Studio Practices

Fred H. Detmers
Technicolor Corp.
Box 3A-547, Hollywood, Calif. 90038

Sound

Dr. John G. Frayne
1580 LaLoma Rd., Pasadena, Calif. 91105

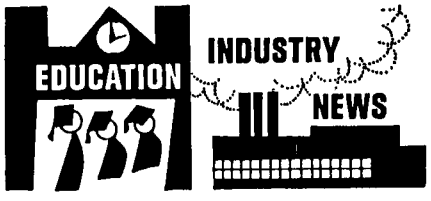
Call for Papers

Requirements and Deadlines

Three copies of a 500- to 750-word synopsis of the paper (up to two pages of double-spaced typewriting), giving the paper's objective and an outline of content, should be sent to SMPTE Headquarters, *Att: 103rd Conference Program*, 9 East 41st St., New York, N.Y. 10017. Summaries should be received at headquarters before January 5, 1968, along with three copies of the Author Form and three copies of the Author Information Sheet. The summaries will be used to prepare a 50- to 75-word abstract for the Advance Program in the Conference issue of the *Journal* (March).

Before March 4, 1968, the original and three copies of the manuscript should be sent to SMPTE Headquarters, *Att: 103rd Conference Program.* Manuscripts will be reviewed as prospects for preprinting. Authors who submit manuscripts in time for preprinting will receive 25 copies of their Preprint, gratis.

For information about Author Forms and submitting papers for the 103rd Conference, write to **Alan M. Gundelfinger,** SMPTE 103rd Technical Conference Program Chairman, Technicolor Corp., 6311 Romaine St., Hollywood, Calif. 90038, or to SMPTE Headquarters, *Att: 103rd Conference Program.*



The University of Southern California's Division of Cinema is conducting a 15-week course in Educational Technology —Audio and Visual Systems. The course, which began September 20 and is sponsored by the Society, consists of a lecture series with a different lecturer each week. The lecturers, educators, businessmen, writers-directors and cinematographers, each well known in his particular field, present "in-depth" discussions of their various specialties. The initial lecture was given by Dr. Leo E. Persellin, Project Director of Instructional Systems Development for TRW Systems, who spoke on "Audio-Visual Instructional Systems — Growth of Technology," and the closing lecture (Jan. 17) will be given by Dr. James D. Finn, USC Professor of Education. The November 29 lecture will be given by Sidney P. Solow, President and General Manager of Consolidated Film Industries, on the subject of "Laboratory Services." Mr. Solow, who has been a full professor at USC since May, 1966, has been teaching at the University for 20 years. A sampling of other forthcoming lectures includes "Audio in Educational Media" by James Auchterlonie, National Sales Manager, Century Record Manufacturing Co.; "Overhead Projection" by E. R. McGregor, Manager, Audio-Visual Services, USC Division of Cinema; "Television and Education" by Dr. James L. Loper, Vice-President and General Manager of television station KCET (Channel 28); and "Systems Approach to Audio-Visual Presentations" by Marvin P. Hodges, Eastman Kodak's Director of Sales Development for Educational Markets.

The accomplishments of the Sixth Meeting of ISO Technical Committee on Cinematography (TC 36) were outlined at the closing plenary session, June 19, 1967, in Moscow, USSR, by Deane R. White, head of the American delegation, and A. F. Barinov, Vice-Chairman of the Committee for Cinematography, USSR Council of Ministers.

Dr. White said that the work of TC 36 began in 1952 with the problems of size measurement on cine films. Another problem, he said, is technical quality of a film in terms of image and sound. He also spoke warmly of the hospitality shown him and the other delegates and of the interest shown by the many Soviet delegates present at the meeting.

Mr. Barinov stressed the complexity and diversity of the techniques of the cinematic art and noted that American colleagues had done "an imposing piece of work" in TC 36 organization and the six meetings held since its establishment. He discussed new systems of cinematography and emphasized the importance of standards for international film exchange.

A number of other delegates were interviewed, among them, Paul Arnold, co-chairman of the Sixth Meeting (USA), who said that each successive meeting of TC 36 has made greater progress than the previous one. He also noted that the great productivity of the Moscow meeting was inspired by the energy of the Soviet delegation. F. Pilat, head of the Czechoslovak delegation, also praised the initiative of the Soviet delegation in making suggestions. He noted that recommendations still under discussion had already influenced cinema technique in various countries. Jean Viviée, who headed the French delegation, praised the work of the International Film Exchange Working Group, especially for the work devoted to the coordination of terminology. M. Alla of France, Chairman of Working Group No. 5, noted that his group had had a number of interesting and lively discussions. He suggested that it would be desirable to "slow down the rhythm" of committee work so that delegates who were members of more than one group would not be placed in the dilemma of having to choose between two meetings held at the same time.

Cyril E. Growhurst of Great Britain, Chairman of the Ad Hoc Working Group, noted that " . . . progress is, in general, slow. Work of this kind, if good, can never be fast . . ." He also noted that while it could not be said that any problem is the most important, he considered one group of problems to be very important, namely, those concerned with the use of magnetic tracks on cinema release prints. He said that standards have been established for the international exchange of television programs on film with magnetic sound tracks, and that "the establishment of a corresponding standard for 35mm cinema release prints with magnetic sound would enable better and more consistent sound quality to be obtained in this application, too." He added that it would not be easy to reach agreement on such a standard but that, in his opinion, it should be achieved.

The West Coast Symposium on Broadcasting and CATV Practice, sponsored by the Broadcasting Group of the Institute of Electrical and Electronics Engineers, was held Nov. 9–10 in Los Angeles. Some 19 papers were presented covering such topics as special antennas, color TV, satellite broadcasting, laser communications, CATV, and the use of time-sharing computers in designing equipment. Luncheon speakers were A. R. Hibbs, Senior Staff Scientist, Jet Propulsion Laboratories; and Owen De Lange, Bell Telephone Laboratories. Dr. Hibbs spoke on "Television Photography in Space." Dr. De Lange spoke on "New Laser Applications." Symposium Chairman was E. D. Barcus. In discussing the theme of the symposium, he noted that in the past 18 years CATV has grown to serve more than two million homes through 1,800 individual systems. "This is minuscule compared to other commercial broadcasting systems," he said, "but their technical problems are proliferating at quick pace. We hope to have some solutions for them."

Plans for the Motion-Picture and Television Industries' Salute to the Laboratory Technician are going ahead with many notable film and television executives, producers and directors on the list of honorary co-chairman. G. Carleton Hunt, President of De Luxe Laboratories, and C. W. Vitello, President of Motion Picture Film Technicians, are co-chairmen for the

event. Richard F. Walsh, IATSE President is honorary chairman; and co-chairman is Donald P. Haggerty, business representative of Local 682, IATSE Lab Technicians in Hollywood.

The growing list of honorary co-chairmen includes Rene Aerts, President of Agfa-Gevaert; Alfred E. Bruch, President of Capital Film Laboratories; Paul W. Fassnacht, President of Technicolor; Alan E. Freedman, of De Luxe Laboratories; Fred G. Todaro, of Criterion Film Laboratories; Paul Guffanti, President of Guffanti Laboratories; Senator Jacob K. Javits; Saul Jeffee, President of Movielab; Mayor John V. Lindsay; Byron Roudabush, President of Byron Motion Pictures; Jack Valenti, President of MPAA; Irwin Young, President of Du Art Film Laboratories; and others.

The 22nd Annual Calvin Workshop will be held February 5–7 at Calvin Productions, Inc., 1105 Truman Rd., Kansas City, Mo. 64106. As in the past, this year's Workshop will include a review of basic motion-picture production procedures and a survey of some of the newer aspects and developments throughout the industry. Attendance at the Workshop entails no cost or obligation, but attendance is limited to 800 persons. Those attending must, of course, arrange for their own accommodations. Registration for the Workshop is on a "first come, first served" basis.

Perkin-Elmer's 8th Annual Technical Symposium was held September 21 in Norwalk, Conn. Topic of the symposium was "New Developments in Interferometry." Papers presented included "Multiple-Beam Interferometry" by H. D. Polster; "Hologram Interferometry" by J. Pastor; "Scatterplate Interferometry" R. M. Scott; "Phase Interferometry" by R. Crane; "Dual Interferometry" by P. Lagenbeck; and "The Tunable Interferometer" by R. Pilston and G. Steinberg. Attending the symposium were members of the local sections of the Optical Society of America, American Society of Photogrammetry, Society of Photographic Instrumentation Engineers and the Society of Photographic Scientists and Engineers.

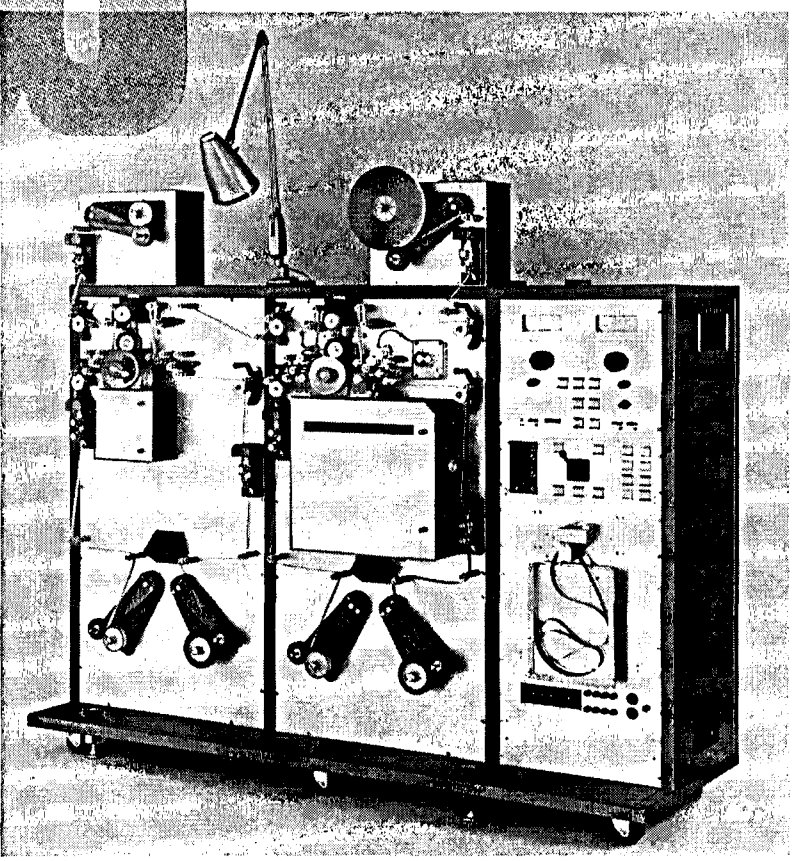
A five-day course in Image Processing was given November 6–10 at the University of California Los Angeles. Purpose of the course was to present basic concepts, fundamental limitations, and specialized techniques associated with processing degraded photographic images in order to partially correct the images. Classes were held morning and afternoon. Topics included Image Formation and Degradation; Spatial Domain and Spatial Frequency Domain Image Descriptions; Image Evaluation by Decision Theory Criteria; Purpose and Techniques of Image Processing; Experimental Image Processing Results; Improvements by Multiple Image Recording; Use of *a priori* Information to Improve Processing; and Possibilities for the Future.

The Horace Mann-Lincoln Institute of Teachers College, Columbia University, is recipient of a $30,000 grant from Eastman Kodak Company for development of a program that will enable children in the Harlem area of New York City, as well as their parents and teachers, to produce their own films. The idea behind the program is that as the child records the things he sees on film, he not only has the feeling of achievement and purpose, but he also develops new areas of communication and creativity. Professor Louis Forsdale of Teachers College, Director of the Project in Educational Communication, and a staff drawn from the community, the schools and Teachers College, will administer the program. The Horace Mann-Lincoln Institute is a privately endowed institute of Teachers College which develops tests and makes new educational programs available to schools.

Learning equipment developed by Raytheon Company, Lexington, Mass. 02173, has been installed at East Detroit (Mich.) High School to supplement the school library with "dial-a-lesson" educational materials. While electronic tape is used mainly for language study the East Detroit installation is intended to be as versatile and selective as an individual telephone. Each student position, or study carrel, has a telephone dial and a directory of various instructional materials, such as

NEW ADDITIVE COLOR PANEL PRINTERS

FOR CONTINUOUS HIGH SPEED PRINTING OF PICTURE & SOUND



Designed around the revolutionary "light valve" — an electromechanical light control, program decoding and memory storage unit of remarkable precision and accuracy—the Additive Color Panel Printers provide speed, quality and flexibility never before possible in laboratory film printing. Now available for 16mm, 35mm and 35/32mm, the Panel Printers offer the following design-tested features:

- **Completely automatic tape-controlled operation, utilizing laboratory-proven additive light control principle.**
- **Speeds of 240 feet per minute, with ultra rapid light changes and fades controlled by film notches or by the R-F patch cue system (optional).**
- **Forward and reverse printing feature eliminates negative rewinding.**
- **New "zero close" feature for completely blocking the light between scenes in each color channel when printing from A and B rolls.**
- **Solid state logic reader featuring relay contact switching prior to current application.**
- **Tape-controlled integral fader providing six fade lengths varying from 16 to 96 frames (optional).**
- **Automatic Air-Vacuum film squeegees at each feed, take-up and raw stock roll.**
- **Tight-wind take-up design with automatic torque control to insure proper film wind throughout entire reel of film.**

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PROFESSIONAL PRODUCTS

DOMESTIC	CANADA	INTERNATIONAL	CENTRAL—SOUTH AMERICA
BELL & HOWELL/PROFESSIONAL	BELL & HOWELL CANADA LTD.	BELL & HOWELL, LTD.	BELL & HOWELL / INTERNATIONAL
7100 McCORMICK ROAD	88 INDUSTRY STREET	GREAT WEST HOUSE • GREAT WEST ROAD	7100 McCORMICK ROAD
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concerts, discussions, language exercises of every variety and degree of difficulty. The students dial the telephone number of the desired material which is automatically selected from prerecorded tape magazines in a central bank, then played through individual headsets.

A modular servo system, costing $1,350, has been designed by Feedback Ltd., Park Road, Crowborough, Sussex, England, mainly to introduce control system principles to technical trainees and science students in high schools, although the system can be adapted for more advanced work.

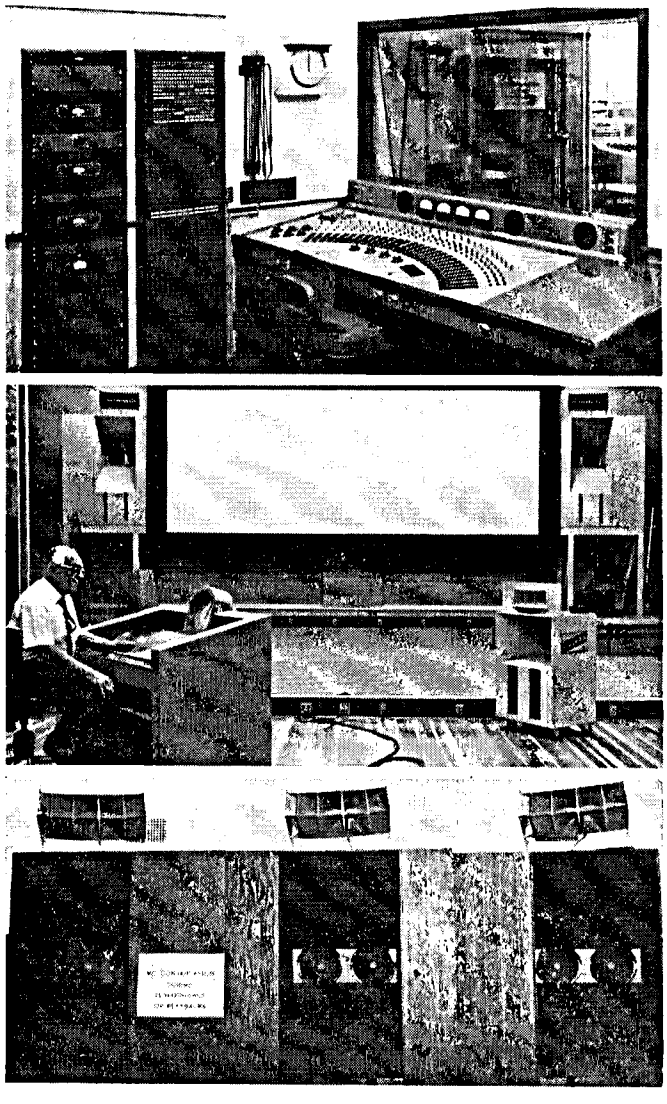
The standard kit contains nine modules, an instruction manual and a steel-surfaced base board. All units have magnetic feet to hold them in position on the board and have solid-state circuits which cannot be damaged by incorrect connections. Initially all work is done with dc elements, although the equipment can be extended by an ac synchro error link to provide hybrid and carrier working experience.

The instruction manual is in two sections. The first assumes no previous knowledge and covers a series of experiments intended to provide a complete grounding in control. The second assumes the ability to understand simple differential equations. Experiments include analysis of simple position control/speed response, position response and closed-loop frequency response, measurement of motor time constant, measurement of velocity error constant and of following error. Other subjects include stability considerations and the use of lead, lag and combined networks, and tacho-generator feedback and its effect on system performance.

Units supplied in the standard dc kit are a combined ac/dc power supply, servo amplifier, dual channel attenuator, motor with tacho-generator and gearbox, loading unit with eddy current brake and inertia disc. An auxiliary board can be plugged into the preamplifier unit to provide a single time-constant system for measurements and calculations of system performance.

A device called a lunar trajectory display device that portrays earth-to-moon spacecraft trajectories in three dimensions and includes scale models of the earth and moon has been designed and constructed for NASA by IIT Research Institute, 10 W. 35 St., Chicago, Ill. 60616. It is driven automatically by computer-coded tape and will be used by trajectory analysts for displaying features of lunar trajectories, particularly those which cannot be adequately displayed by two-dimensional systems. Spacecraft paths are simulated by 102 miniature lamps suspended in a pattern which traces the desired trajectory. The position of each lamp is commanded individually by instructions contained on punched tape. The lamps are lowered from the ceiling of the display and are moved horizontally and vertically by 102 carriages, each driven by a pair of digital stepping motors. The system is capable of showing a spacecraft's current position, the path previously traversed and the future course. Simulated movement of a spacecraft from the earth model to the moon model may be timed to coincide with the actual progress of a spacecraft during an

Disney's Magic World of Sound... from Altec.



The magic that is Disney is not just a pat formula. It is a form of perfectionism that pervades everything which carries the Disney name. Certainly, there's a Disney look. But just as certainly there's a Disney sound. And that's where we come in.

For example, the new control console at the Disney Studio's orchestra stage is made up of 29 Altec slide-wire attenuators, 7 rotaries, and one 4-gang master. The works are powered by rack-mounted banks of Altec amplifiers. Monitoring in the control room is done in a big way—with three giant Altec A4 "Voice of the Theatre"® systems butted together in a single plane of the most powerful, pure sound you can get.

The stage itself uses three more A4's for monitoring, re-recording, and playback. (That's one good way to keep the musicians happy.) Eight caster-mounted A7 "Voice of the Theatre"® systems are mobile, may be moved where and as needed.

And that's not all. On the back lot Altec PA equipment provides the paging. Dialog stages at the Studios also use A4's, with Altec's space-saving 844A Monitor Speaker Systems in the compact transfer room. The list could go on, but the point is made.

So who listens when Altec Lansing sounds off at Disney? Everybody, that's who. And if you understand the remarkable expertise of Disney sound engineers, perhaps you should listen too. Let's hear from you.

ALTEC LANSING, A Division of LTV Ling Altec, Inc., Anaheim, California 92803

ALTEC LANSING®

Apollo mission. The simulator also may be set to display a simulated mission at 1,000 or 5,000 times the rate of an actual mission. The system weighs about 4,000 lb and is housed in an L-shaped cabinet 7 ft high, 15 ft 4 in. long and 11 ft 4 in. wide at the widest point.

LogEtronics of Springfield, Va., has acquired Photomechanisms, Inc., of Huntington Station, L.I., N.Y., through exchange of stock. Photomechanisms, which manufactures a proprietary x-ray motion-picture camera for hospital diagnosis and research equipment, will continue to operate as a separate New York corporation. Fordyce M. Brown, President of Photomechanisms, will continue to manage the firm as a corporate division of LogEtronics.

Berkey International is a new division of Berkey Photo, Inc., created to coordinate Berkey Photo operations abroad. The firm now owns operations in Germany, Denmark, Canada, Israel, Japan and England (including the newly acquired Mole-Richardson Manufacturing plant located in Thetford) and plans to extend its operations to France, Spain, Italy and Australia. The new division will also coordinate and expand the firm's independently owned foreign distribution agencies. The international division will be headquartered at the Berkey/ColorTran, Inc., facility at 1015 Chestnut St, Burbank, Calif.

Berkey/ColorTran, Inc., has opened new sales and showroom offices at 322 E. 45 St., New York. The firm's eastern offices were previously located in Woodside, N.Y. The new facility will include a large showroom to display the firm's products, including tungsten halogen quartz lights, solid state dimming control systems and the Crab Dolly. Joe Tawil, Eastern Marketing Manager, is in charge of the new offices.

Greater Amusements and International Projectionist are now published at Suite 514D, Screen Building, 1600 Broadway, New York, N.Y. 10019, it was announced by Ray Gallo of Gallo Publishing Corp. The move to new and larger quarters is part of a general expansion program, Mr. Gallo said. The firm is no longer associated with Northern Publishing Co. Future plans for the Gallo Publishing Corp. include revision of the Mitchell *Manual of Practical Projection.*

Acquisition of Programming Methods, Inc., by Riker Video Industries has been announced jointly by S. Marcus Finkle, Chairman of the Board of Riker Video Industries, Inc., and George Langnas, President of Programming Methods, a firm which specializes in systems design, programing services and other computer "software." The current management will be retained and Mr. Langnas will continue to serve as President and Chief Executive Officer.

A three-year controlled growth program at General Film Laboratories, 1546 N. Argyle, Hollywood 90028, includes in-

New trend in film presentations: House lights up. We're going to show a movie—on the new high-efficiency screen built into covers of super 8 KODAK EKTAGRAPHIC Projectors. Scene: Kodak's experimental super 8 print laboratory.

"Quad 8"- the new math from Kodak that could revolutionize teaching methods.

As the film scientists in this picture know only too well, progress at Kodak is often a series of small improvements. They've just put a spectacular series together to come up with the "Quad 8" System—four super 8 release prints, with magnetic sound tracks, from one width of a new prestriped 35mm film—EASTMAN Color Print Film, Type 7380.

"Quad 8" will supply education and industry with an extraordinary tool—teaching and training films almost as easy to use as a blackboard, as accessible as a paperback book. Easy to use because they're shown with an automatic projector and a true roomlight screen. Low-cost accessibility because we've found a way to produce them many, many times faster than ever before possible. So the system was well worth the inventing—and several commercial laboratories are seriously considering the equipment investment.

Where do you come in? Right at the beginning, naturally—the shooting. But you may want to re-evaluate your techniques, since 8mm doesn't carry the detail of larger formats. We're sure you can handle it and that you'll enjoy having this exciting and extensive new showcase for your efforts.

EASTMAN KODAK COMPANY

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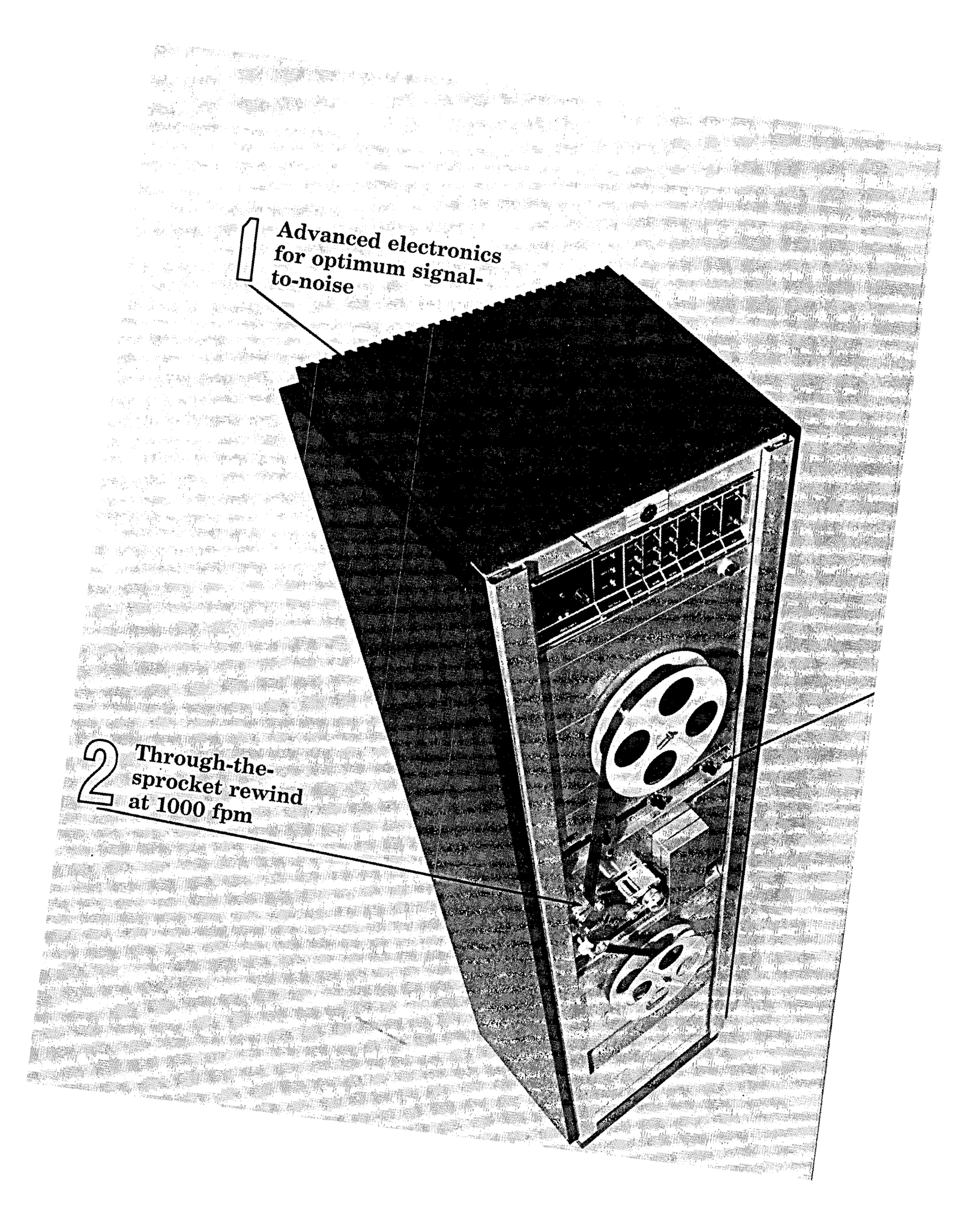
DALLAS: 6300 Cedar Springs Rd., 75235, 214—FL 1-3221; HOLLYWOOD: 6706 Santa Monica Blvd., 90038, 213—464-6131;
NEW YORK: 200 Park Ave., 10017, 212—MU 7-7080; SAN FRANCISCO: 3250 Van Ness Ave., 94119, 415—776-6055

Kodak


1
Advanced electronics for optimum signal-to-noise
2
Through-the-sprocket rewind at 1000 fpm

If your magnetic recorder/reproducer doesn't have at least two of these features, it's obsolete!

RCA's new PM-76 TSP has all three. And more. Like silent selective head switching that lets you update any track without glitches, holes, or bumps. Plus new Uni-logic low-voltage DC motor control to facilitate remote and automated operation.

Modular solid-state electronics system includes a crystal-controlled master oscillator with 80 KHz bias frequency for improved signal-to-noise.

Through-the-sprocket forward or reverse at 1000 fpm completely eliminates unnecessary film handling.

Complete metering and control module for each channel includes VU meter with its own isolation amplifier, and selector switches for both metering and mode selection. So now you can read: input signal at the record head, program input, playback amplifier output, bias or erase current.

Simulplay head permits continuous monitoring of newly-recorded material during recording.

The PM-76 TSP is now available in 1, 3, 4, and 6-track models (recorder/reproducer or reproducer) for 16, 17½, or 35mm film.

Also available: new model PM-75 T — a space-saving dual machine.

For more information, write: RCA Broadcast & Communications Products Division, 2700 West Olive Avenue, Burbank, California 91505, or 30 Rockefeller Plaza, New York City, New York 10020.

3 Complete metering for each channel to simplify setup

RCA® **The Most Trusted Name in Electronics**

stallation of a 100-ton refrigeration unit to double plant-cooling capacity. The recently-installed unit will help maintain strict temperature and humidity-control processing standards. Manpower and plant-processing equipment have doubled in the three-year period, it was announced by Russ Landers, Vice-President, West Coast Operation for General Film.

Five L-W 16mm motion-picture projectors are available from Kodak audio-visual dealers, it was announced by Eastman Kodak Co., Rochester, N.Y. 14650. Presently available are the Model 800 Super Sports Analyzer; Model 900 Motion Analyzer; L-W Athena Model 1900 (optical sound projector) and Model 1900-M (magnetic-optical playback version); and L-W Athena, Model 224, which features variable speed of 1 to 24 frames/s, stop-motion, and pushbutton, single-frame operations.

Listec Television Equipment Corp. is a new firm located at 35 Cain Drive, Plainview, N.Y. 11803. It is affiliated with Applied Electronics of Toronto, Canada, and has been established in the United States to handle the marketing of products manufactured by W. Vinten Ltd., Bury St. Edmunds, England. Officers of Listec include Mike Stechly, President (also President of Applied Electronics), Tom Pressley, Secretary (also of Applied Electronics), and Jack Littler, Vice-President and Treasurer, who will also act as General Manager of the new firm. Mr. Littler was formerly with the Taylor Hobson Division of the Rank Organisation.

Cosmicar Optical Co., Ltd., is the new name of the former Ichizuka Optical Co. of Tokyo, Japan. The name was changed because the firm specializes in making Cosmicar lenses.

A proposal for a Walt Disney commemorative stamp has been endorsed by 32 U.S. Senators and 70 members of the House of Representatives, according to Saul Jeffee, President of Movielab, Inc., who initiated the idea and is carrying on the campaign. Mr. Jeffee stated that he was pleased by the immediate Congressional response to his proposal. He said that he anticipated early passage of a bill authorizing issuance of a stamp in honor of the world-famous motion-picture pioneer.

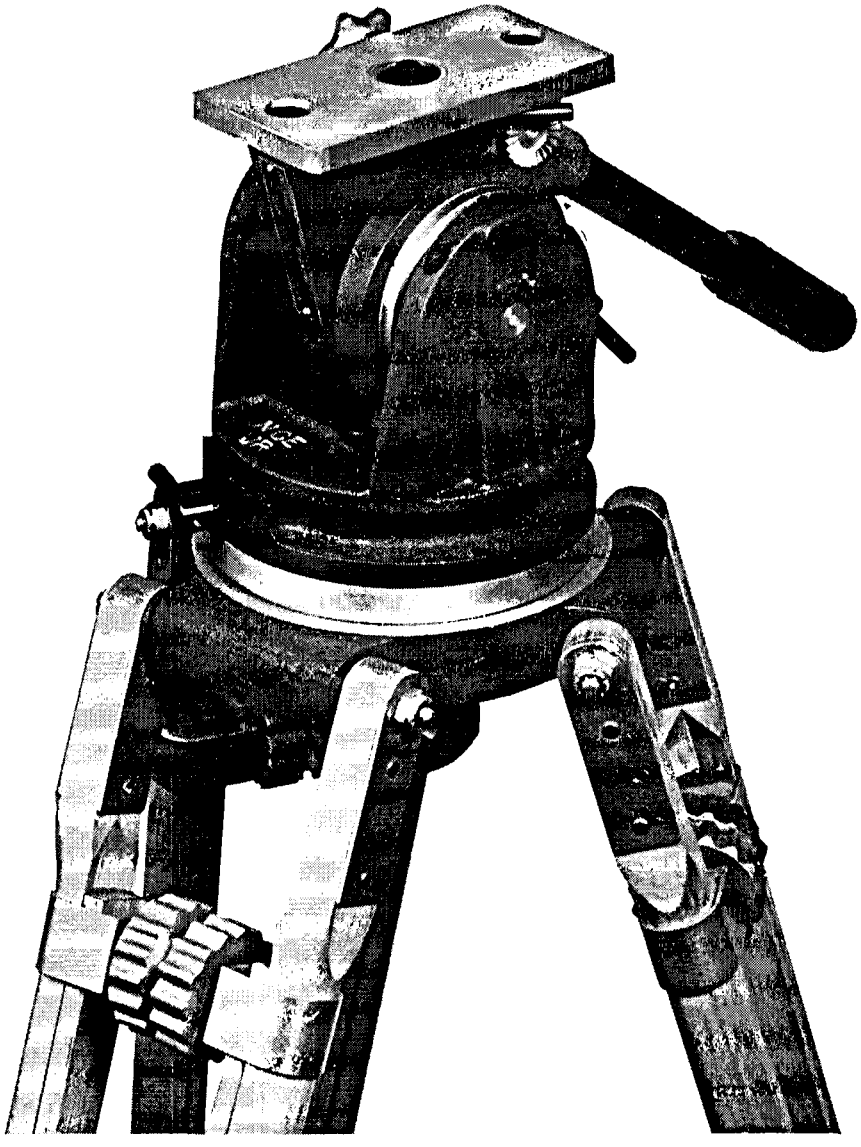
The Fifth Ann Arbor Film Festival was held in March with about 80 films shown to a total audience of about 4,000. Award-winning films included *An Early Clue to a New Direction*, by Andrew Meyer; *Castro Street*, by Bruce Baillie; *Winter 1964-66*, by David Brooks; *The Bridge*, by Tom Berman and Robert Halper; *Lapis*, by James Whitney; and *Scissors* and *Four Girls*, by Keewatin Dewdney.

The 25th anniversary of the opening of the RCA Laboratories in Princeton, N.J., was commemorated by two symposiums held at the Laboratories, a dinner at Princeton University and an "open house." RCA Chairman David Sarnoff keynoted the ceremonies with an address in which he predicted the development within the next ten years of home and office information centers that combine television, radio, printing and data terminals in one integrated unit. The symposiums were on the subjects of "Electronics, the Servant of Mankind" and "Frontiers of Research."

Bell & Howell and Second City Productions, Inc. will co-produce a series of full-length color pictures in Chicago. Announcement was made September 19 by Richard J. Daley, Mayor of Chicago, who said, "At the turn of the century, Chicago was one of the film capitals of the world... Now, thanks to Bell & Howell and its subsidiary, Wilding, Inc., and Second City and the wonderful cooperation shown by our Chicago union locals of the International Alliance of Theatrical Stage Employees, we are going to be able to offer employment here in Chicago to creative talents and once again to attempt to establish Chicago as a major film producing city."

Following the announcement by Mayor Daley, Alexander S. Gardner, of Bell & Howell, and Bernard Sahlins, of Second City, announced that Harold Goldman Associates of Hollywood had been selected as co-producer and exclusive worldwide distributor of the first three films. The Chicago facilities of Bell & Howell's

HYDROFLUID* JR.



A newcomer with a great head on his legs.

The springless Hydrofluid Jr. enables you to operate with incredible smoothness...from minus 60° to plus 350°. Hydrofluid Jr.'s combination of features makes it unquestionably the top tripod in its class. For instance: the largest silicone dampening area in its class; the only tripod with an integral ball for quick leveling; holds cameras up to 20 pounds; telescoping wooden legs; ⅜" tie down screw with quick lock; built in level; telescoping pan handle with adjustable angle and right or left hand operation; tilts from minus 85° to plus 85°; weight of complete tripod 17 pounds. Price of head, ball, legs and handle...$369.50 (Model JB), Baby tripod $99.50, hi-hat $37.50, Case $29.95, boot set $24.95.

Also new:

Hydrofluid Jr. Head, flat base for use with professional Jr. tripod or similar tripod base, same specifications as above...$299.00 (Model JF).

*Registered trademark, patent pending.

National

CINE EQUIPMENT, INC.

37 West 65th St., New York, N.Y. 10023. Phone: 212-799-4602

subsidiary, Wilding, Inc., include four sound stages, one of which is the largest in the Midwest. Wilding also has facilities for developing and processing both color and black-and-white films.

Raytheon Learning Systems Co. has established its national marketing headquarters at 475 South Deam St., Englewood, N.J. The headquarters will house a showroom for Raytheon Learning Systems products including closed-circuit TV systems, language laboratory equipment, multi-media student response systems and driving training simulators. The 6,000-ft² building also houses the regional sales office of D. C. Heath and Company. Both firms are divisions of Raytheon Education Company.

Local Communications Network (LCN), 845 N. Broad St., Philadelphia, Pa. 19123, is a new firm organized to provide coordination of communications services, including motion-picture production, throughout the United States and parts of Europe, Japan and South Vietnam. In effect, the firm acts as a central agency where names of firms and individuals specializing in various communication areas are kept on file. When a request is received at the Philadelphia headquarters for services in any specified area, LCN contacts its representatives in that area and the service is supplied at local rates. For example, a Pennsylvania firm required a 12-min color motion picture of its plant in Dijon, France. LCN was able to supply the required crew by notifying its "stringers" in Paris.

Television commercials at the point of purchase is the purpose of a closed-circuit video-tape system that will be installed in 100 British supermarkets in the Tesco chain by Television Applications Ltd. of London. An Ampex video-tape recorder will feed specially developed product commercials to shoppers via television receivers at each store. Commercials for products sold in the stores will be included in 20-minute programs repeated continuously throughout the day for two-week periods. Six monitors will display the programs in each store. Each commercial will be shown about 28,800 times in a two-week period. Total cost of the system is more than $700,000 and includes 126 Ampex Model VR-7003 video-tape recorders. The television shopping commercials will be shown initially in black-and-white. However, the video-tape recorders are adaptable for color recording and playback, if desired.

The Marconi Company has been presented with the Queen's Award to Industry for 1967 for "the technological achievement represented by the Mark VII color television camera, the latest airborne direction finder, type AD370, and the satellite communications earth station which was designed and built on Ascension Island for Cable and Wirless in only 11 months." The presentation, which was part of an overall award to English Electric, took place at the Marconi Works in Basildon, Essex, England. Presentation was made by Sir John Ruggles-Brise, Her Majesty's Lieutenant for the County of Essex. The English Electric Fusegear Division at Liverpool was also honored for its work on high-speed fuses for the protection of semiconductor rectifiers used in a variety of applications, including industrial control systems.

Alexander C. Grove, Director of Standards Information, United States of America Standards Institute, 10 E. 40 St., New York, N.Y. 10016, is recipient of the Award for Outstanding Contribution to the Literature on Standards conferred by the Standards Engineers Society. The paper which was thus recognized is "International Standardization — Interface With the Future," an abridgment of which appeared in the November 1966 issue of the *Journal*. It was first published in the August 1966 issue of *IEEE Spectrum*. The citation notes that Mr. Grove "has written a timely, in-depth analysis of the problems facing international standardization efforts."

Henry N. Kozanowski and Juhani Hamalainen participated in a color television seminar held September 6–8 in Helsinki for TV broadcast engineers from the Scandinavian countries. The seminar was arranged by the Finnish Broadcasting Co. Dr. Kozanowski is Manager of TV Advanced Development for the RCA Broadcast and Communications Products Division, Camden, N.J. He was the re-

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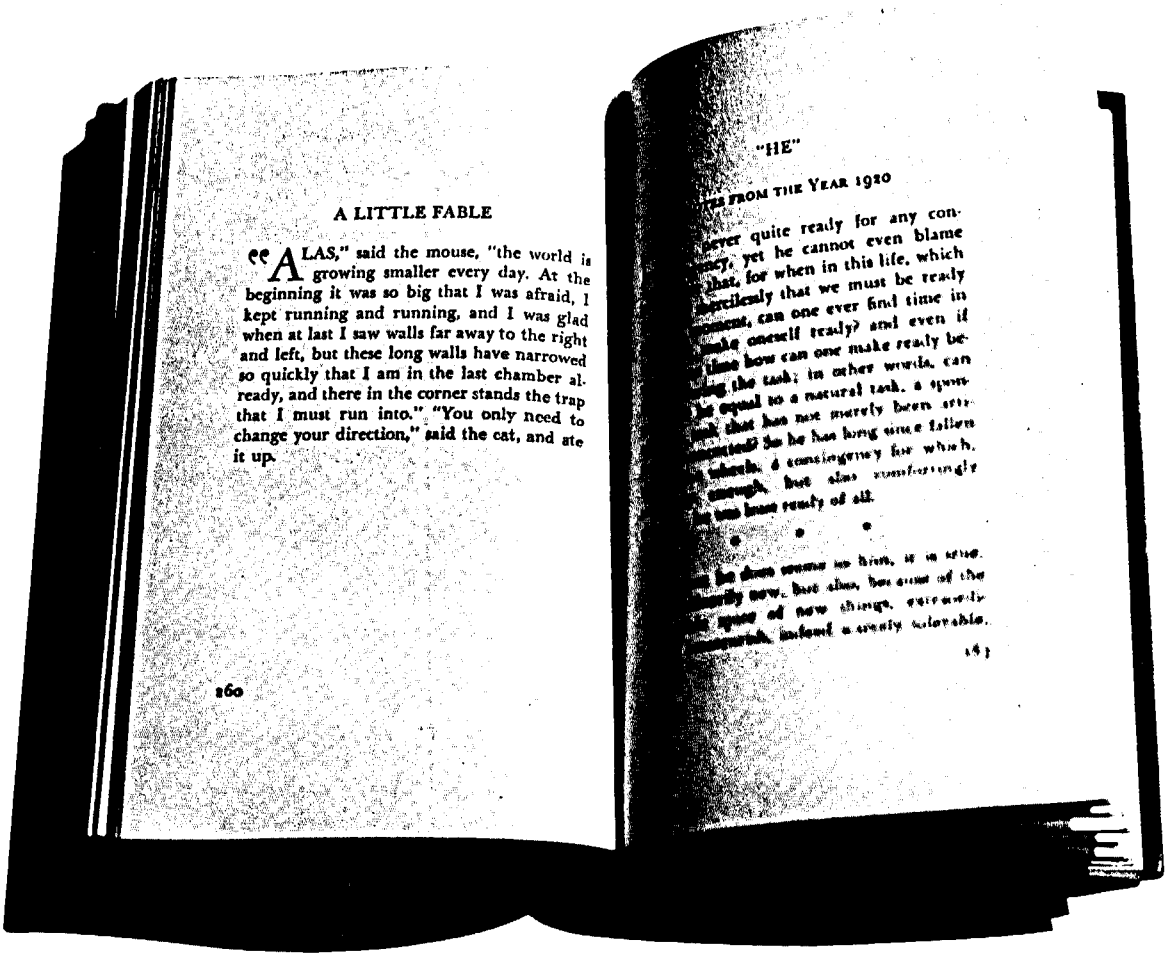
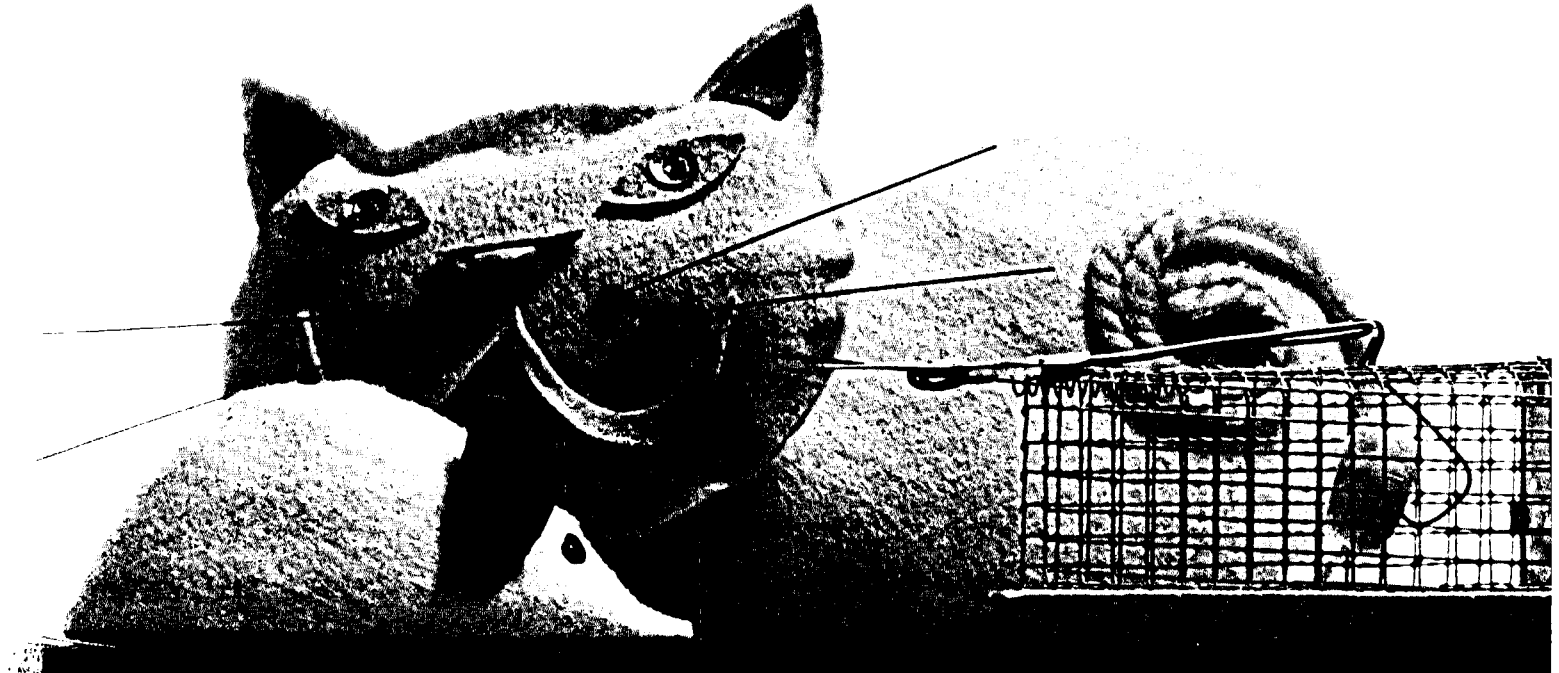


BREATHE LIFE INTO WORDS WITH PICTURES



GAF PROFESSIONAL PHOTO PRODUCTS BRING VITALITY TO IMAGINATION AND EMOTIONS.

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AUTOMATIC ANSWER TO GIANT SUPPLY PROBLEM

Supplying photos of last August's XII World Boy Scout Jamboree could have become a major headache for the Scout organization: 400 newsmen and 2500 Boy Scouts acting as correspondents for their local newspapers had to be supplied. Pictures were also needed by the Jamboree newspaper (80% of it pictures), and negatives and prints were required to fill requests that would come in from publications after the Jamboree was over.

The solution: the GAF Transflo* 1206, the completely automatic dry-to-dry black and white film and print processor that can turn out over 250 sheets of 4" x 5" film per hour—or the equivalent. Operated by only 2 lab men and 2 Scouts in 2 shifts, the 1206 turned out 6000 negatives and 3600 8" x 10" prints in 12 days! Edward Belason, director of photography for the Scouts, said, "In past Jamborees, we would use 3 shifts of 30-36 people for this kind of volume. But when you can feed 3 rolls of film into the Transflo and have them come out in 4½ minutes, processed and *dry*—you can really produce volume work." For more details on GAF Transflo processors, write for Bulletin 7519-150.

HOW TO GET YOUR WASH DONE FASTER, DRY IT BETTER, AND GIVE IT TONE

Quix Wash Saver*, the GAF hypo-clearing agent, shortens washing time for films and papers. It permits effective washing in cold water (35° to 60° F) and is especially valuable in processing machines with short washing cycles.

Viviflow 300* is a photographic wetting-agent concentrate that helps prevent water spots on films and assures the even action of chemicals for some after-treatments.

Vivitoner,® the single-solution toner concentrate, produces a wide range of brown tones on Allura,® Cykora,® Indiatone,® and similar warm-tone papers. Tone is controlled by varying dilution and length of treatment. For more information on GAF's Quix, Viviflow 300, or Vivitoner, write for Bulletin 7519-132.

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NOW YOU CAN HEAR GAF FILMS ON TELEVISION

Now there are three great new GAF films *pre-striped* for magnetic sound recording for television. For color—*Anscochrome*® T/100—*the one color* film for all lighting conditions. Its tight grain pattern and brilliant color reproduction plus film speed of 100 under 3200 Kelvin illumination and 64 for daylight (with 85B filter) cover every assignment.

For black and white film under regular lighting conditions, use GAF Medium Speed Reversal film with a speed of 64 daylight and 50 tungsten. When lighting conditions get tough, reach for GAF High Speed Reversal film with speeds of 200 daylight and 160 tungsten. For *more information on these* 3 new GAF sound films, write for Bulletins PTB 7519-105, PTB 7519-032, PTB 7518-255.

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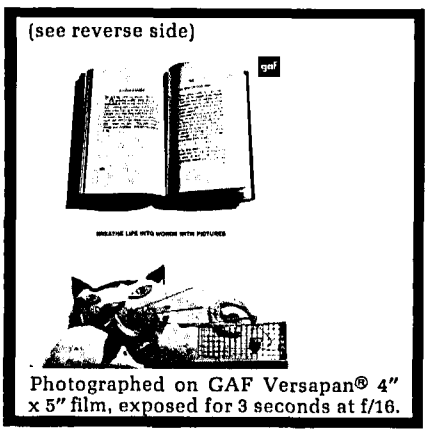
OLD RECORDING PAPERS NEVER DIE...THEY JUST FADE AWAY IN ROOM LIGHT...

...Unless they're Anscotrace® Oscillograph Recording papers. Anscotrace papers have excellent room light stability—are less susceptible to fading than competitive direct-print oscillograph papers. So exposed records of Anscotrace stay sharp and clear in direct light longer.

And Anscotrace papers retain a clearer image than other papers when treated for *long-term* storage. When stabilized with the Anscotrace stabilizing kit, the blue trace on a yellow background becomes a black trace on a white background.

Anscotrace lasts longer when photodeveloped by light and not stabilized, and will produce a superior-quality stabilized print. Bulletin 7519-171 gives more *information on these fine recording* papers.



Photographed on GAF Versapan® 4" x 5" film, exposed for 3 seconds at f/16.

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HOT OFF THE PRESS—AND YOURS FREE!

The handsome new 39-page GAF *professional photo products catalog*. It's crammed full of the latest information on all GAF professional films, papers, chemicals, processors, printing and processing aids, and photofinishing supplies. This valuable catalog puts all the supplies you need for top-quality photos and processing at your fingertips in one handy volume. Completely indexed, generously illustrated in black and white and color, handsomely printed on glossy paper, the new GAF catalog is an important tool for every professional photographer. For your free copy, write to GAF. 02067

*TRADEMARK OF GENERAL ANILINE & FILM CORPORATION

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140 WEST 51 STREET, NEW YORK, NEW YORK 10020

cipient of the Gold Medal Award presented by the Society (1965) for his contributions to color TV studio equipment design. Dr. Kozanowski discussed the four-vidicon color TV film camera which makes use of a separate luminance channel. A native of Finland, Mr. Hamalainen is RCA Applications Engineer for TV equipment installations in Europe. His headquarters are in Geneva, Switzerland. He spoke on tape equipment for recording and reproducing color programs.

Richard Y. Blum has been appointed Vice-President, Program Production for the Perceptual Development Laboratories (PDL) Div., Sibony Corp., 3303 Lee Parkway, Dallas, Tex. Lloyd M. Boutwell has been appointed Vice-President, Engineering and Manufacturing. PDL, with headquarters in St. Louis, produces the Perceptoscope and Visual Learning Systems. It is also exclusive distributor for The Reading Laboratories, Inc., in New York. In his new post Mr. Blum will be responsible for all activities related to the company's production of filmed and printed education and training program materials. Before joining PDL in 1965, Mr. Blum was a director at the Motion Picture Unit at the University of Iowa.

Joseph A. Flaherty has been appointed to the newly created position of General Manager, Engineering and Development, CBS Television Network. Mr. Flaherty joined CBS in 1957 as a member of the professional engineering staff and has been Director of the Technical Facilities Staff since 1959. Previously he had been a member of the NBC technical staff in New York, and, earlier, a senior engineer at WDAF-TV in Kansas City, Mo. He also served in the U.S. Army as Director of Technical Operations at the Signal Corps Pictorial Center. He has produced several technical training films covering television lighting and image pickup problems.

Three appointments to managerial positions in the Magnetic Products Laboratory of 3M Company, St. Paul, Minn., have been announced. William R. Eubank has been appointed Advanced Research Manager. Paul R. Fram has been appointed Organic Materials Research Manager and Willis D. Haller has been appointed Magnetic Materials Development Manager. Dr. Eubank was formerly with the firm's Central Research and Revere-Mincom laboratories. Dr. Fram was associated with the Central Research and Chemical division laboratories prior to joining the Magnetic Products research staff. Mr. Haller has been with the Magnetic Products laboratory since 1954.

Richard B. Martenson has been appointed Vice-President Marketing of the Photolamp Operation of Sylvania Electric Products Inc., 730 Third Ave., New York, N.Y. 10017. He succeeds Robert L. Kleinfeld who was recently named Vice-President Marketing for the Lighting Products Division. Mr. Martenson was formerly General Sales Manager for the Photolamp Operation. In his new post he will be responsible for the overall market-

ing activities of the Photolamp Operation including sales, merchandising, advertising and sales promotion.

Two appointments have been announced by International Video Corp., 67 East Evelyn Ave., Mountain View, Calif. 94040. William F. Boucher has been appointed Quality Control Manager and Byron D. Carr has been appointed Customer Service Manager. Mr. Boucher was formerly with Memorex Corp. where he worked successively as research engineer, project engineer and quality assurance engineer. Mr. Carr was formerly with Precision Instrument Co. where he was responsible for service training and customer service.

James A. Gleason has been appointed Production Chief for Manhattan Sound Studios, 460 W. 54 St., New York, N.Y. 10019. He was formerly Chief Sound Engineer. In his new post he will be responsible for all of the recording, re-recording, mixing, post-synchronization, etc., in which Manhattan Sound is involved. Mr. Gleason's experience with sound dates back to 1927 and for 30 years he was a sound engineer for Twentieth Century-Fox.

Roger S. Van Heyningen has been appointed head of the Physics Division at Kodak Research Laboratories in Rochester, N.Y., to succeed Julian H. Webb who will retire January 1. Dr. Van Heyningen joined Kodak in 1958. He was a research physicist and a senior research physicist in the Physics Division until 1962 when he became a research associate. He was appointed assistant head of the division in 1966. During recent years, his research work in solid state physics has included the optical and electronic properties of insulators and semiconductors.

A. P. Lofquist, Jr., and R. M. Blanco have been elected Corporate Vice-Presidents of Technicolor, Inc., 6311 Romaine St., Hollywood, Calif. 90038. Mr. Lofquist has been with Technicolor since 1945. In his new post he will act as special assistant to the President for worldwide professional motion-picture customer services. Mr. Blanco has been with Technicolor since 1930. He will continue as head of Television Division sales and will take on additional duties in charge of sales for the company's Vidtronics and Magna-Crafts divisions. R. W. Bachmayer succeeds Mr. Lofquist as General Manager, Motion Picture Division.

John Dinkmeyer has been appointed Instructor in Mass Communications for the University of Denver. He will complete work for the MA degree while teaching at the University. Mr. Dinkmeyer did his undergraduate work at Lindenwood College. He has been Production Manager for Condor Films and Assistant Director for KETC-TV, St. Louis. Other appointments announced by the University of Denver include Arnold C. Harns, Jr., Assistant Professor of Religion, and Dr. J. Donald Hughes, Assistant Professor of History.

†conducted by the publishers of Industrial Photography magazine

9th ANNUAL INDUSTRIAL FILM AWARDS† WINNERS

Dept. of Travel Industry, British Columbia
"BREATH OF SPRING"
Producer/Director—W. E. Gray

State Dept. of Education, Atlanta, Ga.
"ODE TO AN UNCERTAIN TOMORROW"
Producer/Director—J. Hunter Todd

Grumman Aircraft Engineering Corp.
"READY ON ARRIVAL"
Producer—Richard C. Milligan
Director—William Joyce

North American Aviation
"TAKE TEN"
Producer/Director—W. M. Brose

Cornell Aeronautical Laboratory, Inc.
"INSTRUMENT OF SERVICE"
Producer/Director—H. S. Tolley

congratulations to our prize ...their films, cameramen

Douglas Aircraft Co.
"SIMPATICO MEANS VENEZUELA"
Producer—Ben Marble
Director—Bill Gibson

Jet Propulsion Laboratory, Deep Space Network Div.
"A NEW WINDOW INTO SPACE"
Producer—Irl Newlan
Director—William Rowe

IBM Corp.
"PROFILE OF A PROCESS:
THE SOLID TECHNOLOGY CIRCUIT"
Producer/Director—Louis C. Varuzzo

Jet Propulsion Laboratory, Technical Information Div.
"LUNAR LANDING"
Producer—Irl Newlan and William Brusseau
Director—W. Brusseau

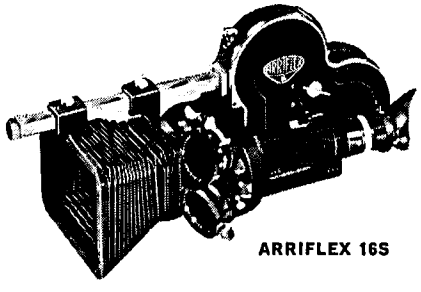
Los Angeles City Fire Dept.
"FIRE FIGHTING DURING RIOTS"
Producer/Director—Paul Garns

Aerojet-General Corp.
"M-1 ENGINE DEVELOPMENT FINAL REPORT"
Producer/Director—Larry D. Filby and William W. Riley

Jet Propulsion Laboratory, Mariner Project Div.
"MARINER VENUS 67 TRAINING FILM"
Producer—Robert Pace
Director—Jack Aiken

General Dynamics Convair
"ONE ONE-ZERO ZERO"
Producer/Director—E. C. Keefer

Hughes Aircraft Co.
"APPLICATIONS TECHNOLOGY SATELLITE:
FACT FINDING COMMITTEE"
Producer/Director—G. W. Stimson and J. R. Swift



ARRIFLEX 16S

Arriflex cameras...

Three appointments have been announced by International Video Corp., 67 E Evelyn Ave., Mountain View, Calif. 94040, manufacturers of closed-circuit video devices. Carl W. Claras has been appointed Director of Manufacturing; John L. Pagen, Jr., is the new Director of Employee Relations; and Richard D. Walker is Controller. Mr. Claras, formerly a Vice-President of J. Briskin, Inc., was with Revere-Wollensack for 13 years. Mr. Pagen was formerly Manager of the Administrative Services Div. of Energy Systems, Inc. Mr. Walker was formerly Vice-President and Controller of Pacific States Steel.

Robert L. Kleinfeld has been appointed to the newly created position of Vice-President of Marketing for the Lighting Products Div. of Sylvania Electric Products Inc., 730 Third Ave., New York, N.Y. 10017. Mr. Kleinfeld has been with Sylvania since 1938. In his new position he will be responsible for coordinating Sylvania's marketing activities in all lighting areas.

Harold H. Schroeder has been appointed Manager of the Photoreceptor Process Development Area in the Business Products and Systems Development Div. of Xerox Corp., Midtown Tower, Rochester, N.Y. 14603. He was associated with Bausch & Lomb for 20 years and was department head of thin film process engineering prior to joining Xerox in 1964. He is the recipient of an Academy Award for the development of a motion-picture projection reflector.

Historical Note

Photographische Mussen und Sammlungen (Photographic Museums and Collections)

By Dr. L. Roosens in *Photographische Korrespondenz, 102*:179–86, 1966

The following abstract and abridged list was prepared by *Beaumont Newhall*, The George Eastman House, 900 East Ave., Rochester, N.Y. 14607.

This survey of 52 photographic museums and collections throughout the world is the most complete yet compiled and is a useful guide. It was compiled largely from the meager literature which exists; consequently many important collections which have not yet published catalogues (such as The George Eastman House and The Museum of Modern Art) are inadequately described.

We offer the following additions and corrections:

The Will Day motion-picture collection, listed by Dr. Roosens as on loan to the Science Museum, London, has been acquired by the Cinémathèque Française, Paris.

The Gernsheim Collection is described in a brief catalogue published by The University of Texas on the occasion of their first public showing of highlights of the collection; 89 items are listed and 30 are illustrated. A more complete catalogue, listing 1516 items and with 48 illustrations, was published by Wayne State University Press in 1963, when the collection was shown in Detroit, before it was sold to The University of Texas.

Salzburg, Austria, now has a public museum of photography, Dr. Hans Frank's Photogeschechtliches-Museum. An excellent catalogue, listing 892 items and with 48 illustrations was published in March 1967. The address of the museum is Reichenhallerstrasse Nr. 18, Salzburg, Austria.

Besides art and science museums, many historical societies throughout the United States possess extremely large photographic collections containing literally millions of photographs of all periods. Of these, the most important are The New York Historical Society and the Museum of the City of New York (both in New York); the Chicago Historical Society; the Minnesota Historical Society, St. Paul; the Historical Society of Wisconsin, Madison; the Missouri Historical Society, St. Louis; the American Antiquarian Society, Worcester, Mass.; and the California Historical Society, San Francisco.

An abridgment of Dr. Roosen's list follows.