



Recipient of the first scholarship to be granted under the scholarship program established by the Education Committee of the Society (*Journal*, p. 1032, Nov. 1965) is Jan Leith Meades, a 20-year-old girl with an amazing record of scholastic achievement in such widely diverse fields as science, creative writing and the theater. At an age when most children are in nursery school she began the study of dancing, music, art and ice skating. Undeniably talented, a career in show business seemed a certainty for the future. However, in high

school she studied science and mathematics "with great fervor," she said. When it was time for her to enter college her final choice of a career was made in rather an unusual way. "A graphologist," she explained, "examined my writing and predicted that my field should be photography." With that encouragement it occurred to her that photography would give her an outlet for all of her abilities and interests including science, art, interpretation and writing. She entered Rochester Institute of Technology and decided to concentrate on the scientific aspects of photography. So far she is the only female in her photo science classes and she has the top grades.



Saul Joffe (left), President of Moviab, Inc., presents President Ethan M. Stifle with a Moviab, Inc., check, launching the SMPTE Scholarship Award Program. The program is presently geared to courses in the photographic and television sciences

but will eventually be extended to other education areas within the motion-picture and television disciplines. Rochester Institute of Technology has been selected by the Society as the initial institution to administer the scholarships. Moviab has pledged \$25,000 to the scholarship program.

The Rochester Chapter of the Society of Photographic Scientists and Engineers (SPSE) took part in National Engineers Week (Feb. 20-26) by sponsoring an exhibit in The Mall at Rochester's Midtown Plaza. The exhibit told of the opportunities of careers in photographic science and engineering and of some of the applications and advancements pioneered by SPSE members. The exhibit was one of 17, each sponsored by a Rochester chapter of a national engineering society. Special tours were arranged for high school students and others.

The Rochester Chapter of the Society of Photographic Scientists and Engineers (SPSE) recently authorized through its Council presentation of a gift of \$500 to the national body for the purchase of needed office equipment for the new headquarters office at 1330 Massachusetts Ave., Washington, D.C. 20005. The Rochester Chapter is the largest of SPSE's eleven chapters. In presenting the gift, Rochester Chapter President, John C. Barnes, in a letter to SPSE President R. E. Birr, said that the gift was in recognition of the fundamental role played by the national organization in the existence of every chapter.

## NEW • HIGH QUALITY • SYNC SOUND EQUIPMENT

### RYDER Strobelight Resolver



The Ryder Strobelight Resolver System is the simplest, least expensive and surest method of synchronizing 1/4 inch tape with sprocketed film. The Strobelight Resolver can be used to synchronize with both synchronously and non-synchronously driven recorders and projectors. **\$165.00**

### NAGRA Sync Sound Recorder



Accepted the world over as the most reliable high-quality synchronous 1/4 inch tape recorder. The Nagra is fully transistorized with self-contained battery power. It is light in weight, briefcase in size, rugged in construction and convenient in operation. Price effective January, 1966. **\$1186.00**

### RYDER Resolver Amplifier



Designed for synchronizing 1/4 inch tape to Westrex, R.C.A., Magnasync, Omega, and Stancil-Hoffman sprocket recorders. These resolvers and the Strobelight Resolvers will follow greater changes in camera speed than most other resolvers. Amplifiers are equipped with 100 db pre-amplifiers, output voltmeters and relays for continuous operation of the sprocket recorders. 250W ALTEC.....\$462.00 100W BOGEN.....\$312.00

## RYDER SYNC GENERATORS

Sync generators supply the synchronizing signal from the camera to the 1/4 inch tape synchronous recorder. Ryder Sync Generators are in worldwide use and known to have the most field-proven hours under all conditions of operation. They can be installed on any camera motor for \$170.00 or installed in the camera for \$190.00.

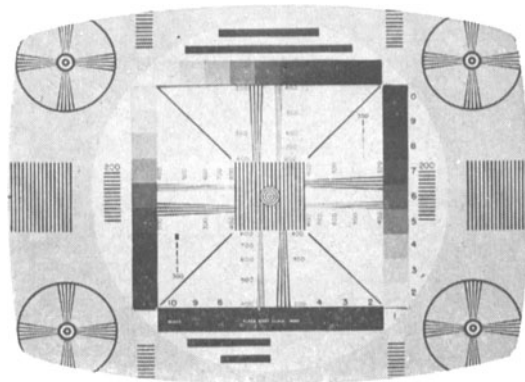
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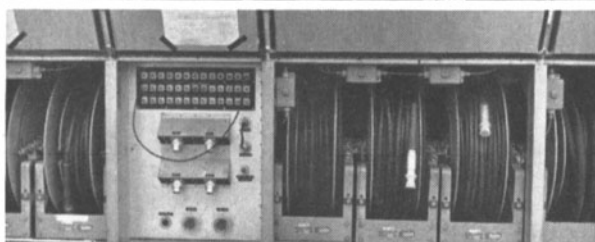
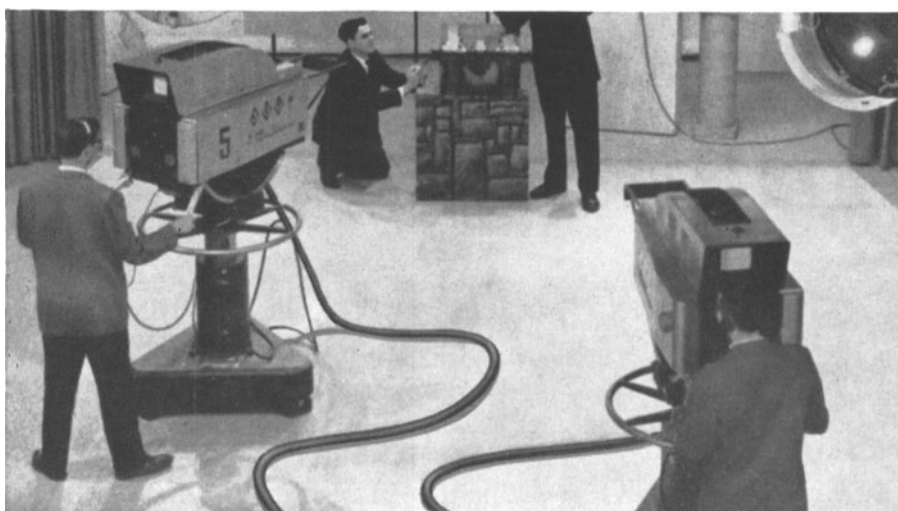
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If you'll write Memorex Corporation at 711 Memorex Park, Santa Clara, California 95052, we will send you video tape specification data and a bibliography of technical information available from the Memorex library of reprints. Also let us know, by letter, if you'd like a free sample reel of Memorex video tape.

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For studio, mobile or remote use, BIW offers rugged, reliable cables for color and black and white cameras. All types are offered in complete factory wired and tested assemblies, cut to any desired length. Or, they can be had in bulk.

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A two-week course in Lens Design will be given by the Physical Science and Engineering Extensions of the University of California Los Angeles beginning June 13. The course will explain the nature of the principal aberrations of lenses and will discuss methods that have been used to design lenses for specific purposes. Design procedures for the simpler types of photographic objectives such as the Petzval Portrait, the telephoto, and the Cooke triplet will also be discussed. An account of automatic lens improvement procedures using very-high-speed computers will be included in the course discussion. Rudolf Kingslake, Director of Optical Design, Eastman Kodak Co., Rochester, N.Y., will instruct the course. Additional information is available from Engineering Extension, Room 6266, Boelter Hall, Univ. of California, Los Angeles, Calif. 90024.

The Council of European Industrial Federations (CEIF) Subcommittee on International Industrial Film Festivals met in Rome during January. Actions of the subcommittee included revision of the categories of entry for International Industrial Film Festivals and approval of new criteria for judging films.

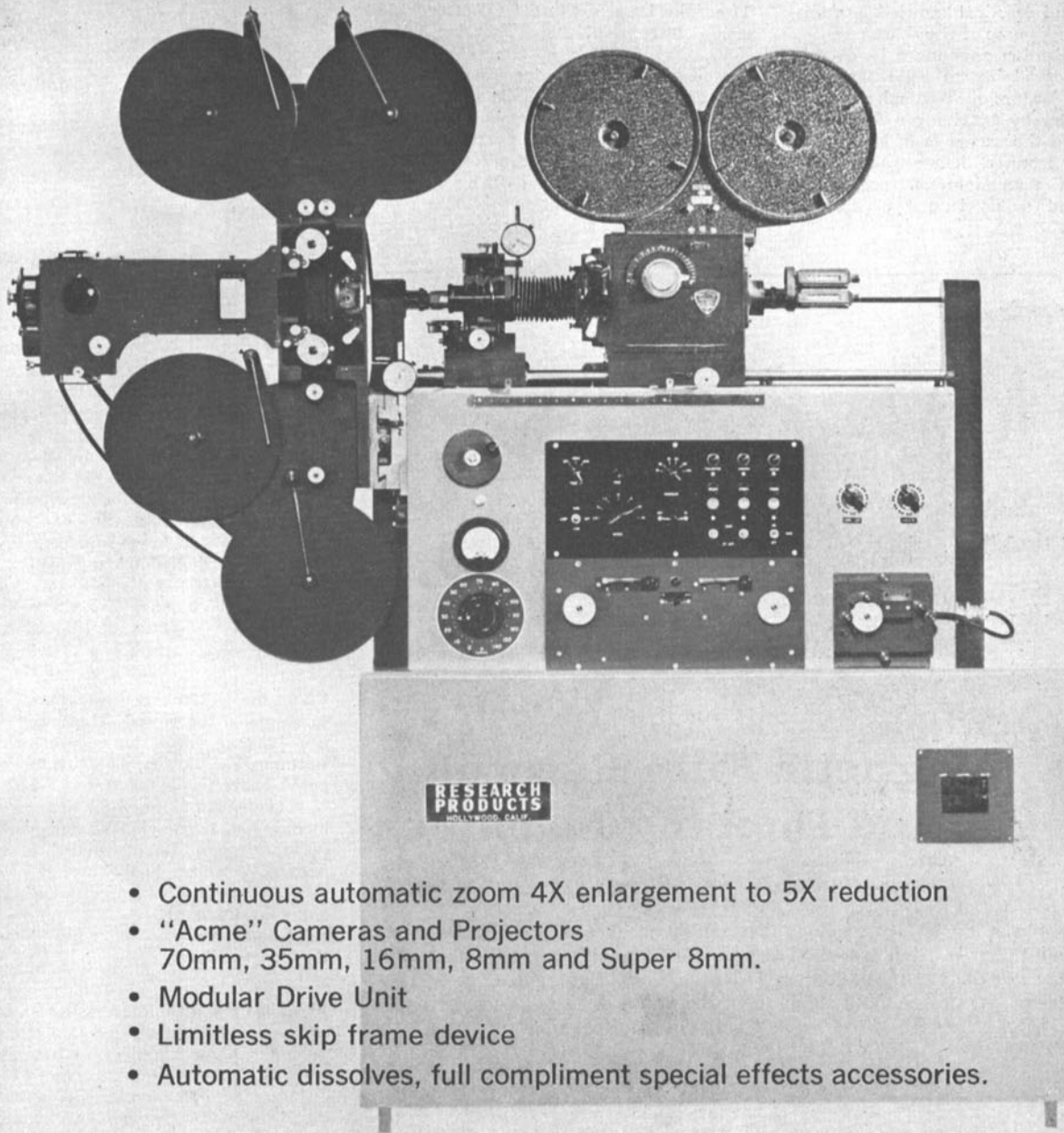
Categories D and F were revised in accordance with a British proposal. (The British member of the CEIF is the Confederation of British Industry, represented at the meeting by J. Michael Shersby, Director of the British Industrial Film Association.) Category D, which formerly admitted films on products, materials, projects, management training, automation, etc., has been restricted and is now defined as "Films about specific industrial products, materials or projects intended primarily for specialist audiences." Category F, which admitted some films on management and manpower training has been extended to include some films that formerly would have been in Category D. Category F is now defined as: "Films on management and manpower training... intended rather for an industrial audience than for the general public."

New criteria for judging the films cover both the content of the film (in terms of achieving its purpose) and its technical quality. A new rule requires that when a film is entered in the Festival that a clear statement be given as to its purpose and the intended audience.

Further information is available from Mr. A. Brodie Davie, Information Officer, British Industrial Film Association, 30, Queen Anne's Gate, London, S.W. 1.

The National Industrial Film Awards Competition, organized by the British Industrial Film Association on behalf of the Confederation of British Industry, will be held May 23-24 in London. Industrial films which have been produced since November 2, 1964, may be entered in the competition. A total of 20 National Awards will be presented. Fifteen of the award-winning films will be selected to form the British film entry to the 7th International Industrial Film Festival to be held during September in Venice. Further information is available from: The Director, British Industrial Film Association, 30, Queen Anne's Gate, London, S.W. 1.

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**The Society of Professional Lighting Directors** (mailing address: Box 888, Station "F," Toronto, Ont., Can.) is a newly formed organization made up of lighting directors in the fields of motion pictures, stage and television. Aim of the new society is to "further the art of lighting by the gathering and dissemination of theoretical and practical knowledge of this ever-expanding phase of visual art."

The organization announced its overall plans to be "helping to raise the professional standards of our particular branch of the industry by providing a forum for discussion and the exchange of knowledge and ideas by lectures, demonstrations and papers from manufacturers, processors, engineers and acknowledged experts in related fields."

Officers of the society are: President, J. H. Milner, President of Camera Lighting Equipment, Ltd.; Vice-President, R. Coyle; Secretary, T. Ashworth; and Treasurer, J. Bryden, all of Canadian Broadcasting Corp.

**The American Institute for Better Television Reception**, 200 Park Ave., New York, N.Y. 10017, is a newly formed organization that includes among its aims that of educating the public to recognize the importance of the installation of adequate antennas to the reception of pictures as good as those being transmitted. According to the announcement, "The need for better television reception becomes more pressing as the sales of color television

receivers increase." Sales of color receivers are expected to reach 3,500,000 during 1966, rise to 4,000,000 in 1967 and to 5,200,000 in 1968.

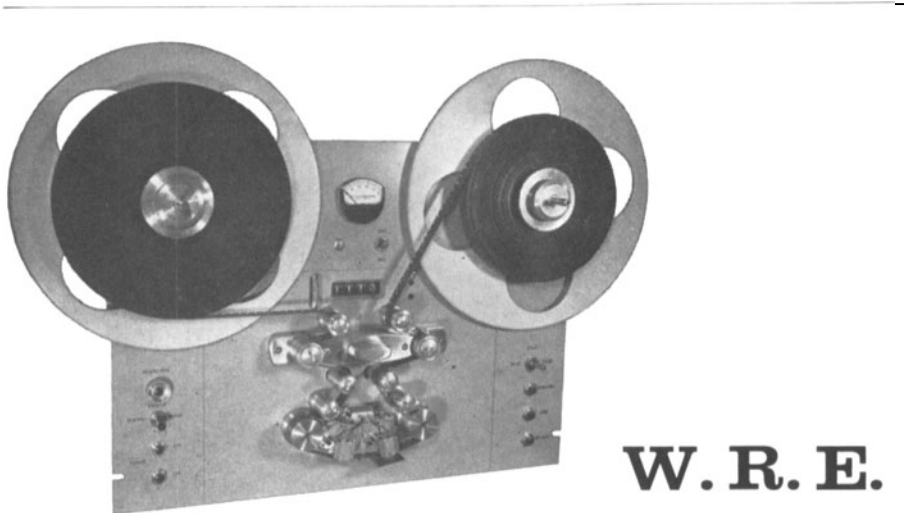
**Members of the Minnesota Film Circuit** held their first workshop February 24 at the Reid H. Ray Studios in Highland Park, St. Paul. The workshop included audio-visual instruction with demonstrations of new equipment, instruction groups on projector maintenance and use, film splicing techniques, use of educational films in a community and a panel discussion on management of films and sources of subjects. Highlighting the program was a presentation by Reid H. Ray on "Audio-visuals of the Future."

**Refocus**, a program to be held at the University of Iowa during the week of April 11, will include talks by well-known photographers and producers and evaluations of student work in motion-picture and creative photography. Among the speakers will be John Szarkowski, Director of the Department of Photography, Museum of Modern Art, New York; and Charles Guggenheim of Guggenheim Productions, St. Louis. Mr. Guggenheim is the winner of an Academy Award for his documentary, *Nine From Little Rock*. Student films and photographs will be shown from the University of California Los Angeles, Stanford University, University of Southern California, New York University, Indiana University, University of Illinois, University of Missouri, and others.

**Plans for a 390-acre educational center** to be called the Kodak Marketing Education Center have been announced by Eastman Kodak Co. The site of the proposed center is in the town of Henrietta, N.Y. Activities planned for the new center include the training of Kodak Marketing personnel and also instruction of various customer groups in the use of products, processes and advanced marketing principles and techniques. Preliminary plans call for the construction of buildings along the Genesee River.

**Plans for a multimillion dollar expansion of production facilities** for "Cronar" polyester photographic film base at Brevard, N.C., have been announced by E. I. du Pont de Nemours & Co. as the first step in a major program to expand polyester photographic film facilities. Construction will start in May with completion expected early in 1968. The plant will incorporate new polyester technology and improved electronic testing and quality control devices. The Brevard plant was opened in June 1964 to make medical x-ray films on a polyester base.

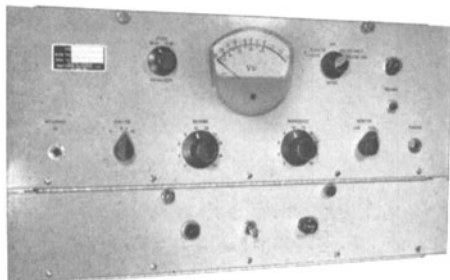
**Traid Corp.**, Glendale, Calif., has been appointed exclusive United States distributor for the RK-120 Video Film Recorder Manufactured by Vue-Tronics, Inc. The recorder is said to be compatible with automatic processing equipment. Features include modular construction, push-button operation, selective line-by-line sync, electronic masking, and automatic control of black and white levels.



## W. R. E. Magnetic Film Recording and Dubbing Machines

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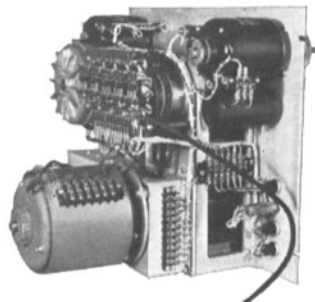
Are your problems low-level recordings that cannot meet with SMPTE level test films? Or is it flutter? High distortion on your soundtracks? Or can't meet with multifrequency test films? If so, contact W.R.E. We will guarantee you against all these problems, in our heavy-duty high-quality recording systems, in a surprisingly moderate price range.



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*Rear view of transport, showing its compact design, with interlock motor mounted direct to casting of mechanism, at lower left*

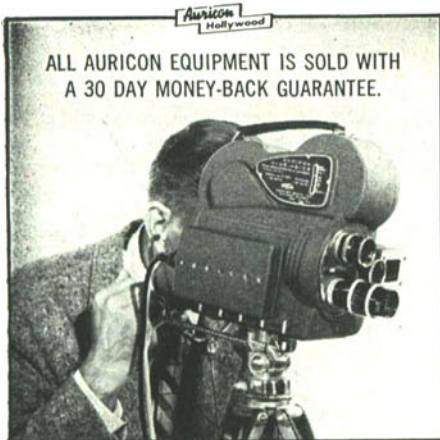
Wide Range Recording Systems to meet every need in the motion-picture field. 16mm/17½mm or 35mm film systems, or a combination of any two, or all three film sizes on one machine.



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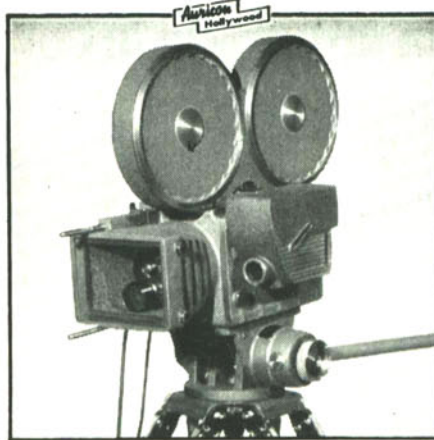
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# AURICON 16mm Sound-On-Film for Professional Results!



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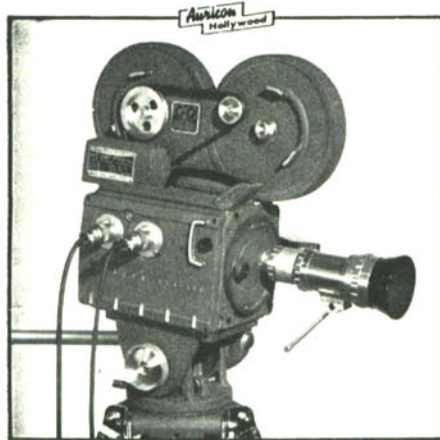
**"CINE-VOICE II" 16mm Optical Sound-On-Film Camera.**  
 ★ 100 ft. film capacity for 2¾ minutes of recording; 6-Volt DC Converter or 115-Volt AC operation. ★ \$967.00 (and up).



**"AURICON PRO-600" 16mm Optical Sound-On-Film Camera.**  
 ★ 600 ft. film capacity for 16½ minutes of recording. ★ \$1871.00 (and up) with 30 day money-back guarantee.



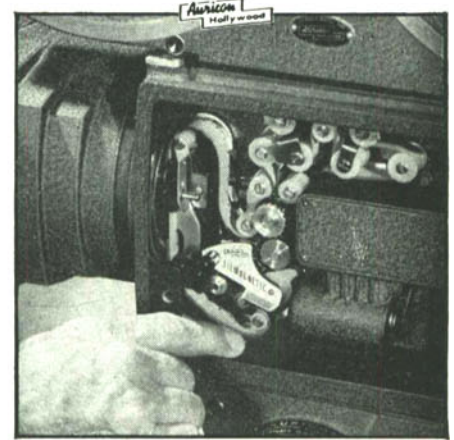
**"SUPER 1200" 16mm Optical Sound-On-Film Camera.**  
 ★ 1200 ft. film capacity for 33 minutes of recording. ★ \$5667.00 (and up) complete for "High-Fidelity" Talking Pictures.



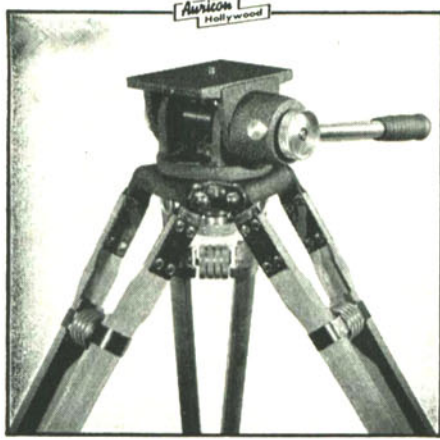
**"PRO-600 SPECIAL" 16mm Light-Weight Camera.**  
 ★ 400 ft. film capacity for 11 minutes of recording. ★ \$1,295.00 (and up).



**PORTABLE POWER SUPPLY UNIT — Model PS-21...** Silent in operation, furnishes 115-Volt AC power to drive "Single System" or "Double System" Auricon Equipment from 12 Volt Storage Battery, for remote "location" filming. ★ \$269.50



**FILMAGNETIC** — Finger points to Magnetic pre-stripe on unexposed film for recording lip-synchronized magnetic sound with your picture. Can be used with all Auricon Cameras. ★ \$960.00 (and up).



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If it's profit you're after in the production of 16 mm Sound-On Film Talking Pictures, Auricon Cameras provide ideal working tools for shooting profitable Television Newsreels, film commercials, inserts, and local candid-camera programming. Now you can get Lip-Synchronized Optical or Magnetic Sound WITH your picture using Auricon 16 mm Sound-On-Film Cameras. Precision designed and built to "take it."

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The unmatched quality of the Bausch & Lomb SUPER BALTAR complements your skills whether in creative cinematography or precision photographic data recording.\* All the advances in the lens-making art, all the improvements in glass technology, have been incorporated in a series of lenses as nearly perfect optically and mechanically as such lenses can be. Coma and spherical aberrations have been reduced to a minimum. The field is flat . . . the contrast high . . . the illumination balanced . . . the correction and definition unsurpassed.

SUPER BALTARS come in 8 focal lengths from 20mm to 9". All cover the 35mm format and the 6" and 9" have 70mm coverage as well. For complete theoretical information, prices and other data, write for Catalog 51-169. Bausch & Lomb, 72227 Bausch Street, Rochester, New York 14602.

*\*Super Baltars were used to photograph the moon on the successful NASA RANGER VII Program. Information on their performance is yours for the asking.*

**BAUSCH & LOMB** 

The newly created Photo-Technical Products Div. of Ehrenreich Photo-Optical Industries, Inc., 623 Stewart Ave., Garden City, N.Y. 11533, will handle sales to professional and industrial as well as scientific and graphic arts users of Durst photo-enlargers, process color separators and associated accessories; NIKKOR apochromatic lenses and Kindermann specialized darkroom processing aids. The division will issue three types of franchises: professional and industrial dealers; graphic arts dealers; and APO/NIKKOR dealers.

The Laumic Camera Co. is a new firm located at 35 W. 45 St., New York, N.Y. 10036. It is an affiliate of Laumic Co. at the same address. The new firm will offer engineering and design services as well as camera repairs. Expansion into the rental and sales fields is planned. The new firm will be under the management of Sheldon Kaplan. Anton Weber will provide technical direction.

M & B Service Co. has moved to a new location at 354 W. 45 St., New York, N.Y. 10036. The firm was formerly located at 352 W. 44 St. The firm's services include the manufacture, modification and repair of motion-picture and television equipments.

An experimental pulse code modulation (PCM) system that transmits 224 million bits per second over coaxial cable has been developed at Bell Telephone Laboratories. The system converts television, voice and data signals into a stream of digital pulses capable of being transmitted over transcontinental distances. Signals can be taken from the digital stream and new signals can be added as desired along the route. The system's transmitting terminal includes (1) a television coder and auxiliary circuitry that convert samples of the analog signal, taken at more than 12 million times per second, into a 111 million bit-per-second pulse stream; (2) a mastergroup coder and auxiliary circuitry that produce a 55 million bit-per-second pulse stream; and (3) multiplexing equipment for combining these signals with two T1 signals and the output of a random pulse generator (simulating high-speed data). The multiplexer also inserts control bits in the high-speed pulse stream.

The average length, height and slope of surface irregularities on the moon have been determined at Bell Telephone Laboratories by bouncing a laser beam off materials prepared in the laboratory and comparing these findings with measurements of microwave reflections from the moon's surface. Figures representing the average variations of the lunar surface are: height of irregularities,  $16 \pm 4$  in.; distance between one irregularity and another,  $9 \pm 2.5$  ft; slope,  $8 \pm 4^\circ$ . These figures compare with estimates of the average slope of the lunar surface based on photographs taken by the Ranger 7 moon probe.

The study of the moon's terrain grew out of studies of backscatter phenomena. A block of soft aluminum was blasted with different sizes of alumina grits. The randomly rough surfaces were then electropolished to remove burrs and sharp points. This process has an effect somewhat similar

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## An important new development in daylight processing

### *Lawley Unicon Daylight Operated Film Processing Machine.*

The Lawley Unicon is the latest in the range of 'Lawley' processing machines and is of unit construction. It has been designed and fully tooled with a view to: a. Complete interchangeability of parts. b. Simplicity of installation. c. Ease and reliability of operation. d. Accessibility for maintenance.

By using the appropriate modules, in combination, the exact processing requirement for any film stock either black/white

or colour can be met at any requirement output. Should a film process requirement change or the output demand increase, additional sections can readily be incorporated into any existing machine.

### *Construction:*

The machine is made from photographic quality stainless steel and P.V.C. The Lawley Unicon can be erected on any level suitably faced floor of sufficient load bearing strength with access to adequate power and water systems and with a head-room of over 8'0". The machine can be of any length in modules of 2-bank units from a minimum of an 8-bank wet section and can be supplied for either double 8mm, 16mm, 35mm or dual gauge use, three separate depths of tanks are available, 3'9"; 5'0" and 6'0". Machines can be positioned against a wall or built back to back.

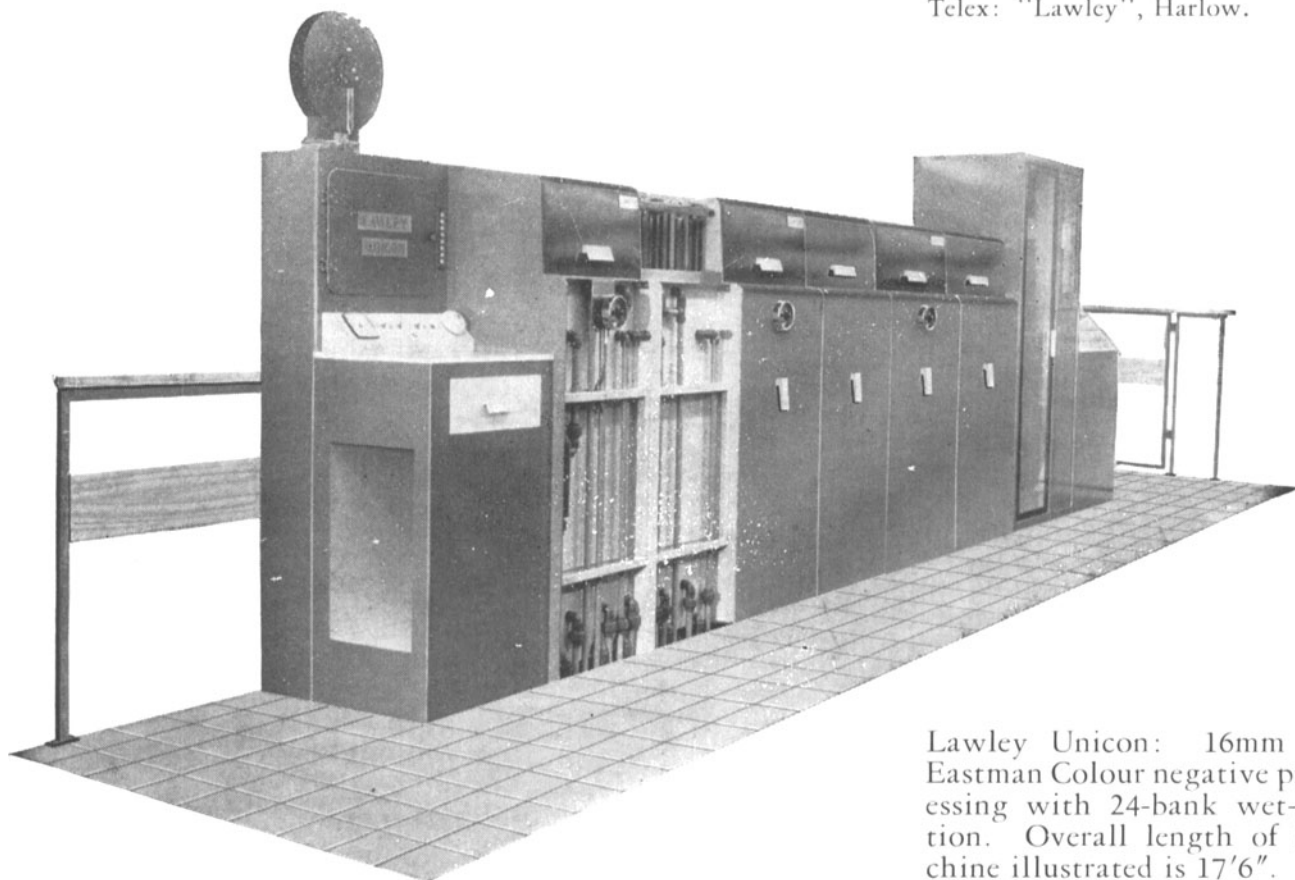
### *Performance:*

The machine speed can operate from 20' per minute to well in excess of 100' per minute. Main drive is through a Kopp Variator with servo motor control for increase or decrease of speed which is operated from either end of the machine. Drying is by means of impingement from plenums. Temperature control, recirculation units, air knives, impingement bars, sound track development, etc., etc., can be built-in using standard units. Magazines of 1,200 ft. and 3,000 ft. capacity. 'Take-up' to 3,000 ft. capacity.

Output for output and floor area for floor area the Lawley Unicon is more economical than any other film processing machine in the world.

### *Newman & Guardia Ltd*

Lawley Works, Edinburgh Way,  
Harlow, Essex. England.  
Tel: Harlow 24222/3  
Telex: "Lawley", Harlow.



Lawley Unicon: 16mm for Eastman Colour negative processing with 24-bank wet-section. Overall length of machine illustrated is 17'6".

# The Lawlette Unicon a new advance in daylight film processing for the smaller laboratory

## *Lawlette Unicon Daylight Operated Film Processing Machine.*

As with the Lawley Unicon the Lawlette Unicon is also of unit construction whilst neither as large nor as flexible as the Lawley Unicon. It has been designed to provide a means of processing black/white negative/positive or reversal film as well as a number of colour stocks to a high standard. It has been designed for users who do not require a large output. The Lawlette Unicon is a straight through type machine and should be

free standing, as access to the rear is necessary for servicing and plumbing connections. It is built from standard units, a displacement unit which provides sufficient time for change-over of magazines at the top operating speed, a series of four-bank wet-section units as the film process dictates, and 2-, 4- or 6-bank drying cabinet which also incorporates the take-up unit, control panel and the main drive motor. The Machine can operate from speeds of as low as 5' per minute up to a maximum of 80' per minute.

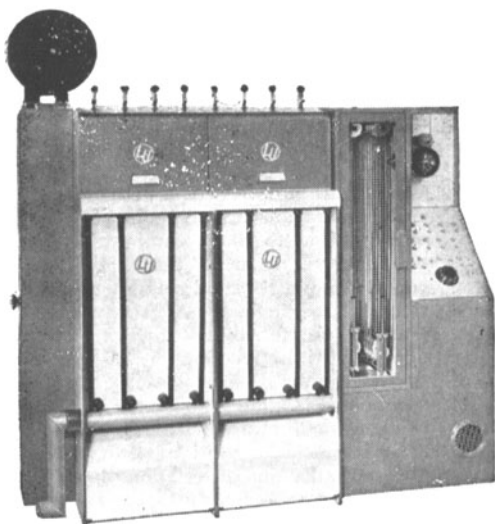
The wet section unit is supplied complete with all the necessary fittings that may be required for recirculation of solutions, temperature control, interconnection of tanks, replenishment and filtration. A standard reversing light and backing removal unit are also available.

### *Dimensions:*

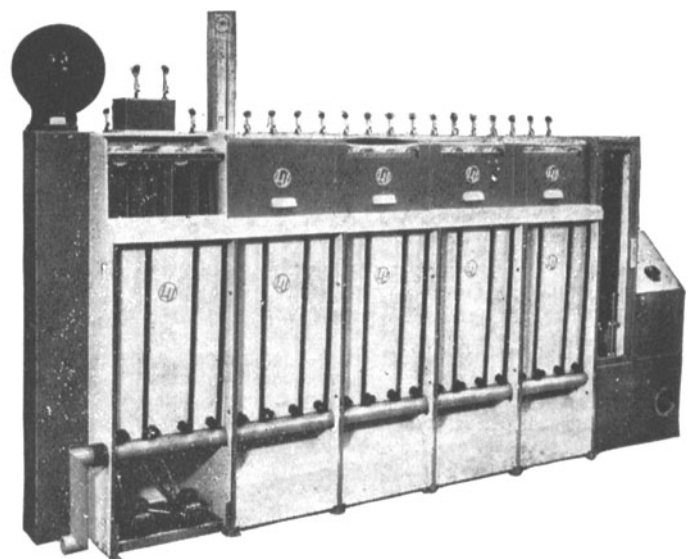
Standard Wet Section Unit:—  
17" wide. 18" front to back.  
56" high.

### **Newman & Guardia Ltd.**

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Lawlette Unicon: Incorporating  
2 4-bank wet-section units for  
negative/positive processing.



Lawlette Unicon: Incorporating  
5 4-bank wet-section units for  
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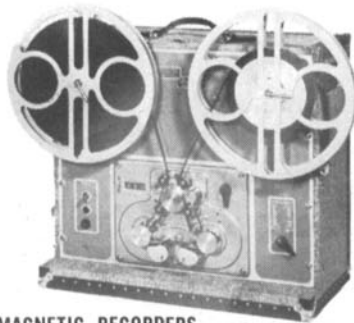
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**CM-500 — MAGNASYNC MAGNETIC RECORDERS**

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**CM-501—RUBYLITE TRANSISTOR**—Optical recording amplifier. Equalized for all Auricon cameras. Operates in hot or freezing temperatures. Compact, light weight, excellent for sound filming. Produces highest quality single system sound. fr. \$395.00



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**CM-504 — FREZZO WIRELESS SYNC SIGNAL SYSTEM**—Model 100D Portable Power Pak supplies 110V 60 cycle. Nickel Cadmium batteries. Built-in charger. From \$450.00  
New wireless sync signal model. Eliminates wires between camera and recorder. fr. \$895.00



**CM-505 — SENNHEISER WIRELESS RADIO-MICROPHONE SYSTEM**—FM transmitter battery operated receiver for use on location, newsreel or documentary filming requiring wireless pickup from a remote source. \$630.00



**CM-506—UHER "4000L REPORT"**, ¼" recorder—combines portability with professional sound quality. Completely quiet, uses less current. Rechargeable battery, carrying case, a.c. adapter, microphone included. Ranger-Tone LIP-Sync signal generator available. fr. \$440.00

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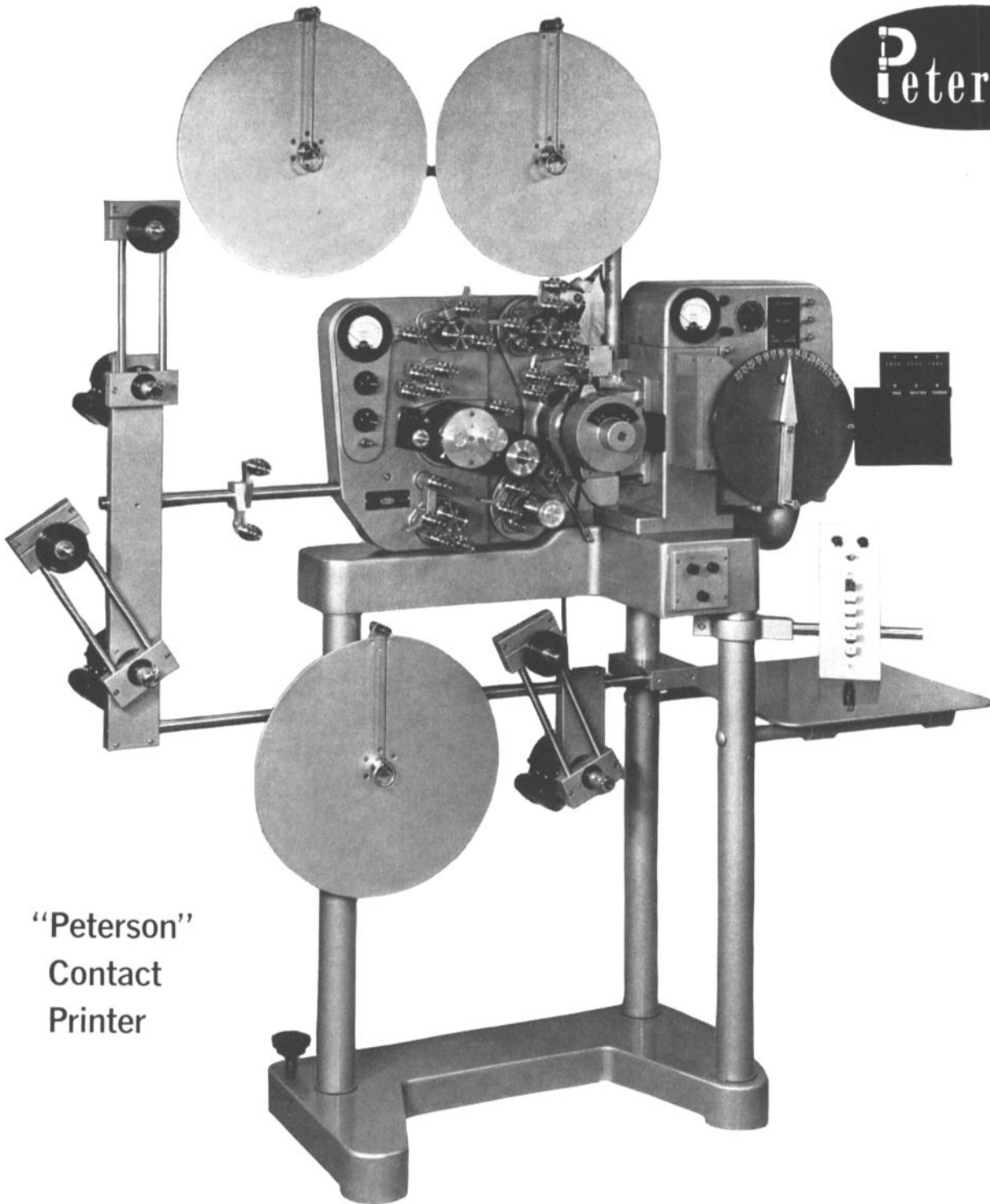
to that of some of the processes believed to have shaped the surface of the moon, i.e., the smoothing of crater edges through bombardment by small meteorites. To study the statistical properties or the prepared surfaces, a stylus was run over the samples. The tracings, showing the contour of the surfaces, were statistically analyzed on a stylus. It was found that the particular aluminum sample has statistical properties similar to that of the moon.

**Changes taking place in a piezoelectric crystal** (potassium dihydrogen phosphate (KDP)) when a sound wave passes through it or when it is made to oscillate at high frequencies have been observed by scientists using a method developed at Bell Telephone Laboratories. The KDP crystal was sandwiched between two glass electrodes. While the crystal was vibrating, bursts of polarized light synchronized with the acoustic vibrations were directed through the crystal and focused onto a camera. The technique provides an almost continuous picture of the crystal's acoustic strain at intervals as short as a fraction of a microsecond. Previous methods of observing acoustic strain, such as sprinkling powder on the crystal surface or using x-ray diffraction, did not provide the time-resolved patterns or the detail made possible with the new technique.

**A system of generating and setting any style of type** in any language at a rate of 150 letters a second has been developed at Bell Telephone Laboratories. Still in the experimental stage, the system includes a digital logic network, a cathode-ray tube, and a camera. A General Dynamics SC 4020 Computer Recorder, a device that forms characters on the face of a cathode-ray tube by firing an electron beam through corresponding characters in a stencil is used in the experimental arrangement. The type faces are stored in digital form and to change type faces, even as great a change as from English to Chinese characters, only the program instruction need be changed. In the Bell Telephone set-up, copy is typed on a keyboard directly connected to the logic network. The operator first indicates the type style he wants; the network generates the copy on the cathode-ray tube screen in justified columns.

**Communication between man and machine** has advanced to the point where it is now possible to build computer systems that can "understand" the English language. An experimental computer built by General Electric for the Air Force seems to establish the feasibility of using conventional English for input and control. Although the experimental machine's vocabulary is limited and some grammatical constructions are beyond it, within its limits it can make decisions not only about the particular spatial relationships of the words in a sentence, but also about the meaning of the words and the semantic implications of the structure in which they are found.

Two reports on the experimental computer (called DEACON (Direct English Access and Control)) are available from Clearinghouse, U.S. Department of Com-



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merce, Springfield, Va. 22151. *Deacon Breadboard Processing* (AD-612 165) (94 pp.) is priced at \$3.00. *Deacon Breadboard Grammar* (AD-612 171) (165 pp.) is priced at \$5.00.

**Richard J. Goldberg** has been appointed Vice-President of Engineering of Houston Fearless Corp., 11801 Olympic Ave., Los Angeles, Calif. 90064. Dr. Goldberg was formerly with Technicolor Corp. where he was Vice-President in charge of the Systems Research Div. While with Technicolor he directed all the research activities of the firm's laboratories in Hollywood, London and Rome. In his new post he will direct all engineering activities of Houston Fearless. His education and background include chemistry, physics, biology and engineering. He received the degree of PhD from the California Institute of Technology.

**Spero L. Kontos** of Los Angeles was re-elected President of the Theatre Equipment Dealers Assn. at the TEDA-TESMA conference held during February in New Orleans. Newly elected Vice-Presidents are Lloyd Pearson of Toronto and George Hornstein of New York. Robert Tankersly of Denver was re-elected Secretary-Treasurer. Board members are Armand Besse of Montreal, Ed Comi of Boston, E. H. Geissler of Atlanta, Ga., Irving Goldberg of Philadelphia, Harold Hornstein of Miami, L. Phil Wicker of Greensboro, N.C., Robert Woelfl of San Francisco and Louis Wutke of Los Angeles.

**Richard Betts** has been appointed Camera Tube Engineer at Visual Electronics Corp., 356 W. 40 St., New York, N.Y. 10018. He was formerly with Canadian Broadcasting Corp., where, as a specialist in image-orthicon and vidicon tubes, he was

fully responsible for quality control. As an outside activity, Mr. Betts assisted at the Royal Victoria Hospital in Montreal where he established a closed-circuit TV system to detect cancer in its early stages.

**Richard M. Blanco** has been appointed Vice-President of Television Operations in the Motion Picture and Television Division of Technicolor Corp., 6311 Romaine St., Hollywood, Calif. 90038. The announcement was made by Paul W. Fassnacht, President of Technicolor. Prior to this appointment Mr. Blanco had directed Technicolor operations at NASA Space Center at Cape Kennedy. Previously he had held the posts of Plant Manager in the firm's Consumer Products Division in Burbank, Calif., and Director of Sales for the Motion Picture Division in New York.

**Akiva K. Kohane** has been appointed Sound Engineer for Audio Transfers Inc., 254 W. 54 St., New York, N.Y., a new firm which specializes in recording and sound transfer services for motion pictures and television. The firm maintains a comprehensive library of sound effects and also provides editorial services. Prior to this appointment, Mr. Kohane was with Sound Transfers, Inc.

**Thomas A. Cahill** has been appointed Chief Engineer of Capital Film Laboratories, Inc., 470 E St., S.W., Washington, D.C. 20024. He was formerly Quality Control Manager and later Technical Director for Pathe Laboratories, Inc., New York. He has also been associated with Consolidated Film Industries, Fort Lee, N.J.


**Ray Ives and John Ware** have been appointed to the sales staff of F&B/CECO, Inc., 315 W. 43 St., New York, N.Y. 10036, as part of a nationwide expansion program. Mr. Ware will be Sales Manager of the Florida branch in Hialeah. Prior to his present appointment Mr. Ives was with Charles Ross, Inc. Before that he was with Reeves Soundcraft.

**John Bronaugh** has been appointed Vice-President and Production Manager of Keitz & Herndon, Inc., Dallas-based film producers. Mr. Bronaugh has been with the firm since 1953. He has worked in all of the photographic department areas that are now under his supervision, including animation stand, editing, live cinematography, optical printing, sound and still photography. He is also the head of Optical Printing, Inc., an in-plant subsidiary.

**Robert A. Holbrook** has been recently appointed Director of Engineering of WSB-AM-FM-TV, Atlanta, Ga., and Wilbur Fattig was promoted from Assistant Chief Engineer to Chief Engineer of WSB Radio. Mr. Holbrook joined WSB in 1932 as transmitter and control engineer. He became Assistant Chief Engineer for WSB in 1948 and in 1955 he became WSB-AM-FM-TV Chief Engineer. In his new post he will serve as advisor and consultant as well as supervising major electronic projects. Mr. Fattig began his broadcasting career in 1947. He became WSB-AM-FM Assistant Chief Engineer in 1962.

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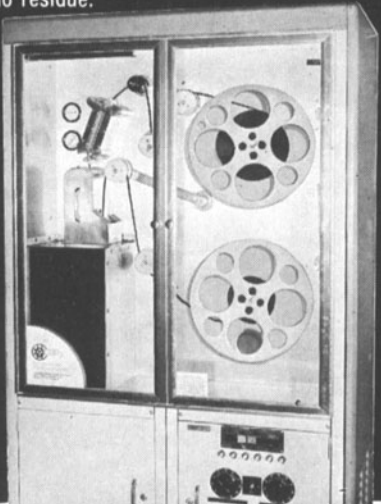
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