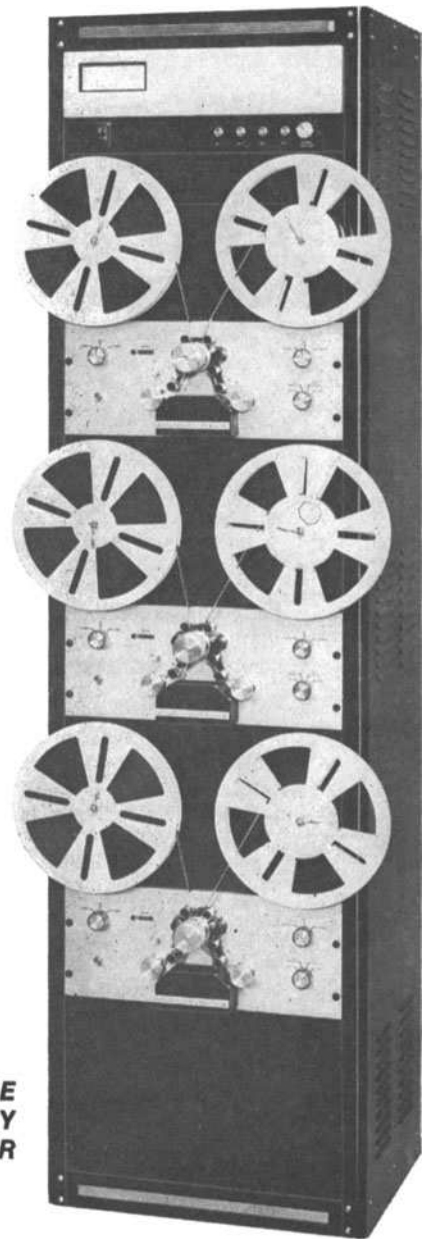
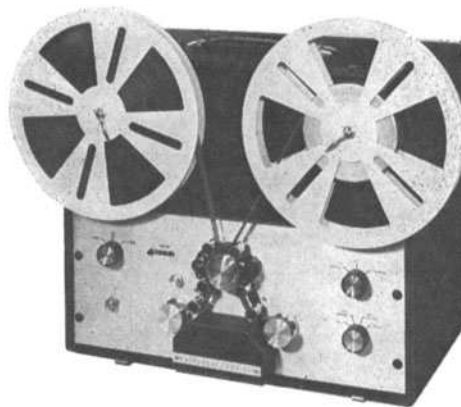


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 SOLID STATE PORTABLE RECORDER**



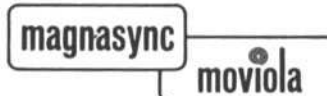
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NEW CATALOG NOW AVAILABLE FREE

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-blipped cameras. Of these, some are more quiet than others, and some remain quiet while others get noisy with use.

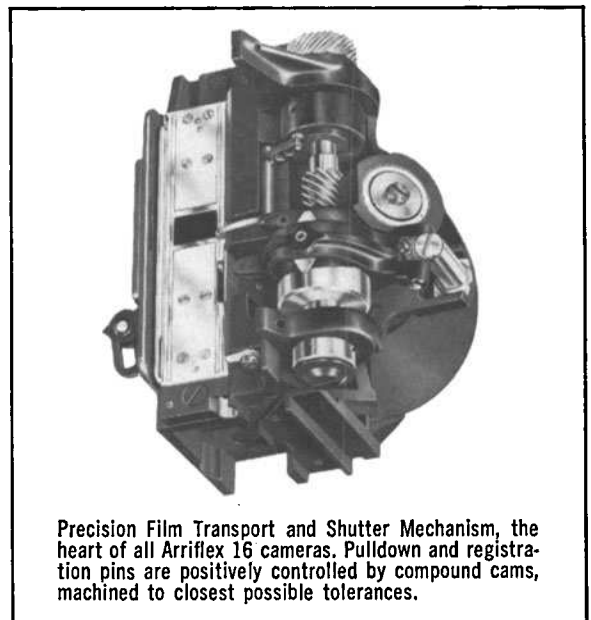
The purpose of every professional motion picture camera is to produce sharp, steady footage. To accomplish this, a motor has to transport the film from a feed roll through a sprocket drive to an intermittent movement (consisting of shutter, film transport claw and registration pin) to another sprocket 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.



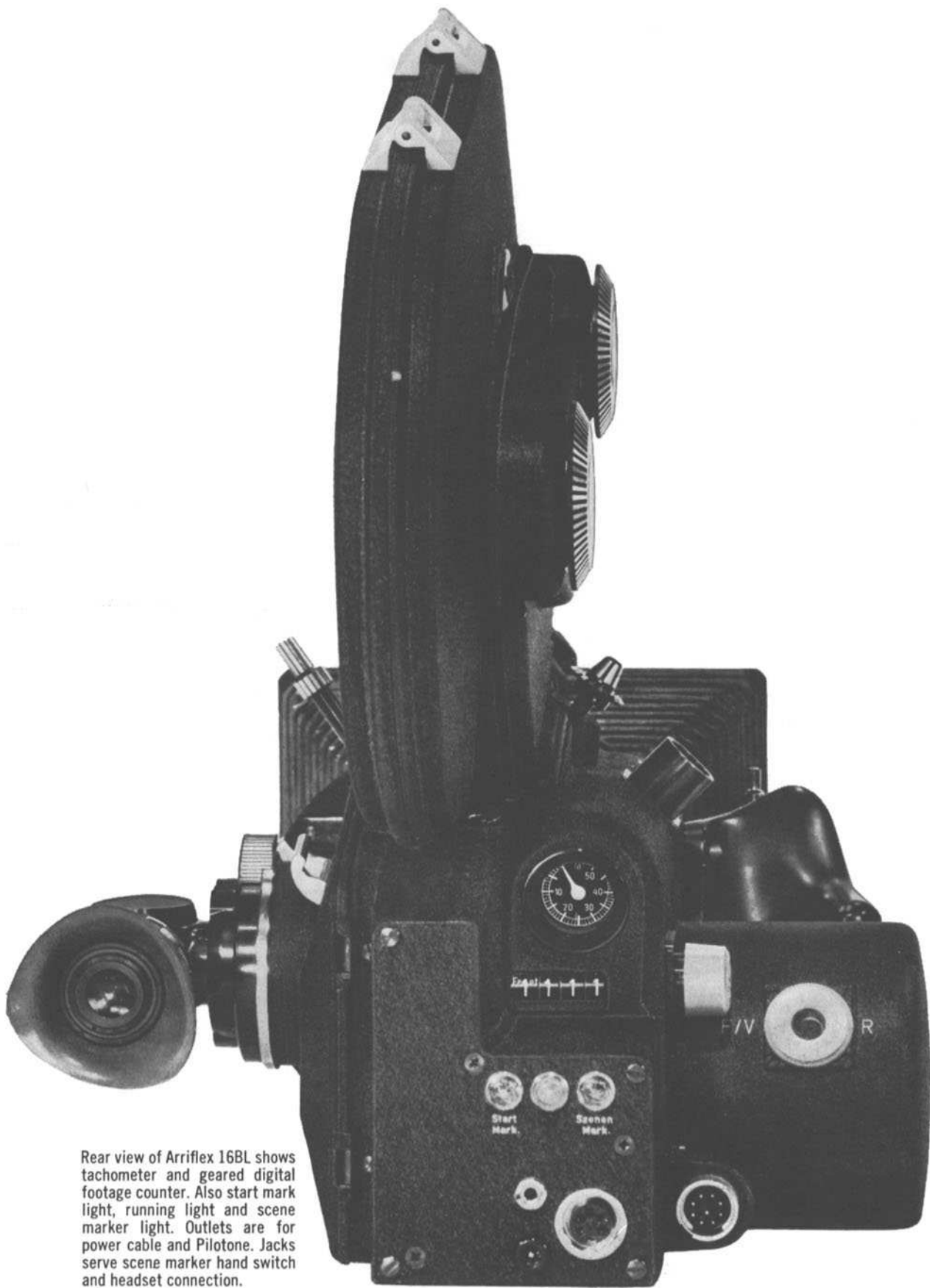
Precision Film Transport and Shutter Mechanism, the heart of all Arriflex 16 cameras. Pulldown and registration pins are positively controlled by compound cams, machined to closest possible tolerances.

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.

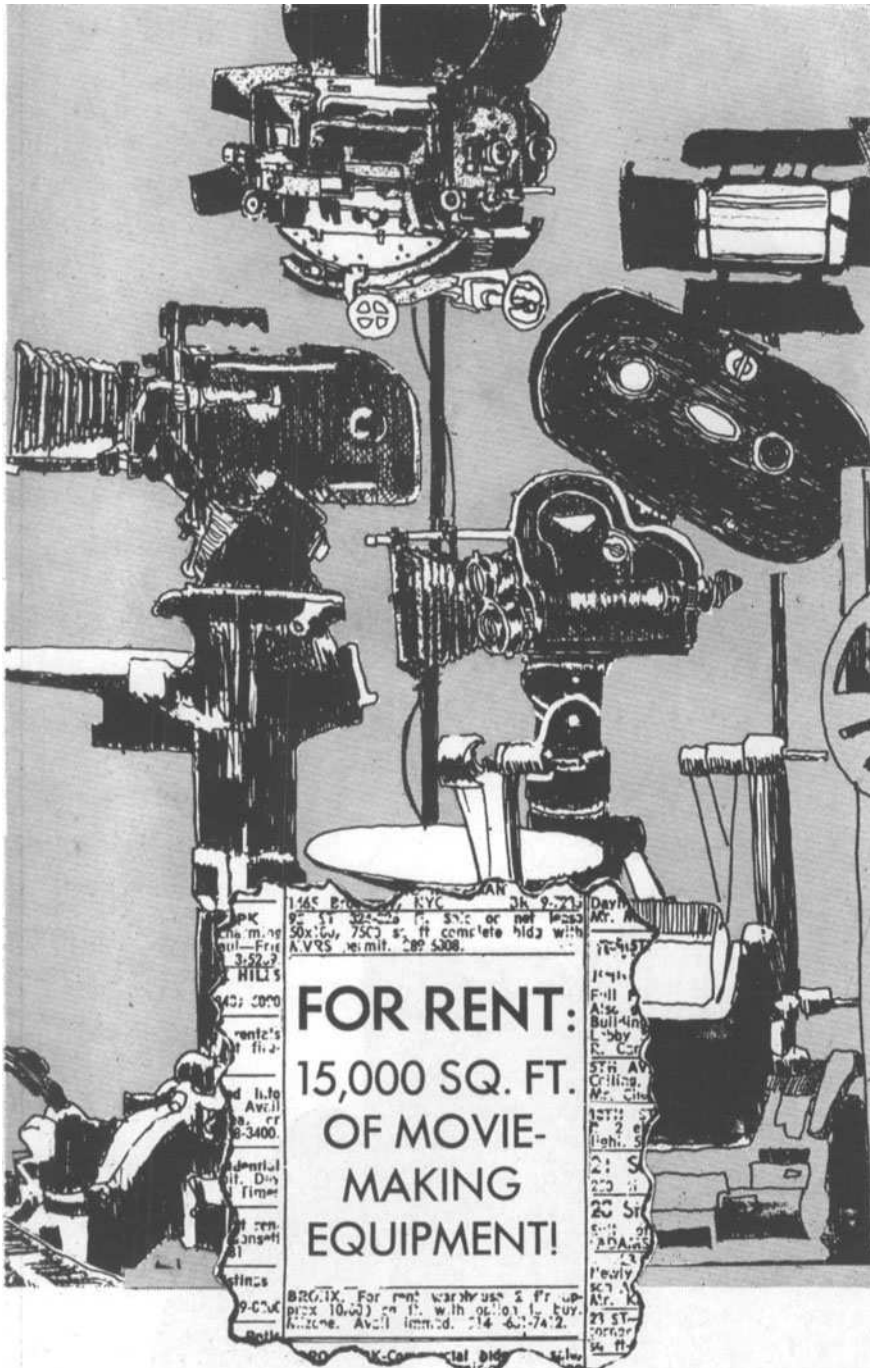
There are no mechanical compromises made nor features sacrificed in the portable Arriflex 16BL that is built to proven standards of Arriflex reliability and ruggedness, and that runs as quietly after a million feet as after the first hundred!

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.



We're not bragging about our size. We're trying to tell you that Camera Mart can rent you the newest available 16 or 35mm cameras and lenses.

Like the new Arri 16BL and 120-S Sound Blimp; sound equipment (like Nagra Recorders and the new MK Condenser Lavalier Microphone), dollies (like the Elemack Spyder Dolly with the Jonathan Jib Arm Assembly), lighting (the complete Mole-Richardson line), generators,

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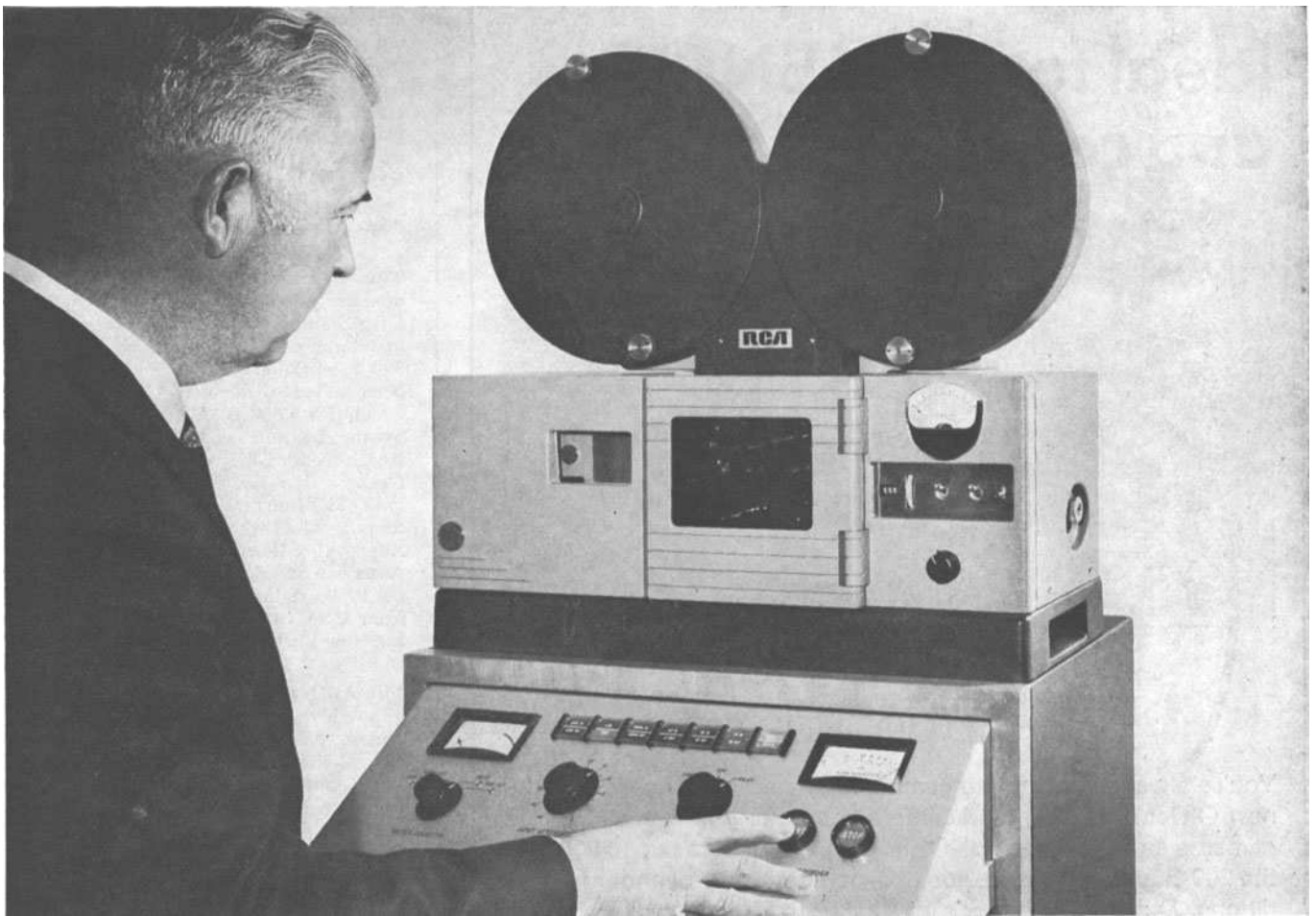
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It's completely solid-state, of course. Modular and human-engineered, too. Everything's right where it ought to be to minimize operator fatigue and error, while modules are readily replaceable. And, the PM-80A is available in 35, 16 and Super 8 mm.

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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.
- a new or additional machine.

I'd just like something for my files, thanks.

Name Title

Company name

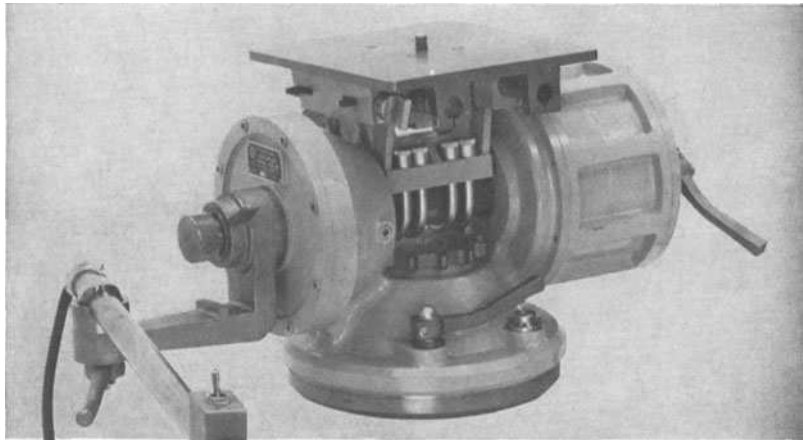
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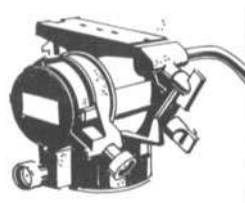
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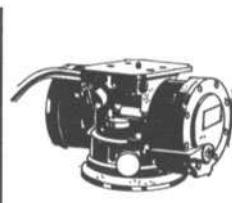
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for cameras to 20 lbs.



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cinema 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 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 troubleshooting problems hidden by motion.

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

RED LAKE



THE TROUBLESHOOTERS

Again in 1969 — for the eleventh consecutive cameras were used by more winners* of the combined! Proof of Arriflex's popularity with of film making. And to its unique capabilities

*Arriflex cameras were used in 14 of the 17 award winning films. And during the past eleven years Arriflex scored in 135 out of 175 awards!



**11th Annual
Film**

congratulations to these prize

Aetna Life & Casualty

"HURRICANE!"

Producer/Director—Malcolm M. Snyder

Bonneville Power Administration

"INTERTIE"

Producer/Director—Wes Taft/Robert Charlton

Combined Communications Corp.

"TODAY IN ARIZONA"

*Producer—Ray Cox
Director—Rick Bell*

Ellerbe Architects

"A WORLD UNDER ONE ROOF"

Producer/Director—L. Kenneth Mahal

General Dynamics Convair

"THE COMPANY THEY KEEP"

*Executive Producer—Raymond Hunter McPhee
Producer/Director—Robert Bevan Montague*

General Motors Photographic

"THE GREAT BREAKAWAY"

Producer/Director—Donald J. Norburn

International Harvester Co.

"CREATIVE STEEL FOR CREATIVE INDUSTRY"

Producer—H. K. Knipp Director—Rex Stearns

year—Arriflex professional motion picture Industrial Film Awards than all other cameras cinematographers in this booming category as a filming tool.

Industrial Awards

conducted by
Industrial
Photography
Magazine



winners who won with ARRIFLEX®

Kearney & Trecker Corp.

"THE PARTS THE THING"

Producer/Director—H. W. Francke/R. W. Swanson

Kraft Foods

"FRESH-CHILLED SUNSHINE"

Producer/Director—Ron Born

Lockheed Aircraft Corp.

"ON THE MOVE"

Producer/Director—Douglas Muir

Lockheed-California Co.

"1011 TEMPO"

Producer—Everett Kelley

Director—Peter Broadrick

National Medical Audiovisual Center

"CHOLERA TODAY: PART 2 —

Practical Laboratory Diagnosis"

Director—Robert T. Turnbull

Naval Missile Center

"WHERE'S MUGU?"

Producer/Director—Wallace Southard/Leon Rosch

Production Thirteen

"THE PLANE THAT REFUSED TO DIE"

Producer/Director—Burd Myre

ARRIFLEX
CORPORATION OF AMERICA

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.

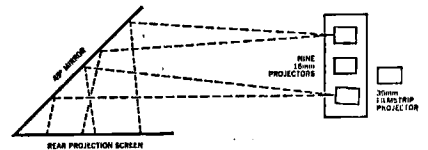
Bell Telephone has also developed a volume control handset for public phones. Persons with impaired hearing can use a three-position switch to increase the volume of sound from the receiver.

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 gimbaled 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.

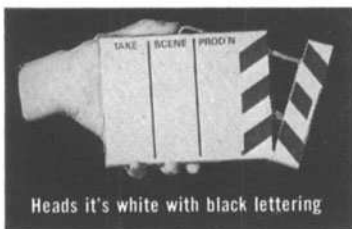
Images were projected from the 16mm units either in the still mode or at low frame rates. Flickerless operation of the projectors made animation sequences possible in the space of 30 frames. The screen was divided into 1,000 locations on x-y axes, all selectable from the master console. On push-button 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.



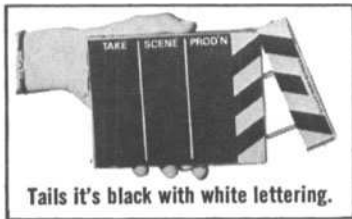
Because each of the nine 16mm projectors in the system is independently gimbaled for remote pan and tilt control, images can be positioned anywhere on screen in accordance with pre-established x-ray coordinates. Final image on screen can thus be a composite of several frames in the system's random-access 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, Rochester, 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

Now at Last! in Black & White the **TWO FACED** MINI-SLATE



Heads it's white with black lettering



Tails it's black with white lettering.

For compactness, convenience and reliability you can't beat the new SOS Two-Faced MINI-SLATE! Just cock the clapstick – press the release and "CLAP" – the clapstick releases automatically. Plastic covering lets you write on black or white side with grease pencil and wipe clean quickly. Contains unique storage compartments for black and white grease pencils. Constructed of heavy duty metal enclosed in a tough plastic jacket. Lightweight – only 8 ounces. Comes complete with black and white grease pencils.

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SPECIFICATIONS:
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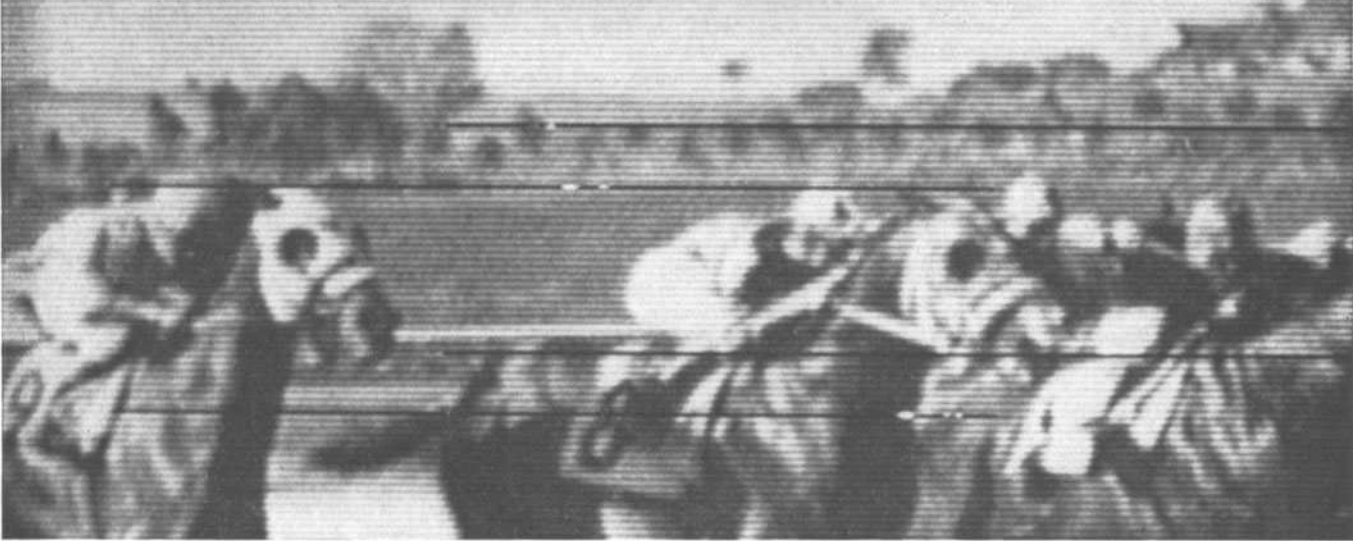
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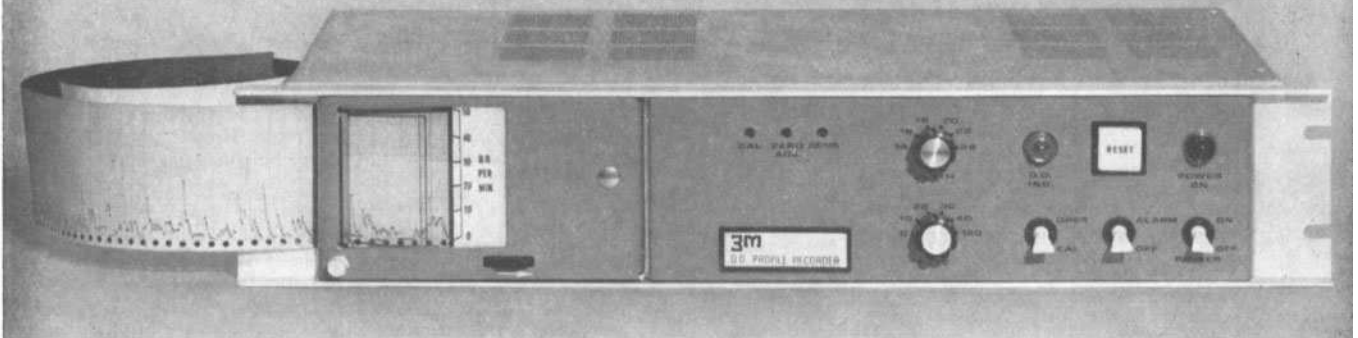
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Now for the first time it is possible with the 3M Brand Dropout Profile Recorder to evaluate dropout rate and annoyance factor during normal on-line playback, and to obtain a permanent strip-chart record for future reference. This enables you to decide when quality degradation has reached the point where the tape should be retired.

There's no fooling the Dropout Profile Recorder. It displays the true condition of a tape electronically even while the same tape is being dropout-compensated during broadcast to achieve acceptable visual quality.

As you can imagine, the logical companion to the DPR is the 3M Brand Dropout Compensator. The DOC electronically supplies full-color replacement

of lost video information. But dropout compensation can go only so far. When tape damage exceeds acceptable levels, the Dropout Profile Recorder is the only reliable way to decide on future usability.

The entire record for a one-hour video tape occupies only five inches of strip chart on the DPR. This chart can be evaluated at a glance. It can then be torn off and stored with the tape.

There are several additional features of the DPR which are described in our DPR brochure. (We'll send you a brochure on the DOC also, in case you are interested.) Drop us a line. Better still, call our DPR Information Phone at (805) 482-1911 ext. 216 and request the brochures.

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COMPANY
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the oldest continuously operating non-theatrical 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 aerospace (*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 color-

imetric 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 Moviellab, Inc., it was announced by Saul Jeffee, President. In his new post, Mr. Kowalak will supervise the transition of recently acquired laboratory divisions to Moviellab's pattern of operations and will oversee extensive manpower and modernization programs for the Moviellab complex. One of the first programs to be put in effect will be the extensive modernization of Moviellab-Hollywood Inc., the West Coast laboratory facility recently acquired from Berkey Photo, Inc.

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

As part of the Moviellab expansion program, Frank Berman, Executive Vice-President, has been placed in charge of Moviellab'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.

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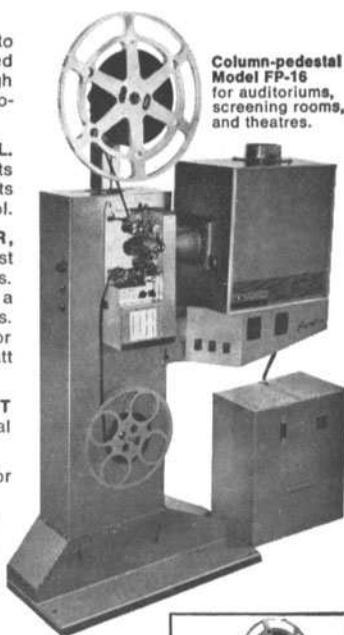
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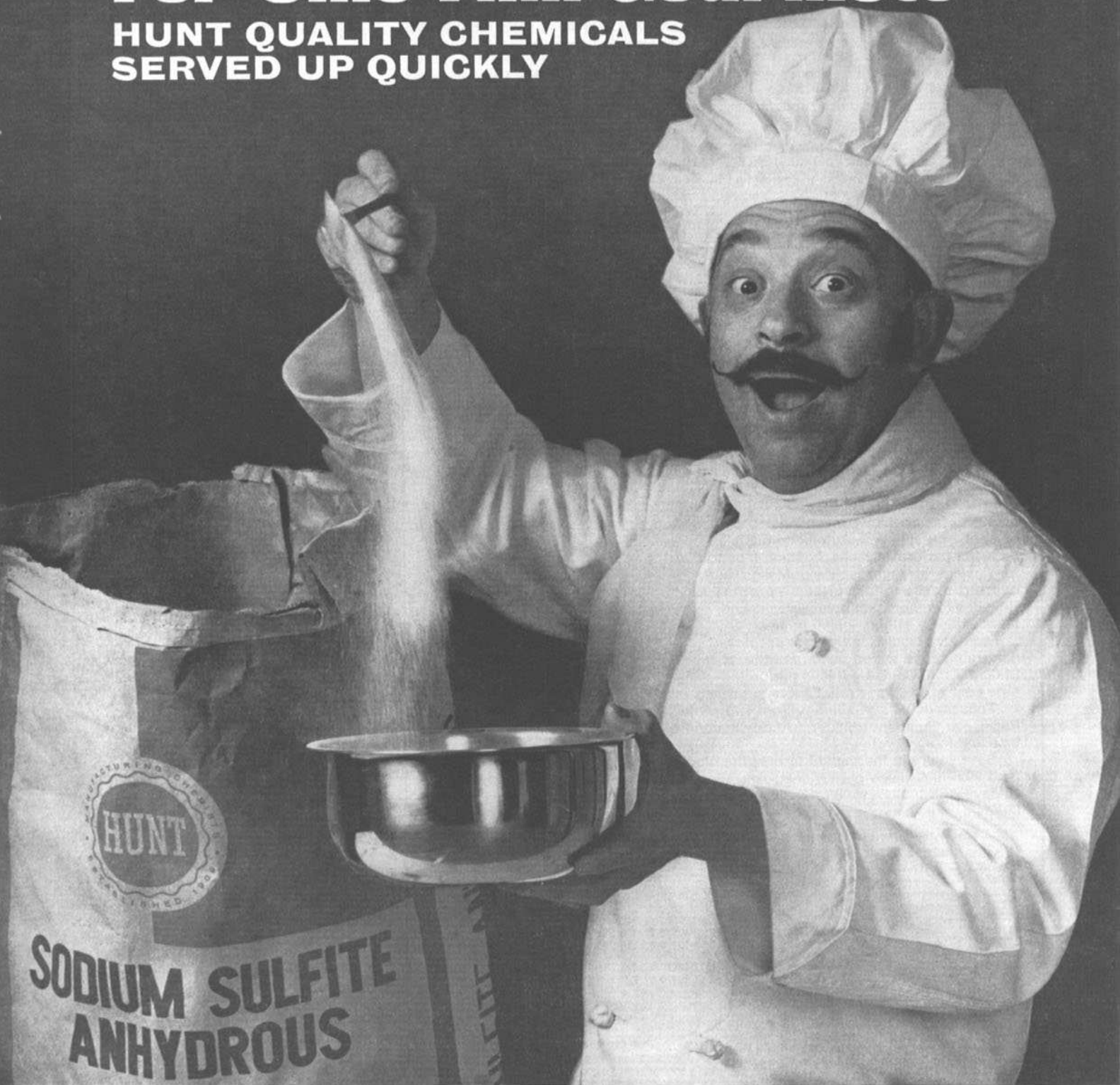
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as the manager of a new advanced system development group where he will conduct research and development programs in electrooptical and infrared technology. He was formerly with the Defense and Space Div., Barnes Engineering Co., Stamford, CT 06902. 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 Con-

troller-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-

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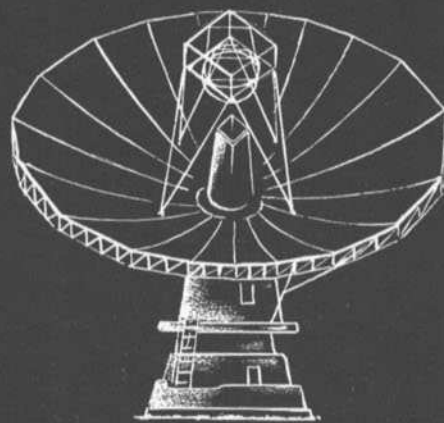


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national Video Corp., 675 Almanor Ave., Sunnyvale, CA 94086. He was formerly Director of Engineering for TNT Communications. In his new post he will be responsible for customer services applications, engineering and training.

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 regrettably 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)
Chernavskiy, 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, Wis. 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)

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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)

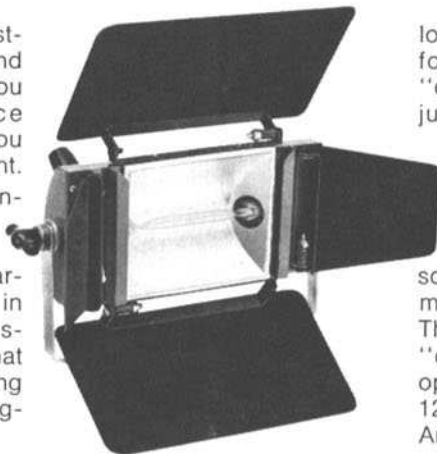
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Barnes, Arthur H., 3M Co. Mail: 1292 Winford St., Ventura, Calif. 93003 (A)
Baumann, John S., Mgr., Broadcast Equip., Electronic Engineering Co. of Calif. Mail: 5022 Stone Canyon Ave., Yorba Linda, Calif. 92686 (M)
Brown, Donald R., Projection Engr., Technicolor, Inc. Mail: 1056 Doreen Pl., #2, Venice, Calif. 90291 (A)
Chewley, Michael V., Electronic Engr., MGM Laboratories, Inc. Mail: 869 Yorkshire Ave., Thousand Oaks, Calif. 91360 (M)
Dean, Carole, Owner, Studio Film Exchange, 5150 Yarmouth #111, Encino, Calif. 91316 (A)
Dennison, Kris, Chem. Foreman, DeLuxe General Laboratory, Inc. Mail: 2270 Chermoya Ave., Hollywood, Calif. 90028 (M)
Duffy, Laurence E., Prodn. Asst., Mercury News Film. Mail: 272 W. 73 St., New York, N.Y. 10023 (A)
Easton, Robert B., Res. & Writing; Tech. Advisor, Allendor Productions. Mail: 30317 Via Cambron, Palos Verdes, Calif. 90274 (M)
Ginsburg, Maj. Norman I., Chf., TV Operns. & Maint. Br. TV Serv., U.S. Army. Mail: 11007 Kling St., #7, North Hollywood, Calif. 91602 (A)
Hickox, S. Bryan, III, Engrg. Rep., Ampex Corp. Mail: 19832 Blythe St., Canoga Park, Calif. 91306 (M)
Keith, William J., Jr., Instructional TV Consult., Loma Linda University. Mail: 10664 Elm Ave., Loma Linda, Calif. 92354 (A)

Kessens, PHS (AC) Gerard R., USN, Student, U.S. Navy NROTC Unit, University of Southern California, Los Angeles, Calif. 90007 (S)
Lawrence, Richard N., Mgr., Southwest Region, Gravo Sales, Inc. Mail: 4407 Beechwood Pl., Riverside, Calif. 92506 (M)
Marin, Roger A., Owner—Engr., Video-Pulse Engineering. Mail: 1810 N. Cherokee Ave., Apt. 114, Hollywood, Calif. 90028 (A)
Nettmann, Ernst F., Electronics Engr., Tyler Camera Systems. Mail: 791 Parmenter Ave., Thousand Oaks, Calif. 91360 (M)
Ponce, Raman L., Vice Pres., Prodn., Allend' or Productions, Inc. Mail: P.O. Box 8370, Universal City, Calif. 91608 (A)
Saunders, Charles R., Owner—Techn., Buena Audio-Visual Service, 8206 Commonwealth Ave., Buena Park, Calif. 90620 (A)
Sherman, Eric, Film Maker & Author, Self Empl. Mail: 10530 Wilshire Blvd., 314, Westwood, Calif. 90024 (A)
Tomkinson, John G., Res. Dir., Mattel, Inc. Mail: 28816 Lomo Dr., Palos Verdes, Calif. 90274 (M)
Tuttle, William, Hd., Makeup Dept., MGM, Inc. Mail: 325 Aderno Way, Pacific Palisades, Calif. 90272 (M)
Weil, Robert M., Sr. Systems Engr., Cohu Electronics, Inc. Mail: 4002 Rochester Rd., San Diego, Calif. 92116 (M)
Zapata, Eli I., Chf. Electronic Dept., Eclair Corp. of America, 7262 Melrose Ave., Los Angeles, Calif. 90046 (M)

Webb, Louis E., Engrg. Services Dir., Canadian Broadcasting Corp. Mail: 982 Watson St., Ottawa 14, Ont., Canada (M)

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Metzler, Arthur J., Dir. of Special Projects, WAVE-TV, 725 So. Floyd St., Louisville, Ky. 40203 (M)

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Bernowitz, Joseph P., Student, Allen School for Mot. Pic. Proj. Mail: 1460 E. 94 St., Brooklyn, N.Y. 11236 (S)
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Braverman, Robert, Const. & Producer of Mot. Pic., Self Empl. & School of Visual Arts. Mail: 69 Marion Ave., Merrick, N.Y. 11566 (M)
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Coleman, Douglas D., Engineering Aide, ABC. Mail: 130 Clarkson Ave., Brooklyn, N.Y. 11226 (A)
Conant, Luther C., Jr., Engr., Advanced Technology Labs., Radio Corp. of America. Mail: 600 Stratford Dr., Moorstown, N.J. 08057 (A)
Danish, Gerald, Student, Allen School for Mot. Pic. Proj. Mail: 2167 76 St., Brooklyn, N.Y. 11214 (S)
DeMatteo, Michael P., Student, Allen School for Mot. Pic. Proj. Mail: 2965 Decatur Ave., Bronx, N.Y. 10469 (S)
Dodel, Walter J., TV Systems Engr., Grumman Aircraft Engineering Corp. Mail: 238 S. Erie Ave., Lindenhurst, N.Y. 11757 (A)
Drapkin, Sidney, Student, Allen School for Mot. Pic. Proj. Mail: 150-20 71 Ave., Flushing, N.Y. 11367 (S)
Duren, Robert, Student, Allen School for Mot. Pic. Proj. Mail: 115-24 169 St., Jamaica, N.Y. 11433 (S)
Faist, Fred A., A/V Systems Engr., American Broadcasting Co. Mail: 38 Twin Ave., Spring Valley, N.Y. 10977 (M)
Farrell, Harry J., Student, Allen School for Mot. Pic. Proj. Mail: 224 Ave. M, Brooklyn, N.Y. 11228 (S)
Filer, Leo, Producer—Dir., Karnit Films Ltd. Mail: 825 West End Ave., 9D, New York, N.Y. 10025 (A)
Gahagan, Joseph E., Mgr. of Engrg., Cartridge Plant, CBS-EVR Div., 51 W. 52 St., New York, N.Y. 10019 (M)
Grubman, Bernard, 519 W. 47 St., New York, N.Y. 10036 (M)
Habersham, James, Student, Allen School for Mot. Pic. Proj. Mail: 129-22 135 Pl., South Ozone Park, N.Y. 11420 (S)
Hallisey, Vincent J., Quality Control Supvr., Movielab, Inc. Mail: 4 Country La., Holmdel, N.J. 07733 (A)
Herbin, Benjamin, Student, Allen School for Mot. Pic. Proj. Mail: 2114 Haight Ave., New York, N.Y. 10461 (S)
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Joyner, Robert, Student, Allen School for Mot. Pic. Proj. Mail: 156 Himrod St., Brooklyn, N.Y. 11221 (S)
Kane, Christopher, Student, NYU Institute of Film & TV. Mail: 77 E. 12 St., New York, N.Y. 10003 (S)
Kies, Leonard, Engineer's Aide, American Broadcasting Co. Mail: 60-62 60 La., Maspeth, N.Y. 11378 (A)

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de Lanauze, Pierre, Owner, Tele-Montage, Inc. Mail: 7691 de la Seine, Anjou, Montreal 434, P.Q., Canada (M)
Doyon, Serge, Adm. & Vice Pres., Amerix Productions, Inc., 530 E. Sherbrooke St., Montreal 132, P.Q., Canada (A)
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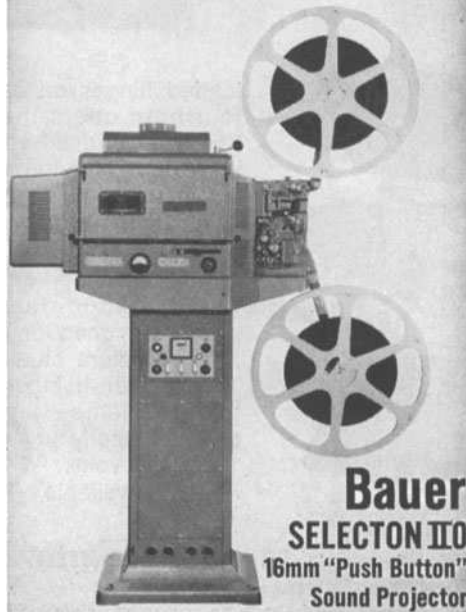
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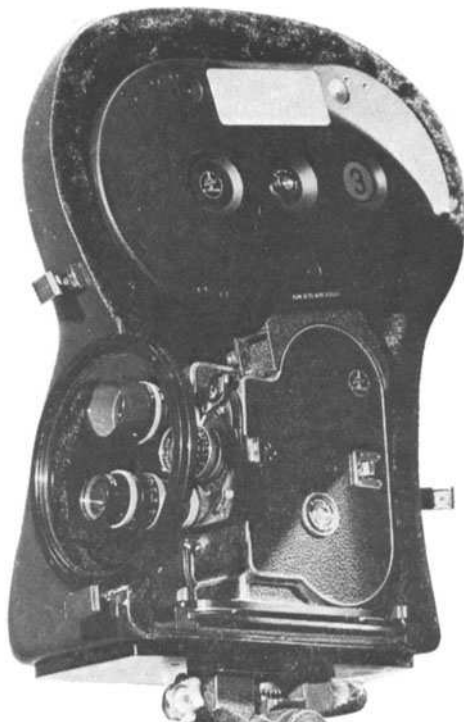
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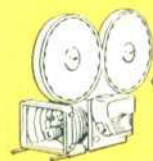
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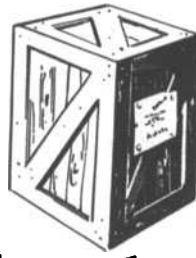
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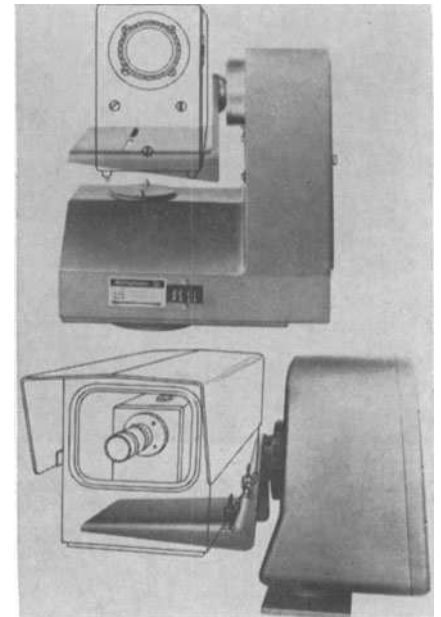
new products (and developments)

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Further information about these items can be obtained direct from the addresses given. As in the case of technical papers, the Society is not responsible for manufacturers' statements, and publication of these items does not constitute endorsement of the products or services.

The Wesscam stabilized camera mount for 35mm and 65mm motion-picture and television photography has been developed by Canadian Westinghouse Co., P.O. Box 510, Hamilton, Ont., Can. The device can be used in any mobile base, including helicopter, boat or auto. Developed originally for airborne surveillance work, the system eliminates the jiggles in aerial and high-speed ground photography and also provides remote control of a television or motion-picture camera. Basically, the system consists of a gyro-stabilized platform contained in a ball-shaped housing mounted outside a moving vehicle. The platform



inside the "ball" supports the camera which is operated via remote control by the cameraman riding inside the vehicle. The camera's reflex viewfinder is integrated with a closed-circuit television system that relays a picture of what is being filmed to a video monitor inside the vehicle. The camera can pan through 360° or tilt to a maximum of 90°. The Wesscam is available on a rental basis from John Lowry productions of Toronto and Los Angeles at a cost of \$400 to \$650 per day depending on the length of the rental and other factors.



Two new camera mounts, specifically designed to handle a wide variety of standard cameras in remotely controlled closed-circuit applications, have been announced by Video Information Dept., Westinghouse Electric Corp., P.O. Box 868, Pittsburgh, Pa 15230. The lightweight model is designed for indoor use. Pan and tilt motions up to 315° and ±45°, respectively, with adjustable limit switches are controlled by a four-way "joy stick" unit located up to 1,000 ft from the camera. It is priced at \$495.

The medium-weight mount is designed for outdoor use to support the camera and weatherproof housing. Pan and tilt motions, up to 340° and ±50°, respectively, are controlled from a remote unit located up to 2,000 ft from the camera. The medium-weight mount is priced at \$890.

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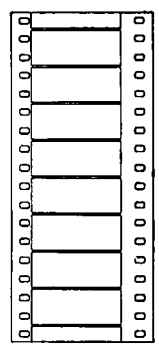
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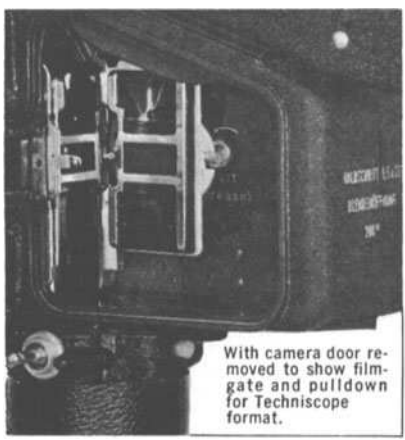
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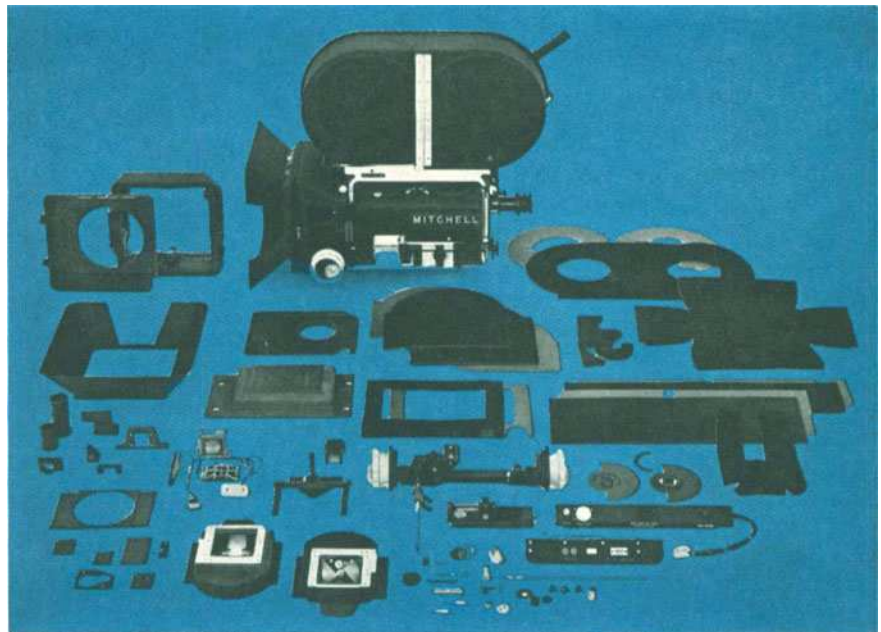
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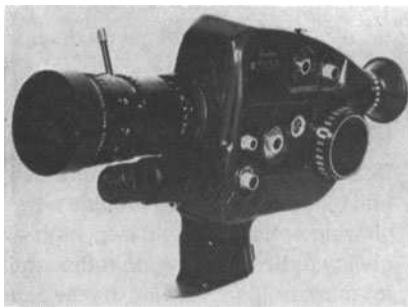
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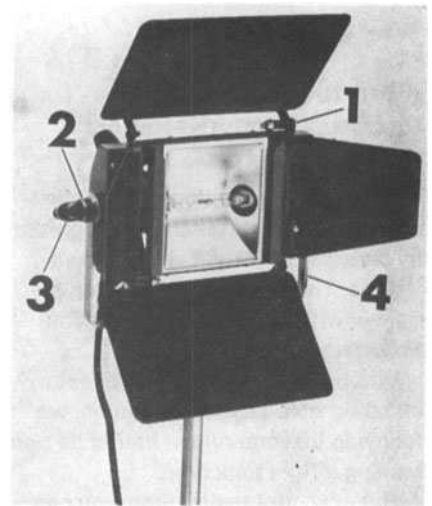
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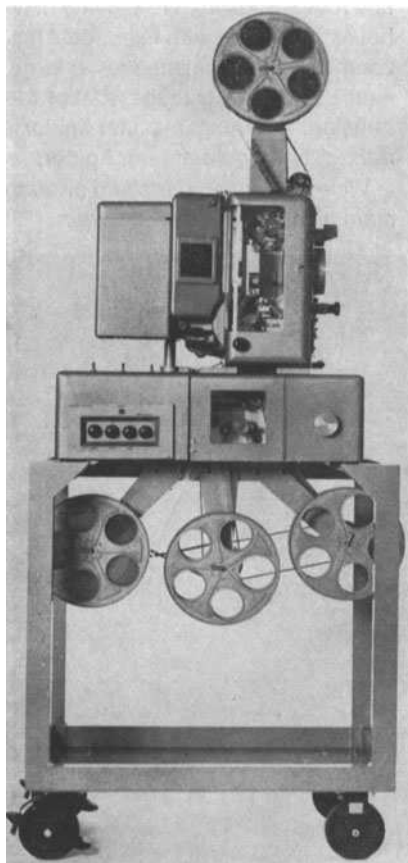
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The Beaulieu 4008S super-8 camera has been announced by Cinema Beaulieu, 14225 Ventura Blvd., Sherman Oaks, CA 91403. The camera resembles the 4008ZM (*Journal*, p. 605, July 1969) in that its viewing screen is identical with that of the 4008ZM as well as a number of other features that the two cameras have in common. The 4008S can be operated remotely at distances through the remote control cable or by radio. It is priced at \$699.



The Mini-Mac 650- and 1,000-W quartz lights, designed for broad fill and floodlighting applications for TV and motion-picture studios, have been announced by Bardwell & McAlister, Inc., Dept. 895, 6757 Santa Monica Blvd., Hollywood, CA 90038. The lights can be used also for still photography. Features include (1) specially designed spring-loaded hinges attached to each barndoor to provide stability; (2) a "thrust-bearing" unit inserted between the yoke and the lamphouse to maintain constant tension for more positive rotational control; (3) adjustment knobs coated with a permanent heat-resistant material to prevent burnt fingers and (4) a compact housing design to allow a significantly greater rotation within the yoke. The Mini-Mac 650 (Model 18011) is priced at \$38.95. The Mini-Mac 1000 (Model 18001) is priced at \$49.95.



The PT-35, a 35mm projection system incorporating the Simplex XL head and integral electronics, has been announced by Universal Projector, Box 2309, Toluca Lake Station, North Hollywood, CA 91602. The projector has a simplified film transportation system using one motor and a bidirectional film gate to permit positive bidirectional film control. The soundhead has centralized magnetic and optical transducers to eliminate nonsynchronized operation. Other features include a condenser system in the lamphouse that gives a high-intensity flat-field light output with prefocused tungsten sources ranging from 750 to 1,000 W, and a solid-state amplifier. The projector is priced at \$5,500.

The GE 1000-W Quartzline spot and flood lamps, designed to supplement daylight in outdoor motion-picture and television color work, have been announced by General Electric Co., Large Lamp Dept., Nela Park, Cleveland, OH 44114. The sealed beam PAR-64 lamps have a dichroic coating on the outside of their 8-in diameter lenses to filter out the red and yellow components of the light and transmit a cool color (with an apparent color temperature in the range of 5,000° to 5,500° K) which blends effectively with daylight. The light source is a tungsten-halogen filament tube. The lamps fit existing 1,000-W PAR-64 fixtures. The lamps are available as Narrow Spot, Medium Flood and Wide Flood. The price of each lamp is \$62.50.

The Starmax Super Zoom-8 BTL Movie Camera has been announced by Camera Specialty Co., 705 Bronx River Rd., Bronxville, NY 10708. The camera has a 14-element $f/1.8 \times 6\times$ power zoom lens with manual override and two built-in drive motors for filming at 12, 18 or 32 frames/s. Other features include a behind-the-lens meter system for normal or backlight shooting. A needle pointer shows the diaphragm stop in the viewfinder and a warning signal in the viewfinder indicates over or under exposures while filming. The Starmax is priced at \$199.50.

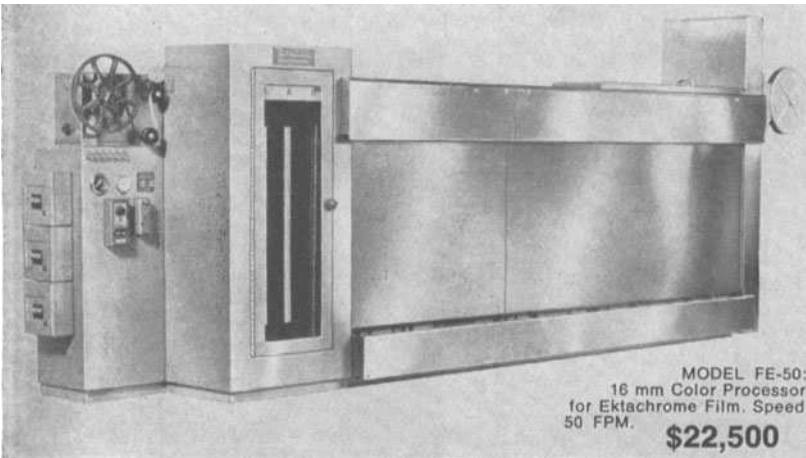
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● **"TURBO-FLOW"** impingement dryer. Shortens dry-to-dry time, improves film results, and carefully controls humidity content of your valuable (and sometimes rare) originals. Immediate projection capability is assured because the film dries flat without the usual curl associated with other film processors.

● **"ZERO DOWN TIME"** The reputation of any film processor is only as good as its reliability. The

combination of the exclusive and special added Filmline features guarantees trouble-free operation with absolute minimum down-time and without continual operator adjustments. Recapture your original investment in 2 years on maintenance savings alone. Filmline's "Push the button and walk-away processing" allows inexperienced operators to turn out highest quality film.

● **"MATERIALS, CONSTRUCTION AND DESIGN"** All Filmline machines are constructed entirely of metal and tanks are type 316 stainless steel, heliarc welded to government specifications. The finest components available are used and rigid quality control standards are maintained.

Compare Filmline features to other processors costing more money. Feature-by-feature, a careful evaluation will convince you that Filmline offers you more for your investment.

Additional Features included in price of machine (Not as extras).

Magazine load, daylight operation ■ Feed-in time delay elevator (completely accessible) ■ Take-up time delay elevator (completely accessible) ■ Red brass bleach tank, shafts, etc. Prehardener solution filter ■ Precision Filmline Venturi air squeegee prior to drybox entry ■ Air vent on prehardener ■ Solid state variable speed D.C. drive main motor ■ Bottom drains and valves on all tanks ■ Extended development time up to two additional camera stops at 50 FPM ■ Pump recirculation of all eight solutions thru spray bars ■ Temperature is sensed in the recirculation line ■ All solutions temperature controlled, no chilled water required ■ Built-in air compressor ■ Captive bottom assemblies assure you constant footage in each solution ■ Change over from standard developing to extended developing can be accomplished in a matter of seconds ■ Impingement dryer allows shorter put through time.

Partial listing of Filmline Color Installations: — NBC- New York, NBC- Washington, NBC- Cleveland, NBC- Chicago, CBS & ABC Networks, Eastman Kodak, Rochester.

Laboratories: De Luxe Labs, General Film Labs (Hollywood), Pathe-Labs, Precision Labs, Mecca Labs, Color Service Co., Capital Film Labs, Byron Film Labs, MGM, Movie Lab, Lab-TV, Technical Film Labs, Telecolor Film Labs, Guffanti Film Labs, A-One Labs, All-service Labs, NASA Cape Kennedy, Ford Motion Picture Labs.
TV Stations: WAPI-TV, WHP-TV, WMAL-TV, WXYZ-TV, WWL-TV, WMAR-TV, WJXT-TV, KETV-TV, WTOP-TV, WEAT-TV, WCKT-TV, WAVE-TV, WAVY-TV, KTVI-TV, WCPO-TV, KTAR-TV, WSYR-TV.



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A new super 8 camera, Model 375, featuring Focus-Matic, an automatic focusing system, has been announced by Bell & Howell, 7100 McCormick Rd., Chicago, IL 60645. It can be used for synchronized sound movies when used with the Filmsound 8 system and can be used for macro-zoom photography when used with an accessory wide-angle lens. It is priced at about \$95. Model 375 is one of a new line of super 8 cameras with prices beginning at about \$50. The camera weighs about one pound and measures 3½ by 2½ by 6¾ in.

A new super 8 projector designated Model 467Z has been announced by Bell & Howell, 7100 N. McCormick Rd., Chicago, IL 60645. The projector features Multi-Motion automatic rewind and instant replay. The Multi-Motion feature permits projection at 18 frames/s, 6 frames/s in both forward and reverse, in a still mode to freeze the action and in a step motion that allows the user to review films as slowly as 2 frames/s. The projector also features automatic rewind and threading, compatibility for both super 8 and 8mm film, and f/1.2 (19-32 mm) zoom lens and 400-ft reel capacity. It is priced at about \$199.95. The Model 457 silent movie projector was also announced. It is priced at \$144.95.

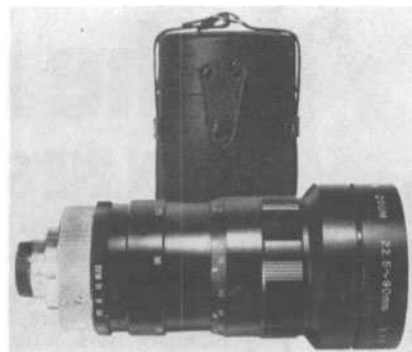
Motorized zoom lenses, the V6 × 16R and the V10 × 15R, have been announced by Canon U.S.A., Inc., 64-10 Queens Blvd., Woodside, NY 11377. Both lenses can be fitted into the same camera

housing and both have completely sealed construction, permitting use outdoors in any weather. The V6 × 16R has a zoom range of 6:1 from 16.5mm to 95mm. It has a maximum aperture of f/2, permitting work under most conditions of natural light. It has 18 elements divided into 13 groups and has a fully closing iris. A push-button control box operates the iris diaphragm, the zooming and the focusing at both fast and slow speeds.

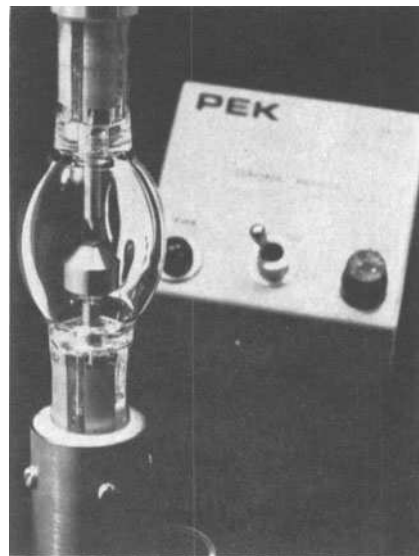
The V10 × 15R has the same dimensions as the V6 × 16R and is interchangeable with it since both lenses use C-mounts and can be connected to the same control box. The V10 × 15R has a 10:1 zoom ratio, from 15mm to 150mm, and has telephoto coverage with a maximum aperture of f/2.8 and a fully closing iris. The lens consists of 16 elements arranged in 12 groups. Spectra coating with amber and magenta colors is used for color correction.

Power consumption of the lenses is less than 10 W. Zoom time is about 4.5 s with speed control at FAST and about 7 s with speed control at SLOW from one end of the zoom range to the other. Price of the V6 × 16R is \$1,095. The V10 × 15R is priced at \$1,375.

A Soliger f/1.5 ITV lens for 16mm C-mount vidicon cameras has been announced by Allied Impex Corp., division of AIC Photo, Inc., 168 Carle Place, L.I., NY 11514. The lens features a 4× zoom range from 22.5mm to 90mm and the lens can be stopped down to f/22 where the lighting is



strong or for maximum depth of field. The new lens is designed especially for use in sports and news photography and for special applications where natural light conditions do not permit use of slower lenses. It is priced at \$400.



The SSX-1000A, a 1,000-W xenon short-arc lamp described as "self-starting" has been announced by PEK, Inc., 825 E. Evelyn Ave., Sunnyvale, CA 94086. The lamp, designed to eliminate the need for high-voltage ignition pulses to initiate discharge, has a solenoid-actuated striker which draws the initial arc and then retracts out of the actual arc area. The lamp operates a conventional xenon short-arc lamp after ignition. Features include spectral distribution of 6,000 °K and ribbon-seal construction to resist damage due to vibration or severe operating environments. The initial ignition of the lamp is accomplished by the small, movable striker which is extended by a brief current pulse through a surrounding coil mounted in the lamp base. The current pulse is controlled by a control module which provides an On-Off function, restarting time delays and a controlled starting current pulse. The lamp is priced at about \$390.

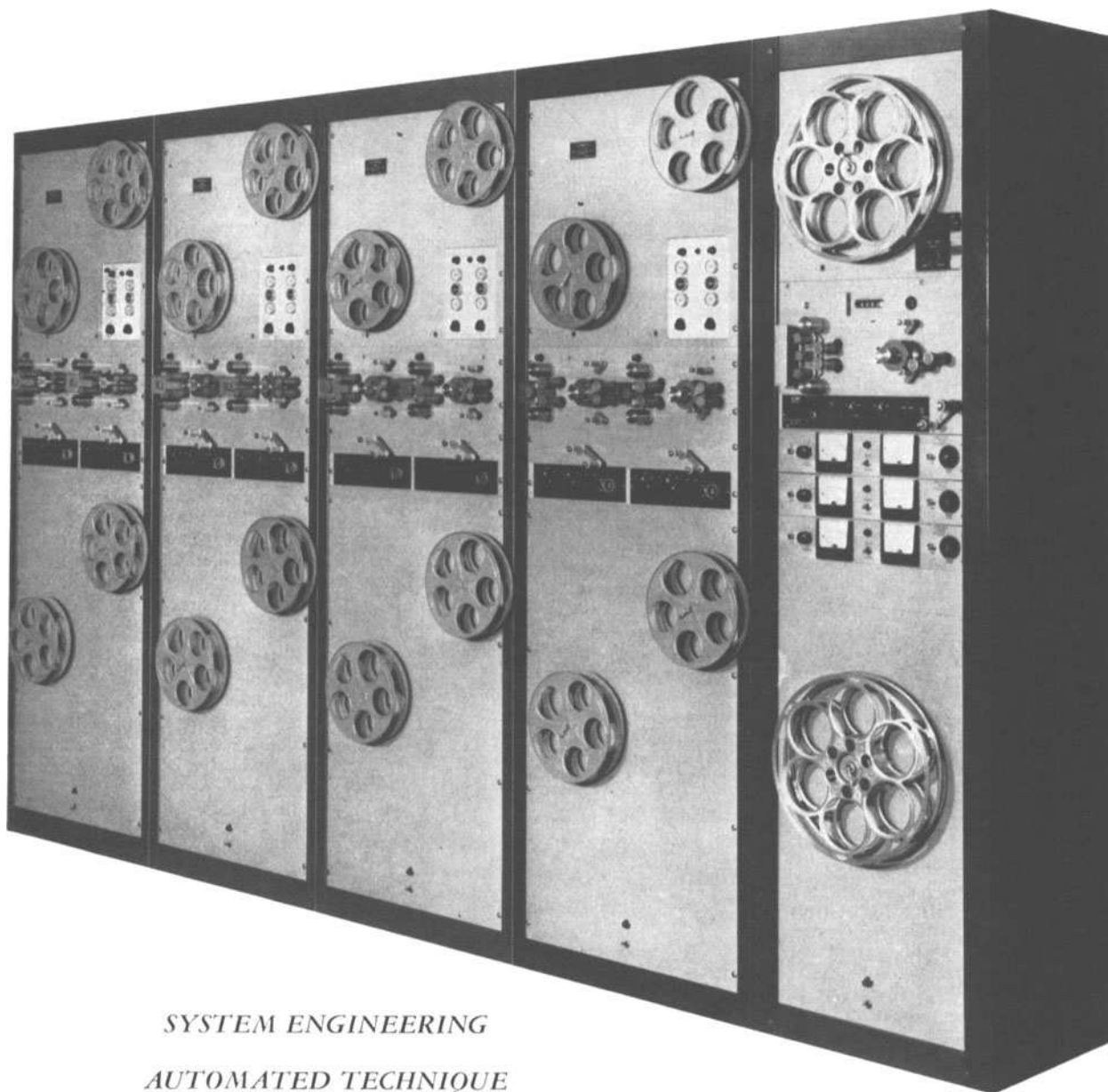
A new assembly of the Langevin AM4A housing to provide a more elaborate multitrack mixing for 4-, 8-, and 16-track recording and mixdown has been announced by Langevin, 1801 E. Carnegie, Santa Ana, CA 92705. The Design I system consists of 18 microphone/line input modules, eight program outputs, four reverberation send-and-receive circuits, a 1-16 to 1 mixdown network and amplifier for a basic sel sync and handphone cue

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system and VU meters for reverb-send control. All inputs and outputs are XL type connectors for ease of installation and interconnection with other gear. The Design I system is priced at \$16,500.

Other products announced by Langevin include the AM3A Mixer System. The AM3A consists of three related systems and housings: (1) AM307A program output metering and monitoring system with assorted line inputs up to +30 dBm, priced at \$475; AM301A — eight microphones and two outputs to +4 dBm, 600Ω, priced at \$1,450, and (3) EQ304 (priced at \$475) or EQ308 (priced at \$840), an accessory for the AM301A to allow 4- or 8-track recorder mixdown equalization.

A new cathode-ray tube display system featuring tri-color presentation has been announced by Telonic Systems, 21282 Laguna Canyon Rd., Laguna Beach, CA 92652. Designated the T Model 201 Tri-Color Display System, the system utilizes a 15-in cathode-ray tube and accepts up to three input signals and displays each in a different color, red, green and blue. The instrument incorporates plug-in vertical amplifiers for each input channel. The amplifiers are available in two versions, a basic unit with a range of 100 mV/in to 10 V/in and a high-gain differential model with sensitivity from 100 μV/in up to 100 V/in. Horizontal deflection is provided by an external source, such as a sweep generator, or internally by an optional time-base generator, also a plug-in unit. The Model 201 has been designed especially for use in electronics, medicine and education. The price range is from \$2,400 to \$3,550, depending on the number of channels (up to three) utilized and other plug-ins required.



A new off-air television receiver, designed for closed-circuit use, has been announced by Rank Cintel, the Broadcast Division of Rank Precision Industries Ltd, Bessemer Rd., Welwyn Garden City, Herts, England. The receiver enables RF television programs to be viewed on a video monitor. A number of monitors can be fed from this one source. Six pushbutton switches are located on the front for station selection. By changing certain keys on the assembly, any combination of RF bands and systems can be received, i.e., any combination of 405- and 625-line systems can be obtained. Contrast controls are provided for both systems. A small elliptical loudspeaker is located in the front panel to enable local monitoring of sound. The volume control is located in the On/Off switch. The unit is available in a 19-in rack-mounted version, or it can be enclosed in a wooden case. The basic unit weighs 12½ lb and is 19 in long, 13 in deep and 5½ in high. It is priced at below £100.

A solid-state TV monitor with an 11-in picture tube designed for industrial closed-circuit applications has been announced by Video Information Dept., Westinghouse Electric Corp., P.O. Box 868, Pittsburgh, PA 15230. The new monitor is intended to provide greater flexibility for closed-circuit system designers by filling a gap between the 9-in and 14-in units. The new monitor works from a composite video signal input of positive polarity with 525-line pictures at 60 frames/s. A two-position switch provides either low-impedance line termination or high-impedance bridging for connecting several monitors to the same signal line. The unit can be mounted on a standard 19-in rack or in its own cabinet. The cabinet-mounted monitor is about 11½ in high, 20 in wide, 11 in deep and weighs about 29 lb. It is priced at \$245, including the cabinet.

A test set for 2.5 GHz ITFS transmitters, designed to make all necessary FCC periodic checks, including transmitter frequency, power output and modulation, has been announced by Micro-Link Systems/Varian Associates, 19 Wartburg Ave., Copiague, NY 11726. The test set, plus an oscilloscope, provides means of ascertaining that the visual and audio carriers meet FCC operational requirements. The instrument is priced at \$4,100. A modified Telequipment S-54 oscilloscope is available at a price of \$450.

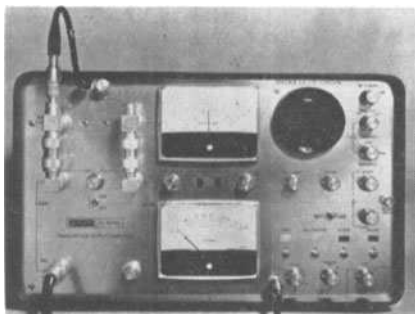
Model VF 301 PM Optical Multiplexer designed for the superimposition of projected images in closed-circuit television systems has been announced by Video Facilities, Inc., 353 W. 57 St., New York, NY 10019. Images from up to three sources are optically combined and projected directly to a television camera, making it possible to achieve special effects without complicated equipment. The multiplexer uses two optical prisms and two field lenses in a system that does not require an intermediate projection screen. The projectors, optics and TV camera are mounted on a formica table top occupying an area 48 by 60 in. The system, including the table top, is priced at \$1,195.



The CVI Model 321 Video Analyzer has been announced by Colorado Video Inc., P.O. Box 928, Boulder, CO 80302. The instrument acts as a sampling oscilloscope to give the equivalent of line selection at TV field rates allowing simplified analysis of video signal characteristics on the vertical axis. The vertical line selected video signal waveform is displayed directly on the screen of a normal TV monitor. This waveform is superimposed on the signal being analyzed in a 1:1 correspondence with vertical and horizontal markers being used to provide rapid identification of any individual picture element. The 321 also has chart recording capability derived from a second sampling circuit which provides a dc voltage proportional to the

amplitude of the video signal under the marker crosshairs. The video analyzer can also be used as an X-Y coordinate indicator of significant video detail. It is priced at \$2,500.

A transmitter output analyzer, called the TG-2400, compactly designed to do the work of a wattmeter and other instruments, has been announced by Green Electronic & Communication Equipment Ltd., 79-91 Braemar Rd., London N.15, England. The



TG-2400 will continually monitor a radio transmitter's power output and its carrier (modulation envelope). Used as a wattmeter, it has a range of 0 to 1,000-W mean, or 2,000 W peak-to-peak, over a frequency of 2 to 500 MHz. Construction is based on the modular principle and the instrument comprises separate 50-Ω and 75-Ω absorption structured monolithic load units, the same values of absorption wattmeters and of VSWR indicators, two-tone oscillators, RF envelope display and conventional

oscilloscope. These can be combined to perform as a complete RF source or transmitter test unit on single sideband, AM or CW.

The 5 cm² working-area oscilloscope tube is connected to a Y-amplifier with a sensitivity of 100 mV/division and a bandwidth of dc to 30 kHz. Time base ranges are 10 Hz, 100 Hz, 100 kHz and 10 kHz, variable between limits from zero to maximum speed of 100 ms/division. The X input has a bandwidth of 3 Hz to 200 kHz, and a sensitivity of 8 V rms/division.

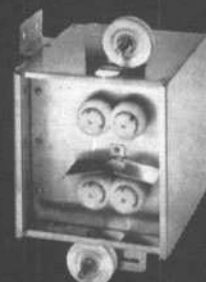
The BPA series of solid-state active band-pass filter arrays has been announced by Spectrum Instruments, Inc., 102 Columbus Ave., Box 474, Tuckahoe, NY 10707. The BPA-1 Analog Filter Array incorporates basic features required for general audio frequency work, including a center frequency span from 20 to 10,000 c/s, 28 third-octave spaced filters with individual sliding attenuators, a relative high signal handling capacity and a master attenuator. The BPA-1 is essentially a frequency-domain equalizer and may be inserted in an audio channel to reshape response. It is intended especially for electronic music studies and intelligibility enhancement. The BPA-1 is priced at \$1,495.

Two new make-up kits are available from Research Council of Make-Up Artists Inc., 52 New Spaulding St., Lowell, MA 01851. Kit #8, Customer Introductory Kit, contains Color Process Foundation, Check-

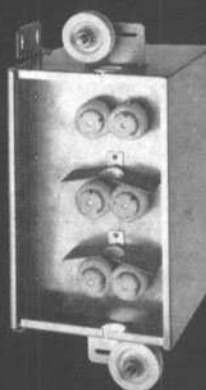
color, Shading, Countershading, No-Color Powder, Lipcolor and sponges. It is specially priced at \$11.95. Kit #9, Beauty Salon Student Kit, is designed for training purposes in make-up and beauty salons. It is priced at \$20.95. Other new products announced by RCMA include eyelashes (\$5.00 a pair), a new translucent powder and Genacolor, a new product for skin coloration to be used with Color Process Foundation to give a natural glowing look.

Thomas J. Valentino Inc., 150 W. 46 St., New York, NY 10036, producer of Major records has released six new albums to increase the Major Background Production Music Library to more than 65 hours of modern music. The new material includes electronic music, hard-rock, string compositions, contemporary small group arrangement, descriptive travel sequences for various countries and new musical selections in the space category. The sound-effects library has been increased with two new long playing records for a total of some 500 sound effects on 14 12-in LPs. Both the Major Background Music Library and the Major Sound Effect Library are available on LPs and ¼-in tape.

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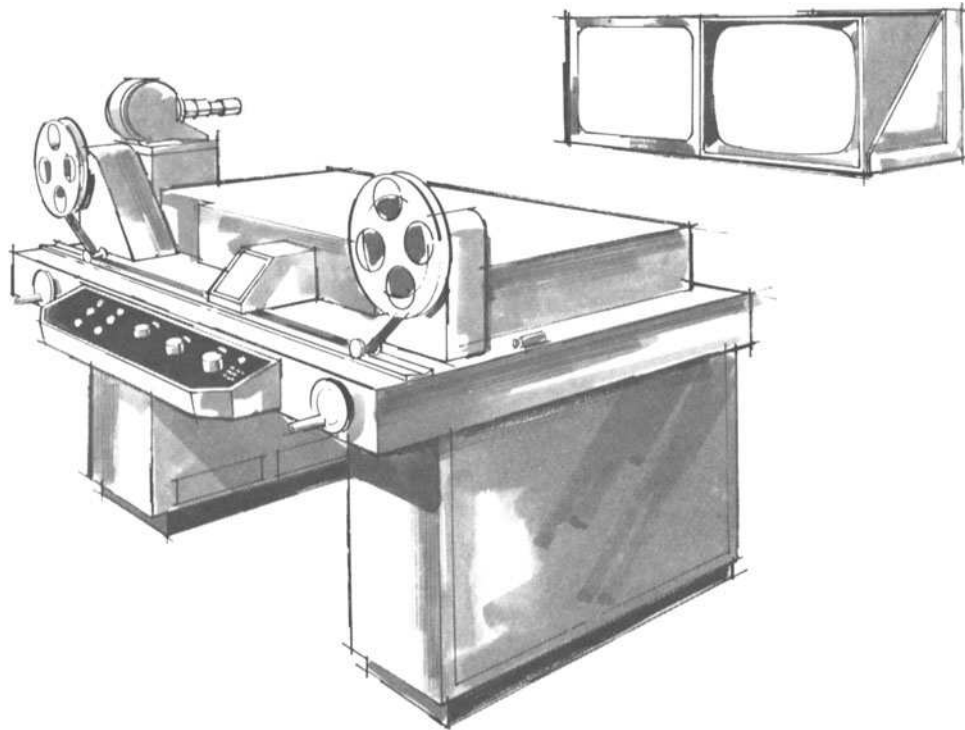
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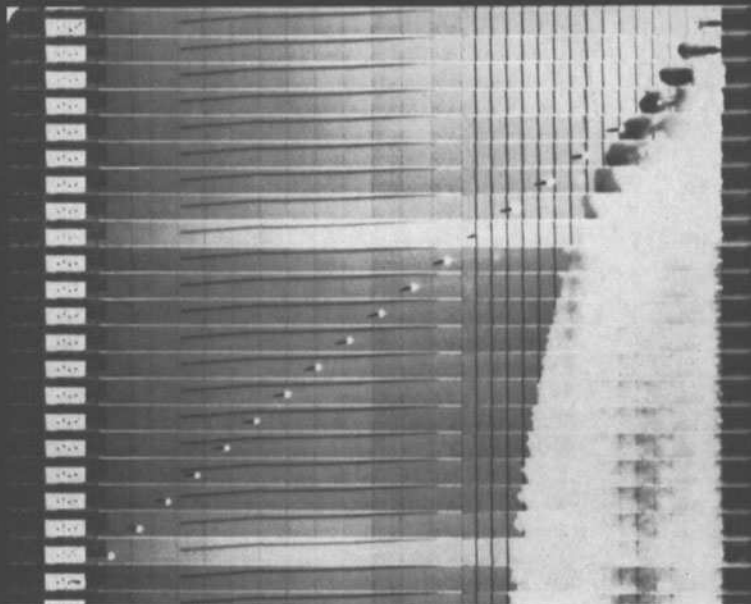
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WANTED. This year's January Journal — No. 1, Vol. 78, January 1969. Due to disruption of usual publication procedure, this issue is nearly depleted. A number of copies will be welcomed for Society purchase at \$2.00 each. Please send any available copy — At: The Editor, SMPTE, 2nd Floor, 9 E. 41st St., New York, NY 10017.

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