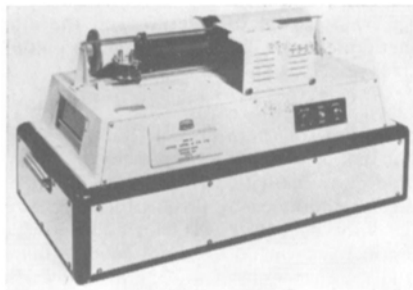


new products

(and developments)

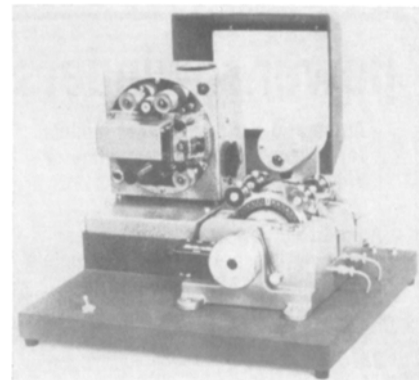
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 Further information about these items can be obtained direct from the addresses given. As in the case of technical papers, the Society is not responsible for manufacturers' statements, and publication of these items does not constitute endorsement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

A color film densitometer developed in the Gevaert Laboratories of Antwerp, Belgium, has been announced by National Instrument Laboratories, Inc., 12300 Parklawn Dr., Rockville, Md. Operation is based on the null balance principle in which a gray wedge is servo-positioned such that the total light impinging on a photocell is constant after passing through the gray wedge, the film, and a color filter. Since the density change of the



wedge is linear, the density scale of the recording chart is linear. When the density is plotted against log exposure, the characteristic of a photographic material is obtained.

Operation of the densitometer is started by pushing a button, after which color filters and pens are automatically selected and placed in position during the recording cycle. The whole operation is sequentially switched to give sensitometric records under three filter conditions on one sheet of recording paper with a common base line. The entire analysis is completed in less than 45 sec. Accuracy is said to be within 0.01 optical density units up to density 2, and 0.02 D between 2 and 3.5. The instrument is calibrated for ASA fine grain film and is available for either 16mm or 35mm film.



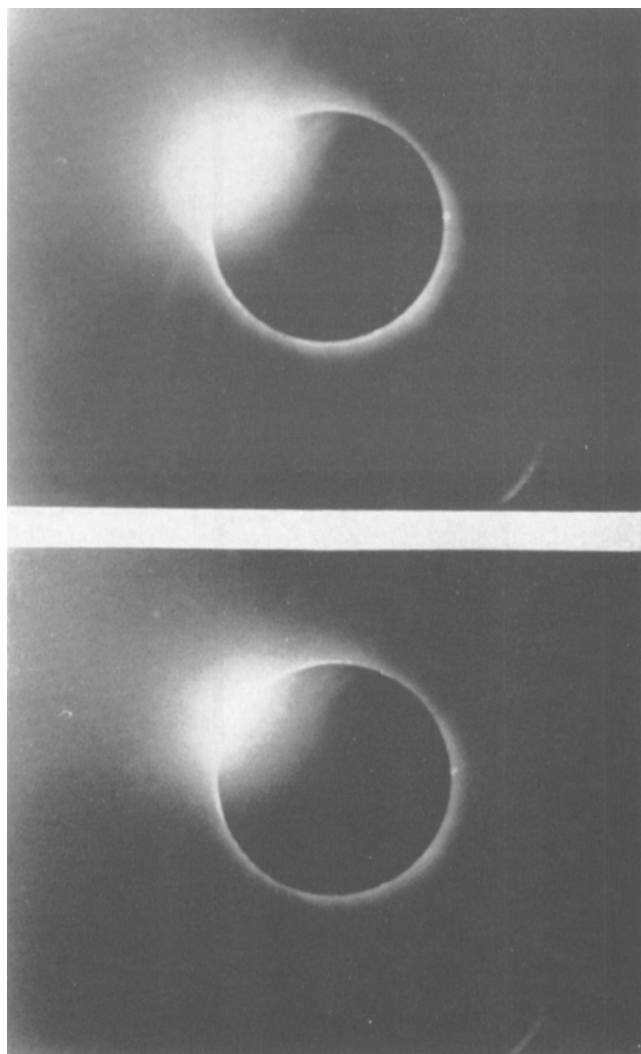
The S.O.S. TV Newsfilm Projectola Editing/Timing Outfit has been announced by S.O.S. Photo-Cine-Optics, Inc., 602 W. 52 St., New York 19. The editing system is designed to synchronize sound with picture while projecting a picture large enough for viewing by three or four people. The unit consists of the S.O.S. Projectola 16mm viewer with two-sprocket unitized timer/synchronizer; special-circuit 10-w amplifier, to mix any two tracks; built-in magnetic heads to read the "bottom side" of the film (with teeth toward the operator); optical sound-head on the sprocket farthest from the operator; and synchronizing base with internal wiring. The optical pickup is

A new multilayer film called XR (Extended Range) has been introduced by Edgerton, Germeshausen & Grier, Inc., 160 Brookline Ave., Boston 15. Said to have a light sensitivity range of 1 to a hundred million, it is expected to have extensive application in scientific and industrial photography. It was used in photography of the recent solar eclipse. It has also been used to photograph an oscillograph tracing having a high risetime, retaining in the same photograph detail in the base line. The film has three emulsions, each with a different light sensitivity, superimposed, one layer upon the other, on a conventional film base. The upper layer is the most sensitive with an ASA Exposure Index of 400 and photographs the lowest, most faint light intensities. The bottom layer is the least sensitive with an ASA Exposure Index of 0.004 and it photographs light of the greatest intensity. The middle layer has a sensitivity falling, roughly, between the upper and lower layers.

In using the film to photograph, for example, an explosive burst of light, such as that resulting from an ordnance device explosion, the photographer would obtain three images on the film. Details normally hidden by overexposure would appear and the different light intensities would be shown. To keep the three images in the different emulsion layers separated from one another, a different dye coupler is incorporated in each emulsion layer, yellow in the top layer, magenta in the middle layer, and cyan in the bottom layer. By using a technique of optical separation, black-and-white photographs can be made of the detailed photograph in any layer or composite prints can be made of two or more layers to show simultaneously what both (or all three) layers photographed.

The XR film is currently available in 16mm 100-ft rolls and 35mm 100-ft and 500-ft rolls; in 5-in. aerial sizes; in 4-in. and 5-in. and 8-in. and 10-in. cut sheets. Prices fall between color and conventional black-and-white films. The film is reported to be easily developed in a standard C-22 Kodacolor processing kit and duplicate Kodachrome negative prints of the XR negative may be made. A broad range of standard filters may be used to examine the negative and to make black-and-white prints. Full technical information and prices can be obtained from the XR Customer Service Dept. at EG&G.

Above: Photograph of solar eclipse printed from medium fast (magenta) middle emulsion layer of XR film shows lack of detail in over-exposed area as sun begins to emerge from behind moon. Below: Photograph printed from slowest (cyan) bottom layer shows well-defined moon and sun edges and also shows Bailey's Beads effect. (Both prints from same frame)



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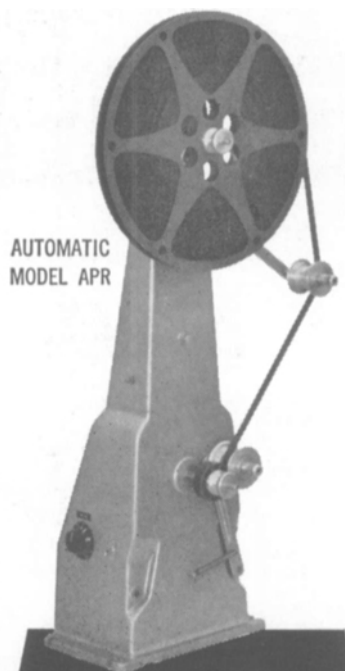
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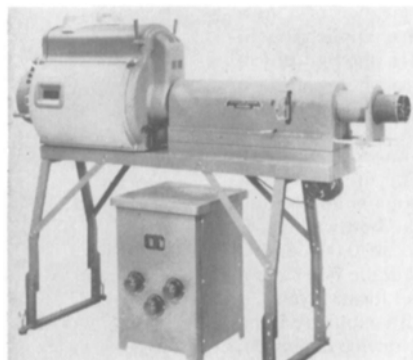


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26 frames from the picture and the magnetic pickup is 28 frames from the picture. It is priced at \$679.

The Futura, a projection lamp designed for indoor theaters with screens up to 65 ft and drive-ins with screens up to 120 ft has been announced by Strong Electric Corp., 79 City Park Ave., Toledo 1, Ohio. The optical system has been designed to match the requirements of all 35mm and 70mm projectors. A single knob moves the entire arc burning assembly in relation to the reflector focal point to make the change from 35mm to 70mm or vice versa. A calibrated scale with reference pointer is used for precise reset of burner focus once the 35mm and 70mm positions are established. The lamp's arc imager system has been redesigned to eliminate parallax, and relocated for convenience of the operator. Three models are available. One model is designed for economy of operation with 11mm carbon trim burning at 75 to 105 amp; another model has automatic crater positioner for 13.6mm carbon trim burning at 120 to 160 amp; and the third has automatic crater positioner for 11mm carbon trim burning at 100 to 125 amp. An 18-in. diameter Tuf-Cold reflector is provided for use with the lamps burning at 95 amp and above. Silver reflectors are provided for lamps burning less than 95 amp. A single manual adjustment controls both carbon feeds.



A slide projector which employs a xenon light source has been announced by Strong Electric Corp., 79 City Park Ave., Toledo 1, Ohio. The light source of the projector, called the Universal Xenon Slide Projector, is an arc enclosed in a quartz globe, which produces 8,000 to 9,000 lumens of white light to make possible projection of 2 × 2- and 3½ × 4-in. slides on screens up to 35 ft wide even in rooms which are not darkened. The screen brightness obtained is comparable to high-quality motion-picture presentation, the announcement stated, the light being approximately 6,000 K. The optical system utilizes a 14-in. diameter, ellipsoidal, heat-reducing main reflector to collect the illumination from the source and direct it to the reimaging point. The associated rectifier operates on commercial 220-v a-c and is specially designed to provide the exact current characteristics and regulation capability for optimum operation of the xenon source. The igniter is built into the lamphouse and provides the proper starting or ignition voltage. The projector is priced at \$3,895.

The Norelco Model AAI Universal 70/35 Projector has been announced by North American Philips Co., 100 E. 42 St., New York 17. Improvements incorporated in the new projector include dual split 17/35 magazine shafts to eliminate need for theaters to purchase special 35mm reels with 70mm flanges; new threading guards on magnetic shield and idler roller; improved intermittent assembly; simplified built-in water cooling circuit; new oil vapor leak protection, and other features.

The Movie-Mate Convertible Model CV-4 Projector, a 26-lb unit for film showing to audiences up to 150, is a product of Movie-Mite Corp., 8811 Puritan Ave., Detroit 38. The machine uses Movie-Mite mechanism and sound system and is equipped for reel-to-reel or continuous film magazine projection on either remote or self-contained pop-out daylight rear-projection screen. The power-driven magazine features direct into-the-magazine film loading and has a capacity of from one TV commercial to a full 15-min sound-color film. Safety switches automatically stop the projector if the film tightens in the magazine; the upper or lower loop is lost; if a splice opens; or if the film breaks. An automatic stop feature is used for daylight repeater projection. By notching the film, the projector will stop at a predetermined point and is restarted by pushing a button. The machine is priced at \$590.

Telcan, a low-cost recorder for home taping of TV programs, has been developed by Telcan Ltd., Main St., East Bridgford, Nottinghamshire, England. The device records both sound and vision simultaneously on standard ¼-in. magnetic tape. It will be available either as a separate unit or as a unit that can be built into a TV receiver. The equipment is said to be able to record either the program the viewer is watching, or one on some other channel, and to be capable of operating on the 405-line British system, the 525-line American, or the 625-line continental system. The 15-lb recorder takes the TV signal from the TV set detector, amplifies and assembles it in a form that can be recorded on the magnetic tape by the special transducer mechanism. The same transducer, which has no moving parts, reconverts the signal on the tape on replay into electrical impulses which are assembled by the following circuitry into a normal TV signal which is then applied to the grid of video output tube in the TV set.

A vidicon camera system, Model 20A-1, has been introduced by Continental Electronics Co., a subsidiary of Ling-Temco-Vought, Inc., P.O. Box 5024, Dallas 22, Tex. Designed to be usable with any studio equipment operating on standard Electronic Industries Association synchronization pulses, the system is said to perform well at low light levels and is suitable for studio or field use. It has a 3-in. electronic image viewfinder to provide reduced initial cost and lower replacement costs and also has electrical centering to ease vidicon and viewfinder alignment. Controls for the 4-lens turret and optical focus are grouped at the rear

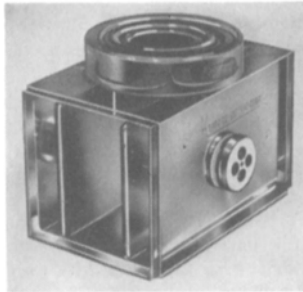
of the camera for convenient operation. A transistorized two-way communications system linking the camera operator with the control console permits each operator to adjust his earphone listening level without affecting the rest of the system. The system is priced at \$3,450.

An all-electronic memory that can store 16,384 bits of computer information in an area smaller than a common playing card and only 120 millionths of an inch thick has been developed at the RCA David Sarnoff Research Center, Princeton, N.J. The experimental unit is described as a glass plate two inches square, bearing several thin layers of tin, lead and silicon oxide deposited by evaporation to create a sandwich. Between the three top oxide layers, which act as insulators, are two conducting grids, each fashioned of 128 hair-thin strips of lead. These grids are deposited by evaporation at right angles to each other, so that they form a pattern resembling a fine wire screen when the memory is viewed from above. Beneath the grids and the insulators is a film of tin. The storage area of the memory is provided by the tin layer, and its capacity is determined by the 16,384 intersections in the screen above formed by the positioning of the two grids. The layers of materials become superconductive at very low temperatures and can thus store indefinitely computer information in the form of electric currents. To acquire and maintain this superconductive property the memory is immersed in liquid helium at a temperature close to absolute zero.

A new gallium-arsenide injection laser has been announced by RCA Electronic Components and Devices, Somerville, N.J. It has been made available on a sampling basis. The new unit is said to have produced coherent emission from input currents of less than 5 amp at liquid nitrogen temperature. Emission wavelength of 8400 Å is almost centered on the peak of the response curve of conventional photomultipliers such as the RCA-71-2. The injection laser incorporates a diffused junction similar to that of a gallium-arsenide optical diode announced earlier by RCA. In the optical diode, noncoherent infrared emission radiates from a surface of the device; in the injection laser pumping occurs along the junction and coherent infrared radiation is emitted from the edge of the pellet. Development of the injection laser is expected to lead to production of simplified, lightweight laser transmission equipment for communications and remote control.

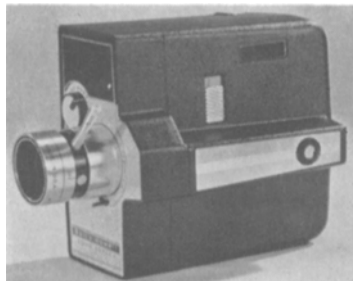
A new model information Retrieval Unit has been announced by FMA, Inc., 142 Nevada St., El Segundo, Calif. The unit is the heart of the FMA Filesearch, a system which automates the storage and retrieval of documentary information. The system stores documents and their machine-readable indexing code, finds the required document(s), and retrieves the information as an image on a screen, a hard copy, or a duplicate photographic tape copy. The main innovation in the new Retrieval Unit (Model 112) is in the transport section. The photographic tape is floated through the photooptical reading

mechanism on a cushion of air to eliminate scratch and wear problems by avoidance of contact with metal.



A giant Kerr cell designed to allow full control over the largest ruby lasers now in production has been announced by Kappa Scientific Corp., 49 S. Baldwin Ave., Sierra Madre, Calif. The new Kerr cell is filled with a high-purity nitrobenzene said to be so pure that space charge effects are eliminated and the electric field in the Kerr cell is extremely uniform. Electrode separation or aperture height is 0.8 in. and aperture width is 1.5 in. Windows of the Kerr cell are optically flat and low reflection coated. It is priced at \$975.

An instrument designed to make visible data recorded on magnetic tape without damaging the tape has been developed by the 3M Company, 2501 Hudson Rd., St. Paul 19, Minn. Called the "Scotch" brand magnetic tape viewer No. 600, it can be used to check recorder head alignment, track placement, pulse definition, interblock spacing and dropout areas in computer and instrumentation work. It can also be used to examine and synchronize the audio track on video tape and the pattern of recorded sound on audible range tapes. It is priced at \$50.



The Autoload camera series has been expanded by the addition of three new models (315, 305 and 417) according to an announcement from Bell & Howell, 7100 McCormick Rd., Chicago 45. Each camera in the series accepts a cartridge that can be pre-loaded with standard 8mm roll film. Model 315 has reflex viewing and a new, compact 11-element f/1.8 lens with a 9-29mm manual zoom range that focuses from 3 ft to infinity. It also has an electric eye and a number of other features. It is designed to sell for less than \$130. Model 305, non-zoom version of the 315, has a 13mm fixed-focus lens. It is designed to sell for below \$90. Model 417 has an electric eye with automatic back-light control and a 9-27mm zoom lens. It is designed to sell for less than \$200.

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The Polaroid Automatic 100 Land Camera announced by Polaroid Corp., Cambridge 39, Mass., for black-and-white or color pictures has an all-electronic shutter and timing mechanism. The shutter consists of only five principal moving parts. The circuit of transistors, capacitors and resistors can react instantaneously. When the button is pressed to take a picture the circuit is activated by a 4.5-v battery and one shutter blade is moved from behind the lens at 200 times the acceleration of gravity, allowing light to reach the film. A second shutter blade is held back by an electromagnet. When enough light has reached the film, the system cuts the current to the magnet and the second shutter blade closes behind the lens, ending the exposure. Because all the measuring and timing are done electronically, the shutter reaches speeds of 1/1200 per sec or can remain open for several seconds. Color pictures can be taken and developed in 50 sec and black-and-white pictures are completed in 10 sec.

The Lowel-Light Vari-flector, announced by Lowel-Light Photo Engineering, 429 W. 54 St., New York, is a portable, lightweight sun reflector mounted on a special stand with positive pan, tilt and height adjustments. It can be readily rolled up in a fiber tube (with stand) for transporting and storage. It also has a flooding mechanism to provide continuously adjustable brightness and spread control similar to a

spotlight. The reflected light pattern can be spread and the intensity reduced by means of an adjustable cam lever. The aluminized Mylar reflecting surface is bonded to resilient aluminum slats. Prices range from \$24.50 to \$149.50.

Kits incorporating Currector current limiting diodes in various combinations have been announced by Circuit Dyne Corp., 480 Mermaid St., Laguna Beach, Calif. Purpose of the kits is to provide the design engineer a wide selection of current cutoff levels and other characteristics for experimental and development work. Prices for complete kits range from \$40.00 to \$393.00.

The EMT 420a Wow and Flutter Meter has been announced by Gotham Audio Corp., 2 W. 46 St., New York 36, exclusive sales representative of the German firm, EMT Wilhelm Franz Co. The equipment is designed for accurate measurement of frequency fluctuations of audio recording and playback equipment arising from motion inconsistencies. Pitch fluctuations are read on the left panel meter as peak value percentages of the 3,150-cps test frequency available from an internal oscillator. Discriminator is linear over ± 400 cps permitting deviation readings as great as 10%. The righthand panel meter directly indicates drift and wow from d-c to 0.2 cps. Terminals are provided on the front panel for external oscilloscope or pen recorder.



employment service

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Writer-Cameraman. Energetic young man, presently employed, married, thoroughly experienced in production techniques, seeks position with industrial, theatrical or educational film producer in Southern California area, where experience, training and capabilities as writer, cameraman and producer will be recognized with increasing responsibilities and advancement. Versatility and variety of experience are special assets. Resume on request. Charles L. Finance, 1641 E. Kingsley Ave., Pomona, Calif.

TV Studio Technician. 5 yrs studio and remote experience in all phases of engineering and production. Hold Radiotelephone First Class. Active radio amateur over 10 yrs. Age 26, single. Would like position with university having good TV facilities and movie division. Objective to obtain degree in field of engineering. P.O. Box 14353, Tampa, Fla.

Engineer. System, project or development for UHF-TV, 2 & 2.5 KMC ETV. Extensive TV transmitter, TV receiver, TV camera and test equipment background. Resume sent on request. Seeking relocation providing opportunity. 14 Park Plaza, Quincy, Illinois-Baldwin 3-4284.

Producer-Director-Cinematographer. 21 yrs experience in features (several award winners), industrials, training films and TV commercials. Extensive overseas production experience. Presently employed by large industrial film company. Good technical background in lab, editing and sound recording. USC motion-picture graduate, married, family, willing to relocate. For full resume write: 1273 1/2 Queen Anne Pl., Los Angeles 19, Calif.

Audio-Visual Specialist/Production Assistant. Creative and energetic young woman with 6 yrs experience all phases motion-picture and film-strip production, writing, promotion and preparation of audio-visual materials for commercial and educational use, wishes position in New York City area with film production company, TV company, advertising agency or educational organization. Seeking position of responsibility with opportunity for advancement and broadening experience. Formerly Technical Supervisor of the Museum of Modern Art Film Library, presently employed as TV production assistant. Resume on request. Write: Jo-Ann Ordano, P.O. Box 2556, Grand Central Station, New York 17, N.Y., or telephone (201) OL 2-6037.

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