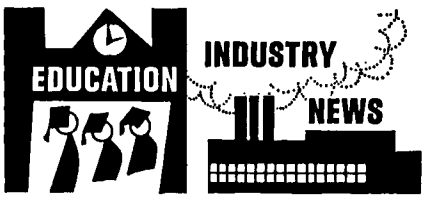


The Society of Photographic Scientists and Engineers has awarded honorary membership to Leopold Godowsky, Jr., and (posthumously) to Leopold D. Mannes for their outstanding contributions to color photography and particularly for their joint contribution to the development of Kodachrome film. Wesley T. Hanson, Assistant Director of the Kodak Research Laboratories, attended the award ceremony on behalf of Eastman Kodak Co. He was an associate of Mr. Mannes and Mr. Godowsky when they worked at the laboratories.

Both Mr. Mannes and Mr. Godowsky were trained as musicians and both became interested in color photography during their school days in New York. During their early research from 1924 to 1929 they rented office space for use as a laboratory and also used rooms in their homes as makeshift laboratories. Because of their active work in music, much of their research was done at night and on weekends.

Both men also studied science. Mr. Godowsky studied at universities on the West Coast where he also played the violin in symphony orchestras. Mr. Mannes studied at Harvard University. In 1930 they both joined Kodak Research Laboratories where they concentrated on the development of the Kodachrome process. After Kodachrome film was introduced in 1935 ("The Kodachrome Process for Amateur Cinematography in Natural Colors," by L. D. Mannes and L. Godowsky, Jr., *Journal*, pp. 65–68, July 1935), they continued research on various modifications and adaptations of the process.

The two men left the Research Laboratories in 1939. Mr. Mannes returned to music and became the President of Mannes College of Music in New York. He died in 1964 at the age of 64. Mr. Godowsky continued experimental work in color photography and he has also continued as a musician.

Image 70 has been announced by the Society of Photographic Scientists and Engineers as its next Annual Conference, to be held May 18–22, 1970, in New York. Three technical programs will be conducted concurrently: a five-day conference on photographic science, a five-day conference on photographic engineering and a three-day scientific colloquium. The sessions on photographic science will cover silver halide photography, photopolymerization, electrography, new photosensitive systems and copying systems. Papers at the scientific colloquium will be presented by invitation only and will be on the subject of image amplification. Papers Chairmen are Albert Derr, Robert Gold, Jame LuValle and Frank Scott. An equipment exhibit will be held in conjunction with the conference. SPSE headquarters are at 1330 Massachusetts Ave., N.W., Washington, DC 20005.

The First Twenty Years is the generic designation of 100 films selected from the 3,000 films restored by Kemp Niver, President of Renovare Co., as representative of the films produced during the first twenty years of motion-picture history. Producers of the 100 films include Edison, American Mutoscope & Biograph, Lubin, Selig and the Oklahoma Mutoscene Company in America and some British, French and Scandinavian producers.

The 3,000 motion pictures were transferred to 16mm film from the bromide paper rolls filed with the Library of Congress between 1894 and 1916 as proof of copyright (see "Paper Prints of Early Motion Pictures" by Kemp Niver, *Journal*, pp. 1186–1187, Dec. 1966). The 100 films, now housed in the Division of Cinema, University of Southern California, were presented to USC by DeLuxe General, Inc.

The films are now available for sale or rental to interested organizations. They are distributed by University Film Distributors, the computer-based distribution operation of the University Film Association.

Upon accepting the films, Herbert E. Farmer, Professor of Cinema and Director of Services, USC, said, "We are most pleased to be able to offer the historic paper print restoration films. These are the authentic resource references which should be available to all true scholars of motion-picture history."

The University of Southern California has received a pledge of $500,000 from Anna Bing (Mrs. Aerol) Arnold to provide an 800-seat theater in the new $4.5-million Performing Arts Center at the University of Southern California. The theater will be known as the Bing theater. Mrs. Arnold is a well-known actress who has appeared on Broadway in such plays as *Counselor at Law*, *Street Scene* and *The Trial of Mary Dugan*. The theater will be for the use of the entire student body as well as for students and professors of music, cinema and telecommunications. Rehearsals will be video-taped so that the cast and crew can review their efforts on a monitor before opening night or final film printing.

CINE (Council on International Nontheatrical Events) has announced plans for the 1970 Cinetour to Expo '70 in Osaka, Japan, with stops at other points of interest in the Far East, including Manilla, Hong Kong, Kowloon and others. Members of the tour will visit motion-picture and television studios in the Philippines and Japan and other places of interest. Further information is available from Mr. and Mrs. John Flory, Tour Co-Chairmen, Cinetour Office, 36 Dogwood Glen, Rochester, NY 14625.

The National Bureau of Standards, Gaithersburg, MD 20760, has announced a Conference on Problems and Prospects for Image Storage and Transmission Systems for Library Applications to be held December 1–3. Cosponsors are Federal Library Committee's Task Force on Automation, the Lister Hill National Center for Biomedical Communication and the Panel on Information Sciences Technology of COSATI. The program will examine the development and use of graphic and textual image transmission systems, as well as the state of the advancing technology in equipment and techniques for such systems. Further information is available from Miss Madeline M. Henderson, Center for Computer Sciences and Technology, National Bureau of Standards, Room B226-Instr., Washington, DC 20234.

Highlights of the 37th Convention of the Audio Engineering Society to be held October 13–16 in the New York Hilton Hotel, New York (*Journal*, p. 794, Sept. 1969) include a special evening session on Sound Reinforcement for the Performing Arts (Chairman, William E. Windsor) and three sessions on Audio Abroad (Chairmen, J. L. Ooms of The Netherlands and P. K. Burkowitz of Germany). Papers presented at the Audio Abroad sessions will describe developments in audio equipments and techniques in Japan, Czechoslovakia, Germany, U.S.S.R., Italy, The Netherlands, Austria, Yugoslavia and Switzerland.

The first session will be on Broadcasting (Chairman, Lewis D. Wetzel) and will include papers on such subjects as "A Dynamic Presence Equalizer" by Richard G. Allen and "Loudness Measurement and Control in Sound Broadcasting" by R. A. Hackley, H. F. Olson and J. A. Wissner. Five papers will be presented at the first session.

The second session will be on Transducers (Chairman, William S. Bachman). Eight papers will be presented at that session, including "Experimental Determination of Low-Frequency Loudspeaker Parameters" by J. Robert Ashley and Mark D. Swan and "Recent Developments in the Field of Condenser Microphones" by Hans-Joachim Griese of Bissendorf, Germany.

The third session, on Audio Apparatus and Applications (Chairman, Harold O. Kaitchuck) will include eight papers, among them being "The Harmonic Compressor, A System for Doubling Information Rates of Speech" (*Journal*, p. 659, Aug. 1969) by John W. Breuel and Leo M. Levens and "New Real Time 1/3 Octave Analyzer" by Jan Soberg.

The fourth session, on Developments in Electronics Music Systems (Chairman, Earle L. Kent) will include six papers examining various aspects of electronics in music. The fifth session, Audio Aids to Medicine (Chairman, Philip Kantrowitz) will include seven papers describing the use of audio in surgical and diagnostic techniques. An unusual aspect of audio research is described in a paper on "The Effect of Sound on Plant Growth" by Paul E. Newton which discusses experiments carried on at the Institute of Environmental Research, Kansas State University.

The special evening session will include three papers: "Operational Aspects of Sound Reinforcement at the Saratoga Performing Arts Center" by Stanley Hanna; "Sound Reinforcement in the Theatre" by T. Richard Fitzgerald; and "Sound Reinforcement in the Music Pavilion" by Christopher Jaffe.

Seven papers will be presented at the fifth regular session which will be on Disc Recording (Chairman, John M. Eargle) and two Audio Abroad sessions will include 14 papers.

The sixth session, on Magnetic Recording (Chairman, R. C. Moyer) will

cognoscat emptor!*

A portable professional 16mm motion picture camera of the silenced type represents an investment equalling or exceeding the cost of a luxury automobile. Before making such an investment, you want as much information as possible on which to base a decision. Here are some facts:

To begin, the only truly "noiseless" camera is one that's not running. But there are **quiet**, self-blimped cameras. Of these, some are more quiet than others, and some remain quiet while others get noisy with use.

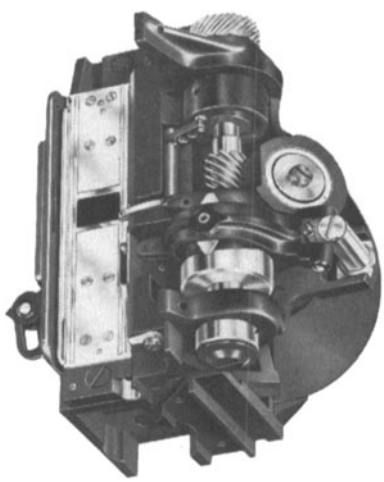
The purpose of every professional motion picture camera is to produce sharp, steady footage. To accomplish this, a motor has to transport the film from a feed roll through a sprocket drive to an intermittent movement (consisting of shutter, film transport claw and registration pin) to another sprocket drive, to the take-up roll. All these components must create noise as must the other features that a professional camera needs, like a tachometer and geared footage and frame counter.

It is easy to suppress such camera noises by placing the camera mechanism in a sound absorbing blimp. The heavier the blimp, the easier it is to contain noise. No problem with tripod supported studio cameras that weigh a hundred pounds or more. But a tough job when light weight and compactness are important for easy portability and hand- or shoulderheld use.

No wonder that some designers try to solve the problem by cutting mechanical corners to obtain acoustical advantages.

Like trying to reduce noise by sacrificing a precise, reliable cam driven registration pin movement which can run forward and reverse—we wouldn't make a 16mm Arriflex without it—for a spring-activated "register claw" which limits film to run forward only and may immobilize the entire camera if the spring fatigues in cold weather or "sticks" in hot weather.

Like trying to reduce noise by sacrificing a gear-driven tachometer—we wouldn't make a 16mm Arriflex without it—which tells you not only frames per second but, also, if your camera is out of synch.



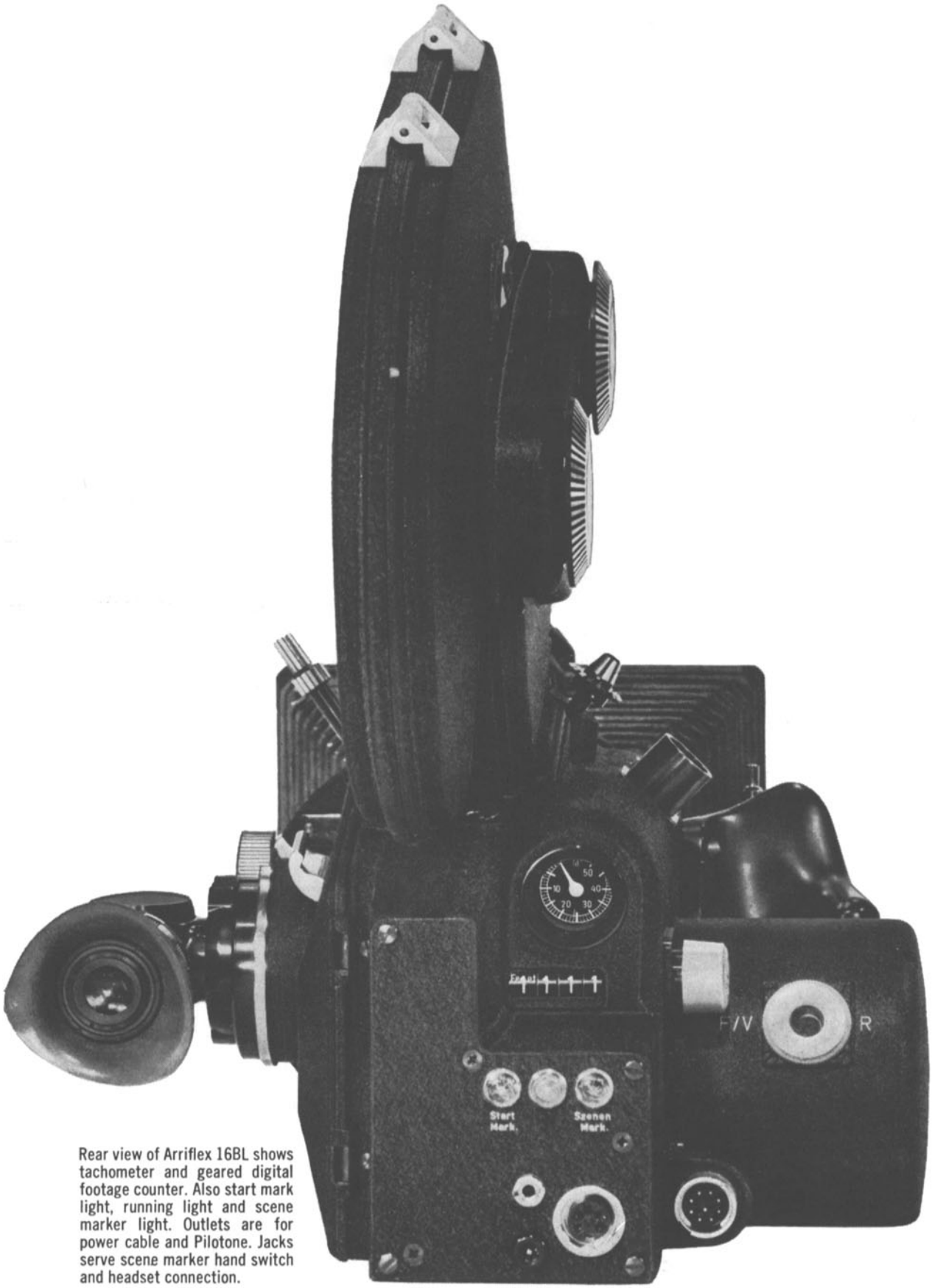
Precision Film Transport and Shutter Mechanism, the heart of all Arriflex 16 cameras. Pulldown and registration pins are positively controlled by compound cams, machined to closest possible tolerances.

Like trying to reduce noise by sacrificing a geared precision footage and frame counter registering forward or backward—we wouldn't make a 16mm Arriflex without it—which lets you locate and relocate every frame and control every foot. A feeler counter alone (which every Arriflex magazine also has) would never satisfy us because it can only give approximate footage.

There are no mechanical compromises made nor features sacrificed in the portable Arriflex 16BL that is built to proven standards of Arriflex reliability and ruggedness, and that runs as quietly after a million feet as after the first hundred!

Silenced professional motion picture cameras are a capital investment. Investigate before you invest!

***let the buyer be informed**



Rear view of Arriflex 16BL shows tachometer and geared digital footage counter. Also start mark light, running light and scene marker light. Outlets are for power cable and Pilotone. Jacks serve scene marker hand switch and headset connection.

include seven papers describing new techniques and equipments, including a tape-duplicating system and a dc, servo-controlled magnetic tape transport.

The final session (the third Audio Abroad session) will be a special program by scientists from the U.S.S.R.

More than 60 manufacturers will exhibit and demonstrate audio developments at the Equipment Exhibit arranged by Jacqueline Harvey. The Convention Chairman is George W. Bartlett. AES headquarters are at 60 E. 42 St., New York, NY 10017.

The Bell & Howell School of Instructional Technology has added four new courses to the curriculum. An advanced course in closed-circuit TV program production and applications will be offered beginning October 27 and extending through December 12. This course will be open only to those who have completed the basic course. Beginning in November, three new courses in service training will be given: (1) black-and-white and color cameras; (2) one-inch video-tape recorders and (3) black-and-white cameras, half-inch video-tape recorders and recorder/camera combination. Further information is available from Miss Barbara Zella, Registrar, Bell & Howell School of Instructional Technology, 7235 N. Linder Ave., Skokie, IL 60076.

A motion-picture processor 38 ft long has been installed in the Farrania film processing laboratory in Paris, France, owned by 3M Company. The processor was built by Pako Corp. of Minneapolis. The Cine/Strip machine processes super 8 Ferrania reversal color film at the rate of 130 ft/min. During operation there are more than two miles of film (10,800 ft) in the processor, equivalent to 200 rolls of amateur movie film.

The National Association of Educational Broadcasters' 45th Annual Convention will be held on November 9–12 at the Sheraton Park Hotel, Washington, D.C. The detailed program and information for registrations are available from NAEB Housing Bureau, 1616 K St., N.W., Washington, DC 20006. There will be sessions on international educational broadcasting; the relationship between CATV and educational broadcasting; use of radio and television in industrial training; and engineering papers.

A discussion of the future of instructional technology will be presented at 2 p.m. on November 10 by James Allen, Assistant Secretary of the Department of Health, Education and Welfare and U.S. Commissioner of Education. Sir Charles Moses, Secretary-General of the Asian Broadcasting Union, Sydney, Australia, will address the Convention at 9:30 a.m., November 12.

Careers in Motion Picture Production, published by Eastman Kodak Co. on behalf of the University Film Association and University Film Foundation, is available without charge for single copies to students, guidance counselors, librarians and other interested persons upon request to Dept. 454, Eastman Kodak Co., Rochester, NY 14650. The booklet, intended as a guide for students, covers the possibilities offered by Hollywood, television, business and industry, education, government, religion, medi-

The Dark Ages are over.

Kodak announces the Ektalite screen.

With the new *Kodak Ektalite* Projection Screen you can turn on the lights, the projector, and your audience at the same time. That's because this new screen design is six times brighter than conventional screens. That's six times brighter! And it's a lot of ways better for you.

You can project visuals any time, anywhere, even outside. You can use it for assembly-line training. Your audiences can take notes with no problems. You don't have to interrupt the flow of presentations or classes by darkening the room. Now you can show your visuals off in their best light.

The *Ektalite* Screen is extra bright because it uses a remarkable new screen material which rejects ambient light. And the curved construction of the screen eliminates the "hot spot" found in ordinary flat, darkened-room screens. For less than $66, you can have a 40 by 40-inch *Ektalite* Screen.

See your Kodak Audiovisual dealer for more information or contact one of the offices listed below. We know you'll agree that the *Kodak Ektalite* Projection Screen is a very bright idea.

Price subject to change without notice.

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Atlanta: 404/351-6510
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Dallas: 214/FL 1-3221
Hollywood: 213/464-6131
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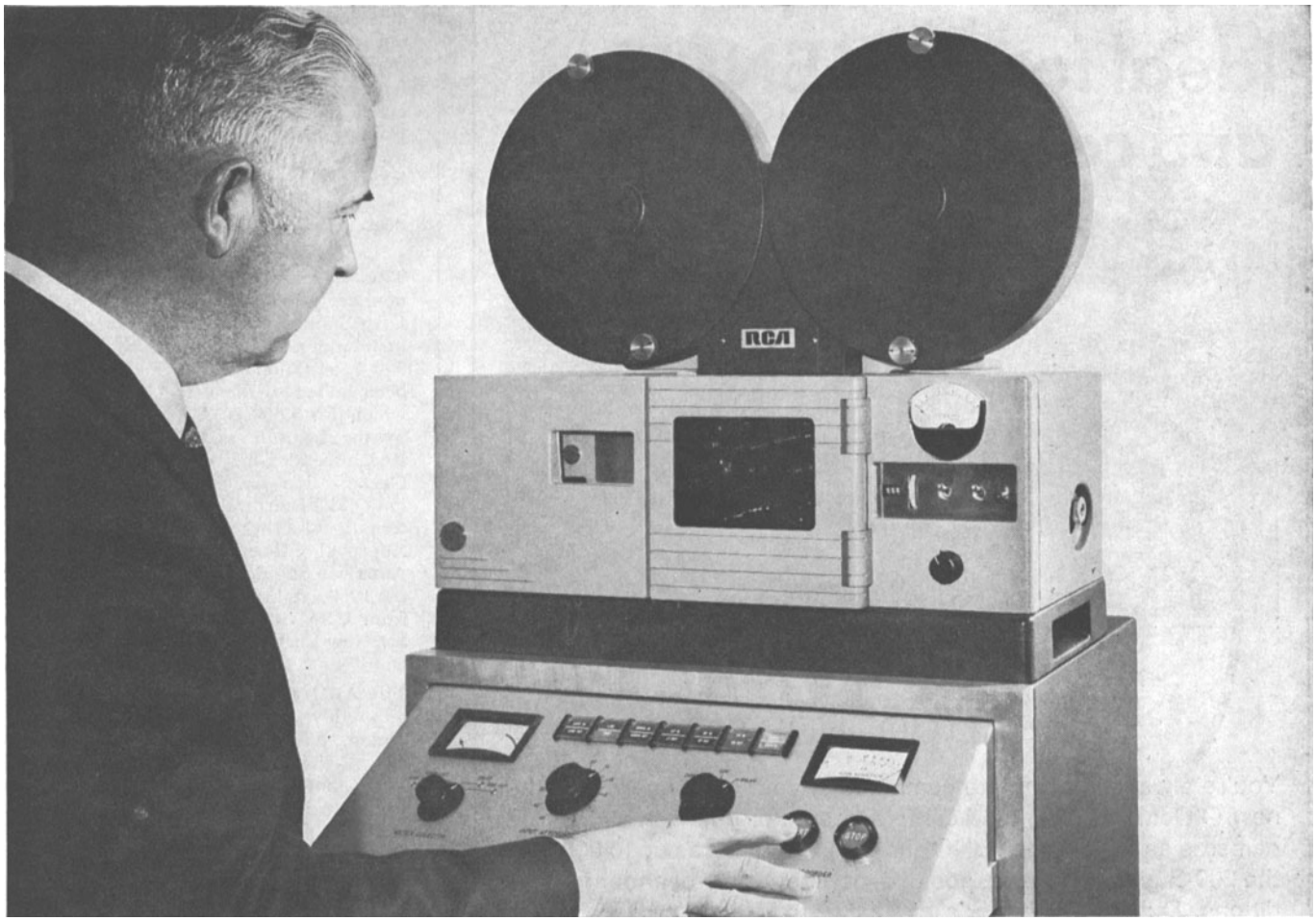
San Francisco: 415/776-6055

Kodak

You haven't heard the last word in film recording unless you've heard about this solid-state RCA PM-80A.



Because the last word in film recording is the PM-80A.

It's completely solid-state, of course. Modular and human-engineered, too. Everything's right where it ought to be to minimize operator fatigue and error, while modules are readily replaceable. And, the PM-80A is available in 35, 16 and Super 8 mm.

More important, the PM-80A gives reliability that lasts and lasts—for 10, 20, even 30 years. Sure, you're accustomed to dependable performance from your old tube-type RCA optical recorder, but the new PM-80A tops even the traditional RCA reliability standards.

That's why we think you ought to have every last detail on this last word in optical film recorders. Which is why we included this handy coupon.

Yes, I want all the word on your new PM-80A:

I have an immediate interest in
- ☐ replacing an existing machine.
- ☐ installing a new or additional machine.

No hurry, but I do have an upcoming need for
- ☐ a replacement machine.
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☐ I'd just like something for my files, thanks.

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FILL OUT AND MAIL TODAY! FILL OUT AND MAIL TODAY!

RCA Film Recording

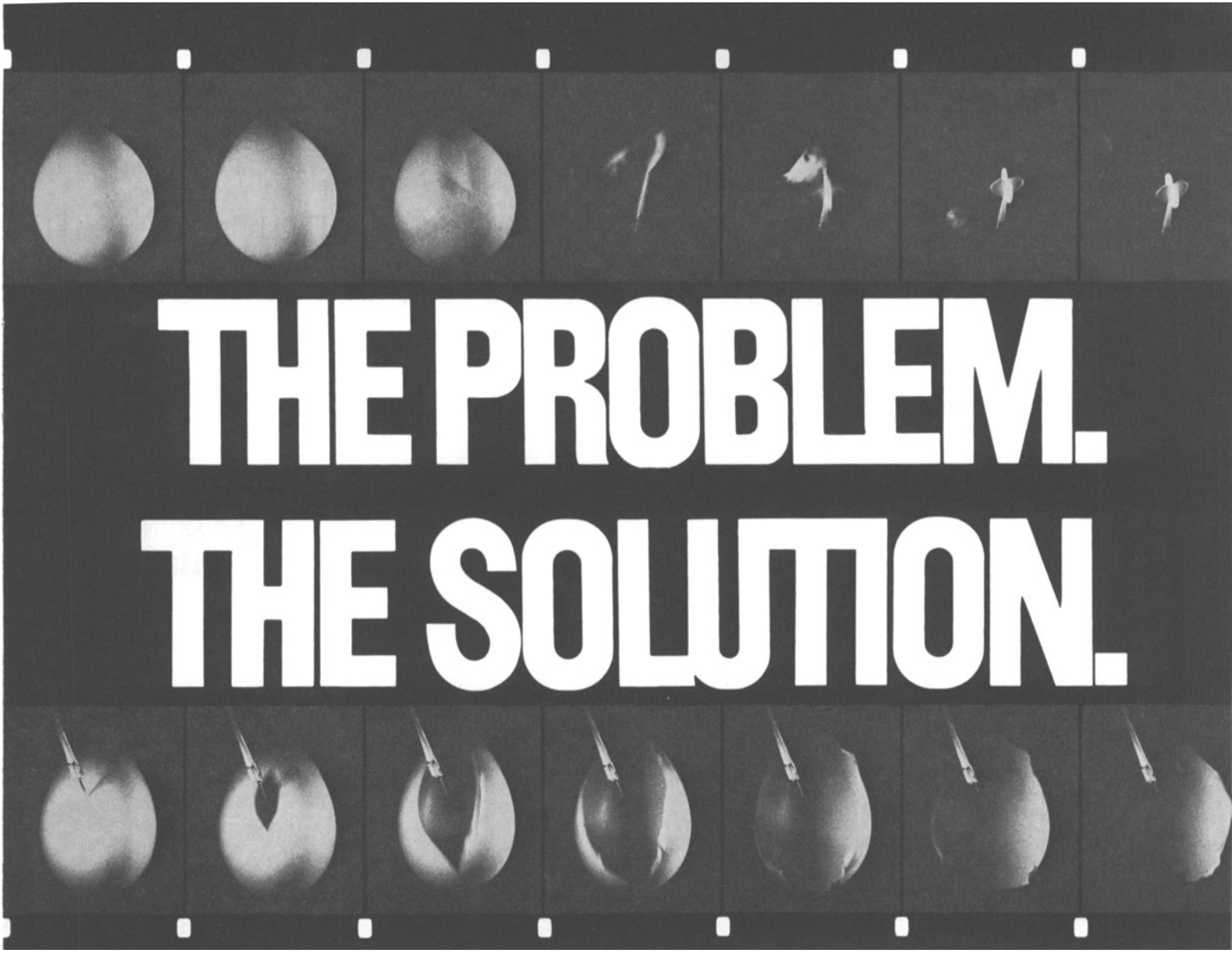
cine and film teaching. The booklet points out that motion-picture production is a major communications industry reaching far beyond entertainment films. It also discusses the advantages of formal academic training in the various phases of film production and includes a partial list of colleges and universities offering programs leading to undergraduate and graduate degrees in the field.

The USA Standards Institute has announced publication of the 1969 catalog of USA Standards and International Recommendations. Some 600 USA Standards and 300 International Recommendations have been added to the new 112-page edition, which lists 3,600 USA Standards approved by the Institute and 1,350 International Recommendations of the International Organization for Standardization, International Electrotechnical Commission, International Commission on Rules for the Approval of Electrical Equipment and Pan American Standards Commission. Copies of the 1969 catalog are available upon request from USA Standards Institute, 10 E. 40 St., New York, NY 10016.

The ABU Technical Review is published bimonthly by the Asian Broadcasting Union, NHK Building, 2–3 Uchisaiwai-cho, 2-chome, Chiyoda-ku, Tokyo 100, Japan, and contains papers and reports on television and radio broadcasting. Papers in the July 1969 issue include "Some New Developments in High Power Broadcast Transmitter Design," "Bilingual Television Broadcast System," "The Use of Television Translators in New Zealand," "Automatic VTR Rewind Operation" and "Improvement of MF Broadcast Reception Inside Tunnels and Subways." Other features include reports on CCIR activities and broadcasting developments in the ABU region. President of the Asian Broadcasting Union is Yoshinori Maeda, President of NHK. Vice-Presidents are Gilbert Stringer, Director-General of the New Zealand Broadcasting Corp., and Dol bin Ramil, Director of Radio Malaysia. There are 22 full members of ABU and 27 associate members including (in the United States) American Broadcasting Company, Columbia Broadcasting System, National Broadcasting Company and Time-Life Broadcast, Inc. The National Association of Educational Broadcasters and National Education Television are also associate members.

The Nature of Sea Water (28.5 min), *Modern Geodetic Surveying* (20 min) and Oceanographic Prediction Systems (28.5 min) are 16mm color sound films produced by the Public Affairs Office of the Oceanographer of the Navy. They are available as a loan without charge from the Public Affairs Offices of all Naval Districts.

The Code-Com, a telephone system that can be used by persons who are totally deaf or deaf and blind, has been developed at Bell Telephone Laboratories. The system consists of a conventional telephone and a signal unit containing a light bulb, a vibrating disc and a sending key. A telephone ordinarily converts speech into electrical impulses which are transmitted and reconverted to speech at the receiver. The



THE PROBLEM.
THE SOLUTION.

The standard-speed motion picture sequence at the top illustrates the eye's inherent limitations in dealing with motion.

In the time it takes to blink an eye, the balloon just "disappears."

And that is the problem. We must understand, measure, evaluate, and correct machinery operating at velocities which are increasingly beyond our ability to observe directly.

The solution is a new engineering tool: a camera which extends our ability to perceive rapid motion, just as the microscope extends our perception of small objects.

The Red Lake high-speed rotating-prism camera reaches into high-velocity motion and captures it for detailed study.

The camera operates at variable speeds up to 44,000 pictures per second, providing an apparent speed reduction of 2000-to-1 when projected.

A shaft turning at 10,000 rpm appears at 5 rpm.

A computer end-gate swings open like a saloon door.

And between the third and fourth frames of the standard-speed movie, the rotating-prism camera takes 1,833 pictures. A slow, easily observable 125-second collapse, as shown in the edited lower sequence.

The only commercially-available camera with these capabilities is the Hycam, developed and manufactured by Red Lake Laboratories.

Hycam—and Red Lake's intermediate-speed cameras—are now standard tools of motion analysis. The first and most obvious step in trouble-shooting problems hidden by motion.

Further insights: Red Lake Laboratories, 2971 Corvin Drive, Santa Clara, California 95051.

RED LAKE

THE TROUBLESHOOTERS

9th International Congress on High-Speed Photography Denver, Colorado Aug. 2-7, 1970

Code-Com set converts the transmitted signals into flashes of light and vibrations of the disc or sensor pad. Thus a deaf or deaf and blind person can "read" simple messages by using a pre-arranged code, such as Morse code. Using the sending key like a telegraph key, a person without normal speech can send light or vibration signals to another Code-Com set or coded sound signals to a regular telephone. The Code-Com set may be used with a separate signal control unit which is connected to the ringing circuitry of a conventional telephone. A telephone "ring" is indicated when the control unit switches a light, electric fan or some other light-duty appliance on or off.

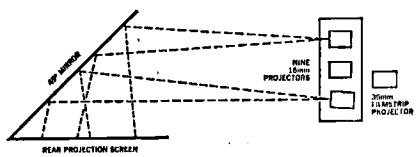
Bell Telephone has also developed a volume control handset for public phones. Persons with impaired hearing can use a three-position switch to increase the volume of sound from the receiver.

The Music Makers Group, Inc., 1345 Sixth Ave., New York, has announced that leases have been signed for three new theaters in suburban New Jersey shopping centers which will bring the number of Music Makers Theaters to nine. Sites have also been selected for three additional theaters. At present the company has six theaters in suburban shopping centers in New Jersey and in Westchester County, New York (*Journal*, p. 577, July 1969).

The Color Process Story, 1969, by Vincent J-R Kehoe, President of the Research Council of Make-Up Artists, is available to studios and beauty salons upon request to RCMA, 52 New Spaulding St., Lowell, MA 01851. The updated booklet describes new items developed by RCMA with instructions as to how to use them. In a section called The Ten Steps to Beauty, the author states, "Today's professional make-up is not like the old theatrical make-up which was heavy or overdone with shades that looked bad for the street, because with a Color Process Make-Up a woman can be photographed or televised in color or black-and-white and look beautiful on the street in daylight or artificial light as well.

A graphic display projection system that composes sentences, creates moving diagrams and simulates events by remote command was used for the first time for CBS television news coverage during the Apollo 11 moon mission. Key element in the system is the L-W 224A-TV 16mm motion-picture projector made by L-W Photo, Inc. Nine of the units were mounted on a three-tier array, each projector gimballed for pan and tilt and independently controlled from a remote console. The system consists of nine 16mm projectors, one 35mm filmstrip projector, a master control console, a rear-projection screen with 45° mirror, triggering circuits, counters and the film.

Images were projected from the 16mm units either in the still mode or at low frame rates. Flickerless operation of the projectors made animation sequences possible in the space of 30 frames. The screen was divided into 1,000 locations on x-y axes, all selectable from the master console. On push-button command, the projectors would seek their new coordinates and a new image would appear on the screen with the graphic elements in the proper relationship.



Because each of the nine 16mm projectors in the system is independently gimballed for remote pan and tilt control, images can be positioned anywhere on screen in accordance with pre-established x-ray coordinates. Final image on screen can thus be a composite of several frames in the system's random-access film "memory." Diagram shows image being composed by two projectors. Projector-to-mirror throw is 20 feet.

Reid H. Ray has accepted a Professorship, in the College of Graphic Arts and Sciences, Rochester Institute of Technology, Roch, ester, NY. Mr. Ray has been head of Reid H. Ray Film Industries in St. Paul-MN, since 1925 and has personally produced more than 1,000 films. More than 40 of the films he produced have received awards at domestic and foreign film festivals. Mr. Ray is President of CINE (Council on International Nontheatrical Events). Reid H. Ray Film Industries is

the oldest continuously operating nontheatrical film company in the United States. Mr. Ray will continue to act as Consultant to the firm and he will complete several films currently in production. Howard Gelb is now President of the firm.

During 45 years of producing nontheatrical films, Mr. Ray has traveled throughout the world making films on assignment. Among the award-winning films which he has produced is included *Discover America*, filmed in aeroscope (*Journal*, p. 1036, Oct. 1967). In addition to European countries, Mr. Ray has made films in such locations as Uganda, Kenya, Rhodesia, India and the Island of Crete.

Gideon Fiat has been appointed Assistant Director of Films for ABC News, it was announced by Jack Bush, Director of Film Services for ABC News. Mr. Fiat was formerly an equipment planning engineer for ABC where he was responsible for the evaluation, development and implementation of optical, film, colorimetric and lighting systems for the television network. Before joining ABC, he was Senior Project Engineer at CBS where he engaged in the development of optics, colorimetry and lighting systems. Through his efforts at ABC and CBS, new techniques, designs and modifications of color television cameras have evolved, resulting in improved color quality for the television industry, the announcement stated. Before coming to New York, Mr. Fiat was Chief Engineer of the Optical Div. of Teledyne and Chief Engineer of Photo Research Corp. where he was involved in the research, development and manufacture of photographic and colorimetric equipment. He has also been a consultant for NASA, North American Aviation and Northrop Space Laboratories.

John J. Kowalak has been appointed Executive Vice-President in charge of Engineering and Overall Plant Operations for Movielab, Inc., it was announced by Saul Jeffee, President. In his new post, Mr. Kowalak will supervise the transition of recently acquired laboratory divisions to Movielab's pattern of operations and will oversee extensive manpower and modernization programs for the Movielab complex. One of the first programs to be put in effect will be the extensive modernization of Movielab-Hollywood Inc., the West Coast laboratory facility recently acquired from Berkey Photo, Inc.

Mr. Kowalak has been with Movielab since 1957. He was formerly with the Ansco division of General Aniline and Film. He became a Vice-President of Movielab in 1960 and a member of the Board of Directors in 1966.

As part of the Movielab expansion program, Frank Berman, Executive Vice-President, has been placed in charge of Movielab's 45th Street Division in New York (formerly Berkey Technical Laboratory). The newly acquired laboratory will be devoted exclusively to the processing of TV commercials. Mr. Berman has been with the firm since 1946. He was formerly with De Luxe Laboratories.

Milton Laikin, Optical Consultant, has moved his offices to Compucenter, 4756 Admiralty Way, Marina Del Ray, CA 90291. His office was formerly in his home at 1913 Preuss Rd., Los Angeles, CA 90034, where he continues to receive mail.

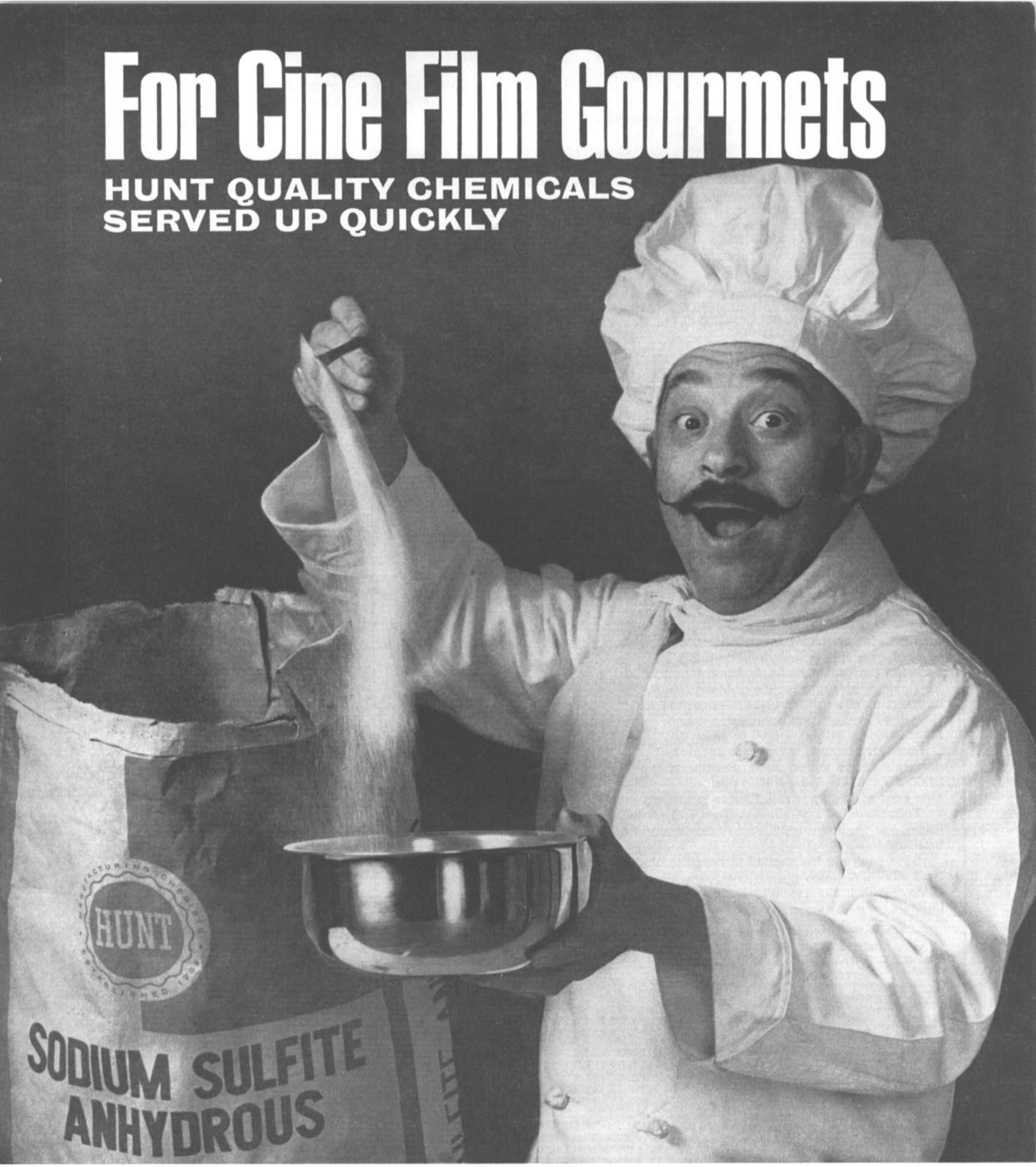
John L. Tupper has retired as Assistant Head of the Physics Division of Kodak Research Laboratories. He was graduated from the University of Rochester in 1933 and joined Kodak Research Laboratories that same year as a physicist in the sensitometry department. In 1940 he was placed in charge of research and special testing in the department and in 1955 he was made Assistant Head of the Physics Division. Among many other activities, he was instrumental in the organization of a laboratory for information technology.

Alexander Mackendrick has been named Dean of the School of Film at California Institute of the Arts, the new training center and community of the arts being established in Valencia, CA (*Journal*, p. 650, Aug. 1969). Mr. Mackendrick is a screenwriter and director and has directed such films as *Tight Little Island, High Wind in Jamaica, Crash of Silence* and *A Boy Ten Feet Tall*. During World War II he served with the Psychological Warfare Division in charge of newsreel and documentary productions and of War Crimes film records.

Gerald Jankowitz has joined the engineering staff of the Government Systems Division of Philips Broadcast Equipment Corp.

For Cine Film Gourmets

HUNT QUALITY CHEMICALS SERVED UP QUICKLY



Motion picture laboratories need the right ingredients . . . bulk chemicals with the greatest possible uniformity. And service that's geared to the day-in, day-out pressure motion picture processing calls for. You name it. Hunt has it. Modern manufacturing facilities and diligent quality control laboratories that guarantee processing uniformity with chemicals that meet every requirement of the United States of America Standards Institute. Modern warehousing facilities and efficient traffic and order departments that process and deliver your orders when you need them. Get your copy of the latest Hunt Bulk Chemical Price Brochure now from your nearest Hunt Branch or Sales Office . . . the perfect recipe for cine film gourmets.

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as the manager of a new advanced system development group where he will conduct research and development programs in electrooptical and infrared technology. He was formerly with the Defense and Space Div., Barnes Engineering Co., Stamford, CT 06902. He has also been staff consultant for Lincoln Laboratory, Massachusetts Institute of Technology. Philips Government Systems Division is presently located in Paramus, NJ. In the near future the division will move to a new and larger facility at Mahwah, NJ.

Robert G. Crane has been appointed Vice-President in charge of National Sales for Movielab, Inc., 619 W. 54 St., New York, NY 10019. He was President of the East Coast Division of Berkey Pathe Laboratories which were acquired by Movielab in July.

C. G. Holzapfel has been appointed Sales Manager of D. B. Milliken Co., 111 N. 5th Ave., Arcadia, CA 91006. He has been with the firm since 1961 as Field Engineer and Manager of the Eastern Sales Region. John Totten has been appointed Field Engineer and will be assigned to Milliken's Southeastern Regional Office. He was formerly with Technicolor Corp.

H. D. Kiernan has been appointed President of Westrex, a division of Litton Industries. He has been with Westrex for ten years and has held the positions of Controller-Treasurer and of Vice-President and General Manager.

Richard S. Christian has been appointed Director of Workshops for Reeves Production Services. Reeves inaugurated the workshop program in 1968 with Production '69: A Shirtsleeve Workshop in Television Techniques (*Journal*, p. 752, July 1968; p. 1238, Nov. 1969). Mr. Christian was formerly director of film and television production for the State University of New York. He has also been associated with WNDT-TV in New York and KQED-TV in San Francisco.

Ken F. Winslow has been appointed Director, Educational Services for Reeves/Actron, a division of Reeves Telecom Corp. He was previously manager of Ampex Tape Exchange in Elk Grove Village, IL and Television Coordinator, University of California.

T. L. Jacobsen has been appointed President of Aero Service, a division of Litton Industries. Prior to this appointment he served for five years as Executive Vice-President and General Manager for Aero Service. He has been with Litton Industries for ten years and was Vice-President and general manager of the Westrex International Division before joining Aero Service.

Robert N. Blair has been appointed Product Manager, Broadcast Television Systems and R. Clifford Rogers has been appointed Product Manager, Audio Systems, for the Audio-Video Systems Division of Philips Broadcast Equipment Corp. Mr. Blair has been with Philips Broadcast since 1968. He was formerly with General Electric Co. In his new post he will be responsible for all phases of product management in the television broadcast line. Mr. Rogers was formerly with the Commercial Electronics Systems Division of RCA. In his new post he will be responsible for audio product management, including broadcast, professional and commercial audio systems.

A David Sarnoff Outstanding Achievement Team Award in Engineering (1969) was presented to Henry Ball, Lewis A. Briel, Theodor M. Wagner, Charles D. Boltz, Jr., R. Kennon Lockhart, J. Hugh Wharton and Frank B. Lang for "excellence of team effort and interdivisional cooperation leading to the rapid development of a low-cost, single-tube television camera." The David Sarnoff Outstanding Achievement Awards are presented annually to two individuals and two teams working within RCA Corp. Other than the team achievement in television, the 1969 awards were presented for work with liquid crystals, space communications and computer technology.

Elmer Smalling III has joined Westinghouse Broadcasting Co. in Philadelphia as Chief Engineer for KYW-TV. He was formerly Project Engineer for Tele-Tape Productions in New York.

Eugene D. Warren has been appointed Manager, Technical Services for Inter-

national Video Corp., 675 Almanor Ave., Sunnyvale, CA 94086. He was formerly Director of Engineering for TNT Communications. In his new post he will be responsible for customer services applications, engineering and training.

Larry Nelson has been appointed TV Technical Manager of the West Coast Division of Century Lighting, 3 Entin Rd., Clifton, NJ 07014. In his new position he will provide technical and sales services for Century in 11 Western States and in Hawaii and Alaska.

New Members

The following members have been added to the Society's rolls since the August 1969 *Journal*. Also listed are those regretfully reported as deceased since then. The designations of grade are the same as those used in the July 1968 Directory. An up-to-date list of the Sustaining Members appears on the outside back cover of each month's *Journal*. The members listed below complete the Society's roll as of August 15.

The Directory for Members, Part II of the July 1968 *Journal*, shows the geographic membership distribution by states included in the Sections.

Life Fellow (LF) Life Member (LM) Fellow (F) Active (M) Associate (A) Student (S)

Deceased: Joseph E. Aiken (LF) Paul H. Black (M)

ATLANTA SECTION

Gilmore, Thomas H., Mot. Pic. Writer, RCA Service Co. Mail: 2002-B Colony Dr., S.W., Huntsville, Ala. 35802 (M)

Quick, John B., Mgr., Adv. & Promotion, Film Div., Olin Mathieson Chemical Corp. Mail: Rt. 1, Box 279-A, Pisgah Forest, N.C. 28768 (A)

BOSTON SECTION

Bellemore, Arthur J., Sr. Elect. Engr., Itek Corp. Mail: 18 Clarissa Rd., Chelmsford, Mass. 01824 (M)

Bouche, Edmund L., Mgr., Technical Operations, Inc., South Ave., Burlington, Mass. 01803 (M)

Broschart, James R., Edu. Sys. Conslt., WGBH Edu. Foundation; Instr. in Film, Boston Univ. Mail: 37 Pilgrim Rd., Natick, Mass. 01760 (A)

Martin, Dennis F., Public Relations Splst., Digital Equipment Corp. Mail: P.O. Box 432—Pru. Ctr. Sta., Boston, Mass. 02199 (A)

Martin, Sherill F., Mgr., Computer Animation, Joseph Kaye & Co., Inc. Mail: 117 Anson Rd., Concord, Mass. 01742 (M)

CAPE KENNEDY SECTION

Allen, Charles N., Dir. of Operations, Tel-Air Interests, Inc., 1755 N.E. 149 St., Miami, Fla. 33161 (M)

Prout, Charles D., III, Pres., Prout Film Productions, Inc., 2000 N. Mills Ave., Orlando, Fla. 32803 (M)

CHICAGO SECTION

Boyer, Robert L., Video Tape Supvr., Indiana University. Mail: 4166 Belle Ave., Bloomington, Ind. 47401 (M)

Brown, Paul F., Audio Recording & Equip. Engr., Southern Baptist Radio & TV Commission. Mail: 802 Hollywood Ave., Dallas, Texas 75208 (M)

Carlson, Richard K., Mgr., Cine Camera Design, Bell & Howell Co., 7100 McCormick Rd., Dept. 6810, Chicago, Ill. 60645 (M)

Cherniavskyj, Jaroslav, Mgr., Cine Projector Design, Bell & Howell Co. Mail: 3618 Main St., Skokie, Ill. 60076 (M)

Eining, Charles M., Supvr., Tech. Operations, National Broadcasting Co. Mail: 32 Woodcrest La., Elk Grove Village, Ill. 60007 (M)

Fagerstrom, Gerald F., Engrg. Splst., LTV Aerospace. Mail: 1112 Roosevelt St., Arlington, Texas 76010 (M)

Figge, Erwin E., Bell & Howell Co., Mgr., Cine Electronic Engr. Mail: 696 Therese Terr., Des Plaines, Ill. 60016 (M)

Gaftman, Jerome, 35mm Lab. Mgr. & Editor, Douglas Film Industries. Mail: 1625 W. Lunt, Chicago, Ill. 60626 (A)

Karres, Alex P., Product Mgr., Bell & Howell Co., 7100 McCormick Rd., Chicago, Ill. 60645 (A)

Kennedy, Stewart H., Video Field Service Engr., Ampex Corp. Mail: 8447 Park Place Blvd., Apt. 34, Houston, Texas 77017 (M)

Kidd, Richard D., Pres., Motion Picture Prodn. of Texas, Inc. Mail: 1703 Vista La., Austin, Texas 78703 (M)

Lang, Kenneth J., Projection Research, Durwood Theatres, Inc. Mail: 4227 N. Lister, Kansas City, Mo. 64117 (A)

Lyman, Charles P., Full Time Instructor, Columbia College. Mail: 1907 N. Bissell St., Chicago, Ill. 60614 (M)

Mayo, Franklin, Res. Analyst, Lockheed Electronics Co. Mail: 319 Narcissus Rd., Kemah, Texas 77565 (A)

Pigneguy, Thomas A., Projectionist, Service & Instructing, Motion Picture Proj. Union. Mail: 7816 N. Sherman Blvd., Brown Deer, Wisc. 53209 (A)

Roehl, Steven C., I.T.V. Engr., Spring Br. Independent School District. Mail: 3262 Branard #1. Houston, Texas 77006 (A)

Rosenfield, Sherman V., Supervising Editor/Post Prodn. Coord., Bing Crosby Productions, Inc. Mail: 2946 N. Pine Grove Ave., Chicago. Ill. 60657 (M)

Safar, Elias, Student, Dallas Independent School. Mail: 2310 Costa Mesa Dr., Dallas, Texas 75228 (S)

Thake, Roger F., Product Mgr., Bell & Howell Co., Dept. 8728, 7100 N. McCormick Rd., Chicago, Ill. 60645 (A)

Thomas, J. Orval, Self Empl., Audio-Cine Equipment & Professional Services, Dugan/Allen, Inc. Mail: P.O. Box 1125, Little Rock, Ark. 72203 (M)

Windsor, Frank L., Mgr., Cine Products Design, Bell & Howell Co., 7100 N. McCormick Rd., Dept. 6811, Chicago, Ill. 60645 (M)

DENVER SECTION

Boyer, Sidney L., Mgr., Ampex Corp. Service Co. Mail: 6610 S. High St., Littleton, Colo. 80120 (M)

Ward, Ron C., Chf. Engr., Telemation, Inc., 1005 S. 2, W., Salt Lake City, Utah 84101 (A)

DETROIT SECTION

Anderson, R. Wayne, Res. Photographer, The Dow Chemical Co., Nuclear & Basic Res. Lab., 1703 Bldg., Midland, Mich. 48640 (M)