my first tele experience. Remember it? I'll *never forget* it! It was the W O R *Video Varieties,* directed by Bob Emery, on DuMont. Probably because I happened to be wearing a Van Dyke beard at the time, I was cast as a visiting Hollywood mogul, searching for new talent. I was certainly looking for it in the wrong place! The whole session was ad lib, and needless to say, unpredictable as far as cameras, lights *and* actors were concerned. Everyone was darkly pancaked and sported a heavy coating of navy blue lipstick. To make things even worse than they were, we all wore white ties and tails, and my entrance was made supposedly from an arctic blizzard, I imagine, for I wore a Hollywoodish fur-collared coat and a pair of earmuffs. All this in a room where the temperature was reeling at about 135°! It was Bob's first tele show as well as mine, and we both admit to having learned something about the video business since then!

Does It Pay?

Until recently, television paid the actor little, and too often nothing at all. Right now, the radio networks will pay about twenty to twenty-five dollars and up, depending upon the role, while many advertising agencies pay AFRA scale, which includes payment for rehearsal time. CBS pays one dollar an hour for "stand-ins" or "extras," and throw in five dollars for the show. NBC pays a flat ten dollars for "extras," which adds up to about the same thing in the end. Some day, when the theatrical unions stop quibbling among themselves about which one shall have jurisdiction over television, the acting end of the industry will be unionized, and the tele actor will receive a standard wage. From all indications, it will be somewhat higher than the present AFRA scale for radio actors.

For the actor, television now is the toughest medium in which to work. The biggest handicap, of course, is the terrifically hot and uncomfortable lights under which the actor must emote. It is hard to make "darling, I love you" look convincing with the ingenue's perspiration running into your eye! In a recent show, I was supposed to be shot, and to die, on camera, for fourteen of the fifteen minutes we were on the air. We rehearsed the show seven or eight times, with every light in DuMont's Studio "B" burning brightly upon the Wallace noggin. The show went well, but I'm sure that with one more rehearsal I could even have convinced *myself* I was dead!

After the war, we are told, the "cold" lights now in use at the General Electric studio in Schenectady will be used universally. For our own sakes, let's hope so! Another thing that makes tele more difficult than the other mediums is the necessity for learning lines quickly. I did four shows in one week recently—it was a good week, thank you!—and all were half hour script or longer, with enough lines to be learned to make an actor feel weak and helpless at the thought. What I did, and what I feel other tele actors will eventually have to do, was to "photograph" the lines. By this I mean forgetting the good theatre technique of really knowing a character thoroughly, and substituting instead the radio mechanism of quick, although perhaps superficial characterization.

It is up to the individual actor to decide for himself whether he wants good art or a good living from television. Perhaps we can have both. Again, it all depends on the actor. Even employing this "trick," I don't feel that it is *physically possible* for the tele actor to ever do the bakers' dozen of shows now played by the average radio performer each week.

Contacts

In this, as in every other branch of show business, there are certain people an actor should contact at the outset of his career. People like Ronnie Oxford at NBC, Florence Greene at CBS Television, and Paul Mowrey at the Blue. Another important name in the game is Selma Lee at the William Morris Agency. There are others, naturally, but these four are tops. They are tops in kindness, too, which is something an actor longs for after beating his talent against outer office doors for any length of time!

Breaking into television is not too hard now, when the work is hard, the hours long, and the pay low. But for those with an eye on tomorrow, the video art is the coming one. *Now* is the time to crack it.

THE SCRIPT PROBLEM

By GRACE NEVILLE

Ass't Program Director, Don Lee Television, Hollywood

IF TELEVISION is to live up to the buildup it has received during war years, smooth programming must become something more than a matter of luck. On the other hand, budgets are certain to place limitations on the number of hours that can be spent in expensive rehearsals, with and without cameras, to insure smooth performance with a safe margin for error.

The gradual streamlining of production methods will provide an ultimate solution, of course, if television is ever going to replace the parlor stereoscope. But the present would seem to be as good a time as any to begin streamlining operations at their logical starting point—the *television script!*

If something isn't done about reducing the amount of incidental reading matter in the way of assorted cues and directions to be crowded into the television script's text, that legendary person who engraved the Bible on the head of a pin will have to be called into consultation before the average script can be mimeographed. And think of the manpower problem involved!

Several very thorough and well-worked-out continuity jobs have recently reached print as examples of what the television script should be. Almost every one has had its good points and could be profitably studied at length by persons interested in learning about television from either the writing or directing standpoint. But a book that might be read to good advantage by a quiet fireside isn't exactly the one you'd pick to read while running to catch a train—or directing a broadcast.

Stripping for Action

The evolution of "the perfect television shooting script" will doubtless be a very gradual business, but meanwhile real progress just MIGHT be made by stripping the working model down to its essentials.

Whether you subscribe to the theory that television is another name for motion pictures—served fresh off the griddle instead of packaged for the trade—or incline to the radio-plus-video viewpoint, it seems to be generally conceded all around that the simplest and most satisfactory manner in which a writer can set down scenes for television cameras to translate is by resorting to those old movie standbys—long shot; medium shot; medium close shot and closeup. From the writing standpoint they've been good for a long time. And certainly scenes visualized in those terms will more readily enable a director, as well as story and production executives, to judge the pace and entertainment value of a script than any word picture that attempts to chart in detail the movements of camera 1, camera 2, etc.—regardless of how familiar all concerned are with which camera takes long shots and which the closeups.

Such matters as detailed camera directions are naturally subject to change or confirmation during rehearsal. Many a shot that seemed perfect in theory is proved all wrong when lined up before the cameras. If directions that properly belong as marginal notes are embodied in the text of the script, numerous re-writings, even re-mimeographings, of scripts will be necessitated.

A Solution

One solution would be a basic script, prepared in simple, readable form, with music and sound described in the text as in any narrative writing—but with space reserved in the righthand margin of each page in which cues could be set out and underscored, and explicit camera directions added, when and as confirmed in rehearsal.

Other than set limitations, the only technical problems peculiar to television with which the writer of such a basic script would need to concern himself are:

(1) The number of cameras that will be used in the televising of his script. He may find, for instance, that he is limited to scenes that approximate medium shots and closeups if but two orthicon cameras are available.

(2) That scenes must be devised in a sequence that will sustain continuous action on the screen while camera setups are being changed. Thus, when limited to a two-camera continuity, for instance, a wide angle "cover shot" must intercut any two successive scenes with the closeup camera that can't be encompassed by a PAN or DOLLY shot, (and vice versa)—unless, of course, continuity permits a film or insert camera to take over at that point with a strip of film, a title or possibly a miniature.

A little experience in watching television broadcasts from the monitor booth will familiarize a writer with the general requirements in this respect so that he forms the habit of keeping them in mind while constructing his continuity of scenes and is able to turn out a script that is basically sound from a television standpoint—without, however, the necessity of confusing his thinking and complicating his script by trying to anticipate the director's wishes in regard to detailed camera directions or thresh them out with him in advance of rehearsals.

A convenient arrangement for such a basic script is one similar in form to the average motion picture script: Locale and type of shot at the left, business and dialogue centered—*but with dialogue double-spaced and in upper case typing for convenience in following—and with adequate margin reserved for the subsequent addition of camera directions, music and sound cues in the scripts of those concerned;* these to be set down in any form that suits individual preferences—probably penciled in at first until confirmed in rehearsal, then typed in on fresh copies by a secretary.

And from the standpoint of convenience and common sense, as anyone who has thumbed through a script in the rush of directing a television broadcast must concede, camera directions as well as sound and music cues belong in the *right-hand or outer margin of the page.*

Would this result in a confusing clutter of cues and directions crowded together in the righthand margin? Why should it? Assuming all hands can read and write, why should the script of any member of a studio's staff concerned with a broadcast—from the director down—contain any cues or notations except those that are his own immediate responsibility? And save for an occasional direction to his stage manager, why should the television director be burdened during actual broadcasts with any details beyond the monitoring of the cameras and the editing of the show as it is flashed on the screen? Surely that's a full time job for any one individual!

TOUR OF WCBW, CBS-TELEVISION

ONE of the busiest places in Manhattan is Grand Central Terminal. But few who pass through the busy terminal know that one of the world's largest and most active television stations is right on the premises—just 3 flights up.

Here is located WCBW, the CBS television outlet. Almost one million cubic feet of space, roughly one-third the area of Madison Square Garden, are covered by this mammoth-sized New York video station.

It wasn't until 1937, two years before Pearl Harbor, that the Columbia Broadcasting System decided to make Grand Central its home. And what a white elephant is must have appeared to outsiders at that time!

Now one quickly realizes the bonanza CBS has in its virtually unlimited quarters.

You enter the station from the third floor elevators through large blue doors, plainly marked, "CBS TELEVISION." Here sits an attractive receptionist and switchboard operator. Down a few steps to the left stretches a large expanse of space, broken only by low wooden railings and white partitioned offices of production staff members.

Space for 18 Changes

Among the offices and workrooms that line the hall leading to the main studio is the Art Room (15′ x 12′). Here still-pictures and slide work is done, primarily for the famed CBS newscasts.

The studio itself is 5000 square feet, with sufficient space for as many as eighteen different location changes. Pleasant working conditions are present for actors and technicians, since every inch of the studio is thoroughly air-conditioned and soundproof. The uncramped quarters and absence of super-hot, super-brilliant lights make this studio an ideal one in which to work.

Two cameras are used at WCBW. No. 1, the dolly camera, can boom nine feet above floor level. No. 2, because of its small wheels, is usually kept in a fixed position. The panning and dolly shots are done with No. 1.

In the northeast corner of the studio a small announcer's booth is evident, as it is a general practice at CBS for announcers to be taken "off-camera," so that the station breaks are made by the announcer's voice (from the booth) without the announcer appearing on the screen (*see photo on right*). They claim it prevents a program from becoming "tied" to an announcer; it also avoids a succession of speakers from appearing on the program, thus detracting from the importance of the guest speaker or performer.

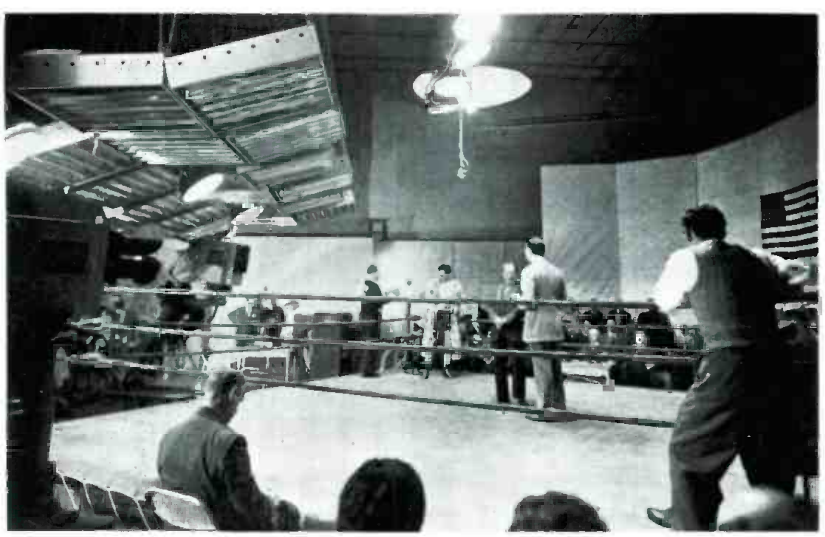
Scenery is painted here several days to several weeks in advance of performance date

Directors and engineers check monitor screens and equipment before broadcast.

1 min to air-time. Cameras and performers in place. Announcer speaks off-camera.

How to play golf follows the "News" telecast. Note the size of the CBS studio crew.

A variety show, featuring a singer, ballet dancers, and a harpist, gets ready to go on.



Prize-fights from a ring set up in studio, are part of regular Friday night tele fare.

Finally, at the east end, behind the long glass window, is the control room. Here is the largest control room of the country's television stations, measuring 53′ x 20′. Facing out over the studio sit the director, his assistants, and technical personnel. Here, from left to right, are a timer, a girl who keeps her eyes glued to a clock and her timed script; a sound engineer who regulates the "audio"; an assistant director; the program director; two video engineers who "monitor" the pictures, and one stand-by man who doubles in brass (*See photo*).

A construction permit for a 500-watt tele station was granted CBS by the FCC in December, 1930; and on June 21, 1931, test transmissions were made from the main network studios at 485 Madison Avenue, New York City. In July of the same year CBS started its first telecasting under the call letters W2XAB by February, 1933, they decided that "flying spot" (mechanical) television wasn't good enough, and back to the laboratories it went. In 1936 Dr. Peter Goldmark was appointed Chief Television Engineer. CBS Television then began to grow and expand. Dr. Goldmark developed color to a point where it could be demonstrated, and in 1940-41 the program staff made films and gave live transmissions of color, for several months.

In 1937 the Grand Central Terminal space was leased and Gilbert Seldes was engaged an Manager of Programs. By 1939 some equipment was installed and closed circuit experimental telecasts were made for several months. In 1941-42 a regular telecasting schedule of fifteen hours a week was maintained, with 70% of the tele fare consisting of live shows. This was principally experimental, and the emphasis was on informality. Rehearsals were kept at a minimum, and spontaneity was the keynote. *Variety* dubbed it "Take-It-Easy-Tele."

With America at war, the curtain fell on CBS's television efforts on Thanksgiving Day, 1942. Eighteen months later, on May 4, 1944, the Grand Central studios were re-opened, and a new staff was assembled and trained.

At present CBS is trying hard to find out what makes for good television, to discover, to develop and to perfect program methods and procedures. They would like to make a televised boxing bout as good, in its way, as the best newsreel picture of a prize fight. They are searching for ways of visualizing ideas, as, for example, in their television analyses of the San Francisco Conference. They are attempting to find out, by serious research and experimentation, how television affects people, what camera angles give the smoothest flow to a show, what tempo of camera switching (or "taking") is correct for television, what level of projection is best for actors, and what movements of the camera cause least eye-strain for televiewers.

SPECIAL EFFECTS*

By CAPT. WILLIAM C. EDDY, USN (Ret.)

"Lil Joe," cowboy puppet who could smoke a cigarette for the WNBT tele audience. Eddy at left

Reproducing Nature

TREES, bushes and undergrowth are the most difficult of all materials to produce in acceptable miniature. The construction of a single tree can consume considerable time and effort, but in television, the overnight schedule of production after production precludes such painstaking methods. Necessity again has forced the development of ways and means to achieve equivalent results from materials which are immediately available and easily manipulated. Rather than laboriously build the intricate detail of a tree from twigs and plaster, we may find that many natural shrubs can be procured locally. The wild blueberry or barberry twig makes a satisfactory miniature tree and furthermore can generally be obtained in one of its stages of growth to approximate the problem at hand. Where the leaves are out of proportion, the bush can be stripped.

Should foliage be essential, however, one can bypass a seemingly tedious job simply by using wool fluff of the right color. Chop several skeins of yarn, preferably in a green-ombre shade, into sections about one-fourth of an inch long and mix together to form a powdery fluff. The miniature tree is then touched up with iron glue in these places where foliage is desired. It is then dipped into the bag or box containing the wool fluff. After some experimenting, the results can be made to appear most realistic through the eyes of the television camera. Miniature flowers for hedges and lawns can be produced in much the same way by using glue coated pin heads.

Using Steel Wool

Underbrush and distant wooded areas are commonly constructed from steel wool which has been spotted with a dilute plaster paint tinted to the proper color. This paint will dry hard in an extremely short time and can be made by mixing plaster of paris, water and the necessary color. When this paint is used to touch up steel wool to represent underbrush, one may mix the contents of several cans of tobacco with the color in order to produce the unevenness of surface that adds further realism to the effect. Evergreen trees can be satisfactorily reproduced by substituting scale models made of pampas grass; while palms may be constructed of the proper size doweling with pampas grass fronds and acorns for fruit. Sponges make acceptable hedges when treated with plaster paint; while broom straws may be adapted for any can-like rush.

Grass is made from various types of mohair or other deep pile fabrics. An uneven area of satisfactory grass can be simulated by coating the surface with shellac and dusting it with green lint. This lint could be obtained commercially as "velvet dust" before the war, and can be produced today by scraping velvet or plush with the edge of a dull knife.

Using Puffed Cereals

Although pebbles of practically any size can be found to answer the set builder's problems, he is sometimes faced with a need for more than he has at hand. In such cases, a variety of puffed cereals washed with thick plaster paint will dry to a reasonable facsimile of miniature boulders. Corn meal spread over a shellacked surface makes a very satisfactory rough cement or stony field, as do certain grades of sand or sawdust. Cement sidewalks are easily built by painting plywood with shellac and dusting the sticky surface with sand.

Although it is extremely difficult to create acceptable cloud effects, excellent results have been obtained from glass wool bats fluffed out to the proper proportions. Clouds can be constructed of cotton but they are very apt to look like just that—cotton. To create the more etheral wisps that may be required in close-up photography, it is possible to blow additional strands of the material into the cloud from the tips of the fingers. These wisps will cling to the other glass wool and produce the illusion of a cloud with no apparent dimensions. Glass wool, being highly reflective, will further respond to good lighting which is an extremely important function of this type of work.

Cloud Movements

Clouds can be made to move either by using guy wires run horizontally across the set, or by creating a gentle puff of air off stage. In every case, however, we should remember that if proper deceleration is not feasible under the plan proposed, the cloud should be left stationary

* *Abstracted from "TELEVISION—The Eyes of Tomorrow," by Wm. C. Eddy, Published by Prentice-Hall, Inc., New York. $3.75.*

rather than risk spoiling the effect of the entire setting.

Supporting wires in television can be made invisible by running them across the stage parallel to the scanning lines rather than up and down. A one mil (1/1000 of an inch) steel wire whose reflective properties have been reduced by drawing it through putty is both strong and practically invisible.

Topographic bases for large miniatures can be built easily and economically from a rough wood foundation of the right size, with the required mountains and hills shaped from piles of crumpled newspapers or chicken wire. A blanket of monks cloth or burlap is placed and tacked down to form the proper valleys and ridges. After the contours have been shaped, the entire setting is given a coat of fairly thick plaster paint to harden the surface and preserve the landscape in its original form. The necessary details can then be glued to this surface or affixed to wooden backing blocks which are built in during construction. Such a model is light in weight and easy to build. In addition, it can be altered at will by breaking the plaster surface and reshaping the padding.

Making Stone Walls

A similar method is used in making life-sized stone walls for basement scenes. After tacking the burlap to form the backing material into stones, the surface is coated with sand mixed with grey plaster paint. When it hardens, the surface of some of the stones can be broken while others should be spotted with shellac on which powdered glass or mica is dusted. The result is extremely satisfactory and can be stored for future use.

Miniature cut stones for fireplaces, chimneys, and curb stones can be made from cubes of sugar broken to size and painted with water colors. With no sugar ration points available for this type of work, it will probably be more feasible to redesign the set for stucco or cement block during wartime rationing.

Antique work in wood can be reproduced with a blow torch and a fine wire plus a hand drill. By searing the wood with the torch and creating artificial worm holes with a red hot wire and the drills, it is many times possible to beat Nature at her own game.

Spraying liquid latex with the aid of an air stream set up by a small electric fan resembling a vacuum cleaner, will produce extremely natural cobwebs, while this effect can be further enhanced by sprinkling or dusting the entire set with talcum powder. In this way the dust of antiquity can be easily portrayed.

Snowfall for a full scale set can be made by splitting two common bed sheets into ribbons and suspending them, doubled, between two battens arranged in the flies over the set. The effects man can produce anything from a few flakes to a blizzard by filling this basket-like container with white confetti and oscillating the battens slowly with the guys. Similar devices can be rigged on a miniature, but the material simulating snow must be of finer consistency.

Rain effects can be created by sifting "flitter dust" (powdered tinsel) before the lens of the camera while the accompanying sound effect is created off stage by sprinkling salt on a crisp lettuce leaf close to the mike.

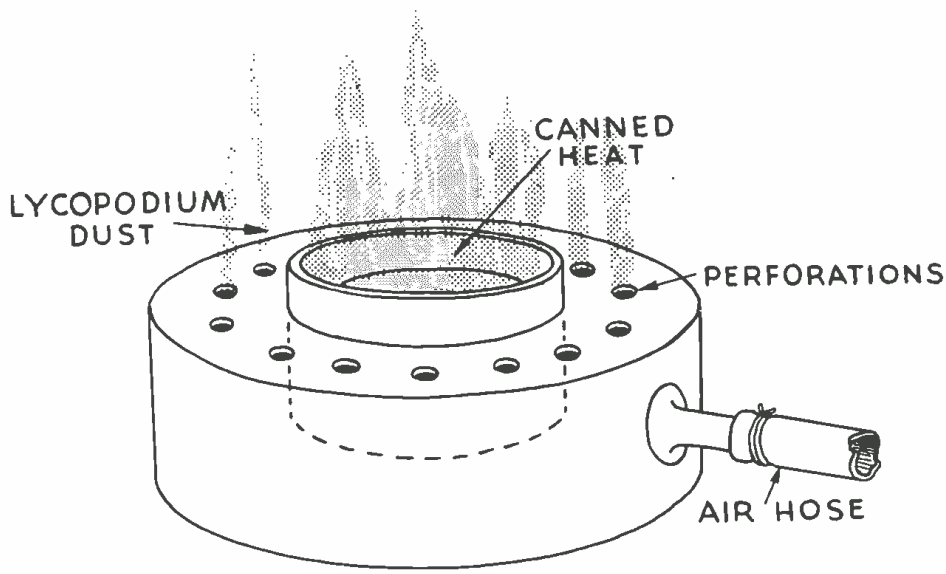
Flashes From Guns

Artificial fire is best created from ignition of lacapodium dust. Several types of lacapodium burners are available on the market or can be built to fit the specific problem. Figure 20 is an illustration of such a device. Even though this artificial fire is merely a controlled form of spontaneous combustion, care should be exercised in its use around inflammable sets or close to actors.

Flashes from guns are made by using small pills of magnesium powder in which a resistance fuse wire has been imbedded. By energizing the control wires from an off stage switch, the flash can be electrically actuated at the proper time. Extreme care should be observed in the use of this highly explosive powder. It should be brought on the set in a fireproof metal box and excess powder should be kept in this container at all times. Further precautions should be taken to see that the flash never occurs close to or visible from the camera position. The brilliant light of a magnesium flash can easily paralyze the expensive iconoscope and put it out of use. Flashes created by this method can be slightly slowed down by mixing sulphur and saltpeter with the magnesium. In a confined set, however, it is unwise to overdo the sulphur content unless the studio is shutting down directly after the shot as sulphur in the air will cause discomfort to all in the studio.

Smoke production is a problem similar to that of cloud making. Too much smoke will fog up the studio; too little will be invisible, and all types present difficulties. Asthma powder has been used with excellent results. This vegetable preparation emits a thick cloud of whitish, yellow smoke and the cast receives a minimum amount of ill effects. Furthermore it can be controlled by making use of its tendency to cone up on the burner. Powdered charcoal, sprinkled on the burner after ignition, will produce black smoke with equally satisfactory results.

To create artificial fire for tele scenes, this device safely burns Lycopodium dust



GREAT NAMES *in* TELEVISION

Second in a Series

Vladimir Zworykin

MORE than 35 years ago, a young Russian student engineer, inspired by his association with one of the world's great physicists, decided to devote his talents to the perfection of a radically new television system, a system which has excited the interest of the entire world by its promise of bringing living pictures of thrilling news events and the finest entertainment into millions of homes. The student was Vladimir Kosma Zworykin, now Dr. Zworykin, Associate Research Director of the RCA Laboratories, Princeton, N. J., and inventor, among numerous other devices, of the television tubes called the Iconoscope and Kinescope. His mentor was Boris Rosing, noted professor in physics at the Petrograd (now Leningrad) Institute of Technology and one of the pioneers in electronics.

Vladimir Zworykin was born in 1889 in the little town of Mourom, about 150 miles from Moscow. Because many of his family were engineers it was only natural that the boy should continue his education after completing his terms at the Gymnasium in his home town. Accordingly, in 1906, he entered the Institute at Petrograd and was graduated in 1912 as an electrical engineer. After graduation he continued at the Institute doing research work in cathode rays under Professor Rosing. A year later, he left Petrograd to continue his investigation of X-rays at the College of France in Paris but his career was soon interrupted by the outbreak of World War I. Zworykin rushed back to his native land to serve as an officer in the Signal Corps of the Russian Army.

With the return of peace, he decided to see the world before resuming his laboratory studies. On one of these trips he was so impressed by the opportunities offered by America that he decided to make it his home. Arriving here practically penniless in 1919, he obtained a job as a bookkeeper but within a year the young immigrant's faith in his adopted country was justified. He went to work in the Westinghouse research laboratories at Pittsburgh where once again he was able to concentrate on electronics, the subject which he had chosen as his life's work.

The following six years were productive ones for Zworykin. In that period he became a naturalized American citizen, wrote a scholarly thesis on "Photoelectric Cells" which earned him a degree of Ph.D. at the University of Pittsburgh, completed fundamental details of the Iconoscope, now known as the "television eye," and demonstrated the world's first all-electronic television system.

When Dr. Zworykin joined the Radio Corporation of America in 1930, he continued his television research. Step by step, his fertile mind worked out solutions to difficult technical problems and each advance carried him closer to a practical realization of his ideal system. His substantial contributions to the art were, by that time, being recognized by his fellow scientists. In 1934 he received the Morris Liebmann Memorial prize awarded by the Institute of Radio Engineers. In 1940 he received the Modern Pioneer Award and a year later the Rumford Medal.

Practical tests of all-electronic television were started by RCA and NBC in 1936 using a transmitter installed in the Empire State Building, New York. When the New York World's Fair opened in 1939, Brigadier General (then Colonel) David Sarnoff, President of RCA, announced the beginning of commercial television. From that day to the spring of 1942, when military demands halted the manufacture of all radio and television equipment for public use, television moved ahead rapidly, due in great measure to developments initiated by Dr. Zworykin in the design of television cameras and tubes.

Outstanding among the more recent television contributions of Dr. Zworykin and his RCA associates is the high voltage projection type kinescope which made possible the large-screen projection television receiver. This instrument, with its 16" x 21" image, is expected to be available to the public in 1946.

A typical physicist in appearance and actions, Dr. Zworykin is quiet in manner, modest in an appraisal of his inventions and lucid in his explanations of abstruse scientific subjects. Moreover, he possesses that attribute rare in many scientists—the ability to shape the course of his laboratory developments to meet the commercial requirements of the finished product.

In his recent book, "Radio's Hundred Men of Science," Orrin E. Dunlap, Jr., relates the following incident which describes Zworykin's manner of work: "The scientist and a group of fellow research workers were making their morning trip to the laboratories. Delayed en route by a flat tire, they knew they would reach the laboratory late. Zworykin impatiently looked at his watch again and again. Finally when the hands were at 8:30, the usual time to begin work, Zworykin, resigning himself to the predicament, slipped his watch back in his pocket, tilted his head back on the seat, closed his eyes and quietly said, 'Well, gentlemen, let's go to work.' He didn't have to be at the desk or work-bench to work; his laboratory was his brain. Thinking was a major part of his work."

"TELEVISION FRIGHT"

By Mrs. Robt. E. Chesebrough

MIKE-FRIGHT—familiar to almost everyone—is a rough experience for any radio artist to endure. But take it from me, television terror is much worse; that's just real mental anguish in a big, fancy package.

I know. Because along about 1936 I performed in a television broadcast out of the KOIL Studios located, at that time, atop the Brandeis Store in Omaha, Nebraska. For years I'd been billed as Hilde, The Swedish Comedienne. I'd created the character, Hilde, The Swedish wife of a Swedish man, and I did original monologues in Swedish dialect before countless audiences throughout the middle west. In January 1932 KOIL signed me to do Hilde three times a week over the airwaves. For over five years—never stepping out of character—I broadcast this act for which I wrote all of my scripts.

My heart did flip-flops when I was told that Hilde had been chosen to appear with other artists of KOIL in a television broadcast. I wasn't alone in this excitement. The whole studio was in an uproar. The advertising department easily brought in sponsors to support this thrilling broadcast. When the enterprising young men of the television company arrived, the whole KOIL force could hardly be pried away from the 17th Street store windows where the broadcast was to be performed.

The studios had advertised that popular stars would be heard over The Sanabria Giant Television—The Ninth Wonder Of The World. The public was urged to see the broadcast in the 17th Street windows of Brandeis Store and to see the television pictures on the tenth floor. Small wonder that the artists of KOIL were in a panic. We hovered over the scene while skilled mechanics set up intricate television equipment. We watched solemnly as heavy curtains were draped at the rear of the huge windows to form the background for our broadcasts.

"Do we appear on a screen?" I asked one especially friendly mechanic.

"Yeah! It's like a movie." He answered as if he'd said this many, many times.

"How big is the screen?" I dared to ask one more question.

"About so by so." He indicated a twelve inch square with his hands.

"Oh, it isn't very big!" I said.

"No," he admitted. "But television's plenty exciting."

The information surpassed imagination. I just couldn't figure how the artist would register. I was nervous as a witch the morning of the broadcast. I rushed to the studios to catch the first television broadcast ever to be shown in public in Omaha. The hall was already crowded but I managed to get a front seat. At ten-thirty the auditorium on the tenth floor was plunged into darkness. We knew that the broadcasters were performing in the 17th Street windows ten floors below. A small screen at the front of the room leaped into prominence. Suddenly our popular tenor appeared, singing, on the screen!

His voice registered beautifully. The picture was a lot like the very earliest movies. Flickey. Our performing artist was visible from the Adam's apple upward. He was apparently holding his music—which was not visible—because he kept his eyes downcast throughout the whole song. Aside from the movement of his lips the whole scene was dead-pan! When his song was ended I quietly left the auditorium. Very much I wanted see the rest of that show, and I could have done so for my act was billed for afternoon hours. But I had urgent business to which I had to attend.

Television terror had me by the throat, and I intended to do something about it. That afternoon when Swedish Hilde appeared in the windows of Brandeis Store she was wearing her complete costume—pointed, lace-frilled cap and all. Hilde carried no encumbering manuscript. She had learned her 'piece' by heart. Hilde looked right out into the eyes of her audience on the tenth floor. She moved her head up and down and from side to side. She wiggled fingers before her eyes, she winked, wrinkled her nose and stuck out her tongue. Hilde made sheep's eye at her unseen friends and in a particularly exciting part to the monologue she even shook her fist under her own nose. I was so engrossed in making my character Hilde fill that twelve inch square with living, acting Swedish dialect that I forgot all about my fear until my act was finished.

TELE TRADE-TOPICS » » »

A ROUND-UP OF LATE TRADE NEWS

RCA's SUPER-SENSITIVE "Image Orthicon' tube, said to be 100 times more sensitive than any camera "eye" now used for television, is a major topic of discussion in television circles these days.

The "1-matchpower" tube, as some industry wits have dubbed it, makes possible "round the clock" coverage of news and special events whether by "twilight, moonlight, or candlelight."

The new camera "eye" makes possible the immediate televising of sessions of Congress, pick-ups from theaters, nightclubs, schools, churches, courtrooms and other public buildings.

It is hoped that further refinement and development of the tube may make possible the elimination of the super-brilliant incandescent lighting that now characterizes most television broadcasting.

Deliveries of the new tube are expected to begin in about six months.

* * *

NEWS OF NEW television plans: Plans for the first radio and television center to be erected exclusively for video and sound broadcasting was announced recently by WCAU, 50,000 watt CBS affiliate in Philadelphia. Costing $2,000,000, the building will be completed in December, 1947, and will boast a specially constructed roof-top landing field for helicopters used for television broadcasting from outside points.

To be built of limestone and stainless steel, the "center" will occupy an entire city block. Its television and FM antenna will extend 612 feet above street level, to be the highest structure in Philadelphia.

AN AUDITORIUM seating 500, and two hydraulic stages with collapsible partitions, have been included in the plans.

* * *

THE TELICON CORPORATION, through its President, Solomon Sagall, announced the development of a home antenna system which they claim will eliminate "ghosts" and the need for large clusters of antennas on apartment buildings. Known as "Intra-Video," the new system promises to solve the much discussed antenna problem. More details of its operation were promised us as soon as the patents are granted.

69,833 CREDIT CARD holders of the Hotel New Yorker were asked about television for their rooms. 71.2% replied that they would like to see television introduced in the hotel rooms as soon as possible. 61% favored a central system, such as the central radio system now in use by most hotels, while 39% replied that they preferred the request or individual unit.

* * *

NEWS OF CONVENTIONS: The Television Broadcasters Association will hold its second annual convention some time this spring. The exact place and time have not yet been announced. This year's convention will be marked by displays of new television receivers and electronic devices. Watch TELEVISER for exact date.

The Institute of Radio Engineers has scheduled its 33rd annual Winter Technical Meeting at the Astor Hotel, January 23 to 26, 1946.

TELEVISER'S "Television Institute" for Washington, Richmond, and Baltimore is scheduled for the Statler Hotel, Washington, D. C., for January 15. It will be held under the co-sponsorship of the advertising clubs of Baltimore, Richmond, and Washington.

* * *

When GEN. WAINWRIGHT arrived in Washington, D. C., one day last month for a hero's welcome home, many Washingtonians saw the NBC station wagon, with its film cameras, darting in and out of the parade's line of March and at the capitol building when the General spoke to Congress. Little did they, or the audience that saw the films televised that night, in the comfort of their homes in New York, realize the drama that accompanied the films final showing by NBC's television station WBNT.

Shooting the films was one task, one that was done well by Byron's Film Productions, Washington, D. C., but getting them to New York that night in time for their scheduled television showing was a problem of another few.

A special plane had been chartered to fly the films to Manhattan. Just beyond Philadelphia, however, the plane was forced to land because of weather conditions. Film Producer Byron, who accompanied the precious film, had to think fast. As his tiny plane taxied in to the Philadelphia airport, a commercial liner was getting ready to take off for New York. A quick conference with the pilot and the precious film cargo was transferred to the airliner. Byron phoned ahead to Paul Alley, NBC's film director, and made arrangements for him to meet the airliner, and to rush the films to the NBC studios where the films were edited and polished, music and narration added. At eleven o'clock that night, the twenty-minute film was televised over WNBT, 233 miles away from the Capitol City.

Artist's design rendering of new studio, Station WCAU, Phila., equipped with tele.

450 radio and advertising executives from all parts of the USA attended the "Television Institute" sponsored by The Televiser. Scene is the Grand Ballroom of the Hotel Commodore. At the speakers table (L to R) are: Irwin A. Shane, editor of Televiser; Dr Allen B. DuMont; J. L. Fly; Dr. A. N. Goldsmith, toastmaster; Worthington Miner; and Charles Brewer, North American director of the BBC. (Televiser Photos)

"Television Institute", Sponsored by Televiser, Attended by 450 Executives

TO Televiser's first annual "Television Institute," held in New York's Hotel Commodore on October 15 and 16, came more than 450 radio, television, advertising and retail executives from all parts of the U. S. In attendance were many executives of leading advertising agencies, network, and industrial companies who reported back to their associates on the institute's six panels and eight seminars, addressed by more than 40 speakers. Delegates were present from 26 states, including California and Canada.

Speakers, forty-four of television's leading engineers, producers, directors, writers and advertising executives, included Dr. Alfred N. Goldsmith, Dr. Peter Goldmark, James Lawrence Fly, William J. Haley, director general of the BBC, speaking from London, Worthington Miner, Richard W. Hubbell, John Reed King, and nearly two score others.

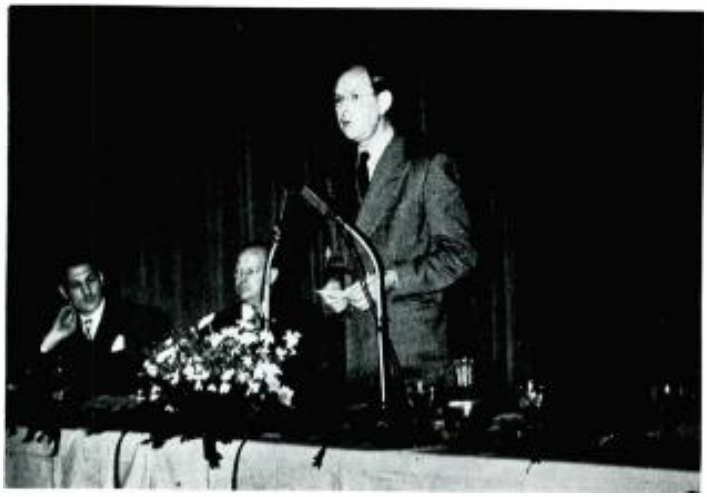
An eager audience, consisting of executives and others who wanted "dollar-and-cents" answers to their questions, greeted the speakers. Many of the interrogators, sent to the "Institute" to obtain basic information regarding costs of equipment and programming, black-and-white versus color, upstairs frequencies as compared to the lower frequencies, did not spare the experts during the question periods.

One of the liveliest sessions was the "Operations" panel on Monday morning conducted by Dr. Alfred N. Goldsmith, on whose panel appeared H. L. Perdiue of the General Electric Co., William McGrath of Station WNEW, Worthington Miner of CBS, and Dr. Peter Goldmark, who had just returned from the FCC hearings, where his testimony on color made front page copy for New York papers.

Before the "Programming Panel" that morning, before some 300 guests that filled the West Ballroom to overflowing, Richard Hubbell, author of "4000 Years of Television" and "Television Programming & Production" discussed the formula for good television programs. Paul Alley, director of NBC's film department, reported on the use of film in programming and demonstrated his talk with films which had been televised the previous night by NBC. He was followed by Harvey Marlowe, television director, the American Broadcasting Company, who informed his listeners on how to program a television station. Helen Rhodes, television director-producer of WRGB, the GE station in Schenectady, described how local talent may be discovered and utilized effectively by small stations. Methods of checking audience reactions were then described by Richard Manville, audience analyst.

During the luncheon in the Grand Ballroom, Dr. Goldsmith, toastmaster, read greetings from Paul Porter, chairman of the FCC, Brigadier General David Sarnoff, and Jack R. Poppele, president of the Television Broadcaster's Association. Dr. Allen B. DuMont, Worthington Miner, and Charles Brewer, North American director of the BBC, were introduced as guests of honor. James Lawrence Fly, former chairman of the FCC, told the luncheon assemblage that "television was big business and could not be handled like little business." Irwin A. Shane, editor of Televiser, expressed the hope that the "Institute's" guests would leave with a much better understanding of television, as "only by the existence of a large body of well informed persons can television hope to progress." He stated that a purpose of the "Institute" was to provide a "ground-floor" for many television neophytes.

At 1:47 P.M., to a hushed ballroom, came the voice of William J. Haley, director-general of the British Broadcasting Corporation, speaking from London's Alexandra Palace, home of the BBC. Mr.



James Lawrence Fly as he addressed the "Institute" luncheon guests.

Dr. Goldsmith looks on as Dr. Goldmark explains CBS' color views.

EDITOR'S NOTE:

Abstracts of most of the talks delivered before the first "Television Institute," including those of James Lawrence Fly, Dr. Alfred N. Goldsmith, Judy Dupuy, and more than a score of others will be included in the January-February TELEVISER.

Haley called for international cooperation in developing television to a point where it may be transmitted on an international basis.

The afternoon "Program Production Panel," chaired by John Reed King, was highlighted by Bob Emery, television producer of Station WOR, who illustrated his talk, "Producing for Television," by having actors in costume reenact a scene from "The Singapore Spider," a salty sea yarn, as it was performed on television. Other speakers included Patricia Murray, television editor of "Printer's Ink"; Fred Rickey, script writer of CBS Television; Leo Hurwitz, television director of CBS Television; and R. H. Gamble who gave an illustrated talk on special effects.

Management Panel

During the "Management Panel" Monday afternoon, of which Dr. Goldsmith was chairman, Judy Dupuy, former television editor of PM and author of "Television Showmanship," soon to be published by the General Electric Company, made a plea for today's television stations to pool their experience so that each may benefit from the exeperimental work already conducted.

Lou Sposa, program service manager of WABD, told how DuMont trains its studio personnel. Samuel H. Cuff, in a talk read for him by Robert Jameison, told of DuMont's many experiences in programming, commercials, and described the new DuMont set-up as it will exist when its Wanamaker studios are opened.

Dr. Goldsmith, tackling a topic that had been eschewed by others, described the cost items that go into the operation and maintenance of a television station. As in the morning session of this panel, a lively discussion, punctuated by numerous questions, followed each speaker, while many members of the audience busily took notes for reports to their companies:

On Tuesday morning, Paul Raibourn, president of Television Productions, Inc., in a chalk talk before the "Advertising Panel" in the West Ballroom, told of the $3,000,000,000 spent annually for advertising, and how television would begin to share in this amount as soon as it gains a large enough audience. Charles J. Durban, assistant advertising manager of the U. S. Rubber Co., using slides, described his company's experimental use of television and the commercials it prepared. Other speakers included Raymond Everett Nelson and Richard Manville, chairman of the meeting.

Seminar "roundtables" devoted to directing, writing, producing, and acting, each conducted by an outstanding expert, were filled to overflowing, with many persons standing.

Speakers for the second day's luncheon were Richard Hubbell; Stanley Kempner, chairman of the Television Press Club; Paul Mowrey, television supervisor of the American Broadcasting Co.; Dave Arons, publicity director of Gimbel's, Philadelphia. They were followed by the showing of a ten-minute film illustrating a television broadcast.

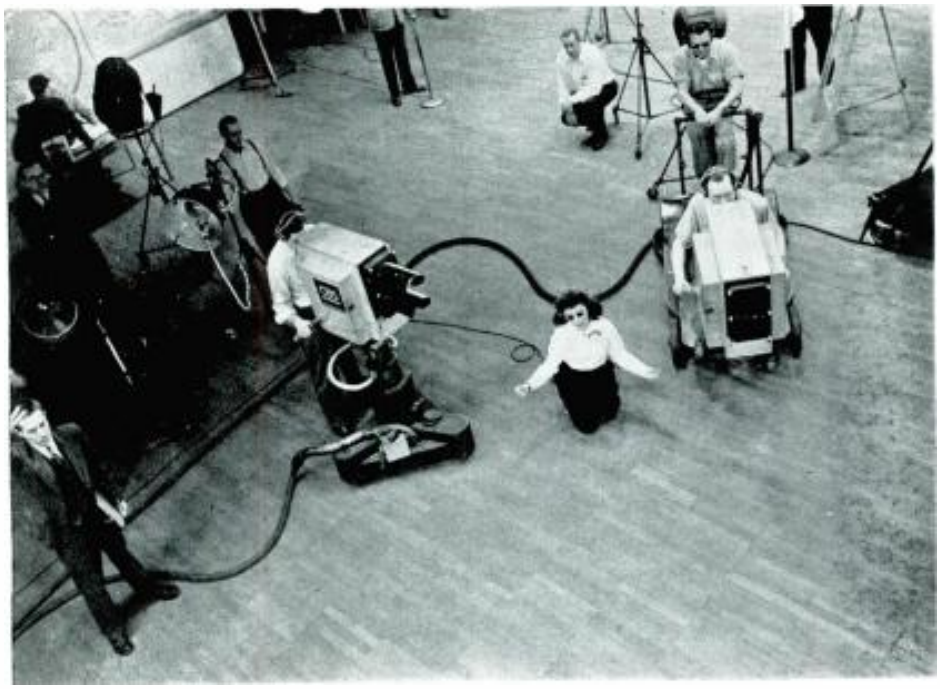
The afternoon's panel was "Television Merchandising," with Stanley Kempner, radio-television editor of Retail Home Furnishings, as chairman. Speakers included Dan D. Halpin, head of RCA receiver sales; Milton J. Alexander, advertising manager of DuMont; Thomas F. Joyce, noted television merchandising expert, and Mr. Kempner, who spoke on "The Antenna Problem."

Seminars on Tuesday afternoon were 'Education in Television,' conducted by Edward Stasheff; "Special Effects" by Paul Alley; "Careers and Employment in Television" by Judy Dupuy; and "Television for Retailers" conducted by Irwin A Shane, editor of TELEVISER.

Visit the "Television Institute," in Washington, D. C., Statler Hotel, January 29, 1946.

"Television Institute" Offers Readers Five Courses, Starting Jan. 14

Following the success of the initial "Television Institute," TELEVISER has decided to establish the Institute on a permanent basis. Therefore, starting January 14, the Institute will offer five television courses by experts. The courses, each meeting one night a week for 13 weeks, are: "Station Operation & Management"; "Programming & Production"; "Advertising"; "Program Workshop"; and a General Survey Course.



An unusual view of WCBW-CBS during a television broadcast. Lela Swift (on knees), floor manager, cues performers and floor men. Assistant at left.

PLANNING THE TELEVISION STATION—Second of a Series

By DR. ALFRED N. GOLDSMITH

IN ADDITION to the technical facilities required for television stations, there are numerous provisions which must be made for the operating staff and for visitors.

Since television operations require the production, study, or revision of great quantities of program material, it is clear that an adequate number of rooms must be provided for script writers, re-write men, and the like. These rooms should be in reasonably quiet locations and provided with adequate facilities for the work in hand.

Sponsors or clients visiting the television station will desire to see its operation. There should accordingly be some central point at which such visitors can be received and suitably escorted through those portions of the studio which are opened to them. Clients will also desire to witness previews, rehearsals, or actual presentations of their programs. It is to be hoped that the interest of the sponsors in their programs will be restricted to their commercial appeal rather than to their inherent artistic or dramatic aspects. Program construction is a specialized art and, while the sponsor may be well qualified to judge the commercial appeal of his program or its announcements, there will be relatively few instances in which his judgment of public reaction to a program will be as dependable as that of the experts in this field. Nevertheless, excellent facilities to permit the sponsor and his advertising agency representatives to view the program in the studio or, in client rooms, through a monitoring television receiver, should be provided.

The program staff of any major station or network will frequently desire to look over a performance before its presentation as critically as may be necessary. For this purpose a preview room should be provided in which the television picture should be viewed as nearly as possible under home conditions to give the station officials and executives the opportunity of judging the quality of the proposed program and the likely response of the public to it. Such preview rooms are therefore a necessary part of orderly television operation.

A number of plans for television studios include elaborate provisions for large public audiences of the performance. Some have even proposed giving the television show on an elevated stage in a sort of theater in front of a large audience. The writer is strongly opposed to permitting the public to witness television performances except those members of the public who participate in a special show (e.g., a "mind-reading" act) who must of course be physically present in the studio as participants in the program. The topic of inclusion or non-inclusion of such audiences is so important and complex

that it will not be here further discussed. It may be stated, however, that the cost of a television studio installation and the complexity of its operations will both be notably increased by permitting public audiences to be present.

Every television station requires a considerable group of offices. The executive staff, the sales staff, the engineering group, and the legal staff will all require space. In view of the complexity of television copyright questions in some instances, quarters for the legal staff may assume undesirably large dimensions.

As in all motion-picture studios, the wash-room and lavatory facilities must be entirely adequate for a considerable staff of persons who are frequently in a hurry to change their costumes and makeup during an actual television presentation.

It has often been proposed that, as a side line space in the station or studio building should be rented to others on the usual commercial basis. Whether this should be done in any specific instance will require careful study. The real estate business is a specialized one and it is a question whether it fits in with television operations on a practical basis. Further, the segregation of the non-television tenants may present certain problems.

Television stations will have mobile pick-up equipment, and therefore must either have garage space for the mobile units in their own building or must rent the corresponding space. Since inspection and overhaul of mobile equipment is most readily carried out at the television station, garage facilities at that point will often be preferred.

In the selection of a television-station or transmitter location, and in its detailed planning, consideration must be given to certain fairly obvious factors and some others which are not quite so self-evident. Thus, an adequate supply of water is necessary. Power supply of the right type is also needed. In this connection, provision should be made for the later expansion of the station by ensuring the availability of a power supply considerably in excess of the original requirements.

One interesting and by no means simple problem is that of studio lighting. At this time studios are illuminated either by incandescent lamps of the reflector type, by mercury-arc lamps, by occasional arc lamps used as spots, and by fluorescent lamps. In the future it is anticipated that flashtubes will be widely used in order to permit enhanced depth of field according to an increased-rance system of optical operation.

Studios require general or key lighting for the entire set, and modelling lighting for dramatic and pictorial purposes. It cannot be said that these requirements have as yet been widely met. The subject of studio lighting is of such elaboration and importance that it cannot be further considered in this discussion.

If control rooms are used in the immediate vicinity of the studio, their lighting must be carefully adjusted so that their operation can be conveniently carried out but no glare is experienced by those viewing the studio action from the control room. Hitherto this has been accomplished by the use of color filters between the control room and the studio.

In view of the sound-insulated nature of the studio (which should be as thorough as necessary), and the heavy load of lamps in the studio, it is clear that elaborate and high-capacity air-conditioning systems are required. It is difficult for an actor to present a convincing performance as an Arctic explorer in heavy furs in a studio at a temperature of 120-degrees Fahrenheit!

On the other hand, sufficient heating capacity must exist to keep the studio building and transmitter installation warm in the coldest winter months.

As important a factor as any in the planning of a television station is that ever-present bogie: sufficient funds. The planners of a television station must consider the first cost of all equipment and its installation and test. They must allow for the engineering studies and surveys incidental to its correct location and the grant of a license to the station by the government. They must keep in mind the cost of maintaining the equipment in efficient operation, and of training the staff to handle it satisfactorily. And they must be prepared for the cost of production of the series of programs which will build up the television audience of the station and thereby ensure its acceptance as a suitable medium by the commercial sponsors of future programs. Accordingly, in financial planning, it is better to be safe than sorry. And yet, given careful planning, wise administration, and an unfaltering vision of the capabilities of television broadcasting, there is no reason to doubt the success in due course of such a venture.

FORECASTS FOR 1946 BY TELEVISION'S LEADING EXPERTS

MORE "BLUE CHIPS" FOR PROGRAMMING NEEDED, SAYS RALPH AUSTRIAN

RALPH AUSTRIAN
Vice-President, R. K. O. Television Corp.

THE press, both daily and trade, has for two years painted the glowing future of Television. Radio manufacturers have announced fine post war television sets. Broadcasting chains have predicted television networks. Economists have prophesied that television will create tens of thousands of jobs. The proponents of color have promised the rainbow (including the pot of gold at each end). The Federal Communications Commission has allocated frequencies to television. The armed forces have licked the tar out of Germany and Japan. The War Production Board has made manpower and materials available. Where do we go from here?

"What about Programs?"

John Q. Public stands at the crossroads. He has a fistful of money. He wants a new car. He knows that will work. He wants a new refrigerator. They'll be better than ever. A new washing machine. No doubt of performance there. A new vacuum cleaner, or toaster, or even a new home! "What about a new, a brand new shiny television set?" says a friend. "What is there to look at that's any good," says John.

Friends, John has something there. In fact he has the answer to the entire television industry. He must be given plenty to look at and it must be good OR ELSE! The time is here to put out less talk about color, or stratovision, or coaxial cable, or high definition, and still higher definition. The time is here to put out programs which can compete with what John now gets for nothing on the radio or for a few cents per hour at the movies.

"Monks Cloth Era Passed"

Our scientists as usual are way ahead of us. They have given us satisfactory instrumentalities but we are not using them correctly. Television shows must immediately become strictly professional in every aspect. Soon the studios will give us more space, cooler lights, more cameras, better pick up tubes. They, or those who use them must now give us shows with good scripts, good actors, good directors and good technicians. The time for wiggly cameras, monks cloth backgrounds, cheap, obviously flat scenery has passed. The time for miscues and dead microphones is over. And certainly the bedlam of noises in a studio caused by moving gear all over the place is no longer permissable. The time is here for some real money to go into programming. Real money went into the research and development field of television. Now it is programming's inning. It is conceded that there is no circulation as yet to "warrant such expenditures." The scientists weren't given that excuse. Whenever they complained all they got was more money. The pump has got to be primed. John isn't going to stay home and be enthralled by a dramatic performance of sub high school quality. Not when he can have his pick of Hollywood's best for less than half a dollar.

There is an old saying, "Cheap is cheap" and it's true. A fifty dollar director with a group of incompetent actors and some old flats and a bad script is going to give you no more than you have a right to expect. Those interested in developing television into the great entertainment and educational medium it could and should be must come forward with some blue chips for programming.

"ABC TO CONTINUE ADAPTING RADIO SHOWS TO VIDEO:" MOWREY

PAUL MOWREY
Television Supervisor, American Broad. Co.

DURING the year 1945 the American Broadcasting Company adopted the policy of adapting radio programs to television. The American Broadcasting Company felt that in the medium of television there is a certain percentage of radio. That percentage of radio in television is sound. In taking radio programs and adapting them to television it is known that the sound itself (programatically) is good sound. Thus, in the early stages of television when a person spends $300 for a television set he is not getting zero use out of the set because he is still getting good audio (the adapted radio program), plus the added attraction of a picture to go with the sound.

ABC adapted suitable radio programs for television on the basis of both good listening and good viewing. We did not limit our programming to a particular field of entertainment such as quiz shows. We presented a variety program ("Letter to Your Serviceman" and "On Stage Everybody"), a daily strip ("Ethel and Albert"), woman's program ("Nancy Craig"), news analysis ("Kiernan's Corner"), children's program ("Irene Wicker"), audience participation ("Ladies Be Seated"), and a quiz program ("Quiz Kids").

As long as we followed the format of adapting radio programs we found the results to be the same as far as audience reactions were concerned. These reactions were favorable. As an experiment we presented a few shows that were not adapted radio programs. The audience reaction was not as favorable toward these shows as with radio shows, or radio format shows.

In dealing commercially ABC has found it advantageous to have the client, agency, radio and television interests represented in conferences pertaining to the commercials that go into all of our commercial television shows. In these conferences a great deal is contributed by each member present. By pooling all good ideas and suggestions ABC has been able to present fine television commercial shows. We believe that within the next twelve months many new advertisers who never before participated in radio advertising, and who will benefit greatly through the use of television advertising, will make their entrance into television.

During the year of 1946 we at ABC will undoubtedly continue to use the same policy of radio program adaptation as in 1945. We will, also, endeavor to find material for television shows that would make good radio but better television. We feel, that with the war over, 1946 will be the biggest television year yet experienced. Commercial accounts will be ready to use television as, undoubtedly, manufacturers will start manufacturing television sets enabling the sponsors to reach a greater percentage of homes. In view of the allocations being set by the FCC, television has been given a green light to expand and become the self paying medium it has been promising to be for such a long time. For the year 1946 ABC is planning to program on the basis of network consumption.

Keeping a trained eye on the television screen during the year 1946 will prove that technically and programatically television has not been sleeping during the war but only waiting to prove its worth.

LEE DeFOREST OUTLINES TELEVISIONS NEEDS FOR 1946

LEE De FOREST

UNDOUBTEDLY, every important would-be manufacturer of television receivers has his first designs and models completed; his engineers are on the job, tools and dies are in readiness. The unknown factor is that of the essential materials; what quality, in what quantity, will these become available when demanded.

Assuming, for the purpose of discussion, that all desired materials will be freely available by January 1946 the question resolves around four factors:

(a) "How many transmitters will be on the air next year?

(b) "What prices will be demanded of the public for television receivers?

(c) "What will the public demand of the televising broadcasters by way of program material and quality before any considerable quantity of receivers is purchased?

(d) "Will there be available an adequate supply of trained installation and service men for these receivers?"

Because of scarcity of some necessary material, we are unlikely to see more than 20 television transmitters in operation during 1946. Most of these will be located, as at present, in our largest metropolitan districts. Rural television must wait for '47, or later.

At the start of the 1946 sales program there may be more low priced receivers available than the public will quickly absorb. I think, however, that a shortage of the higher priced, projection type of receiver will early be manifest. These prime quality receivers won't be in mass production for some time, certainly not until all the bugs, the unproved elements shall have been thoroughly ironed out, and improvements effected. Ample funds will be evidenced for all of this type of receivers which will be produced through 1946. Probably the metropolitan areas of New York, Philadelphia and Chicago will consume most of this product—which emphasizes the forecast that in these three districts alone 90 percent of all of next year's sold television receivers will be put to work.

It would be foolish here to attempt to state probable sales figures. More than 20,000, and less than twenty times that number, should be sufficiently accurate to satisfy the statistical guesser. But I predict that the actual limiting factor will be the number of qualified installation personnel. In congested metropolitan areas, and in outlying suburbs, most antenna and "coax" problems will be individual ones, each requiring skilled study and experimentation, especially where two or more transmitters mean an increase in the difficulty of ghosts suppression.

Until the novelty wears away almost any sort of program will attract the public. That novelty, however, will not last long—say for one year, in any district newly exposed to such programming. Thereafter John Q. will demand definitey quality entertainment, or not look long. Hence hopes are justified that programs will consistently improve.

But inevitably with such improvement is the need for ever widening sales of the large screen, by projection or on the 20-inch tube. Such receivers cost real money, and the populace who have and will spend $400 or more for their televisers will also be the affluent class whom the wise sponsor will mostly seek to reach —and teach. But unfortunately it will take some time to teach the sponsor that his commercialization of television entertainment must be of a different order of merit than that with which he now degrades the air-waves. Crassness and vulgar reiteration of his sales "talk" must be eradicated from the television loudspeaker if he expects to reap prolonged returns from his high-priced television hour. He must learn (and I believe he ultimately will) to put across his message more by eye than by ear—gently, persuasively. Television, to endure, must not be a *"Command Performance,"* by the Plug-Uglies.

TELEVISION TO REACH MASS MARKET FULLY MATURED: BALTIN

WILL BALTIN
Secty.-Treas., Television Broad. Assn.

PROGNOSTICATIONS have their shortcomings. They usually look good on paper, since who is there to say they will not come to pass? However, more often than not the prognosticator is made to look silly indeed, if his well-intentioned guesses miss the target by a wide margin.

Be that as it may, I am advised that I shall be in good company in this "Forecast" issue; and assuming one guess is as good as another, the pastime of looking into the future has some highly fascinating aspects. Every hope and dream for an industry that is likely to live up to advance expectations can be exploited to the hilt. And I sincerely enjoy exploiting television; I think it is going to be "terrific."

Now that the nightmarish world holocaust has finally given way to peace—it's wonderful. We talked a lot about the "post-war period" during the past four years. Now that it is upon us, whither television?

There are several approaches to the probable course of the video art during the next crucial decade. We must take into consideration its expansion as a medium of entertainment and information in the home. We must look upon its relation to the motion picture theatre and the legitimate stage. We must perceive its value as a merchandising medium in department stores and its uses in other outlets. We must take into account the methods of bringing television to the far-flung reaches of our nation, and finally we must not overlook the bright possibilities of international television.

When this article was written, well over 120 applications were pending for new commercial television stations in two-thirds of the 48 states. It is safe to predict that by 1950, 75 per cent of these stations will be on the air—if licenses are granted by the Federal Communications Commission.

The demand for television receivers during the coming five year period will be immense. This demand will be met by manufacturers who are, at this moment, gearing their equipment to turn out video receivers on a mass production scale. At this writing no definite price scales had been set, but I believe prices will range from $100 up, with a probable demand for large screen receivers exceeding that for the smaller image.

Areas embracing New York City and its environs, Philadelphia, Chicago and Los Angeles will in all probability prove to be rich markets for television set manufacturers at the outset. That is not to say that television will be confined to these heavily populated sections; whenever a new video transmitter goes on the air, no matter where it is situated, the demand for receivers will soar.

Within three years after V-J Day, television sales will be almost nation-wide, with receivers available on a mass scale in areas which up to now have never had a glimpse of a television image.

There will be no "crystal set era" in television. The amazing new medium will reach the public fully matured, ready to entertain and inform.

Close on the heels of home television will come theatre television to entertain millions. It is my guess that theatre television will be a separate art, apart from that of home entertainment, and progressive showmen will find in this new medium a shower of gold pouring into box offices. The legitimate stage will continue on its merry way; it will not be deluged by either home or theatre television, any more than it was with the approach of the "flickers" a half-century ago or with the advent of the radio and the talkies in the past 25 years.

Home and theatre television are only two facets of an art that will be readily available to a multitude of other trades and professions. Department stores will accept television as a routine part of their merchandising projects well within five years. Stores in larger cities will make use of the medium first, but retailers in secondary areas will be quick to accept intra-store video systems once they are impressed with the methods employed by merchants in metropolitan cities.

Industries with plants scattered over wide sections of a given area will find television communications an invaluable means of expediting orders and instructions to plant executives and foremen. Cable links and streamlined television equipment makes this possible without delay. Schools in large and small cities may find television an invaluable teaching aid, not only in receiving visual instructions over the air, but through mass lectures given on inter-school video systems, and flashed on large screens in school auditoriums.

The speed with which television achieves national greatness will depend upon the expansion of net works capable of carrying programs from border to border and coast to coast. Whether it be via cable, radio relays or "stratovision," television will become "important" only after coverage of the nation is complete. I venture to predict that the day of nation-wide television will come with extreme rapidity—as quickly as equipment can be manufactured.

International television is TODAY a possibility. Wartime research has brought forth the wherewithal, and I hasten to forecast international television on an experimental scale well before 1955—perhaps by 1950. The first step, of course, is to give to the people of the United States a regular television program service. Once this is accomplished and national neteworks are in operation, television will bind the nations with even closer ties than radio.

To summarize briefly, the television era is at hand—its growth will be instantaneous, its acceptance will be universal. Millions of people will avail themselves of television receivers during the coming decade and programming will be expanded as video stations mushroom across the nation. Theatre television will provide showmen with new and greater opportunities; department stores will embrace television as a great medium for more elaborate merchandising, and industries will find in it a communications service unequalled to date.

SHUPERT: "ATS AND TELE TO ENJOY NEW STRIDES IN '46"

President, American Television Society

THE year 1946, as far as television is concerned, is a gigantic enigma. We know it will be the year of television's rebirth as a rapidly growing field. We know it will set many of the patterns for the young industry. We know it is a year that hurls an undeniable challenge at the artistic, creative, productive and distributive capacities of everyone in any way associated with television.

But anything beyond that is conjecture.

The American Television Society, Inc., as one of the forces endeavoring to help shape television into something of which both industry and society will be proud, has ambitious plans for the year. No longer can the organization hope to satisfy its members' craving for intimate knowledge of the medium through monthly general meetings alone. Panel discussion groups have been set up so that each member with a strong interest in a specialized phase of television may meet with others sharing that interest for the exchange of information, ideas and opinions. These are proving an invaluable supplement to the general membership meetings.

The general membership meetings, too, have become even more vitalized. We are no longer dealing with a field that is more a forecast than a reality. Television is here, now! In 1946 it will have begun receiver production in considerable volume. Programming will have become more extensive, more professional and more rewarding. The thousands who have long conceived of the medium as "a good thing for tomorrow" or something with a "ground floor" to "get in on" will have been supplanted, or at least augmented, by sincere, hard-working producing and creating workers striving heroically to develop a medium compelling enough to prove economically practical and socially constructive. This will have a wholesome effect on the intelligence and intensity of the ATS members and their meetings.

Committees, too, can no longer be operations handled and contributed to by a few members. They will become substantial, cooperative affairs mapping out big, worthwhile projects and executing them with competence and thoroughness. Indicative of the caliber of work we expect from the various ATS committees in 1946 is the activity of the Program Laboratory. This group of members has already handled every detail, from script preparation to presentation, of a large number of programs broadcast over DuMont television station WABD. The quality of these shows has been improved considerably.

If any single characteristic could be attributed to the attitude of the officers and board of directors of the organization, it would be an alertness to change in television. We expect to see tremendous strides in receiver quality in the 1945-46 period. This may give television's programming agencies more freedom of action and relieve them of the need for disproportionate percentages of close-ups and oversimplification of sets and scenes. Films for television will become more numerous and of better quality. This will undoubtedly stimulate the use of live-and-film and planned motion picture programs. The first indications of color television are likely to bud out in 1946. Color make-up, variegated settings and costumes, color movies and new departures in color composition will then require exploration and development for television characteristics.

As educators and advertisers, civic bodies and religious groups, social agencies and news media, sports promoters and leaders in the entertainment industry, merchandisers and motion picture organizations join the parade of television's proponents with increasing enthusiasm during 1946, the American Television Society will undoubtedly widen its scope of activity even more in the directions of these stimulated interests.

PREDICTIONS ON TELEVISION, FILMS & ACTORS

By PATRICIA MURRAY

PREDICTIONS regarding television's place in the post-war world are so numerous that many an individual will automatically close himself into a mental shell in an effort to avoid the annoying prognosticator. In all fairness to crystal balls, I want to disclaim any collaboration on that score. However, I do want to make a few predictions.

First comes a matter which is probably more discussed and debated than any other in this field today—the matter of television versus the film industry. Motion picture people insist that television can never replace the movies. On the other hand, television adherents often admit the opposite point of view. Seems to me that both sides are right to a certain extent.

Let's look at a comparison of two other industries. Phonograph records comprised a booming business when radio appeared on the scene. When radio came in, phonograph records went out. The public became so completely engrossed in the new "gadget" that it cared little or nothing for *what* it heard. That sound came from the instrument was sufficient. People, in the early days of radio, boasted and crowed over long-distance reception.

Quality Entertainment Demanded

"Got Cuba last night. . . . Could hear practically every word!" was enough to secure a wide-eyed group of admiring listeners for hours on end. And then soon came the time when sound heard from great distances lost its importance. The public became interested in the quality of a broadcast.

The wonder of the new invention was wearing off. Quality entertainment was demanded and supplied. After a few years of this came the third and final stage in the development of the public's attitude. It had become obvious a short time prior to the war. The public had become fully accustomed to high quality and considerable variety in the way of entertainment on radio in the home. The next logical step was a further exercise of its growing discrimination. Now, it wished to hear *what* it wanted to hear, *when* it wanted to hear it. As a result, phonograph records made a come-back. Before production was curtailed, due to World War II, the phonograph record industry had reached

PATRICIA MURRAY

an all-time high. Business had surpassed all previous marks, including those attained when records were alone in the field, untroubled by the temporarily-ominous competitor, radio.

It seems to me that the development of television will affect motion pictures in theatres much as radio affected phonograph records. People are certain to be wholly fascinated with the new "gadget" at first. They will probably demand more "quality" in television programming than was demanded of early radio. But until the newness wears off, it should be extremely difficult to tear them away from their shiny, new television receivers.

In other words, motion picture theatres are certain to feel the development of the new medium, and seriously, at first. People will undoubtedly accept the inferior entertainment standard of television over the perfection of a Class-A film because of the novelty aspect of the former. There will come a day, however, when the public will want *what* it wants, *when* it wants it, and the film industry will find itself in its proper place, which will not be incompatible with that of the young upstart, *television*.

Part Film Will Play

Up until now, I have been considering television in its capacity as a home entertainment unit against films as presented in the local motion picture theatres. The part that films will play in television programming is both definite and extensive. Since they are the guarantee of perfection, it is only logical to assume that advertisers will employ them for commercials whenever there is any possibility of a mis-firing product demonstration. An advertiser cannot afford to leave too much to chance, and when his audience comprises millions of people, he must be certain that his audience sees what he wants it to see. In other words, from the standpoint of use-of-film in the television era, motion pictures will be indispensible.

It seems obvious that an advertiser could not reap sufficient benefits from a one-time showing of a film program on television to warrant anything approaching the budget currently employed for a Class-A production in Hollywood. As result, production of that type of film entertainment will remain where it is today. And distribution of that type of film should follow the same pattern it does today. Class-B films, from the standpoint of current distribution, are bound to run into very strong competition. It seems to me that, faced with the choice of traveling to his neighborhood movie house to see an inferior film, against that of remaining amid the comforts of home to watch a show on his television receiver, a person would select the latter course without a moment's hesitation.

Hollywood has accustomed the American public to extremely high standards in the matter of motion picture fare. Members of that public will certainly insist upon the maintenance of those standards in movie theatres. On the other hand, it seems to me that their discrimination within the home will aspire to a lower standard.

Two Sets of Standards

At first, there is bound to be a great amount of comparison made of motion pictures (as we see them today in theatres) against live television programs. I believe, however, that it will not be long before people will realize the two, separate and distinct set of standards that must exist, one for each industry. Programs on television will, of course, combine film with live talent to attain realistic effects. In television, however, no matter how perfect becomes its technical development, there will always remain the physical impossibility to accomplish certain de-

(Continued on page 38)

3: ADVERTISING AND MERCHANDISING

Patricia Murray and John Reed King in "Thanks for Looking," a commercial television program sponsored by Lever Bros. (via Ruthrauff & Ryan) on Station WABD.

The Case for "Sponsored" Television†

By PAUL RAIBOURN*

THE majority of the experts, also the general public, seem to have accepted the idea that widespread television broadcasting will be attained during the next few years. There are, however, some able leaders in the radio and other fields who strongly express their doubts. They generally base their argument on the fact that no one can long afford to provide programs unless sets are readily available to use the programs and that no one will buy sets until the programs are available. In other words, the ratio of sponsors' costs to returns will not be such as to keep the ball rolling.

Invariably the proponent of such ideas states he thoroughly believes in television; it is just that the presently planned set-up is all wrong. Several such are in high places and have able analysts working for them and extensive sources of information. Curiously enough, an important expert on broadcasting and programs seems to feel that an improvement in set and image quality may solve the problem. Of course, it can help. On the other hand, an expert on radio sets and the economics of getting them into the hands of the public, believes that sponsored television will not obtain a mass audience since he believes present and readily possible programs are far inferior to radio or movie shows.

A study of the present status and trends, past history, and costs of competing sponsored media should be of help in throwing light onto these divergent views.

One thing should be made clear at the start is that *sponsored media constitute a really big business in these United States.* A sponsor may be defined as one who defrays a portion of the cost of an item which has news value, or literary or dramatic or artistic merit in return for advertising which his product receives from it. This is the system under which almost all of our newspapers, magazines, and radio broadcasting reach us. In each case, a large additional part of the cost is met by the public who looks or listens.

These media have cost the country from 3 to 5% of its annual national income during the last fifteen years. Let us take 1944, for instance, and assume, in addition, that radio sets and repairs, had they been available, would have sold at the dollar volume rate of 1941. There are many indications it would have been higher. We would then have the total volume:

(SPONSOR) Newspaper advertising	$ 645,000,000
(PUBLIC) Newspaper copies, subscriptions	550,000,000
	$1,195,000,000
(SPONSOR) Magazine advertising	404,000,000
(PUBLIC) Magazine copies, subscriptions	350,000,000
	$754,000,000
(SPONSOR) Radio time and talent	400,000,000
(PUBLIC) Radio sets and maintenance	580,000,000
	$980,000,000
Grand total cost all sponsored media	$2,929,000,000

This really is big business—and it

* *Economist, Paramount Pictures Inc., and President, Television Productions, Inc.*

† *Originally Presented Before the "Television Institute," Oct. 16, 1945, New York City.*

doesn't include any portion of one hundred and seventy million dollars of costs paid for advertising departments by sponsors, nor does it include about $500,000,000 spent on other forms of advertising.

The three billion dollar figure represents the existing field with which sponsored television will compete for the sponsor's or the public's dollars. To what extent television will augment this amount and to what extent it will supplant these existing media is a difficult question. But certainly all should agree that television has a field in which to compete that is as large as the dreams of its enthusiastic promoters.

Even the worst pessimist should agree that television will certainly find nutritious fodder on which to grow in that large a field. So let us briefly examine what facts and figures are available concerning these fields. These facts and figures are taken from the best available sources but there is considerable disagreement among the experts about some of them. In fact, the spread between figures from various authorities is as large as that between O.P.A ceiling prices and black market prices for choice steak.

The medium which has the greatest similarity to sponsored television is radio sound broadcasting. Very few of us in these busy and disturbing days stop to consider the fact that advertising over the radio is a new and practically infant means of selling. The best estimates are that in 1929, the top in our previous period of prosperity, the amount of money spent for station time, talent, and production, did not greatly exceed $40,000,000 or a little over one percent of the amount spent on advertising in that year.

10 Times More Than '29

During the past twelve months, advertisers expenditures for sponsored radio have been running in excess of $400,000,000 per year or ten times that of the rate of 1929.

Best estimates are that there were in the United States in 1929, 10,500,000 radio sets located in 9,000,000 homes and that, in that year, there were sets and tubes sold to the total value of $770,000,000. The four million sets sold were priced, on the average, in excess of $150 apiece. This is the year in which *only* $42,000,000 was spent for time, programs, and talent.

There are now around 55,000,000 sets in the United States located in 33,000,000 homes. There are also about 8,000,000 sets in automobiles.

Sample checks indicate that there are now about fifteen percent of these homes listening to a radio in the day time based on an average throughout the year. There are, in the evening, about twenty-eight percent of the homes with sets in operation. The daytime figures don't vary much but the nightime figures vary between twenty and forty percent between summer and winter.

If we take the best average figure from several sources it apears that about two and one-half persons listen to each set. This figure was low in 1929.

Putting all these factors together and weighting them by hours it would appear that if you are reading this between twelve noon and ten at night, the chances are that there are now, while you are reading, about sixteen million people listening to radio sets. There are listeners at other hours, but let's consider those as a plus item to be applied against the question of whether some of the figures used herein are correct or not.

The average hours of operation being around ten and with the tendency to quarter-hour programs; sponsors' announcements at the beginning, middle and end of each quarter-hour, we can calculate that there are 233,600,000,000 such quarter-hours for all listeners per year.

At expenditures of $400,000,000 per year or 40,000,000,000 cents per year, this works out to 0.17 cents per quarter-hour per listener. Perhaps the insertion of chain break commercials brings the figure down further.

Therefore, one can say if all the figures are correct that it costs the sponsor *less than 0.2 cent to have a customer listen to his message,* interspersed with more interesting material, for one quarter of an hour. Certainly during such a period the listener's consciousness has actually received the message.

It will probably occur to many that this figure leaves out the cost of the radio set and its maintenance. This is designedly done since we are comparing the figures here of sponsors' payments in this and similar sponsored media. The interesting thing about all three; radio, newspapers, and magazines, as will be noted from the totals above, is that the public pays approximately the same proportion of total cost and that both the public and the sponsor each pay around 50%.

When we similarly analyze newspapers from the standpoint of those on whose consciousness the sponsor's advertising message has definitely impinged, we arrive at some further very interesting figures.

EXTENT VARIOUS MEDIA WERE SPONSORED IN 1944

Cents paid per copy out of total cost of Production and Distribution

	By Subscriber	*By Advertiser*
Newspapers	3.25 cents	3.9 cents
Magazines	7.6 cents	8.8 cents

Paid for each quarter hour of listening time

	By Listener	*By Sponsor*
Radio	0.25 cents*	0.17 cents

THE RELATIVE GROWTH OF ADVERTISERS EXPENDITURES FOR ADVERTISING MEDIA

	Newspapers	*Magazines*	*Radio*
1929	$902.000.000	$353,000.000	$ 42.000.000
1944	645,000,000	404,000.000	400,000,000
	% of Total Advertising Expenditures of the U. S.		
1929	34.7	13.5	1.6
1944	28.0	18.0	18.0

**1941 figures applied to 1944 since no new sets were possible in 1944.*

There were in 1944 about 2000 newspapers in the United States; 1744 were English language dailies, 481 of which were published on Sundays. Weekdays circulation was 46,000,000 for the English dailies and 39,000,000 for Sundays. These, with the weeklies and other papers produce about 17,000,000,000 copies per year. It follows that if the sponsors pay $645,000,000 and the public $550,000,000 that the sponsors pay 3.9 cents per copy and the public pays 3.25 cents per copy. It is also interesting to note that these figures mean 1.2 copies per family per day.

These newspapers vary in size from the Sunday New York *Times* down to four and six page issues. Most center around twenty pages and an average has been calculated by sampling as 21 pages. This sample turned out to have ten pages of advertising. These figures are rough but certainly are right within twenty percent and will not vitiate our conclusions.

From here on such figures as are available disagree widely. This is probably due to the fact that most people do not define carefully what they are measuring but to make the figures comparable to the radio figures, they should be on the basis of whether the sponsor's message has really been absorbed and remembered.

We have arrived at a figure of 0.38 cents for a page of advertising in each copy. We only have to determine what percentage of the people really read one of these advertisements.

This commercial, as you guessed, sells razor blades. The sponsor is Pal Blade Co. The agency is Al Paul Lefton.

2 Readers Per Copy

But if we assume we have a full page advertisement in the newspaper and everyone of the readers of the copy absorbs its message from it, then we only have to know the number of readers per copy. Different authorities indicate this is about 2 readers per newspaper copy. Should they all have read most of the ad then the cost would be 0.19 cents for each individual who absorbed the advertising message. This, however, is the positive maximum and is never approached since there is no time when anywhere near every reader looks completely through a newspaper.

There have been a great many checks by careful investigators, of full page advertisements inserted by national advertisers to see how many readers have seen them and how many read all or most of the advertisement. Naturally, the results disagree since some advertisements are better from the standpoint of gaining and holding attention than others. Also full page advertisements of national advertisers usually have been done by an expert and should attract and hold the reader better than the average other advertisement.

The results of these surveys indicate that of the most attractive advertisements, one out of two readers said he had seen it; one out of four said he had read all or most of the ad. The figures scale up to one out of four saying he had seen it; one out of twelve that he had read almost all of it.

These same tests have been repeated with half-page and quarter-page ads. Invariably the response was almost exactly proportional to the space used.

So, for newspapers we must accept a range of costs rather than averages. Since we have two readers and one out of two who recalled seeing this ad, this means that we are back to 0.38 cents per reader for those who saw the advertisement and 0.76 cents per reader for those who read most of the advertisement as our best figures. From there on, the cost scales on up as the advertisement either simply attracted or really held attention with the top figures around 0.76 cents and 1.5 to 2.0 cents respectively.

The best guess seems to be that to provide the results produced by one quarter hour of radio time, newspaper advertisements cost from, say 0.5 cents to 1.0 cent with an average around, say 0.7 cents. These figures can be wrong by 100% and still indicate newspaper advertising costs much more than radio.

Newspapers do have certain advantages from the advertisers' standpoint—one can usually get his advertisement in tomorrow's newspaper. Try getting on a good station at a good hour tomorrow and you will quickly see what some of them are.

The figures on magazine volume quoted in the first part of this article include so-called trade and farm magazines, as nobody seems able to agree as to where the dividing line between general, trade, and farm magazines exactly lies.

The inclusion of the latter two tends to bring down the cost per copy and the number of pages per copy.

It is interesting to see that sampling surveys indicate, as in newspapers, that the amount of the cost defrayed by the public and the sponsor still remains around 50% for each and that the ratio of advertising to reading space is about equal.

However, there are approximately 4,600,000,000 copies per year to cover the $754,000,000 of cost to public and sponsor or 16.4 cents per copy of which

8.8 cents comes from the advertiser and 7.6 cents from the subscriber or purchaser. The sponsor contributed $404,000,000 in 1944.

It is interesting to note over 100 copies per year per family—it won't seem possible until one counts up the copies which he or his family receive and obtains a figure many times one hundred.

The average number of pages turns out to be around 102, of which fifty-five are devoted to advertising or an advertising cost per copy of 0.16 cents per page.

Cost Remains Unchanged

The inclusion of general magazines and also farm and especially trade magazines together in a single group produces problems since the surveys which are available indicate very different tendencies in the three groups, and there appears almost no way of adding these tendencies together. The best conclusion seems to be that there is nothing in the radio broadcasting field which covers the trade magazine territory and that there probably won't be in television either. However, their inclusion or omission does not change the costs per page over ten to fifteen percent and since it decreases such costs we will leave them all in, as an additional hazard for television to work against.

General magazines probably have been surveyed as to readership much more than newspapers. The number of readers per copy again averages around two. However, the number of readers who claim to have seen an advertisement never gets down to one out of two except for color back pages and then, only in the rarest cases. The average of inside full page which has not been widely duplicated previously shows average results of the order of one out of four readers who have seen the advertisement and one out of ten more who have read most of it.

A Recapitulation

These figures work out to 0.25 to 0.3 cents for the reader who has seen and 0.50 to 0.75 cents for the reader who has read all or most of the advertisement.

It is now in order to recapitulate and see what inferences about television can be drawn from these figures.

The important bits of evidence seem to be:—

1. That there is an immense amount of money — $3,000,000,000 per year spent on services with which television will be competitive.
2. That this money is now put up about 50% by the public and 50% by the sponsors.
3. That radio sound broadcasting is a more inexpensive and faster growing advertising medium to reach the general public than any other.
4. That television can cost considerably more than radio sound broadcasting and still not exceed the costs to sponsors for the same effect obtained by magazines and newspapers since it combines sight, as they do, with the attention value of sound and action, which they do not.
5. That television can cost considerably more than radio broadcasting, since it combines sight and action with the existing sound. Advertising experts estimate the ratio all the way from three to ten times in selling value. Just give it three times and these figures would seem to indicate it will do an extraordinary job competitively even if costs are up three times.
6. And, most important of all probably, as far as getting sets into the hands of the public is concerned, is the fact that in 1929 when radio sound broadcasting sets cost over $150. apiece, over four million sets were sold, although at that time only $42,000,000 was spent on broadcasting operations, and on programs, combined.

Well, what are you waiting for? Let's go!

NEW CAMERA "EYE" IN ACTION...

RCA's new "Image Orthicon" tube goes into action at Navy Day luncheon at Waldorf-Astoria (Lower Photo) Ronald Oxford directs the shooting of Columbia football game using stereoscopic lense. New "Image Orthicon" also used to televise Army-Navy game.

"HOW WE SOLD MENDING-TAPE BY TELEVISION"—{SECOND IN A SERIES OF VIDEO STUDIES}

By ARTHUR ANSON*

Adv. Mgr., Press-On Mending Tape Co., NYC.

ON a Wednesday evening, in the early summer of 1943, owners of some 5,000 television sets in the New York metropolitan area were startled to see for the first time a 15-minute commercial program emanating from the DuMont Television Station, WABD. Every Wednesday evening thereafter, week after week, Press-On, Inc., presented a variety of programs designed to sell its products. In our newspaper and magazine advertising we were telling millions of women to "mend as you iron." Experience has proven to us that our products sell extremely well when demonstrated. Television was the answer. It was, therefore, decided to gain experience now so that we would have a good working knowledge of programming after the war, when television strips its swaddling clothes and starts walking with the "step of a giant."

We started with a 15-minute skit showing mother and daughter in different situations, all leading up to a demonstration of Press-On Tape. Typical mother and daughter skit would open like this: Mother is seated at the piano playing and singing, when daughter runs into the room terribly upset because she's discovered a rip in her party dress which she must wear immediately. Mother placates daughter and explains it can be mended in a jiffy. They both walk into the kitchen where the family laundry is prepared for ironing. Mother proceeds to show daughter how to mend with Press-On. Meanwhile, one camera is in position for a close-up of the area being mended. Another camera is in the background to handle long shots.

The professional actresses employed were indeed very capable, the scripts were skillfully written, the control room direction was taking on a semblance of professional handling—but this was not what the public wanted. If we were showing gorgeous furs or bathing suits on Conover models, no doubt it would have provided sure fire weekly entertainment. But Press-On is so prosaic a product—a mending tape. We were learning our first lessons in television.

At about that time, the Television Workshop was in its formative stages and we approached them for a solution to our entertainment problems—that's how the "Hobby Hall of Fame" was born. It was a complete package all wrapped up for the camera with just a minor rehearsal needed. Here we were first again, the first commercial sponsor for the Televison Workshop.

This lifted a burden from our advertising department and the Reiss Agency and permitted us to concentrate most of our energy on developing the video commercial. That's why it's the writer's opinion that organizations such as the Television Workshop will perform an increasingly important function in live programming. With a capable director at the control board, entertainment and the commercial can be synchronized into a smooth, streamlined sales presentation.

Worked as a Team

Now let's see how we all played together as a team on a typical Press-On telecast featuring the "Hobby Hall of Fame." We created a marionette in the semblance of a magician, dressed as an East Indian with turban, beard and magic wand. That he should be a magician was perfectly natural since he tied in with the Press-On slogan "Works Like Magic." Videogenic from his wooden head down to the curled up points of his slippers, he stood 22" in height. His clothing and skin tones were planned in graduations of grey tones, making our little wooden head a good television subject, a strikingly sharp picture on the screen. We christened him *Presto,* first of the television marionettes and no doubt the forerunner of thousands more in the television years to come.

A special stage was constructed to make the operator of the marionette invisible to the television audience. Thus *Presto* flies through the air, dances, floats, apparently on his own power.

The entertainment for the week's telecast has been arranged and rehearsed by The Television Workshop and consists of two hobbyists—an attractive collector of Balalaikas and a singer of songs, and the other hobbyist a cartoonist of exceptional ability who is to draw cartoons in front of the camera.

Music fades in, title card fades up on the screen—*"Press-On, Makers of Press-On Mending Aids, Brings"*—title card drops and next card reads "The Hobby Hall of Fame." Music and title card fade out and the Master of Ceremonies fades in—gives a 15 second talk on Press-On, then proceeds to introduce the evenings first hobbyist who walks into the scene. Two cameras are used, taking close ups and long shots. Spotlights, overhead lights and low floor lights create a variety of interesting lighting effects. After the hobbyist and the emcee run through their five minute presentation, the hobbyist is dismissed and the emcee introduces *Presto,* who has meanwhile been in focus on the next camera ready to delight the audience with his antics.

Emcee: How did you like that hobbyist, Presto? (the emcee's face fades from the scene and Presto fades in) "A slick chick," says *Presto* in his best Charlie McCarthy manner, "that was a pretty good hobby, but my hobby is magic." *Presto* then does the Indian rope trick assisted, of course, by the marionette operator. "And that's not all," says *Presto,* "Let me show you some more magic."

Dissolves from Screen

Presto dissolves from the screen. The other camera, which has been focused on the demonstrator at the ironing board is faded in on to the screen. The demonstrator takes over and briefly shows and

** Second in a series of case studies of commercial advertisers on television. Televiser will publish other case studies in future issues. "Kitchens Via Video" is scheduled for the Jan.-Feb. Televiser.*

explains how to mend with Press-On, using an iron, a pair of scissors and an ironing board. Meanwhile Camera One is in focus on the emcee who is standing by ready to introduce the next hobbyist, the cartoonist whose rapid sketches are brought clearly into view through a series of closeups and long shots with the use of both cameras. The program is brought to a close by the emcee who tells where to buy Press-On and extols some of its merits. While he discourses, a montage effect is created on the screen by superimposing the emcee's head over the package of Press-On. Toward the close of his commercial, music fades in softly, and the emcee's face fades out and gradually the package of Press-On dominates the entire screen to the loud accompaniment of the theme song. Then a quick fade out and studio cuts in with the next program for the evening.

Camera Tricks

We've experimented with different montage techniques with excellent results. For instance, we've shown a pair of scissors, an iron and a package of tape in a series of dissolving montages to the accompaniment of the emcee's voice, dramatizing the ease with which a mend can be made with Press-On. We've had *Presto* make needles and spools of thread vanish right before your eyes and conjure up a package of Press-On from thin air. We've had *Presto* riding on a magic carpet, carrying us back to grandmother's time so that all could see her in a rocking chair painstakingly trying to thread a needle—then flash *Presto* would carry us back to the Twentieth Century where a young housewife is mending with Press-On and singing:

Heigh Ho! Heigh Ho!
To Mend I do not Sew
Press-On's the thing
To make me sing
I mend with an iron you know.

At another time *Presto* with his magic wand made a package of Press-On disappear into space, then magically in its place, whirled a giant size package.

There are so many tricks that can be used through good use of two cameras and quick handling of the control board. At one time we showed our entire line of Press-On products and still made it interesting to the audience. *Presto* was focused into the camera on the extreme right. The other camera focused on one of our products keeping the image to the extreme left. When we made our montage, the package appeared to the left of *Presto,* He would point with his magic wand to the left and we would fade in the package. When *Presto* finished talking about this product, he would touch it with his magic wand and it would fade out, while announcing the next product. The camera that is trained on the group of Press-On products quickly shifts to the next subject and the control room is ready to fade in another Press-On item. After showing five items this way the commercial closed with a montage of Presto superimposed on the giant size package of Press-On to the accompaniment of the theme song. What the audience saw was a smoothly executed commercial with good entertainment value. These magical illusions were created through the joint efforts of the marionette operator, the emcee, two cameramen, lighting effects men, "mike" man, control room engineer, stage director and control room director.

We've had singers, dancers, mimics, doll collectors, model ship builders, model airplane builders, ventriloquists, magicians, card tricksters, antique collectors and a host of other interesting people that provided a never ending source of amusement and entertainment to our weekly television audience. Yes indeed, the entertainment portion of our program was well taken care of, allowing us to concentrate most of our time to experimenting with commercials. We believe we achieved our objective, that is, creating television commercials that will sell goods.

There is much ado about the use of special commercial television films in the not too distant future. No doubt it will be the common denominator in post war television. However live talent, featuring of guest stars, timely subjects, news flashes, local talent, etc. will receive a fair share of publicity.

We have learned that television is a field that requires new techniques and though we may not be in a position to answer all questions which confronts an advertiser on television, we do feel that we can offer a few helpful facts to the manufacturer about to try television for the first time. Our learning in television embraced scenarios, props, backgrounds, miniatures, talent, lighting, color, direction—we have impressed many of our distributors with our pioneering spirit—we have met and liked the splendid people who work day and night surmounting obstacles of labor and equipment shortages in a tireless effort to make these experimental television programs possible. We know that they are deserving of the great future that lies ahead for them.

John G. Myers Co., progressive Albany (N. Y.) department store, presents its fashions via television in a unique ballet-fashion show at WRGB

Gimbel's (Phila.) intra-store tele studio located in the store's auditorium. More than 500 persons could watch the actual telecasting at a time.

Members of the cast rehearse a shoe commercial with Gerry Simpson (left) and Joe Jenkins, co-producer, both of NBC's production staf.

Gimbel's (Phila.) Stages 3-Week Intra-Store Video Demonstration

AT Gimbel Brothers (Philadelphia) for three weeks some 25,000 persons each day were given a glimpse of the future. From the stores television "studio," seating 500 customers, converted from an auditorium, and crowding the store's 20 "telesites" located on seven floors, Gimbel customers saw merchandise presented for the first time on an intra-store television system.

Conducted in cooperation with RCA-Victor, the telecasts were given ten times daily. They began on October 24th and continued through the middle of November.

Responding to the suggestion, "Shop By Television," emblazoned on all of Gimbel Brothers' advertisements, on its car and bus cards, store posters, window displays, merchandise racks. menu cards and in electric lights on the store's roof, were some of the largest crowds in the store's history, providing dramatic evidence of television's immense drawing power as a store promotional feature. Not all of the crowds, however, could be accomodated by the store's 20 viewing facilities.

Programs, each lasting ten minutes, were presented every half hour, and featured such a wide variety of merchandise and store services as Gimbel's beauty salon, short length fur coats, scarves, dolls, infants' wear, Sally Victor millinery, hosiery, the Gimbel Bureau of Standards, fashions, and shoes.

To provide outlets for the "telesites," more than two miles of coaxial and audio cable were installed by RCA engineers.

Although detailed results of the tests are not yet available, Gimbel officials expressed themselves as thoroughly saisfied with the general over-all results, placing particular emphasis on the immense traffic that swept through the upholstery, rugs, lamps, fabrics departments and other heretofore low-traffic departments where "telesites" were located.

On the debit side, according to several experts who witnessed the demonstration, were the following items:

1) The demonstrations were not convincing or overly interesting, largely because the talent, obtained locally, was not professional and failed to meet television's exacting camera requirements.

2) Poor lighting caused annoying shadows and failed to permit merchandise and performers to show up to best advantage.

3) Numerous annoying extraneous sounds, emanating from the non-sound proof control room, from the stage of the "studio"-auditorium, and from the audience itself, were disturbing to the televiewers and seriously interfered with getting the sales message across.

4) No regard was paid to "gray scale" values. Result: performers were often in clothes which clashed with backgrounds, or in costumes which did not contrast with settings. A magician, for example, who wore a white suit against a gray backdrop, could only be seen with difficulty; his tricks could not be seen at all. His assistant, in a black satin gown, caused disturbing "secondary emissions" or "flared" pictures.

Programs too Long

5) Programs lacked color, "showmanship."

6) Programs were too long. Ten minutes of a merchandise commercial is too much for the average listener, and should be reduced to less than five minutes—unless they are of a high professional level.

7) Television receivers operated imperfectly. In the future, it is suggested that store personnel, trained in operating television receivers, be stationed at each receiver to adjust the sets when they go out of synchronization.

Most observers who viewed the telecasts as they progressed agreed that they improved, especially technically. Many of the flaws detected earlier had been eliminated in later programs. From a talent standpoint, however, opinion was still unanimous that the talent was not up to par with professional broadcasts.

"How Britain Sold Television Sets"

By E. CHISHOLM THOMSON

LONDON:

WHY disguise the fact? Television *was* hard to sell in Britain in those pioneering days of high definition back in 1936. To start with, it was new and people were suspicious. They had been hearing about television for years, and a few had actually seen the old 30-line, 12½-pictures-a-second, head-and-shoulder views broadcast experimentally on medium waves as far back as 1930.

Television had got a reputation for being dim, flickery and wobbly—worse than the earliest crudest motion pictures—and when "high definition" came along, it was still called "television," and people failed to grasp the implications of the new system.

There was trouble from the opposite quarter. People who knew nothing of television's history and of the early gropings to transmit vision through the ether, expected a picture of the size and quality of a super-cinema production.

The unfortunate set manufacturers, fighting prejudice on the one hand and ignorance on the other, had to drill through a sales-resistance crust which would have daunted men less certain of ultimate success.

Types of Buyers

As it happened, they did get immediate help and encouragement from two widely different sections of the public—the experimental rich and the experimental poor. The first class were mostly opulent and enterprising business men (or their wives) ever ready to spend money on novelties, and the second were the student type of "gadgeteers" or radio fans who would sell their shirts to raise hire purchase instalments, just to get their hands on the new toy.

These formed the hard core of the viewing public, barely a thousand strong, when high definition programs were first radiated from the London Television station in August, 1936.

Apart from novelty, there was little in those early programs to justify spending $400 or more on a receiver. All the salesmen could demonstrate were charming but unambitious little studio shows for an hour in the afternoon and again in the evening. The real outside broadcasts were still to come, and the best the British Broadcasting Corporation could do then in the "O.B." line was to take a length of cable and an Emitron camera on to the grassy slopes outside the Alexandra Palace studios and televise golf strokes, model boats on the lake, and small animals trundled up in their cages from the London Zoo. Then a television sales-film was made, with excerpts from the best studio shows, and this same film was transmitted, day in and day out, for more than a year.

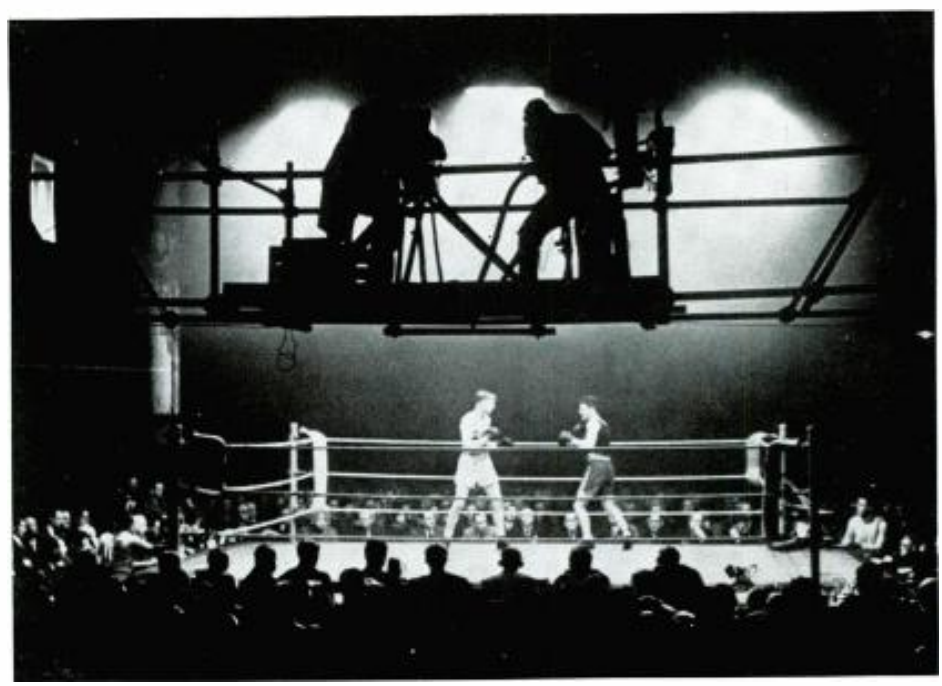
Meanwhile the sales folk were coping with the problem of demonstrations. Seen in a big public viewing room, with crowds milling round, the 10" x 8" pictures did look small, and a lot of prospective customers were lost right away. Some dealers then rigged up private viewing rooms, admitting only two or three clients at a time so as to duplicate as far as possible the conditions in an average home; others, more thorough, introduced a home demonstration service anywhere within 30 miles of the transmitter, charging a fee of four dollars for a morning or afternoon show, and $5 in the evening.

But the British public were shrewd buyers in the radio field, and it was not for nine months after the start that the first real sales fillip came. It was then—in May, 1937—that the first $200,000 mobile television unit came into service just in time for King George VI's Coronation procession. The sales curve took an upward turn, particularly when it became obvious that the advertised 30-mile radius was only nominal, and news spread that good views of the Royal Coach and its occupants had been had 70 miles away at Brighton, on the South Coast.

By now something between four and five thousand sets were working, and the country really was getting "television conscious." The Coronation success was followed up with international tennis at Wimbledon, big ceremonials like the Lord Mayor's show and the Armistice Day scene at the cenotaph, and visits to the motion picture studios around London.

All this was the stuff that really sold sets. People were getting actualities far more exciting than a newsreel. Set prices came down by at least a third and the sales "curve" now became a steadily rising straight line until the 20,000 mark was reached just before the enforced close-down on Sept. 1, 1939.

Some manufacturers included antenna



Public sports events and other "actualities" (special events) helped tele sales soar in Britain.

erection in the price of the set, but usually a small extra charge was made, depending upon the distance from the transmitter; where reception was weak considerable lengths of low loss cable were necessary with particularly high antenna, and the installation cost might be anything between 6 and 40 dollars. The usual antenna arrangement was a di-pole with concentric or balanced feeder, and the whole outfit was orientated on the Alexandra Palace transmitter. Installation was generally carried out by local agents.

Servicing Was No Problem

Servicing gave surprisingly little trouble. Possibly because the average man was afraid to tinker with such an elaborate piece of equipment, or fear of high voltages, there were fewer cases of misuse than happen with the ordinary home radio, which is fair game for any "helpful friend" who can lay hands on a screwdriver. "Width" and "height" controls were usually housed inside a screwed panel at the rear of the receiver, and only the "brilliance" and "contrast" knobs could be fiddled with in front. Sales guarantees included free replacements for a year, excepting valves, which usually came under the 90-day rule, though some yearly guarantees included valves and the cathode-ray tube.

Hire Purchase

In the autumn of 1939 a new public was being catered for with really cheap sets which were, in fact, television attachments for use with existing radio receivers. The humblest of these sold at 21 guineas, or less than 90 dollars, and gave a picture smaller than a postcard—4" x 3⅜". At the other end of the scale were the $800 big screen sets projecting from a 2" wide tube through an anastigmatic lens on to an etched glass screen 18" wide. But the really popular models, which were now being bought by the professional and artistic classes as well as the sport lovers, were the in-between type. $200 was the average price for a cabinet set with 10" x 8" or 11" x 9" picture, incorporating all-wave radio.

Hire purchase was the rule, spread over 12 months with an average weekly payment of $4. There were no rentals, but at least one British firm now promises a rental scheme when the television service is resumed.

"PREDICTIONS"

By PATRICIA MURRAY

(Continued from page 29)

sired ends, in the studio. Guaranteed perfection of action and realistic setting would necessitate the program's recording on film, but, the cost of such doing might be prohibitive to the advertiser or producer, certainly if he were putting himself in competition with a Hollywood Class-A production. Consequently, the television standard for programs will be lower than that of the older industry. At least, in the beginning, it will be described as "lower." Eventually, it will be accepted as "different."

And now, a few words in connection with another matter and my "predictions" will be finished, for the moment. People ask, "What will happen to our radio stars of the present, those whose appearances are sharply out-of-keeping with their radio personalities? What will happen to those who cannot fit themselves into the new field? Certainly, they cannot drop into obscurity, or can they?" My answer to that is that it has happened before and it can happen again. One of the greatest overnight fame-to-obscurity examples, that I remember, is that of John Gilbert, who, one day, was star of the silent films. The "talkies" arrived and John was forgotten. Within a short time, his most staunch fans thought of him merely with a feeling of nostalgia.

I believe that the number of these drop-to-obscurity cases will be very few, actually. I do believe however, that the work of many prominent radio performers will be considerably restricted as result of adding sight to sound. It will not happen simply because the physical characteristics of an individual are not in keeping with the role he is required to play. It will frequently happen that he is incapable of working in the additional rehearsal time necessary for television programs.

4: REVIEWS, SCRIPTS AND VIEWS

BOOKS:

"TELEVISION — THE EYES OF TOMORROW," *by Capt. William C. Eddy, USN (Ret.), Prentice-Hall, 1945, $3.75.*

Filling a long-felt need for an authoritative, concise, over-all picture of today's status of America's sight-and-sound broadcasting medium, Capt. Eddy's *"Television — The Eyes of Tomorrow"* presents, itemizes and discusses aspects of video from economical to functional.

Here is a book, written by a man associated with television from its laboratory stage, which is an ". . . account of the growth of a modern and dynamic industry that bids fair to revolutionize our present routine of entertainment and advertising" and which is . . . . not a minute and painstaking review of detail but rather is designed to be a comprehensive and panomaric glimpse of the high lights of television's development." What he has to say should interest the future station owner, the potential advertiser, the educator and the student as well as the neophyte director.

Eddy chronicles briefly the history of television, evaluates the individual contributions of America's experimental studios both equipment and program-wise, discusses basic studio designs and camera operation, touches upon the question of color, weighs up its advertising selling force, and high-lights production activities. About a third of the book deals directly or indirectly with production techniques.

The subjects are forcefully and simply presented minus the balderdash so frequently found in television treatises. His chapter on "The Economic Aspects of Television," although it adds nothing new to the ever-present question of television vs. radio, the press and motion pictures, does sum up into a clear statement of the situation even though he ". . . enhanced the importance of television so that it might be viewed on a level with the matured arts that it may affect."

It is to be expected (and the reader is not disappointed) that Eddy covers clearly the complex integration of video's technical features. The student and the executive can obtain an excellent background knowledge of the operating principles of the electronic equipment, without being unduly confused by engineering explanations.

For the producer and director, the chapters on lighting and color response of the television camera, although present in a general manner, should add appreciably to their understanding of the basic fundamentals of the system in which they are working or hope to work. In the chapters devoted to visual and miniature effects, however, he does become specific, detailing how to achieve and utilize these effects to bridge, psychologically and visually, transitions between scenes and acts—visual effects so neglected in present-day television and yet so essential to the picture medium. To the television producer, these two chapters are worth the price of the book.

Eddy, who is director of Station WBKB, Chicago, says that ". . . . if television is to take its proper place in the scheme of our postwar world, it will need to prove that it can satisfy a definite need in education." He then proceeds to show how video has already, to some degree, satisfied that need and indicates how educators can further utilize sight-and-sound broadcasting to stimulate learning.

The one criticism that can be leveled against Eddy's "Television — The Eyes of Tomorrow" is that he presents general rather than specific information about the many interests involved in the new entertainment-advertising medium. It is truly a "panoramic glimpse" for he rarely shows his subjects in working clothes. However, its value to the broadcaster, the educator and the advertiser must not be underestimated for Eddy clarifies much of the muddled thinking concerning television.

Eddy's "Television — The Eyes of Tomorrow" should be on the reference bookshelf of every worker in the field.

—Judy Dupuy

SUGGESTED READING

If the books aren't available at your local bookstore, write to our Readers' Service Bureau.

Camm, F. J.	**Television Manual (1943)**
Chapple, H. J.	**Popular Television (1935)**
DeForest, L.	**Television, Today & Tomorrow (1942)**
Dinsdale, A.	**First Principles of Television (1932)**
Dunlap, O. E.	**Outlook for Television (1932)**
Dunlap, O. E.	**The Future of Television (1942)**
Fink, D. G.	**Principles of Television Eng'g (1940)**
Hathaway, G.	**Fundamentals of Radio (1941)**
Hathaway, K. A.	**Television, A Practical Treatise (1933)**
Hubbell, R.	**4000 Years of Television (1942)**
Hubbell, R.	**Television Programming & Production**
Hutchinson, R.	**Television Up-To-Date (London 1937)**
Kerby, P.	**The Victory of Television (1939)**
Lawrence, J.	**Off Mike (1944)**
Lee, R. E.	**Television: The Revolution (1941)**
Legg & Fairthorne	**Cinema and Television (1939)**
Lohr, L.	**Television Broadcasting (1940)**
Maloff & Epstein	**Electron Optics in Television (1938)**
Mills, J.	**Today and Tomorrow (1944)**
Moseley, S. A.	**Television—A Guide to the Amateur (1936)**
Pennsylvania	**WPA Writers' Program-Television (1942)**
Porterfield & Reynolds	**We Present Television (1940)**
RCA Volume II	**Collected Addresses & Papers (1937)**
Tyson	**Do You Want to Get Into Radio? (1940)**
Zworykin	**Television (1940)**

"DEPTH OF FOCUS" . . . . BY THE EDITORS

IN THE last issue we made a strong case, we thought, for training of tomorrow's television personnel today. We're now glad to report that a very considerable progress is being made toward opening more classes and bringing more and more interested persons into training.

Apparent are: an increasing number of university sponsored courses; an increasing number of radio stations and networks who have arranged orientation courses for their personnel; an increasing number of trade schools offering training courses for would-be studio technicians. More books on television are also making their appearance. Six new ones are about to be published.

* * *

OF INTEREST to many readers, especially to those who attended the first "Television Institute," will be TELEVISER's welcome announcement to place the "Institute" on a permanent basis.

Starting January 14, TELEVISER readers in and around New York will have the opportunity to attend five weekly evening classes in five different courses, to receive professional instruction by recognized experts. The Television Institute, we feel, should fill some of the long felt need for more and more, better and better television instruction, a matter for which TELEVISER has campaigned ever since it began its publishing life.

The response to TELEVISER'S initial Television Institute is indicative of the widespread interest that exists among many persons, persons who hunger for information about the newest television developments. This interest exists among returning veterans, among people working in radio, among writers of radio scripts, among high school and college students, and others facing the future. To many the future is television.

* * *

THE "Television Institute," held in New York during October (sponsored by TELEVISER), proved a grand success. Each day its halls were filled to capacity by some 500 guests from all parts of the country. Its forty speakers were the best television could provide.

The response to the "Television Institute" has since been virtually unceasing and unstinting, a matter greatly gratifying to us, and, we are sure, to the speakers who gave so generously of their time and knowledge.

Judging from a virtually unceasing response from TELEVISER readers, the "Television Institute" has become regarded a regular television institution, to be held each Fall, as an annual get-together of television experts, laymen and executives. This responsibility the editors of TELEVISER gladly accept.

To provide a similar "ground floor" for our readers in other cities, TELEVISER is planning a series of regional "Institutes," with the first of such regional institutes scheduled for the Nation's Capital, January 29, at the Statler Hotel, under the combined auspices of the advertising clubs of three cities — Washington, D. C., Baltimore, Md., and Richmond, Va.

* * *

DEPARTMENT store television had its initial tryout at Gimbel Brothers, in Philadelphia. Both the store and RCA are to be commended for their forward looking collaboration and experimentation—for it's only through such trial-and-error experimentation that television can become a widely accepted department store advertising and merchandising medium.

One pitfall, however, faces the experimenters at this time. And that is the temptation to get by "cheap"—to employ cheap local talent wherever possible instead of professional talent that would help augment the medium.

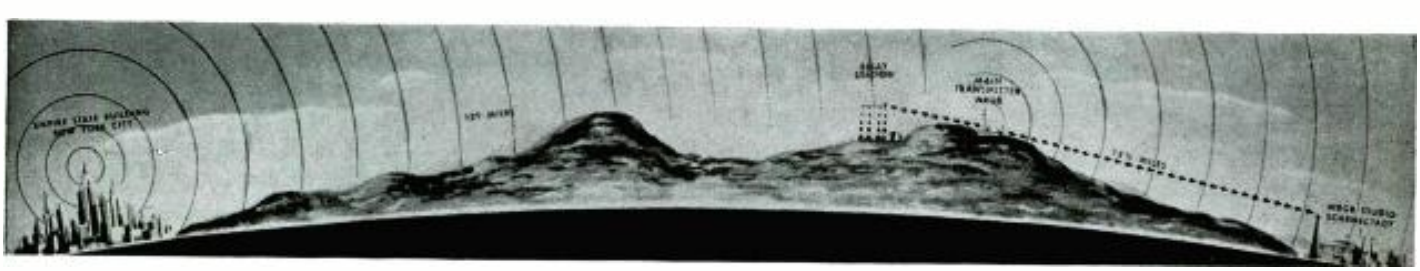
One of the most common criticisms of the Philadelphia showing was the "unvideogenic" qualities of the performers. Most of the performers appeared on the television screen with as much expression as gets put into a "blind" radio stint. (And not much more can be said for the other items of production, including script, direction and general production.)

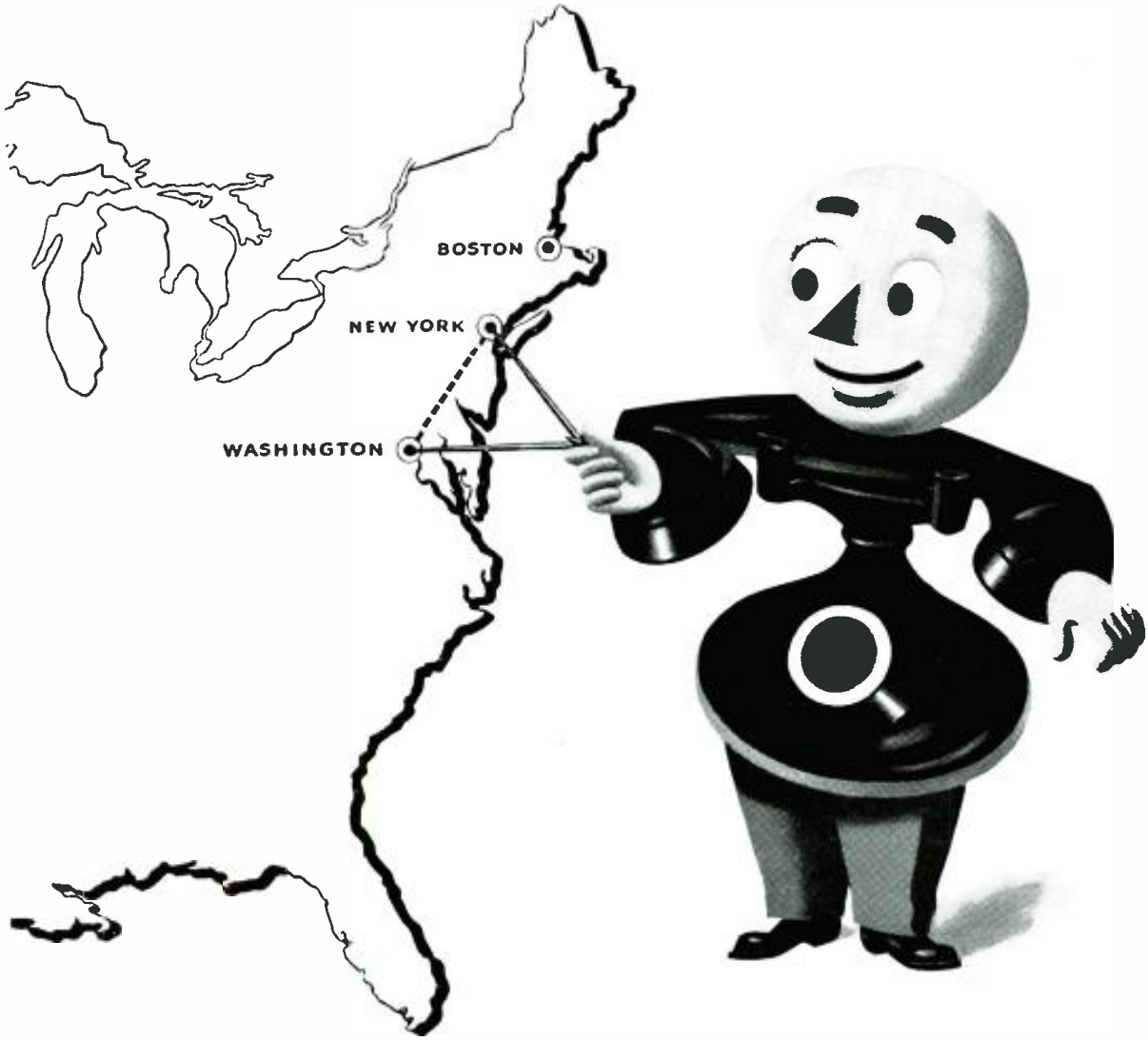
Users of television must learn that television is an entirely *new* medium, one that doesn't adapt easily and it's always best to use the best possible actors, the best possible script, the best possible director, and the best possible budget.

* * *

WE SINCERELY hope that by the time TELEVISER reaches you, the FCC will have decided on the technical standards for television, and by so doing will unleash television, and thus allow the infant industry to make a fast start toward becoming a major factor in the radio world. At present its "pip-squeak" voice is barely heard, except during FCC hearings; it now employs only a handful as against the thousands that will find employment once the art gets under way.

Watch television's smoke once the standards are determined, and the channel allocations were made. Watch television grow and mature into a billion dollar industry—that is, providing television is quickly given its rightful place and isn't allowed to become the neglected stepchild of the electronics world, to be turned into Miss Video Glamour only at the will and whim of a few companies.





NETWORK FOR TELEVISION

Coaxial Cable Link in Initial Tests

Bell System coaxial cable carried television of the Army-Navy football game from Philadelphia to New York on December 1. This was an experimental preview of long distance television by cable.

Beginning in January, coaxial cable between Washington and New York will be regularly scheduled for experimental television use.

Each coaxial tube, with present amplifying and terminal equipment, can transmit a television signal, or 480 simultaneous telephone messages. For several years the Bell System has been using coaxial cable to carry telephone conversations over certain intercity routes. Within the next few years upwards of 7000 miles of coaxial cable will be constructed.

The Bell System is installing a network of facilities suitable for television which will ultimately span the country from coast to coast and from north to south.

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