emulsion relating to ASA speed, color balance and grain structure was given before a comparison demonstration was shown. The 35mm ASA 50 was compared to the older ASA 25 film. The increased depth of field (due to being able to stop down one full stop) and the better color reproduction was very apparent. A question and answer period followed Mr. Shaner's formal presentation.

Coffee and donuts were served after the meeting.—Frank Mansfield, *Secretary-Treasurer*, 57 Stoneyford Ave., San Francisco 24.

The San Francisco Section met on August 11 at Palmer Films, Inc., with an attendance of 26. Bill Cothran, News Director, KROV-TV, San Francisco, and Charles Stanyan, Senior Cameraman, KRON-TV, were the speakers. Mr. Cothran discussed "News Coverage for Television." Mr. Stanyan explored the "Technical Problems of Newsreel Coverage."

Mr. Cothran gave a rundown of the operation of his department. Problems regarding the general coverage of local news pickup, laboratory skeds and editing were covered.

Mr. Stanyan pointed out the advantages of magnetic sound over optical. Because of the selflimiting properties of the magnetic strip it is possible for many one-man pickups. Since it is also possible to monitor off the track during recording, it is possible to hear any wow and flutter that may be introduced due to poor power regulation. This feature has saved many stories because a portable power supply could be brought into use.

Various samples of recent news subjects were projected, showing the high quality that is possible with magnetic sound.—Frank Mansfield, *Secretary-Treasurer*, 57 Stoneyford Ave., San Francisco 24.

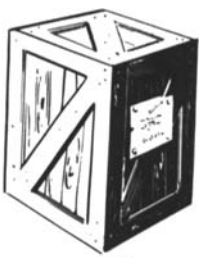
The San Francisco Section met on September 8 at San Francisco International Airport with an attendance of 58. Speakers were Norman Merkel, E. Mathews, and E. P. Sullivan, all of Federal Airways Agency. Subject of discussion was "Radar Control and Intercom System at San Francisco International Airport."

Following cocktails and dinner at the International Inn, Mr. Merkel, with the aid of color slides, gave a detailed explanation of the equipment used in the new radar control approach system and the intercom between the tower operators and the radar operators. This new intercom system has reduced the interval of landings from 7½ min per plane to 3 min and a departure time from 10 min to 2 min.

Mr. Mathews spoke on the electronic equipment and explained the method used for proper cancellation of stationary returns so that moving returns, such as aircraft, would allow for a better display for the radar operator.

After the lecture portion of the meeting the group moved to the San Francisco International Airport where they were taken to the radar room and control tower to see the equipment in operation.

The meeting concluded with a tour through American Airlines new 707 Jet Airliner, conducted by Ralph Weinals, chief communications maintenance man for American Airlines.—Frank Mansfield, *Secretary-Treasurer*, 57 Stoneyford Ave., San Francisco 24.



new products

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.

Zeiss Ikon Automatic Projection System

Abstracted and translated from "Vereinfachte Filmvorführung durch Einsatz von Automaten" by Dipl.-Ing. H. Tümmel in Kino-Technik, No. 10 (1958), pp. x-xii, xiv.

The Zeiss Ikon automatic projection system uses a special switch to trigger the various operations of a motion-picture program automatically. Each step, from the lowering of the house lights and the raising of the curtain, to the close of the final film, can be preset so that the entire program can run without supervision. Xenon lamps have been found preferable for this system since they require less attention during operation than carbon arcs.

The system comprises a drum-type switch and a drive system, mounted together and housed inside a closed box. The drum is grooved. Spring-held metal nodes can be affixed at appropriate points in the grooves. As the drum revolves the nodes strike against a rack of switches and activates the various pieces of equipment.

The drum, which makes one revolution in 4 min. is driven by an a-c motor. Its outer rim is marked with a time scale in 5-sec, to facilitate accurate placing of the nodes. There are 25 grooves on the drum, permitting the use of up to 25 nodes to perform the same number of switching actions. The first switch starts the motor, leaving 24 switches for operating the various elements of the projection and theater equipment involved. For unusually elaborate presentations it is possible to add a second rack of 24 switches below the first; additional nodes are then installed and adjusted in the grooves so as to miss one of the racks and activate the other.

Provision is made for the equipment to turn itself on and off as required. During the showing of a film, for example, the equipment will be switched off and automatically restarted when it is time to proceed to the next operation. Synchronization of the various parts of the program is achieved by a signal transmitted from a cue mark on the film or tape in the projector. Similarly, impulses are transmitted from the automatic switch to the projector, sound system, lighting controls or other elements of the theater equipment. Only minor modifications of this equipment are required.

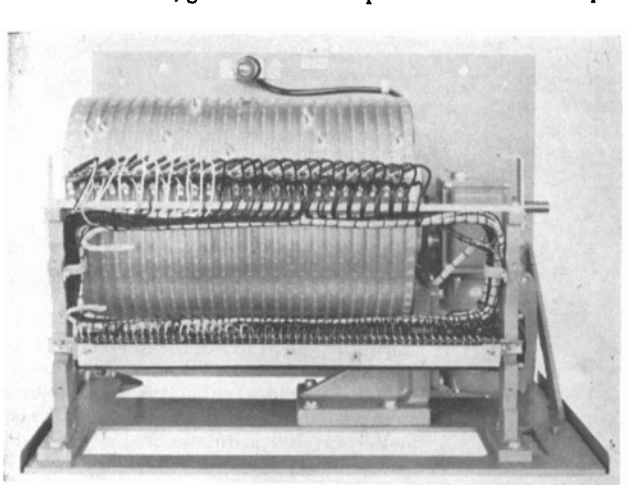


Fig. 1. Automatic drive switch and drive with housing removed.

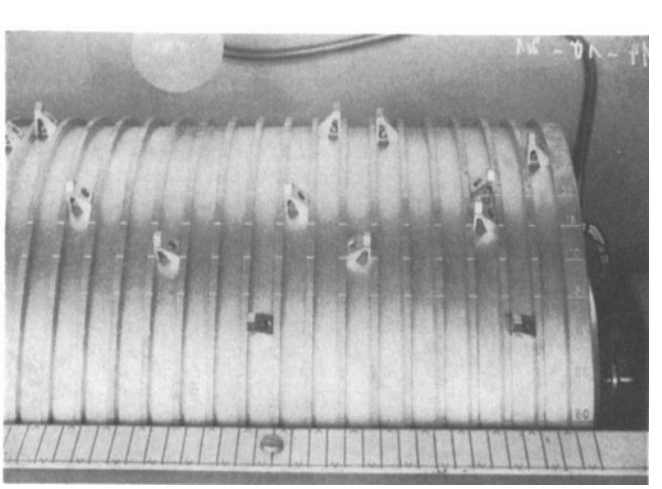
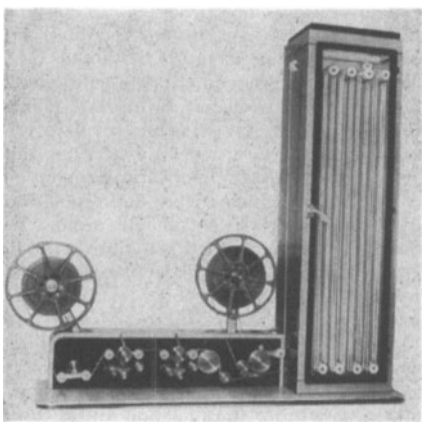
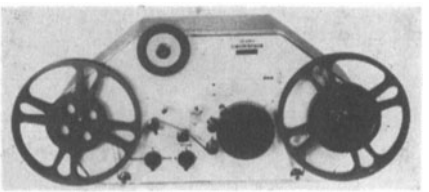


Fig. 2. Detail of drum showing the spring-held metal nodes.

Approval of a new ASA Standard for exposure indexes is expected as a consequence of continued recommendations to amateur and professional photographers to use higher than published ASA exposure indexes, according to information from Eastman Kodak Co., Rochester 4, N. Y. In releasing the information company spokesmen said, "It is our understanding that when the new Standard is issued, it will reduce but not eliminate the safety factor currently involved. Under the present Standard the index, by definition, is considered as $2\frac{1}{2}$ times the minimum exposure required for an excellent print. This gives a safety factor of $1\frac{1}{3}$ stops or $2\frac{1}{2}$ times."

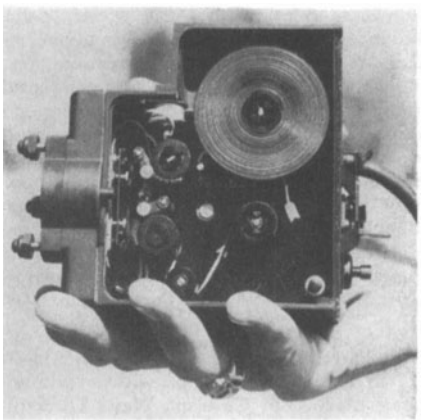


Two magnetic film striping machines were introduced by S.O.S. Cinema Supply Corp., 602 W. 52 St., New York 19, at the SMPTE Convention (Fall 1959) in New York. One machine, the Sosound Peterson, employs a bead-type applicator. Two stripes may be applied simultaneously. The oxide mixture wells have interchangeable application discs with micrometer adjustment of layer thickness. After passing through the enclosed drybox, an adjustable polisher imparts a high gloss. Said to operate at about 2200 ft/hr, the price of the machine ranges under $3000.

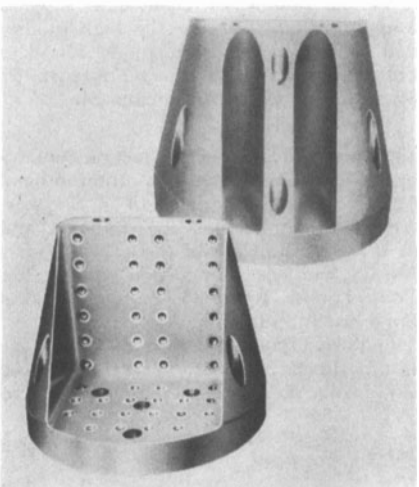


The Sosound Cinemaphon laminates the stripe with a special cement which is bonded to the film as it passes over a heated drying drum. This type of machine is priced under $2000. Both machines lay a full soundtrack or halftrack and a balance stripe. Both techniques, beading and laminating, are said to be permanent and unaffected by conventional black-and-white developing and fixing baths.

A miniature 16mm camera called the Traid 15 has been announced by Traid Corp., 17136 Ventura Blvd., Encino, Calif. Designed especially for missile and aircraft applications, the camera is also suited to other situations requiring compactness and versatility. Dimensions are $5\frac{5}{16}$ by $2\frac{15}{16}$ by $4\frac{7}{16}$ in., and weight is $2\frac{3}{4}$ lb. The camera is equipped with variable shutter, magazine heater, 2-v d-c motor and is adapted for interchangeable preloaded 50-ft magazines and GSAP or "C" lens mounts. It is available with any single speed of 16-, 64- or 100-frames/sec and has double-tooth sprockets for high G loading. It is priced at $1296.

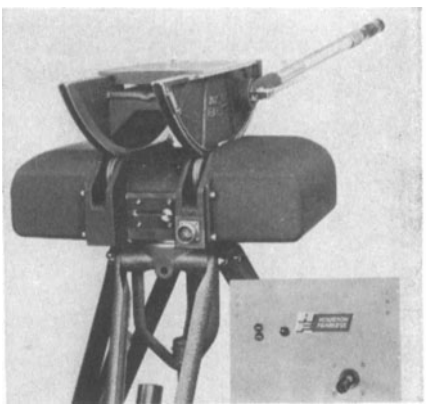


Fisher Microphone Booms, Stands and Crab Perambulators are available on a rental basis from Camera Equipment Co., 315 W. 43 St., New York 36. The equipment is manufactured by J. L. Fisher of N. Hollywood, represented by Cinequipment of Hollywood. Rental (per day) for the equipment is: Boom, $8.50; Stand, $4.00; Crab Perambulator, $11.00. The microphone boom is designed for light weight and maneuverability. The maximum extended reach is 16 ft and the microphone can be rotated through 360°.

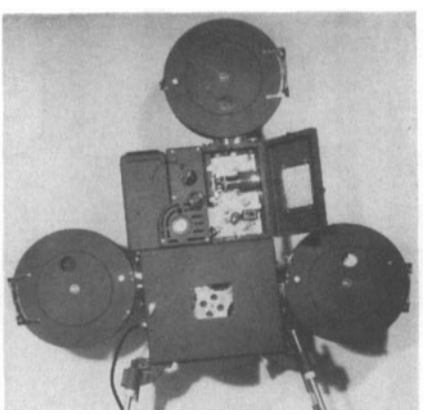


A T-type environmental test fixture made of cast magnesium has been designed by the Avco Research and Advanced Development Division, 201 Lowell St., Wilmington, Mass., for resonant-free testing during normal use and for mounting test specimens during vibration, shock and acceleration tests. It is designed to permit simultaneous testing of specimens on three mutually perpendicular axes. Called the Multi-Purpose Environmental Test Fixture, it is available in a small size used with a 1500 g-pound exciter and a larger size for use with a 5000 g-pound exciter. The smaller size has a dimensional capacity of 6 by 6 by $4\frac{1}{2}$ in. with a weight capacity of up to 6 lb. The larger type has a dimensional capacity of 12 by 12 by $9\frac{1}{2}$ in. and weighs up to 25 lb.

Oscar and Boscar are the names of two types of record readers designed to expedite the analysis of various oscillograph-type trace records appearing either on film or paper. Most models of the Oscar family may be equipped with projection units allowing analysis of records on 16mm to 89mm film. The Boscar is a reading device designed primarily to analyze data appearing on frame-by-frame film. These and other special purpose readers used to convert information recorded in pictorial or graphic form into either digital or proportional analog resistance form, products of Benson-Lehner Corp., 11930 West Olympic Blvd., Los Angeles 64, are described in a catalog available from the company.



A power-driven cradle head designed to tilt and pan TV cameras by remote control is a product of Houston Fearless Corp., 11827 W. Olympic Blvd., Los Angeles 64. The cradle head is powered by two separate motors, contained in soundproof housings, which tilt the camera 30° up and 38° down and rotate 370°. The remote control panel can be installed at any convenient location. The cradle head can also be operated by hand. It is designed to accommodate monochrome TV studio cameras and vidicon color cameras.



A 35mm projector, Model 2810PL3, has been added to the DeVry line produced by Paromel Electronics Corp., 3956 W. Belmont Ave., Chicago 18. Designed for simultaneous projection of 35mm picture work print and separate 35mm sound optical work print, it is recommended as a preview model for TV film programs. Film capacity is said to be equivalent to a half-hour TV program. The feed reel for the picture portion is mounted at the top of the projector in the conventional way, and the take-up magazine is located at the front. The optical sound portion has the feed reel mounted at the back of the projector and the take-up is located in the modified lower section.

A small oscilloscope called the Panelscope Model P1B7X2 designed to view color or black-and-white TV sync pulses has been announced by Waterman Products Co., 2445 Emerald St., Philadelphia 25. A built-in selector switch allows selection of one of three negative going TV sync signals to be viewed at sweep rates of one-half either line or frame frequencies. Another selector position permits connection of an external calibrating signal to the vertical amplifier. The overall panel dimensions are $5\frac{3}{16}$ in. high and $5\frac{1}{4}$ in. wide. The instrument extends 10 in. beyond the mounting panel.

A nine-pin miniature beam deflection tube specifically designed for balanced-modulator, balanced-mixer, and product-detector service in single-sideband communications equipment has been introduced by the RCA Electron Tube Division. The deflection system of the tube makes it suitable for use in low-distortion audio-fader circuits, remote switching of studio and high-fidelity equipment, and other applications in which isolation of control voltage and signal voltage is required. It is capable of operation to about 100 mc. This tube, RCA-7360, has two plates and two beam-deflecting electrodes, together with a screen grid, control grid and cathode. The total beam current is determined by the screen-grid and control-grid voltages, while the portion of the total beam current collected by each plate is determined by the voltage difference between the deflecting electrodes. Each plate current, therefore, is a function of the product of two input voltages.

A polycrystalline ceramic which has the property of transmitting light has been announced by General Electric Research Laboratory, Schenectady, N. Y. The new material, called Lucalox, is said to remain stable at temperatures close to 3600 F. The light-transmitting quality is achieved by removing the microscopic small pores, or "bubbles," that are normally found in ceramic materials. Suggested applications include high-intensity incandescent and discharge lamps and banks of infrared lamps that are used to test the heat-resistance of missile nose-cones and other space-vehicle equipment.

A new high-speed color film, the Eastman Color Reversal Film, Daylight Type, SO-260 has been announced by Eastman Kodak Co., Rochester 4, N. Y. The film is reported to have a normal exposure rating of 160. A companion, tungsten-balanced film, Eastman Color Reversal Film, Type B, SO-270, has a normal index of 125. The new film is said to combine exceptional speed with adequate sharpness, moderate grain pattern and good color reproduction, permitting photography under a wide variety of natural and artificial lighting conditions. Both films are

available in 16mm and 35mm sizes. The films may be purchased from the W. J. German Co. of Fort Lee, N. J.

Eleven professional motion-picture films available from the Gevaert Company of America, Inc., Cine Dept., 321 W. 54 St., New York 19, are described in a folder giving technical data such as exposure information, footage numbering and other details. The folder is available upon request to the company.

Organizational activities of Bonded Services Division of Industrial Enterprises, Inc., of New York, resulting from a recent (September) merger are directed toward consolidating the firms various service functions, company officials have announced. Storage activities have been centralized under a new department called Bonded Film Storage. The 35mm exchange activities are handled by a department called Bonded Film Distributers and TV film distribution will be handled by a department called Bonded TV Film Service.

Prestoseal Manufacturing Corp., of Long Island City, N. Y., has announced expansion of the company's manufacturing plant. The new facilities are adjacent to the company's present quarters and will double the available space.

These notices are published for the service of the membership and the field. They are inserted three months, at no charge to the member. The Society's address cannot be used for replies.

Positions Wanted

Cameraman—Motion, Still, Aerial. 7 yrs experience, Navy and civilian school graduate. Experienced in aerial, still, data gathering and motion-picture production photography and equipment. Employed by major aircraft corporation and Cape Canaveral Missile Test Range. Past membership in American Society of Photogrammetry, Active Member of SMPTE. Single, age 27, will relocate. Prefer position as photog. coordinator or motion-picture cameraman with large corporation. 1808 Tower Rd., Glen Burnie, Md.

Representative. Wanted: to represent equipment manufacturer or other in capacity of public relations and trouble shooter, calling on industrial, TV producers etc. 35 yrs experience camera work, projection and reinstating alienated clients. Centrally located in Syracuse for travel in East. R. Rees Lumley, 339 South Warren St., Syracuse 2, N.Y.

Film Production. Talented production executive desires relocation in N.Y.C. area. Experienced in all phases of motion-picture production, particularly industrial, documentary and public relations films. Resume and references supplied on request. Write: Les Miller, Rm 707, 276 Fifth Ave., New York 1. MU 9–1771.

Film Production. Assignment wanted for travel film, news, documentary or educational film. Have three B&H cameras, wide-angle lens to 400 mm, one special camera for slow motion, motor driven, also still cameras and tape recorder. Have shot recent TV series and bird life film for national studio. Made over fifty trips through Central America and six through most of Europe. Will accept assignments to any area. F. Robert Johnston, 278 East 23 St., Costa Mesa, Calif.

Film Salesman-Project Supervisor. Expand your business—rare opportunity to acquire creative man with diversified experience in film promotion, production, distribution. Ivy League grad, 33, personable. Excellent refs. Write: EO, Suite M 18, 314 East 38 St., New York 16.

Motion Picture Laboratory Specialist. Well versed in equipment and procedures. Desires position with a well established organization. For resume write: Charles Stephens, 772 Miami Chapel Rd., Dayton, Ohio.

Director, Cameraman, Editor of nontheatrical films. Experienced in all phases of film production. Was employed by Audio Visual Service USOM/L, c/o American Embassy in Beirut, Lebanon as Program Advisor, Film Production Supervisor. Age 26, married, member of SMPTE, willing to relocate. Resume on request. Write: Hrayr Toukhanian, 3731 Irving St., San Francisco 22.

Motion-Picture Production and Direction. Former Secretary-Treasurer SMPTE Student Chapter CCNY, trained in all phases motion-picture production and directing, desires position with production company with possibility of working up through editing and camera to direction. Age 29, single, willing to relocate. Robert F. de Brito, 120 East 31 St., New York 16. MU 5-3060.

Positions Available

Photographic Specialist. Require professional for executing photographic assignments in creative application of all available photographic techniques and equipment. Applicant must interpret requirements of those using photo lab facilities. Direct and photograph motion pictures and stills. Direct the work of other photographers and technicians. Send resume to: W. O. Borden, Employment Office, Convair-Astronautics, Cocoa, Fla.

Engineers, Mechanical & Electronic. Experienced in design, production, manufacture of photographic consumer and/or military products and instrumentation. Must be familiar with motion-picture camera and projector design; capable of creative simple design solutions for economical production manufacture; knowledge of dimensioning for parts interchangeability. Opportunity to join reputable engineering staff of progressive, rapidly growing organization. Foto Development Corp., 123 Eileen Way, Syosset, L.I., N.Y.

Designer. Expanding manufacturer needs designer with experience in motion-picture laboratory equipment. Write or call Forway Corp., 245 West 55 St., New York 19. CO 5–0372.

Cinematographer-Editor. Small organization in Chicago area requires capable industrial cameraman for work in 16mm color, combining editing and some still work for sound slidefilms. Man selected must have good college background, married, under 35. Recent grads with good college background in motion picture-TV or cinematography will also be considered. Good income with excellent opportunities for advancement. Please furnish references, salary requirement and qualifications. Address P.O. Box 244, Park Ridge, Ill.

Optical Effects. Exceptional opportunity for responsible young married man (25–35) to embark on motion-picture film career with leading optical effects house. Good health and basic knowledge of still photography required. If you know a career minded ambitious young man who can accept challenging work have him contact Eastern Effects, Inc., 333 West 52nd St. New York 19. CIrcle 5–5280.

Electrical Engineer. Manufacturers of instrumentation cameras currently engaged in enlarging their facilities are looking for a mechanical engineer experienced in the design of motion-picture cameras, optical printers, or related equipment. Write or call for an appointment. Photo-Sonics, Inc., 2704 W. Olive Ave., Burbank, Calif. Attn: Otto Schiff—VIctoria 9–3144.

Engineers—Optical, Video Circuitry, TV Systems with training and experience to assume broad project responsibility. These openings afford opportunity to work in advanced mobile and airborne TV areas where individual contributions can range from conceptual realization to proof of feasibility. Please write informally, in complete confidence to: Mr. Joseph Skelly, Box 12, DuMont Research & Development Division, 750 Bloomfield Ave., Clifton, N.J.

Technical Writers. Electronic equipment; familiarity with military specs and government procedure essential. Work in Long Island area. 12 required. **Electronic Engineers,** with TV camera, monitor, closed-circuit design experience. 15 required. Penult Corp., 103-14 Roosevelt Ave., Corona 68, N. Y. HIckory 6-1294.

Photographic Instrumentation Engineer. GS-13, $10,130 per yr. To act as technical rep. of U. S. Army Pictorial Center, N.Y., in working with manufacturers and reps. of other gov. agencies on testing, operation repair, design and supervision of manufacture of electromechanical instrumentation systems based on photographic recording devices. Considerable travel involved. Applicants must have 4 yr engineering college or equivalent college and experience combination, plus 3 yr general and 1 yr specialized engineering experience. Standard Form 57 (Application for Federal Employment), obtainable from the U. S. Civil Service Commission or any Post Office, should be completed and sent to: Civilian Personnel Office, Army Pictorial Center, 35-11 35th Ave., Long Island City 1, N.Y. RA 6-2000, Ext. 238.