

RCA HIGH-FIDELITY

TELEVISION

MONOCHROME AND **COLOR**

for closed circuit and on-air applications

INTER-CITY CONFERENCES
TRAINING
MULTI-GROUP VIEWING
MONITORING

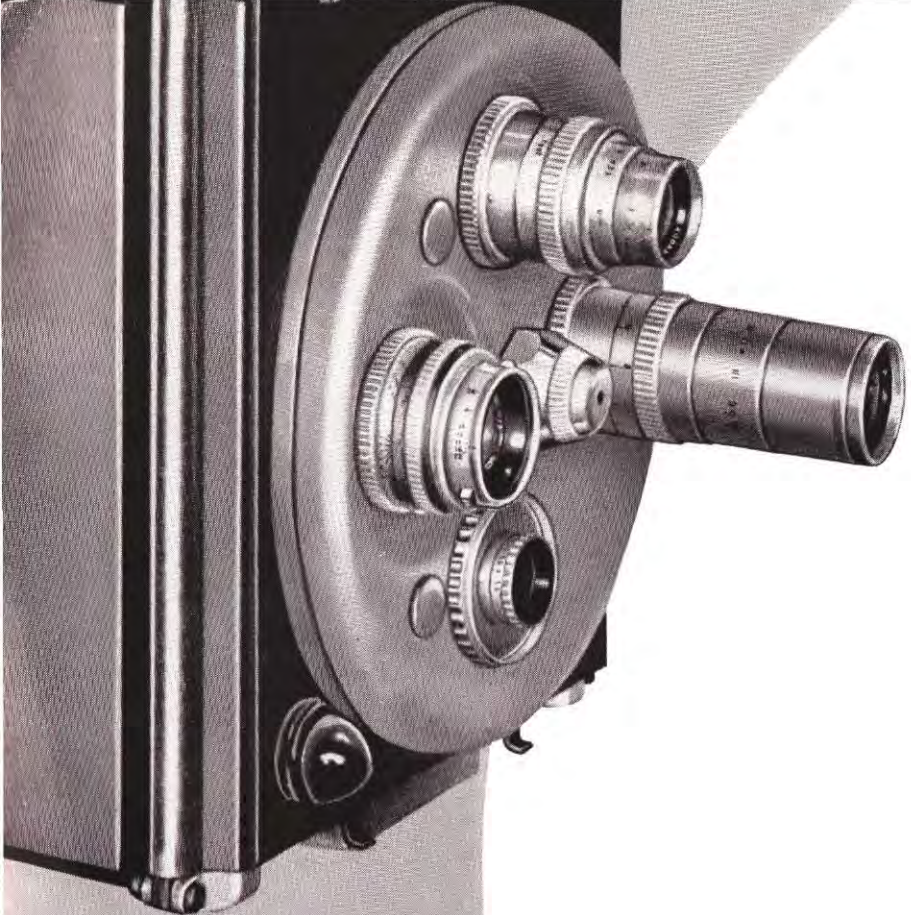
for **business**
industry
education
medicine
military



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- *Applications*
- *Typical Systems*
- *How RCA Can Assist*



WHAT IS RCA HIGH-FIDELITY TELEVISION?

RCA High-Fidelity Television is the application of broadcast quality television equipment to the needs of business, industry, education, and medicine. It serves wherever there exists a need for closer, more personal contact by means of sight and sound. Many groups in the same local area and in distant cities can be reached at the same time. Restricted viewing areas can be enlarged, pictures and data from many sources can be funneled into one area, and large screen images can be portrayed. It offers dramatic close-up impact. It is available in black and white, and in full color systems.

BROADCAST QUALITY

This equipment is the type employed by commercial stations, government and institutional users for consistently high quality results. It is designed to broadcast standards (or higher) and works on standard sync. It can be used for feeding to stations, for transmissions from city to city, or for color work. Applications that require high fidelity reproduction require broadcast quality equipment.

PROFESSIONAL EFFECTS

This makes it possible to do switching without a black screen appearing between scenes. It offers fades, wipes, dissolves, and the split-screen device. These effects add smoothness to presentations, making them much easier to be understood.

DISTRIBUTION SYSTEMS

This sends pictures and sound to various locations in a building or group of buildings. Thus at any location it is possible to choose the desired picture by merely pushing a button. Live, film, and on-air pictures can be distributed by this system. Each receiving location has the full choice of all picture sources.

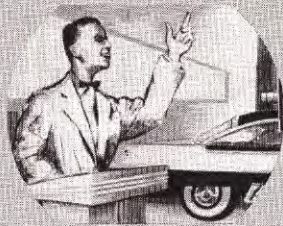
COMPATIBLE COLOR

RCA High-Fidelity Television is available for both monochrome and color applications. The color signal is fully compatible; that is, it produces a color picture on a color receiver, and a monochrome picture on a monochrome receiver. The full range of color is reproduced with fidelity.

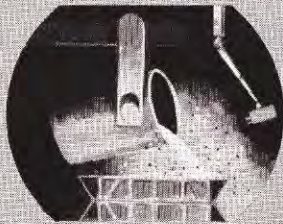
HOW CLOSED-CIRCUIT TV WORKS

In essence a closed-circuit television system picks up a picture at one location and transmits it to receivers at other locations. In its simplest form the system consists of three elements: 1) a camera for picture source, 2) a means of transmission, and 3) a receiver. The picture source may be live action, motion picture film, slides or artwork. Transmission may be cable or microwave,—localized within a building or reaching many cities across the nation. The receivers may be 21-inch sets, or large-screen projectors for audiences of thousands. These three elements are combined with audio, mixing and switching equipments to form the complete system.

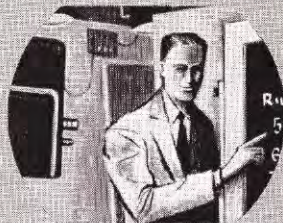
WHO CAN USE IT



business



industry



education



medicine

WHAT IT IS USED FOR

- **INTER-CITY CONFERENCES, ANNUAL MEETINGS**

Tremendous savings in travel time and costs

- **DEMONSTRATIONS TO SALESMEN AND DEALERS**

To many people in many cities at the same time

- **PLANT TOURS AND FIELD TRIPS**

No need to travel from place to place

- **MONITORING OF INDUSTRIAL PROCESSES**

Protects personnel from hazardous operations

- **REMOTE SUPERVISION OF MANY OPERATIONS**

Assures more accurate and faster results

- **COLOR OBSERVATION AND CONTROL**

Detailed, close-up sampling of product

- **MULTI-CLASS TEACHING**

Assures more effective use of teachers

- **COLLEGE CREDIT COURSES (ON AIR)**

Helps relieve classroom shortage

- **PROGRAMS FOR COMMUNITY AND INDUSTRY**

Spreads culture. Helps train technicians, engineers

- **INTER-HOSPITAL CLINICS, INTER-CITY PANELS**

Consultation, and communicating latest techniques

- **LARGE SCREEN PRESENTATIONS**

Unrestricted viewing of surgical procedures

- **PROGRAMS FOR PRACTICING PHYSICIANS**

Helps to bring graduates up-to-date

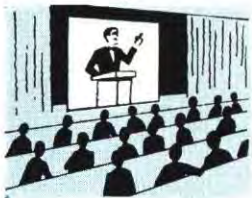
military

- MORE EFFICIENT TRAINING OF PERSONNEL
- VISUAL-AURAL COMMUNICATION AND OBSERVATION
- IN ADDITION, MANY OF THE USES SHOWN ABOVE

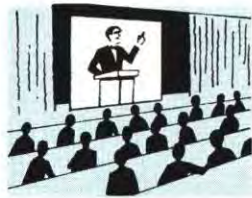
HIGH-FIDELITY TELEVISION | for BUSINESS



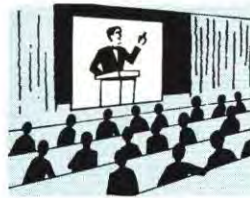
ORIGINATING POINT
OF PROGRAM



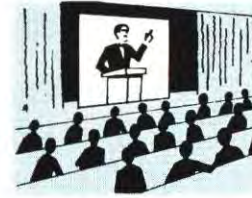
HOTEL CITY A



HOTEL CITY B



HOTEL CITY C



HOTEL CITY D



HOTEL CITY E

Inter-city Conferences, Meetings, Demonstrations*

RCA high-fidelity television provides a dramatic new dollar-saving method of business communication. The program (pictures and sound) is transmitted to hotel banquet rooms and other meeting places across the country. There it is projected onto large screen for viewing by the audience. It is the most dramatic and effective way of presenting a product or message to many people in different cities at the same time.

Promotes Personal Contacts

RCA high-fidelity TV promotes personal contact of top management with distributors, dealers, salesmen, and regional personnel . . . gives your field force a feeling of personal participation in the affairs of your company . . . helps communicate the personality and spirit of executive personnel . . . builds up the idea of teamwork . . . gets across your thoughts, your enthusiasm.

Introduction of New Products

With RCA high-fidelity TV you can introduce products into all your markets simultaneously. Also, use it for demonstration—of products, selling techniques, manufacturing operations direct from your plant or central offices. Closed-circuit TV can even take its viewers on a tour of factories, labs, and other facilities.

In Color or Monochrome

RCA offers full color compatible TV equipment for closed-circuit presentations. This is the same high-quality equipment used by commercial television stations. It can be integrated into and used with black and white TV systems also.

**The Sheraton Corporation of America, through its subsidiary, Sheraton Closed-Circuit Television, offers these services through a chain of hotels across the nation.*

Living Catalog for Department Stores

RCA high-fidelity TV makes it possible to have "live" product demonstrations in the many parts of your store where people normally congregate. Customers can see your specials—in action—wherever they may be. Greater numbers can see the product more intimately. TV presents the store's personality. TV offers personal selling. You can use a winsome and talented saleslady to demonstrate your merchandise, to point out its qualities, to put across a sales message. Furthermore, slides, films and artwork may be used over this TV system to present attractive commercials.

"How to Sell" Demonstrations

To teach sales personnel to properly sell, ordinarily takes a great deal of time. With TV it can be accomplished in a few minutes before opening hours. No one need move to a central auditorium . . . and all can be taught at the same time. You can use your one best sales personality to teach everyone to use the same effective technique.

Speeding Information to Branches

Branches are as close as the next floor when TV is employed. Your demonstration and training reaches all stores at the same time. Your entire organization acts more efficiently and effectively as one compact, unified selling organization.

Golden Opportunity with Color TV

Color TV combines sight, sound, motion and color to form the most fabulous and highly effective selling tool known ever to man. It is making a lot of golden dollars for others. It can do the same for you. As a medium of selling merchandise it offers a tremendous opportunity to aggressive retailers.



FASHIONS MADE WITH
DU PONT "ORLON" ACRYLIC FIBER

- ADVERTISING AGENCIES
AND ADVERTISERS

Used for presentations to clients and to guide creative personnel . . . shows how live and film programs (color and monochrome) will look on home receivers.

- AIRLINES, RAILROADS, ETC.

Used for meetings to tell travel story to travel agents . . . can also supervise many operations from central office. Unifies sprawling operations.



CREDIT DEPT.



RESTAURANT



BRANCH STORE

HIGH-FIDELITY TELEVISION *for* EDUCATION

Educational Television Broadcast Stations

Throughout the nation some 25 educational and community organizations are employing TV in both closed-circuit and on-air applications. They supplement in-school programs, and provide home teaching also. They offer high school and college credit courses. They afford special programs for children. Cultural, informational, and inspirational programs for adults provide one of the finest types of broadcasting.



COLLEGE CREDIT COURSES
—EXPERIMENTS HAVE DEMONSTRATED THE EFFECTIVENESS OF TV TEACHING.



HOME EDUCATION
CREDIT COURSES ARE
TAUGHT VIA TV.

WQED, PITTSBURGH, PENNA.

This community-sponsored educational TV station affords an excellent example of TV possibilities. Its 1956 program calls for 67-hour weekly schedule. Viewers range from the pre-school child to mature adults. In-school programs enrich classroom activities. The "Adult High School of the Air" offers home viewers a high school diploma. Special programs are aired for young viewers at home . . . For the complete story of this inspiring educational experience, write for a copy of the 12-page booklet "WQED—First Community Sponsored Educational Television Station" (see p. 27).



KEEPING UP WITH CLASSES
STUDENT AT HOME RECEIVES LESSON VIA TV.

KETC, ST. LOUIS, MO.

- *University of the Air*—ambitious plan proposed by Washington University and St. Louis University, seeking support from the Fund for the Advancement of Education . . . extensive use of televised instruction leading to Associate of Arts degree will help relieve classroom and teacher shortage without reducing academic standards.
- *For Industry*—local firms are underwriting college courses via TV for teaching of technical personnel. Regular accreditation is offered and personnel are given time off to attend in-plant TV classes.
- *School Programs*—wide range of direct teaching and supplementary instruction is offered over KETC to St. Louis elementary and secondary schools. Controlled experiments indicate pupils learn as well via TV as by traditional methods of instruction.



IN-SCHOOL SUPPLEMENTAL TEACHING
—IN ST. LOUIS THE SCHOOL SYSTEMS CONTRIBUTE ONE DOLLAR PER YEAR PER STUDENT TO SUPPORT THIS PROGRAM.

FREE LITERATURE

Educators and others interested are invited to write for a copy of descriptive 16-page booklet "TV and the Crisis in Education" (see p. 27).

Closed Circuit Educational Television

According to the Joint Council on Educational Television there were 68 closed-circuit installations in educational institutions in 29 states as of February 1956. Fifty per cent use broadcast quality equipment. Twenty-five per cent produce programs for commercial station use. All use their equipment as a tool for the furtherance of education.

Multi-Class Teaching

The ability to handle many classes at the same time is but one of the features of TV. With high fidelity equipment and professional switching facilities it can eliminate the loss of time and efficiency occasioned by shifting from class to class. One after another each lecture can be programmed into the classroom without delay, and with many more dramatic aids to ease and illustrate the learning processes. Furthermore, no student is farther away than the first row.

Helps Teacher Get Better Results

Every teacher has an expert assistant when TV is employed. The school can use its specialists to teach all classes of the specialized subjects. By means of TV every student gets a close-up view of the teacher, an unexcelled view of demonstration and small objects, and large magnifications of microscopic specimens. Teachers are given more time for counseling, for classroom discussion and for personal assistance to students.

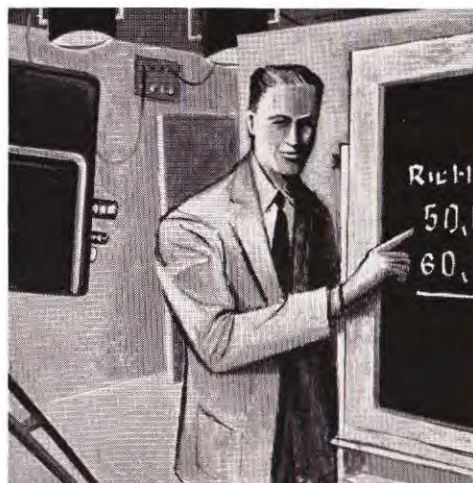
Helps Relieve Teacher Shortage

In order to keep the present ratio of students to teachers educational television provides a possible solution. Tests conducted by educators for private, public and military institutions have shown that results with TV teaching are at least as good as, and in some instances, better than the conventional.* Consequently, some newer institutions are designing building units that have built-in TV teaching systems.

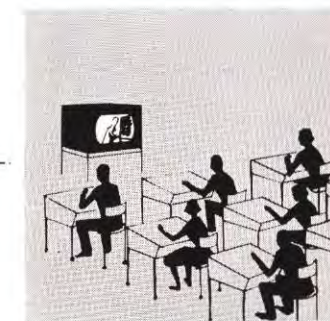
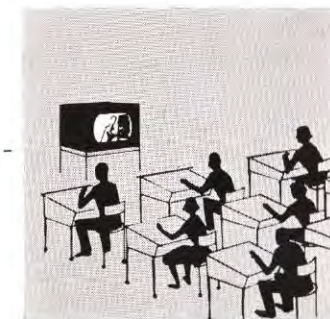
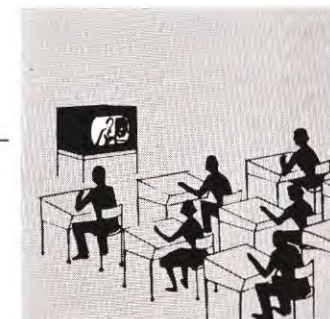
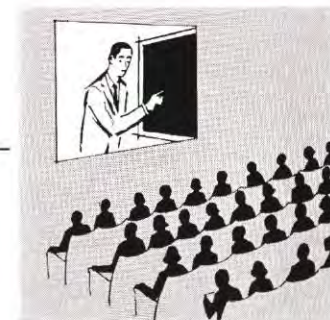
TV Teaching Systems

Television is making an important contribution to modern education. It is more than a gadget, more than merely pointing a camera at a lecturer. For educators RCA High-Fidelity TV offers a system that includes the most effective teaching aids and the most professional methods of programming. Complete TV Teaching Studios offer the widest latitude for teachers' talents. These Teaching Studios can be combined to form a TV Center to serve an entire building. Buildings can be inter-connected to form a campus-wide TV Teaching System.

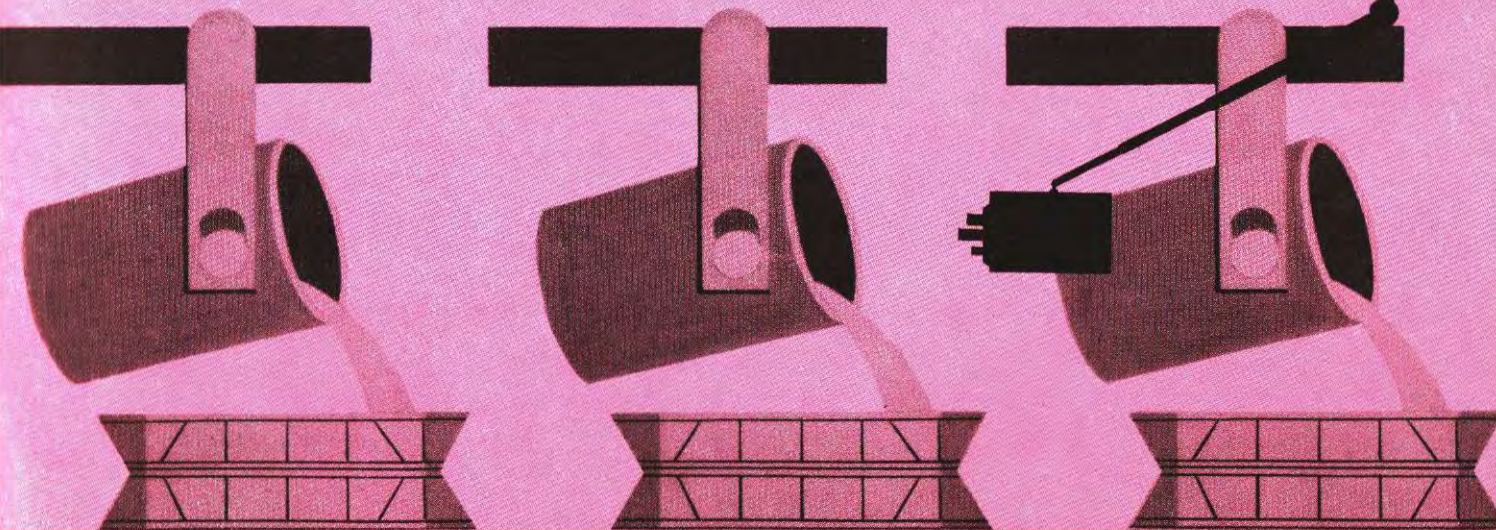
**Reprints reporting tests available upon request (see p. 27).*



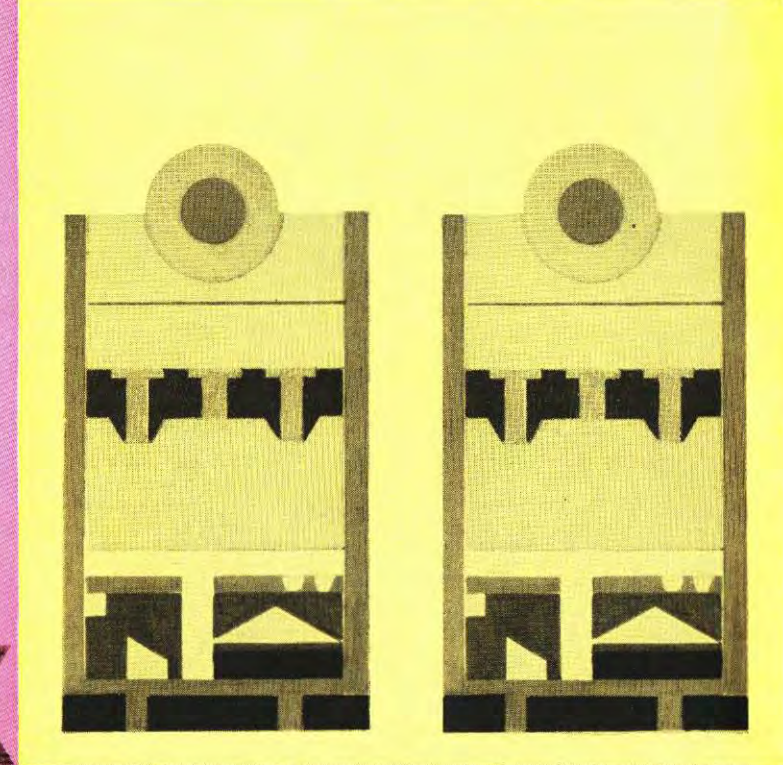
ONE TEACHER TEACHES MANY CLASSES



HIGH-FIDELITY TELEVISION *for* INDUSTRY



PROCESS No. 1



PROCESS No. 2

Centralizing Industrial Control

This TV system can be employed for remote supervisory control in industry. For example, it can follow processing of material and parts from a central monitor position. Multi-camera arrangements with sequential switching can track all the detailed processes of modern industrial systems. Extensive distribution networks send the pictures to all desired viewing positions.

High Fidelity Pictures

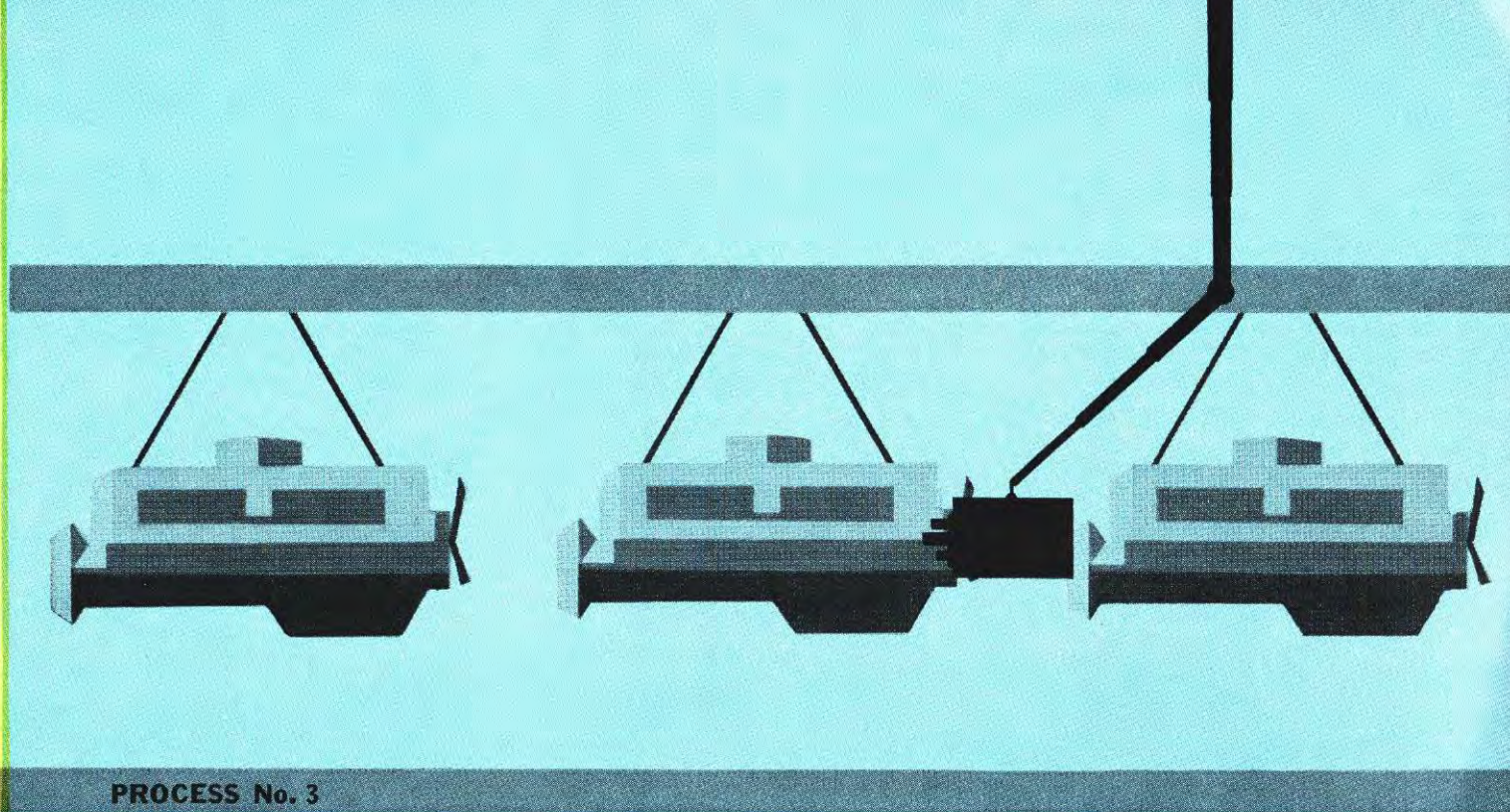
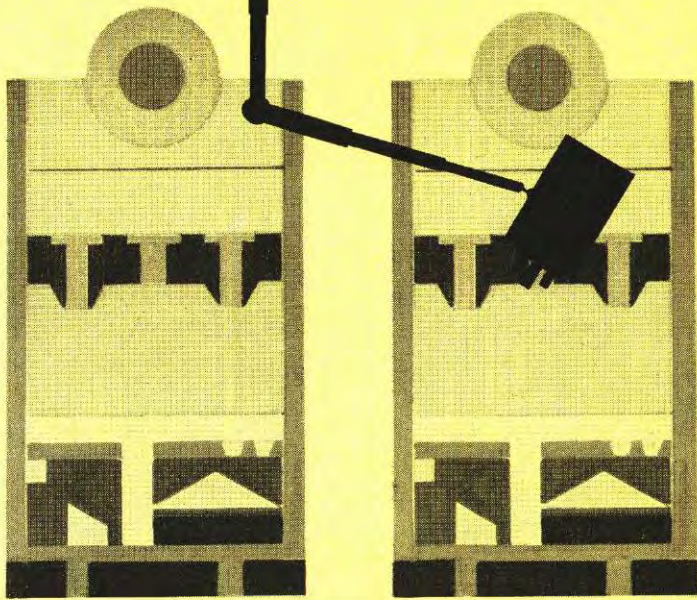
High-fidelity pictures show details clearly and follow rapid movements with clean, crisp reproduction. Large-screen pictures can show clear views and close-ups of the scenes being monitored. Small parts can be magnified so that fine details are clearly seen.

Covers Large Areas

Pictures from many areas in a building can be fed into a central control room. Pictures from several separated buildings can likewise be fed into the central control room. TV distribution arrangements can be so designed that plants spread out over a large area can be unified into one compact and efficient production system.

Color Control

RCA compatible color TV makes it possible to observe the operation in full color. This enables one to monitor product quality very accurately when color means something in the final result. The color system can be integrated into a monochrome system. The pictures from the color cameras can be viewed in monochrome on black and white receivers, in full color on color sets.



PROCESS No. 3

Progressive Picture Selection

The TV system can be designed to switch from one camera to another along the route as the material and parts proceed down the line. This places the desired picture on the master viewing monitor. Other monitors can show preceding and following steps.

Protects Personnel

Closed-circuit TV makes it possible to observe operations occurring in an area unsafe for personnel. Monitoring and control of operation is done from a remote, fully protected position. With RCA High-Fidelity TV the reproduced picture is of broadcast quality and will give the same information as if an operator were physically present.

Follows Processing

Step-by-step processing of one particular part can be closely monitored simultaneously with over-all monitoring of the entire operation. This can be done from the central control room. Thus a remote supervisory control network is the eventual result.

• **TRAINING**

TV offers the training director an ideal tool. Receivers in classrooms can switch in on regular monitor circuits to give realistic training. Also it does not impede the operating personnel or cause operating delays.

• **PLANT TOURS**

This same system can be hooked up to a large-screen projector. An auditorium of hundreds or thousands of persons can, by this means, tour the plant without leaving their seats. An impressive program with professional effects can be presented.



SUPERVISOR VIEWS AND CONTROLS PROCESSES FROM REMOTE ROOM

HIGH-FIDELITY TELEVISION *for* MEDICAL APPLICATIONS



Medical Teaching

The medical profession and its educators are generally enthusiastic about the possibilities of color TV for teaching. TV enables the instruction to be on a more realistic basis. Physical examination of patients, discussion of symptoms, tests and diagnosis can be followed step by step as they actually transpire. The students can be in another room or building so that the doctor can give his entire attention to the patient. In addition large groups of students in many small classes can be taught at the same time. Medical procedures can be viewed close up without any interferences and in large picture size for maximum teaching impact.

Inter-Hospital Hookup

The connection by television of various clinics and hospitals brings together specialists and the various services that may be widely separated and otherwise difficult to reach. This makes all facilities of a medical center immediately available to the medical educator. As a result students are taught more efficiently, more effectively and more economically.

X-Ray Diagnosis

X-ray pictures can be transmitted with excellent fidelity over TV systems. As a result large groups of people can view the picture at the same time. Also, people in many places can all see the same X-ray picture.

TV Microscopy

Live tissue images can be transmitted instantaneously from the lab to the viewing rooms. Further, the microscopic image can be transmitted to and projected on large screens for student training and for professional consultation. Images are full color and enlarged thousands of times.

Speeds Hospital Routine

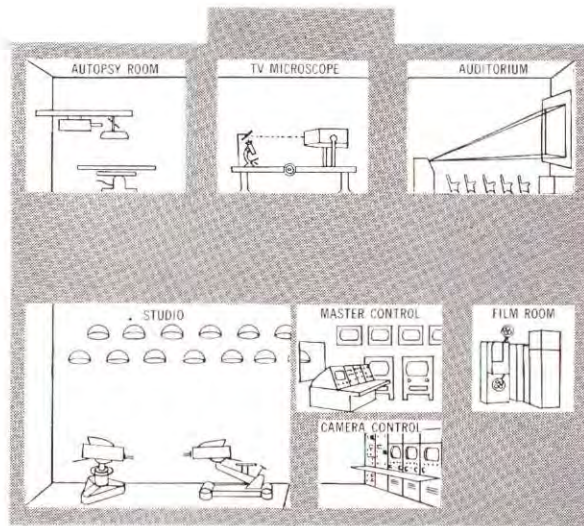
With a built-in TV system the modern hospital is better equipped to take full advantage of all that this electronic age offers for the well being and physical care of man.



• COLOR TELEVISION

These systems can be integrated into monochrome systems. Where color is needed, it can be used. When black and white is desired, it can be employed. Both use the same receiving and the same transmission systems.

RCA Color Television at Typical Medical Center



ARMED FORCES INSTITUTE OF PATHOLOGY

For Training and Education

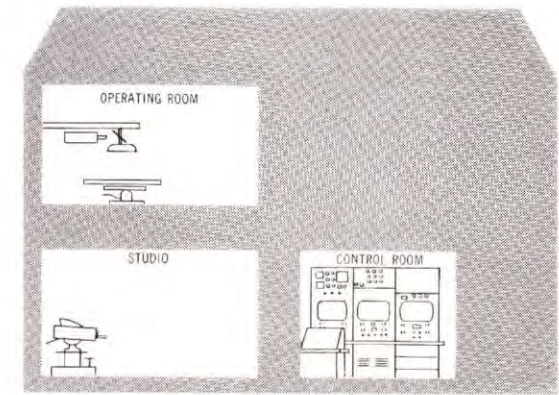
An installation of closed-circuit television for hospital use has been made by RCA to serve the medical activity in the Walter Reed Army Medical Center, Washington, D.C. RCA compatible color TV equipment is used to provide three systems which are interconnected as shown on the accompanying diagram. These are three independent but interconnected color TV systems feeding sixty 21-inch color TV receivers and two large-screen projectors at various locations.

For Research, Dentistry, Surgery

One TV system is installed in the Armed Forces Institute of Pathology. Here is located a large general production studio, in which teaching demonstrations are staged. Also located here are three remote sources: 1) Autopsy, 2) TV Microscopy, 3) Color film room.

A second TV system is installed in the Walter Reed Army Hospital. There is a studio for clinical demonstrations. A medical color camera is installed in the general operating suite for surgical demonstrations.

A third TV system is installed in the Walter Reed Army Institute of Research. A studio provides for presentation of research laboratory procedures and also for dental demonstrations. In addition there is provision for remote pickup in the small animal surgery suite.



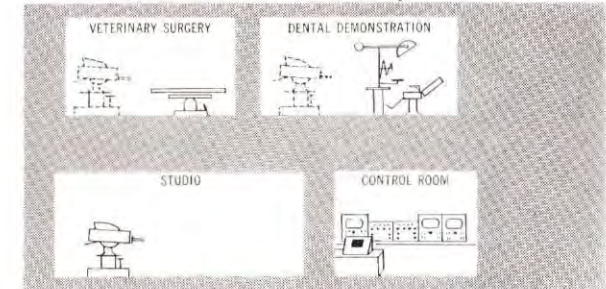
WALTER REED ARMY HOSPITAL

System Flexibility

Each TV system can be used solely in its own building or can be used in conjunction with the others to feed a continuous program from the three buildings to a central auditorium. The programs from all three systems feed into a coaxial network that connects to all viewing locations. Hence, each viewer has a choice of three channels.

Special Medical TV Equipment

RCA live-color medical TV cameras are employed in the O. R. These mount in special ceiling-light fixtures so they do not interfere in any way. As the light is moved, the camera follows the movement so that it is always focused upon the scene of the operation.



WALTER REED ARMY INSTITUTE OF RESEARCH

FREE LITERATURE

For more information on medical applications write for a copy of reprints "Color Television at Walter Reed Army Medical Center" and "How Color TV Illuminates Surgical and Clinical Demonstrations" (see p. 27).

• LARGE SCREEN PICTURES

RCA projection equipment for TV makes it possible to project pictures in auditorium size in either color or monochrome. Close-ups of speakers, operating areas, and charts are clearly portrayed. Magnification of specimens and unrestricted viewings are made possible.

• INTER-CITY PANELS

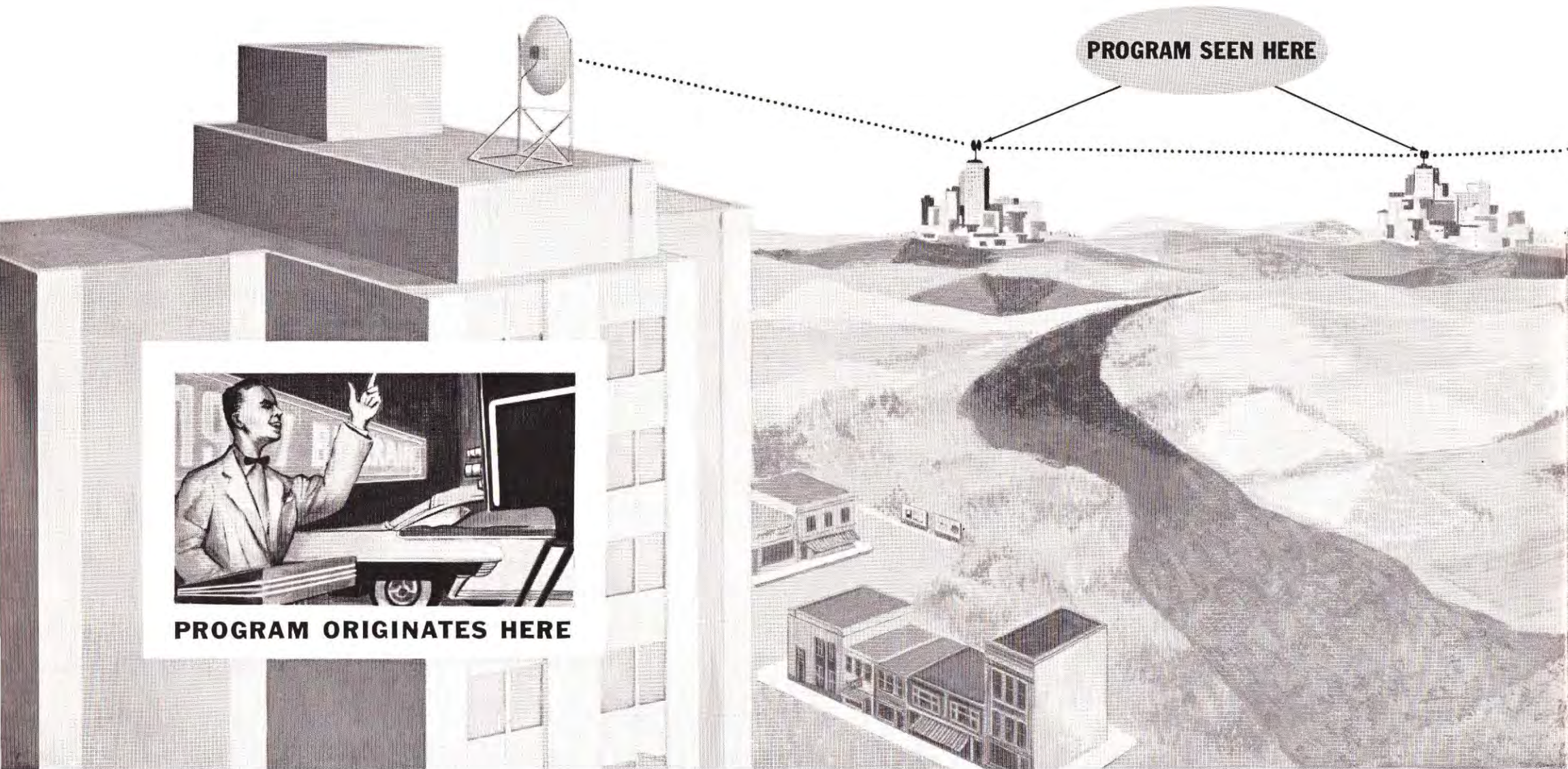
These RCA systems can be fed over regular telephone company inter-city systems for conferences, discussion programs, and demonstrations at great distances.

• POST GRADUATE TRAINING

Since this equipment is of broadcast quality, programs developed through its use can be put on the air to reach practicing physicians. Several universities are pioneering in this field of post graduate training.

• MORE EFFECTIVE TEACHING

TV does not restrict the viewing area. It gives large-screen magnification. It provides close-ups and it gives full color realism. It gives each student a front-row seat, creating an almost ideal student-teacher relationship.



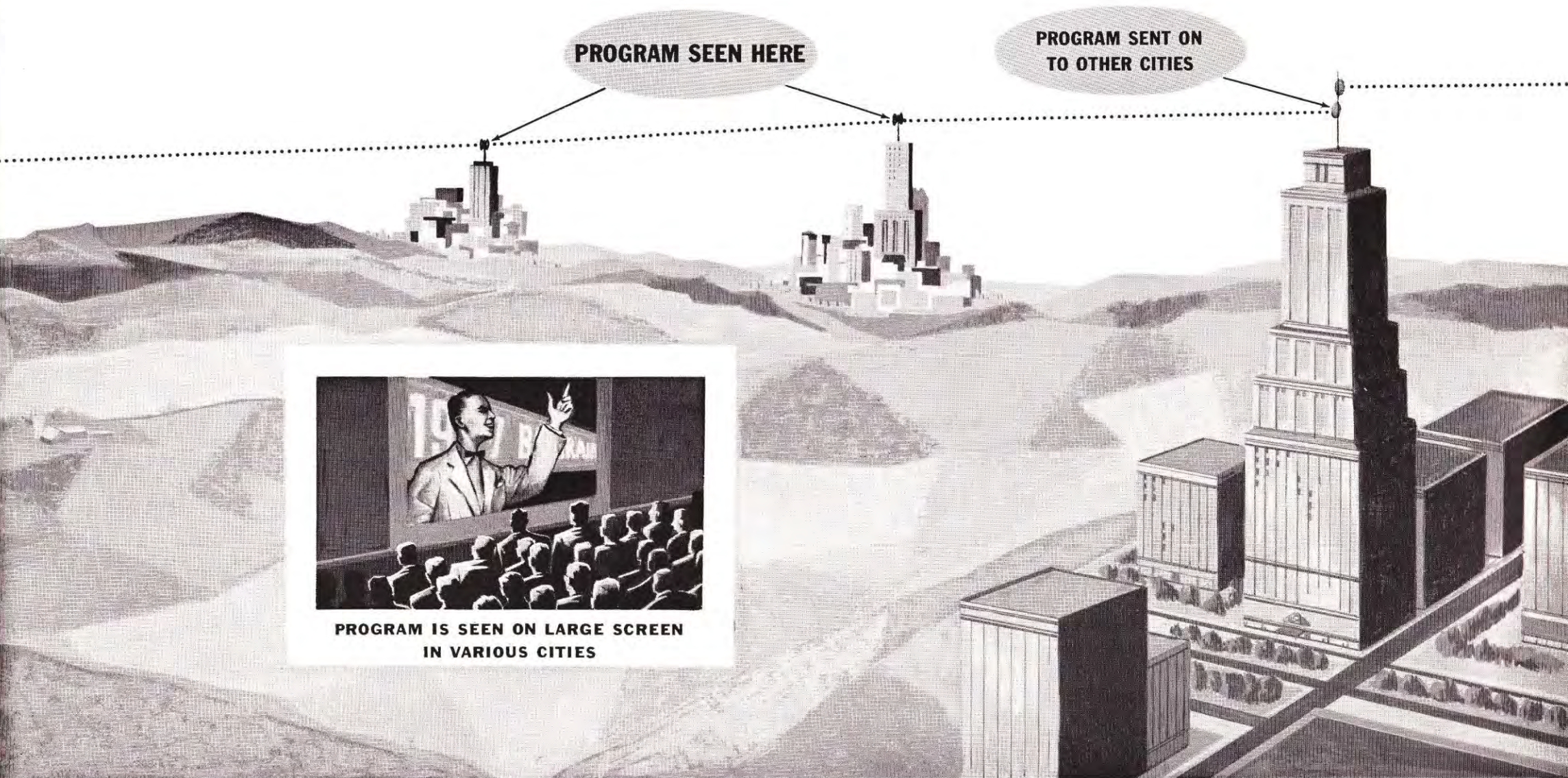
PROGRAM ORIGINATES HERE

PROGRAM SEEN HERE

**HOW HIGH-FIDELITY TELEVISION WORKS
IN A CLOSED-CIRCUIT APPLICATION**

**TV Travels Intercity via
Cable or Microwave System**

Connecting the main cities of the U.S.A. and Canada is a vast system which is used by the TV networks to bring their programs to local stations. This same system can be used for private, closed-circuit applications so that demonstrations, lectures and meetings can be held in many cities at the same time. And one of the most important advantages is that these presentations remain entirely confidential.



PROGRAM SEEN HERE

PROGRAM SENT ON TO OTHER CITIES



PROGRAM IS SEEN ON LARGE SCREEN IN VARIOUS CITIES

- **TELEVISION TO MANY LOCATIONS**

- **IN THE SAME BUILDING**

- RCA distribution systems make it possible to transmit pictures and sound from the studio or other source to many different rooms or auditoriums in a building.

- **TELEVISION BETWEEN BUILDINGS**

- **IN SAME LOCAL AREA**

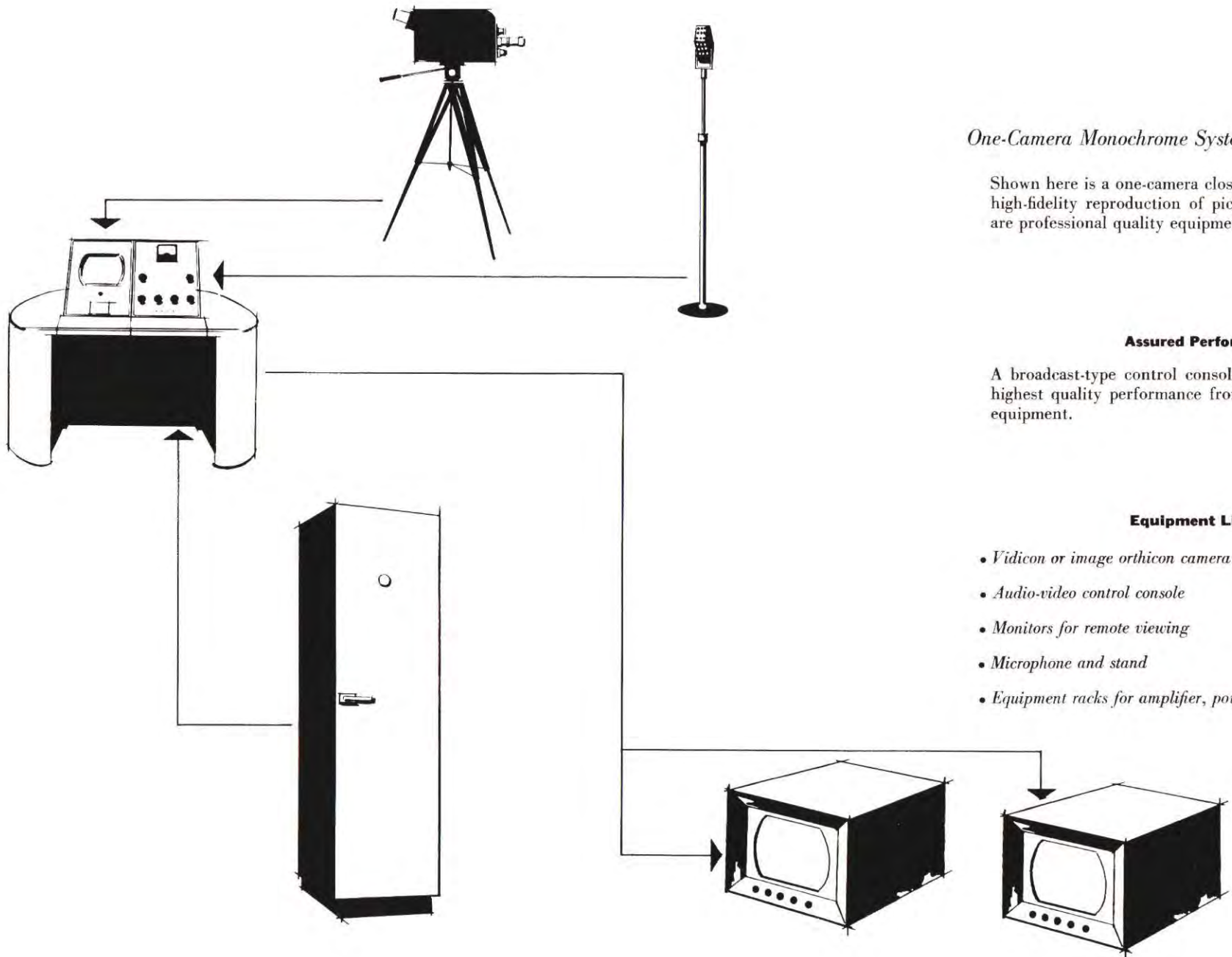
- Cable can be used to interconnect various buildings so that all can be tied into one complete system.

- **TELEVISION BETWEEN CITIES AND TOWNS**

- For an inter-city system RCA Microwave equipment can serve to connect distant points. Cities and towns that are many miles apart can thereby be linked together. The same presentation can then be received in each city.

- **HOW MICROWAVE WORKS**

- Microwave is the use of a radio beam instead of a cable to carry the pictures and sound. The radio beam carries the picture and sound from one relay station to the next. This is the same dependable method employed by commercial TV stations and networks to carry their programs.



One-Camera Monochrome System

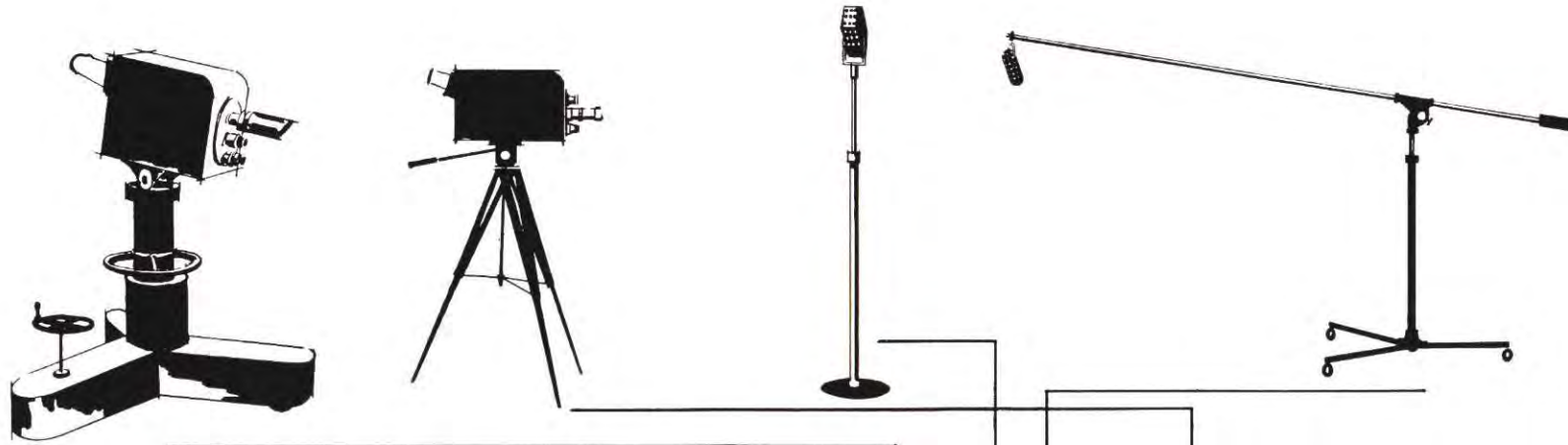
Shown here is a one-camera closed-circuit TV system for high-fidelity reproduction of pictures and sound. These are professional quality equipments.

Assured Performance

A broadcast-type control console is employed to assure highest quality performance from both audio and video equipment.

Equipment Listing

- *Vidicon or image orthicon camera*
- *Audio-video control console*
- *Monitors for remote viewing*
- *Microphone and stand*
- *Equipment racks for amplifier, power and control units.*



Two-Camera Monochrome System

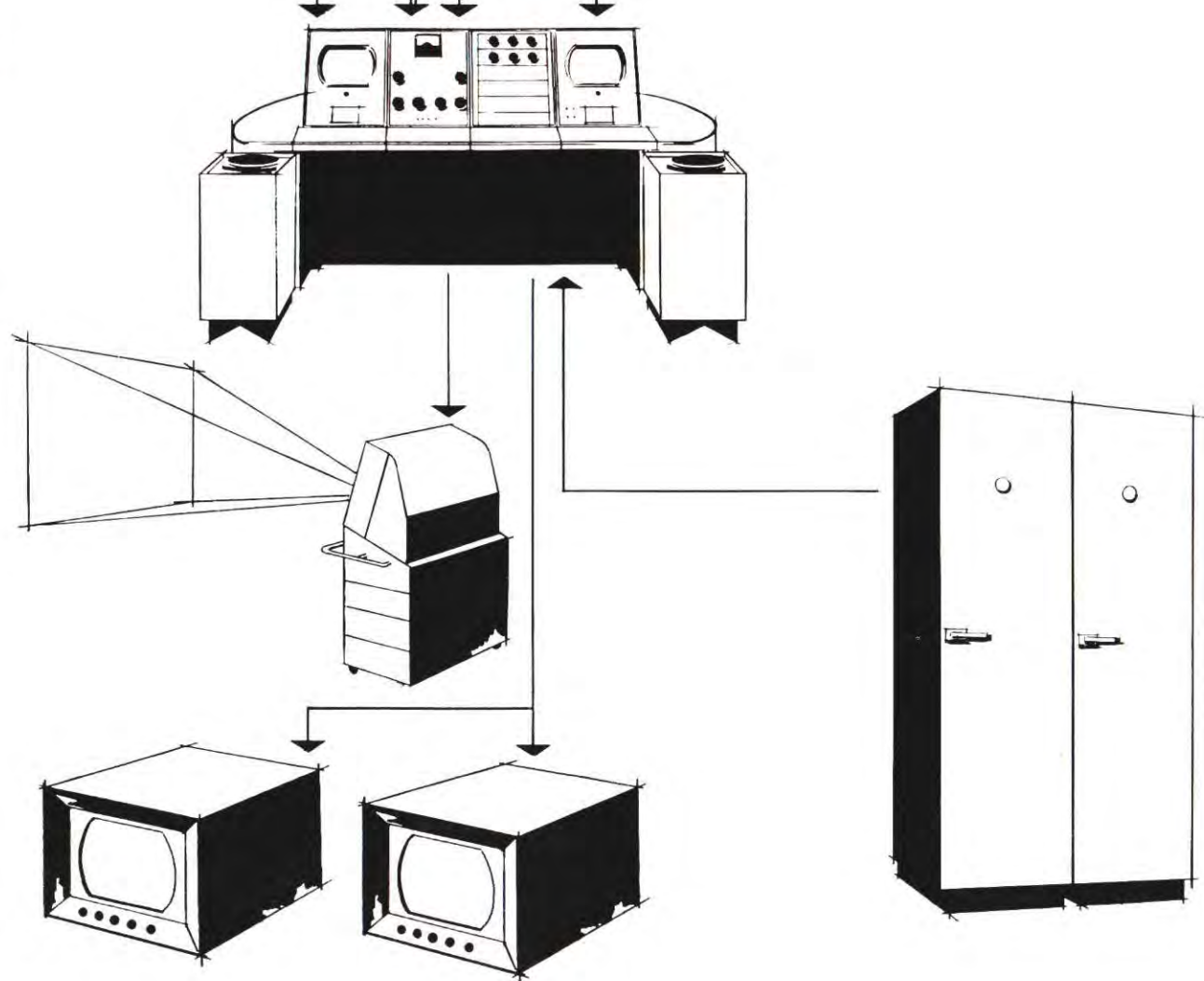
This is a two-camera system with both floor-stand and boom microphones to satisfy requirements for more versatility and more expert programming.

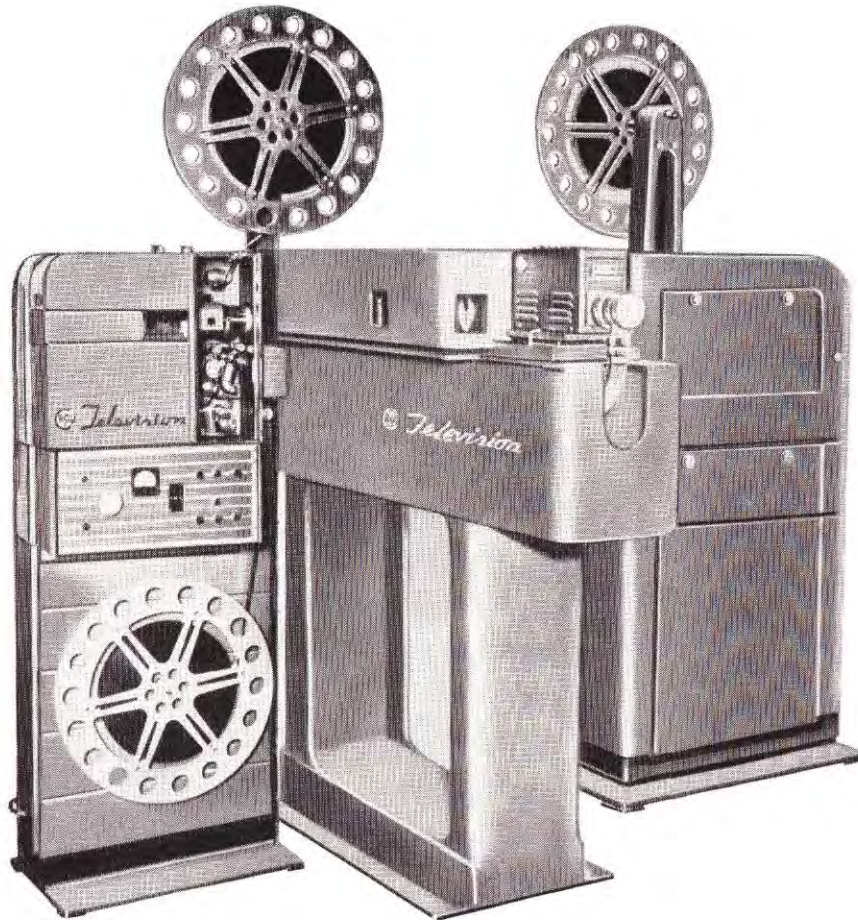
Professional Programming

Professional switching equipment in the control console permits operator to insert those special effects that make for smoother presentations and heighten program interest.

Equipment Listing

- *Two cameras (image orthicon or vidicon)*
- *Audio-video console with professional switching equipment*
- *Turntable for playing records*
- *Monitors for remote viewing*
- *Large-screen projector system*
- *Microphones and stands*
- *Equipment racks for amplifiers, power and control units*





Film Projection Equipment

An RCA Film Projection System can be used as a source for added material, visual aids, and program reinforcements. That shown here employs two 16mm motion picture projectors, a 35mm slide projector, a multiplexer, and a vidicon film camera. The entire operation of this system can be controlled from a remote switching position.

35mm Motion Pictures

RCA manufactures a professional TV projector for standard 35mm films. It is of the same basic design as the type employed in the commercial theatre. It provides the finest quality obtainable in the use of motion picture film.

16mm Motion Pictures

Shown here are two 16mm film projectors which are the type most frequently employed by TV stations and closed-circuit users. RCA manufactures two types, designed for specific requirements of users. Both are specifically designed for TV film projection.

35mm Slide Projector

This unit accepts the standard 2 x 2-inch slide (35mm transparency). It reproduces a high quality picture on the TV screen. Dual magazines and a remote switching mechanism make possible smooth operation in sequence from one slide to the next.

MORE INFORMATION: For more complete information on film systems write for brochure, "Planning TV Film Systems" (see p. 27).

Mobile Pickup Unit

This is the unit employed by TV stations, and closed-circuit users, for pickups from remote locations. TV cameras and control equipment are located in the truck. The microwave antenna shown on the roof is used to beam the sound and picture signals to the desired point.

For Remote Pickups

When it is desired to televise a scene far from the location of the basic system, then the mobile unit is utilized. It can travel far afield—several miles to several hundred—in order to transmit pictures and sound back to a desired place. These programs can be integrated with those from a live studio and film systems.

Brings the "Field" into the "Plant"

At an intercity meeting the mobile unit can be interconnected to bring scenes from distant locations into the meeting rooms. The main program can have some segments from the originating auditorium or studio, and others from the mobile unit which is on location in the field. These various segments can be smoothly programmed into one continuous presentation.





Kinephoto Equipment

This equipment makes film directly off the face of the TV viewing tube. Both pictures and sound are recorded. After the films are processed, they can be used in standard motion picture film projectors.

Make Own Films

By this means training programs and presentations of all sorts can be made into film at the same time they are televised. They can then be reused at any time. Thus, once the program is presented, it can be employed again and again exactly as first presented.

Reuse Program Material

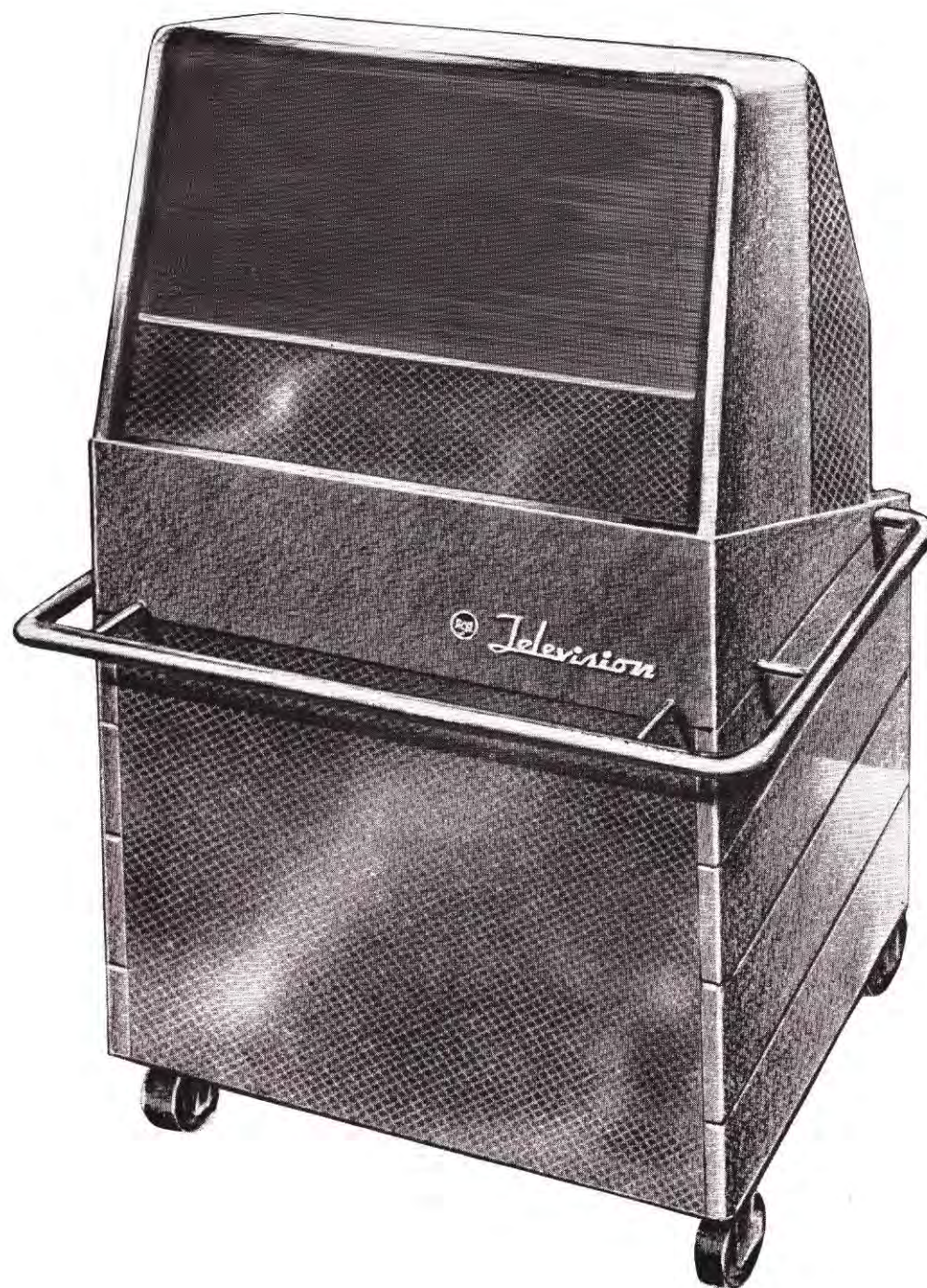
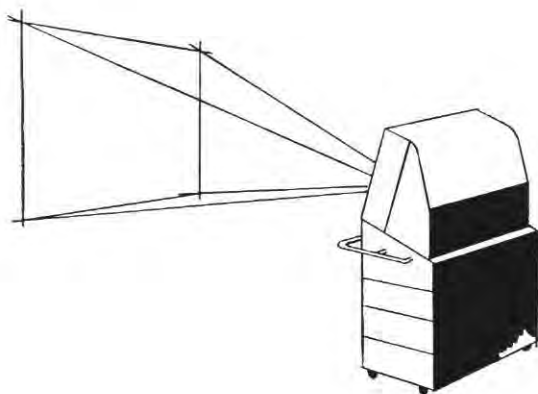
Important meetings, demonstrations and lectures can be preserved for future use by this means. Copies can be made of these films. They can be distributed or sold as desired.

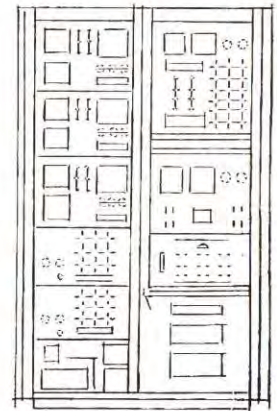
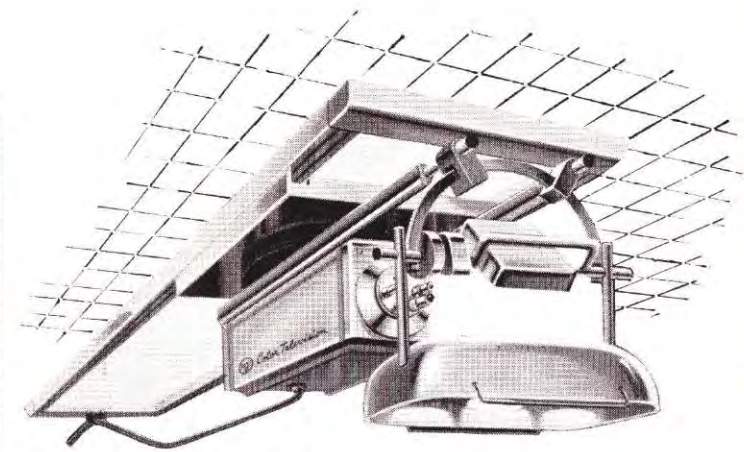
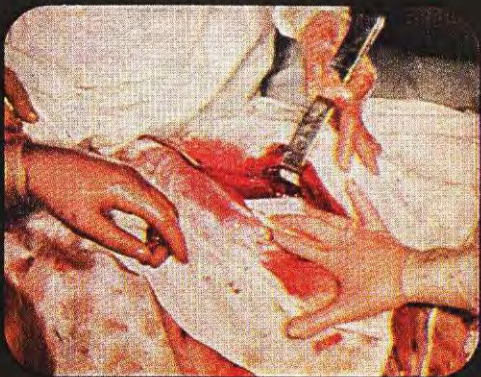
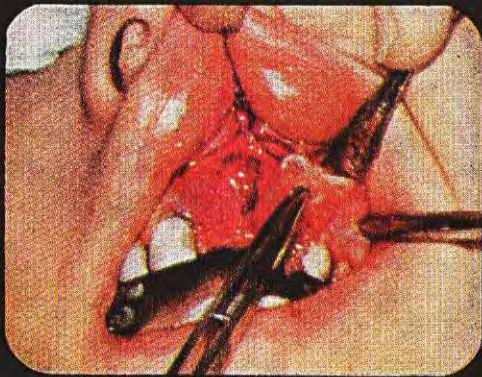
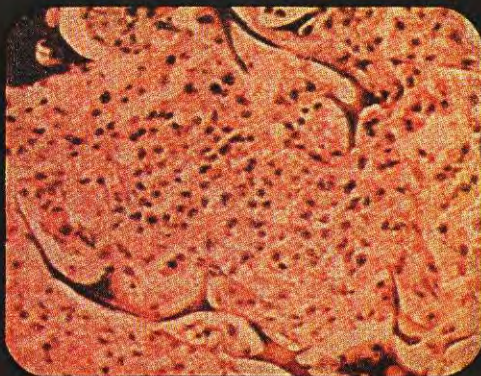
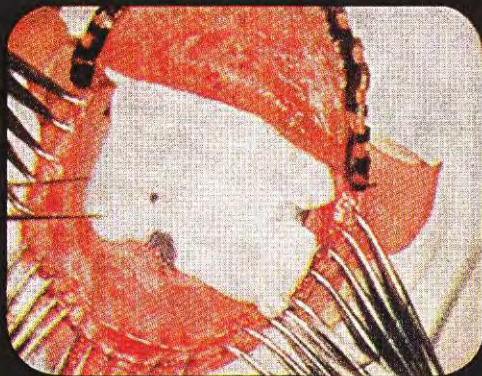
TV Picture Projector

For auditoriums and for large classrooms the RCA TV picture projector is the ideal answer. Both closed-circuit and off-air pictures can be reproduced. The units are mounted on casters to provide free movement from one area to another.

Large Screen

The monochrome TV projector produces a picture up to 6 by 8 feet in size. This furnishes viewing facilities for audiences up to 500 people. Reproduced pictures are sharp and clear.





COURTESY, PFIZER LABORATORIES

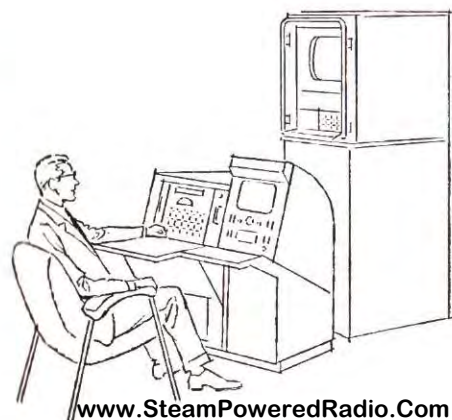
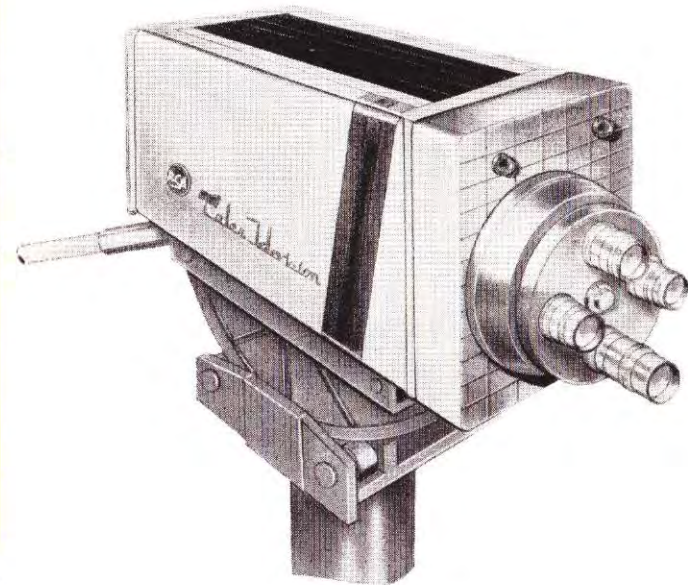
For Teaching Surgery

Compatible Color

RCA offers a compatible color TV system. This is broadcast quality equipment. It can be integrated into a monochrome system. It can use inter-city network lines. There is a large variety of equipments to choose from.

Unrestricted Viewing

The RCA Medical Color Camera can be mounted in a special surgical lighting fixture. This permits unhampered freedom for the surgeon. At the same time it affords an unexcelled TV view of the operating field.



For Industrial Monitoring

Control via Color

Used where it is essential to detect exact shades of color in order to accurately determine results, RCA compatible color system produces a black and white picture on monochrome receivers, full color picture on color receivers. Either 21-inch monitors or a large screen projection system may be used for viewing the full color picture.

Remote Supervisory Observation

Makes it possible to observe and control processes and tests from a central position. Used in places unsafe for personnel. Used for close-up viewing where observers cannot normally approach. Can be used to control several separated functions from a central control room.

Color TV Picture Projector**Large Screen**

For auditoriums and large rooms this RCA TV projector provides a 4½-by-6-foot picture in full color. This will be suitable for an audience of 250 persons. Pictures are sharp and clear, with good color reproduction.

Closed-Circuit and Off-Air Pictures

The color TV projector is portable, mounted on casters, and can be easily moved from room to room. Both closed-circuit and off-air TV pictures can be reproduced. This projector requires less space than the numerous receivers that would otherwise be required for a large audience.

Live Color Camera

For more than three years the RCA live color camera has been operating in TV stations for on-air broadcast in studios and for compatible closed-circuit operation. A large variety of essential and accessory equipment items are available for use with this camera in order to form complete systems. Thus systems can easily be put together to suit individual requirements.





FREE LITERATURE

FOR MORE INFORMATION: Write for copy of 8 page booklet "A Mobile Unit for Color TV Applications" (see p. 27).

Color Mobile Unit

Remote Color Pickup

This color truck contains cameras, power supplies, and control equipment for complete color TV picture and sound pickup and transmission. A microwave system can be added to link the truck with its base of operation. By this means the picture and sound are carried back to the base for integration into the TV system.

Typical Closed-Circuit Application

Smith, Kline and French has procured one of these RCA color mobile units with three cameras for demonstration of latest surgical and clinical techniques at medical conventions. Programs are picked up at nearby hospitals, then color pictures and sound are transmitted to convention meeting rooms for viewing by doctors.

Color Film System

For Motion Pictures, Slides, Artwork

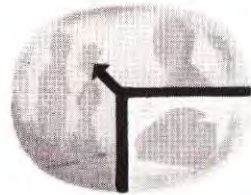
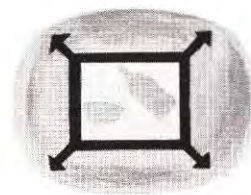
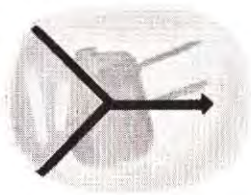
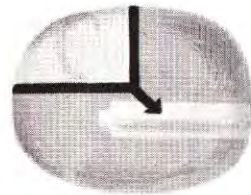
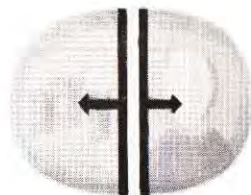
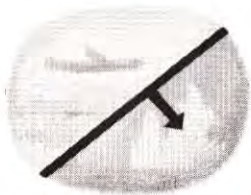
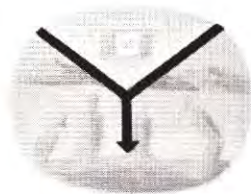
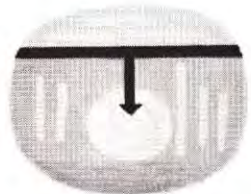
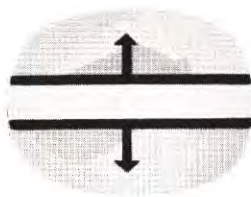
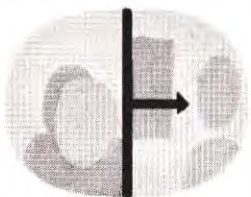
This RCA 3-Vidicon color film system employs two motion picture projectors and a slide projector which are multiplexed into a color film camera. An opaque projector can also be added. An additional film camera may be added if preview facilities are desired.

Reproduces Color and Monochrome Films

This system produces excellent results with both color and monochrome film and slides. The vidicon film camera is noted for fidelity of reproduction. Furthermore, these superior results are consistently obtained.

FOR MORE INFORMATION: Write for brochure, "Planning TV Film Systems" (see p. 27).





**SPECIAL EFFECTS AVAILABLE
WITH RCA HIGH FIDELITY TV**

Greater Dependability

RCA research and engineering have set the standards for the television industry from its very beginning. The resultant designs represent the finest equipments and the latest developments available. RCA High-Fidelity Television is professional equipment, manufactured to capital goods standards. It provides stability of operation, with consistently good results.

Better Resolution

RCA High-Fidelity Television equipment offers the same high resolving power as that of the best commercial television stations. The "seeing power" of both live and film cameras is of the same high order. This means that pictures will be the finest that now can be obtained. This applies to reproduction of live subject matter, motion picture films, slides and artwork.

Can Be Fed to TV Stations

Occasionally it is desirable to use the facilities of a commercial TV station or a network to assist in putting on a large-scale convention or demonstration. This can readily be done with RCA High Fidelity Closed-Circuit equipment. In some cases it is desired to put a presentation on air for wider distribution than a closed-circuit hookup would afford. RCA equipment produces picture signals which may be used for on-air programs.*

**RCA equipment meets all requirements of the Federal Communications Commission (FCC), the National Television Standards Committee (NTSC), and the Radio-Electronic-Television Manufacturers Association (RETMA), for monochrome and color.*

Remote Pickup

RCA has mobile units for picking up programs and live subject matter at distant locations. These consist of medium size van-type trucks complete with television cameras and microphones, switching and operating equipment. Pictures are transmitted from the mobile unit by common carrier service. By this means it is possible to bring pictures and sound from the field to the office, to make presentations from places not provided with television facilities.

Wide Choice of Equipment and Accessories

RCA offers the widest choice of equipments available anywhere . . . Monochrome and compatible color cameras, both vidicon and image orthicon types . . . Receivers, monitors, and large-screen projectors, switching and distribution systems . . . Microphones, turntables, audio amplifiers and control consoles . . . Film systems, kine-photo recording, mobile units and microwave systems . . . (Special controls and accessories for many different industrial and medical applications can also be provided.)

Broadcast Quality

This equipment is the type employed by commercial stations, government and institutional users for consistently high quality results. It is designed to broadcast standards (or higher) and works on standard sync. It can be used for feeding to stations, for transmissions from city to city, or for color work. Applications that require high fidelity reproduction require broadcast quality equipment.

Professional Effects

This makes it possible to do switching without a black screen appearing between scenes. It offers fades, wipes, dissolves, and the split-screen device. These effects add smoothness to presentations, making them much easier to be understood.

Distribution Systems

This sends pictures and sound to various locations in a building or group of buildings. Thus at any location it is possible to choose the desired picture by merely pushing a button. Live, film, and on-air pictures can be distributed by this system. Each receiving location has the full choice of all picture sources.

Compatible Color

RCA High-Fidelity Television is available for both monochrome and color applications. The color signal is fully compatible; that is, it produces a color picture on a color receiver, and a monochrome picture on a monochrome receiver. The full range of color is reproduced with fidelity.

NOTE THESE IMPORTANT SPECIFICATIONS FOR RCA HIGH-FIDELITY TV CAMERAS

■ **Factors Affecting Gray Scale Reproduction**

- LINEAR FEEDBACK AMPLIFIERS THROUGHOUT
- LINEAR CLIPPERS
- GAMMA CORRECTION
- STABILIZED BLACK LEVEL

■ **Factors Affecting Picture Signal-to-Noise Ratio**

- HIGH GAIN TUBE IN CAMERA PREAMP.
- APPROXIMATELY 40DB SIG/RANDOM NOISE
- INTERFERENCE FILTERING
- HUM FILTERING
- HIGH PEAKER IN CAMERA

■ **Factors Affecting Geometric Distortion**


- RIGID TOLERANCE ON DEFLECTION ASSEMBLY
- LINEAR DEFLECTION GENERATORS
- FEEDBACK DEFLECTION AMPLIFIERS
- 1-2% RASTER LINEARITY (RETMA)
- HUM FILTERING

■ **Factors Affecting Stability and Reliability**

- FEEDBACK AMPLIFIERS THROUGHOUT
- FEEDBACK CLAMP
- SERIES REGULATED POWER SUPPLY
- REGULATED FOCUS CURRENT
- GAMMA CORRECTION
- RUGGED, PROFESSIONAL CONSTRUCTION

■ **Operating and Maintenance Features**

- 7-INCH VIEWFINDER
- OPTIONAL LOCAL OR REMOTE CAMERA CONTROL
- FOUR LENS TURRET
- LENS CHANGE FROM REAR
- EXCELLENT ACCESSIBILITY FOR MAINTENANCE
- THREE OUTPUTS
- SENDING END TERMINATION ON OUTPUTS
- HIGH ISOLATION BETWEEN OUTPUTS
- SAME LEVEL ON OUTPUT AND MONITOR LINES
- STANDARD CABLE FITTINGS
- EXCELLENT MECHANICAL CONSTRUCTION
- STANDARD TV CAMERA MOUNTING
- CALIBRATION SIGNAL FOR BEAM ADJUSTMENT
- VIDICON PROTECTION CIRCUIT
- TAPERED LINKAGE ON OPTICAL FOCUS
- PROVISION FOR SYNC INSERTION
- SPLIT ANODE ELECTRICAL FOCUSING
- INTERCOM FACILITIES



**HOW RCA
CAN ASSIST YOU**

Applications and Systems Planning

RCA representatives are competent to advise you regarding the feasibility of employing television for specific uses. They will assist you in the choice of equipments that will best serve your needs. They will help to lay out a complete system to serve your specific requirements.

Training Courses

Over the years RCA has conducted Television Seminars for the purpose of acquainting prospective users with operating capabilities of the equipments. The construction and function of major pieces of television apparatus are explained. Installation, operation and maintenance procedures are covered.

Layout and Wiring Plans

RCA engineers will supply complete information for proper installation of a television system. Information will be supplied so that building plans may be drawn to include cable ducts, power lines and lighting for audio and video equipment.

**Technical Help and Information
for Efficient Operation**

RCA will supply instruction books and operating manuals to guide the user in obtaining high grade performance. Assistance will be given to train personnel in operating and maintenance procedures; also, to arrange type of operation desired.

**Supply Complete Package with
Installation and Maintenance**

Through the facilities of the RCA Service Company the user of a television system can arrange for complete installation and for routine servicing. A staff of engineers is stationed at offices conveniently located throughout the nation. These offer field engineering service and assistance in case of emergency.

**One Complete Contract with
Undivided Responsibility**

RCA supplies a full line of equipment designed to fill the widest range of user requirements. RCA also helps the prospective user work out a suitable system to meet his needs. Assistance is given in installation, operation and maintenance.

Fill out card for

- FURTHER INFORMATION
- FREE LITERATURE
- ASSISTANCE IN SELECTING EQUIPMENT



BUSINESS REPLY CARD
First Class Permit No. 166, Sec. 34.9, P. L. & R., Camden, N. J.

**RADIO CORPORATION OF AMERICA
BROADCAST AND TELEVISION EQUIPMENT**

**DEPARTMENT BC-856
CAMDEN 2, NEW JERSEY**

Attention: P. A. GREENMEYER

Building 15-1



**RCA representatives are located
at the following regional offices**

HOLLYWOOD 28, CALIF., 1560 North Vine Street,
Hollywood 9-2154

SAN FRANCISCO 2, CALIF., 420 Taylor Street,
Ordway 3-8027 Third Floor

WASHINGTON 6, D. C., 1625 K Street, N. W.,
District 7-1260

ATLANTA 3, GA., 522 Forsyth Bldg.,
Jackson 4-7703

CHICAGO 54, ILL., 1186 Merchandise Mart Plaza,
Delaware 7-0700

BOSTON 16, MASS., 200 Berkeley Street,
Hubbard 2-1700

KANSAS CITY 6, MO., 1006 Grand Avenue,
Harrison 1-6480

CAMDEN 2, N. J., Front and Cooper Streets,
Woodlawn 3-8000

NEW YORK 20, N. Y., 36 West 49th Street,
Judson 6-3800

CLEVELAND 15, OHIO, 1600 Keith Bldg.,
Cherry 1-3450

DALLAS 1, TEXAS, 1907-11 McKinney Avenue,
Riverside 1371

SEATTLE 4, WASH., 2250 First Avenue, South,
Main 8350



RADIO CORPORATION OF AMERICA

Broadcast & Television Equipment Department

Camden 2, New Jersey