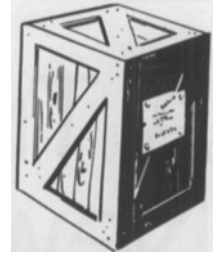


sponsible for industrial sales, advertising, sales promotion and market research and planning.

Ronald T. Groen has been appointed Assistant to the President of SOS Photo-Cine-Optics, 40 Kero Rd., Carlstadt, NJ 07072, it was announced by Dominick Capano, President. Mr. Groen was formerly General Manager of M.P.E. Publications, Inc. He was also Vice-President-Managing Director of Photo Technical Advertising & Publishing Co.

William A. Fink has been appointed Commercial Marketing Manager for Westel Company at the firm's new headquarters at 2555 Charleston Rd., Mountain View, CA 94040. Mr. Fink was previously with International Video Corp. and Ampex Corp. Westel Company manufactures commercial and military videotape recording systems. In his new post Mr. Fink will have responsibility for all field marketing for video products and will maintain contact with networks, group ownerships and teleproduction markets.



new products

(and developments)

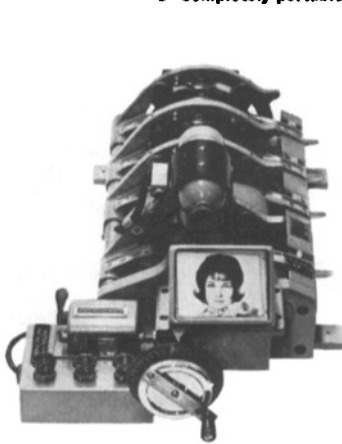
.....
 Further information about these items can be obtained direct from the addresses given. As in the case of technical papers, the Society is not responsible for manufacturers' statements, and publication of these items does not constitute endorsement of the products or services.

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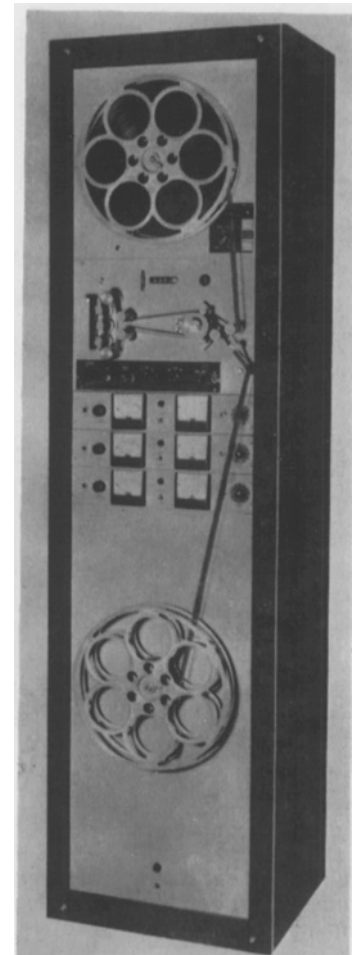
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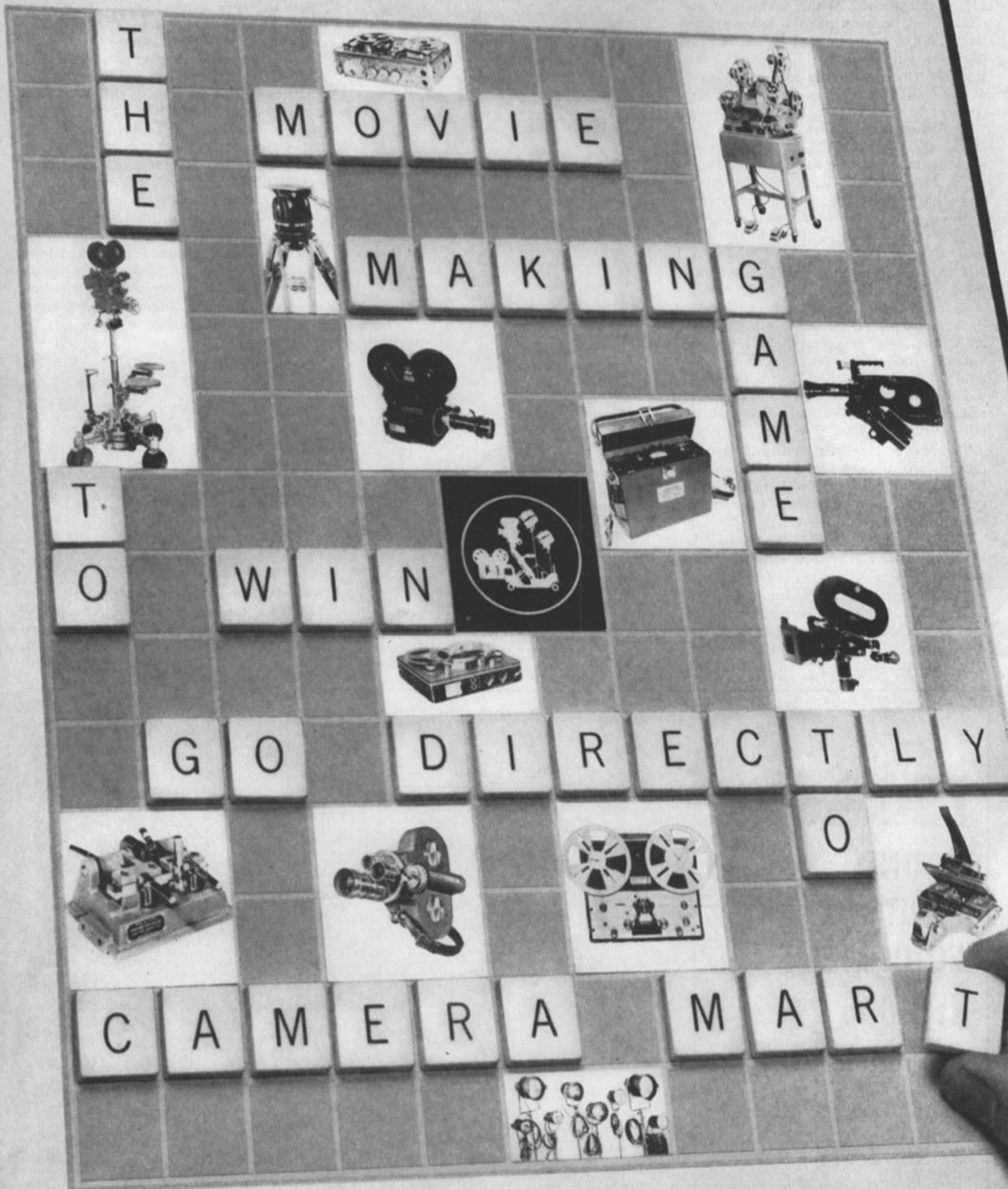
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An electronic post-synchronization system used for post-syncing, foreign language dubbing and substituting of words or other material in mixed tracks has been developed by Magna-Tech Electronic Co., Inc., 680 Ninth Ave., New York, NY 10036, to replace the conventional looping method. The new system electronically synchronizes a reel of picture with a reel of magnetic sound-recording film. Footage and frame presets permit the operator to record the scene to be dubbed and to control the advance and return of the film as the actor voices the line to be dubbed. Accuracy of the system is such that a single word can be changed without danger of erasing an adjacent word.



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Essential features of the new system include: (1) The work print is not cut into strips. (2) A continuous recording is produced that does not require further editing. (3) Changes in the footage location of the spotted scenes can be done at the console.

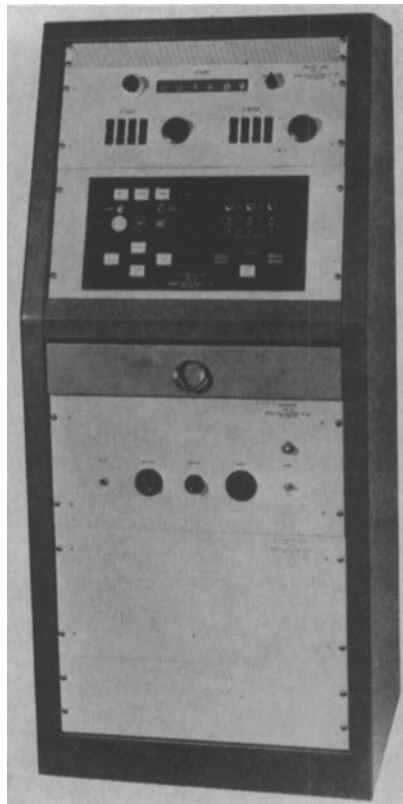
Equipment comprising the system includes the Type PR-135 35mm projector (not shown), the 1000 Series Master Magnetic Recorder (above), Type 158 interlock control unit, a footage and frame counter, the Electronic Looping Console (right) and the Type 154 Monitor Selector.

The PR-135 projector has FWD/STOP/REV operation from either local or remote control. Features include a 1000-W dual incandescent lamphouse for either an incandescent or xenon light source, a 3-phase sync-interlock motor with a solenoid brake and a high-speed interlock motor. Other features include looping rollers and power rewind and a wall-mounted control box.

The Master Magnetic Recorder features pick-up recording, selective erase, plug-in head assemblies and a 5000-ft reel capacity. It is interchangeable for 16mm, 35mm and multi-track recording.

The Type 158 interlock control unit is used to control a composite sync/interlock system.

The footage and frame counter is the Type 9C Forward/Reverse Interlock Counter System consisting of a shaft encoder or generator, a transistorized electronic counter and projection readouts for

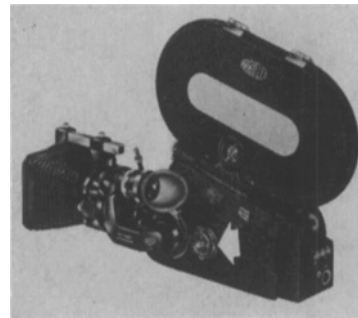


displaying the reading. The generator is mounted on and timing belted to the projector. The display is 4 digits and frame. The digital output information corre-

sponding to the film footage and frame position is used to feed the electronic console.

The Electronic Looping Console consists of the Type 151 Preset unit, Type 153 E.L. Control Unit, a pullout shelf, the 9C footage and frame counter and Type 152 E.L. processor with power supply. The console takes the footage and frame information from the 9C counter and the operational command inputs from the mixer and/or dubbing director and feeds out the data to control the projection, recording and playback equipments.

The Monitor Selector is controlled from the Type 152 E.L. Processor. It automatically switches the control-room monitor, studio monitor and the cue-phones in accordance with the preset selectors.



The Arriflex Exposure Control System for the 16BL camera has been announced by Arriflex Corp. of America, 25-20 Brooklyn-Queens Expwy West, Woodside, NY 11377. The system was described at the 107th

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Technical Conference in Chicago in a paper appearing elsewhere in this *Journal*. The unit, built into the door of the camera, is designed to provide accurate exposure measurement and display in the reflex viewfinder for constant reference during shooting. Light level is measured through the reflex viewing system, thus the path between lens and film is not obstructed by prisms or other optical devices and resolution, contrast and color purity on film are not impaired. The area measured by the photocell is about one-third of the 16mm film and it is center-weighted to favor the most important part of the frame. When a zoom lens is used on the 16BL, spot measurements can be made with the lens at its telephoto position. For example, at a 120mm focal length setting of a zoom lens, a spot measurement as small as 3° can be obtained. Two neutral density wedges are used to represent film sensitivity and camera speed. These inputs are optical rather than electrical. Operating power for the exposure control system is supplied from the camera circuit via two mating silver contacts on the camera door and housing. The exposure control system is priced at \$795. Price includes installation on existing 16BL cameras.

An experimental movie-like TV projector for nonbroadcast use has been developed by RCA Corp. The projection system employs an electron beam, a 500-W light bulb and a special mirror to project enlarged TV images directly onto a 3- by 4-ft

movie screen for general viewing. Heart of the new system is an extremely thin metal film, or mirror, that can be deformed electrostatically at TV speeds. Light from a very bright external source strikes the thin film mirror and is reflected onto a screen. The projected image is made up of reflections from the points at which the thin film mirror is deformed while its contrast is determined by the amount of deformation at each point. The electrostatic deformation is accomplished through the use of an electron beam, similar to the beams that excite the phosphor screen of a conventional TV picture tube.

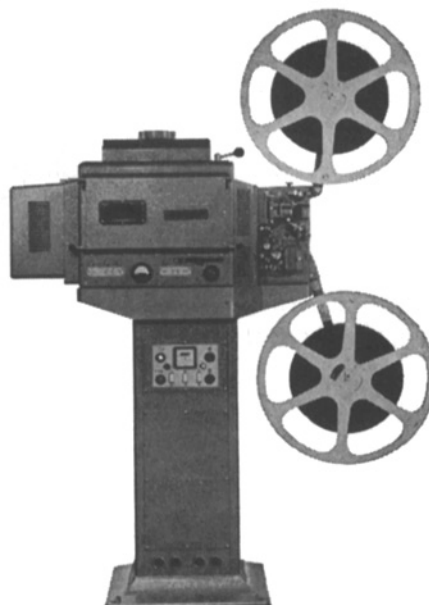
The thin film mirror is a 5- by 5-cm square of nickel alloy that is 0.2 to 0.6 microns thick. The film is mounted on a series of grid supports 50 to 100 microns apart that keep the film about 5 microns from a glass substrate. When the thin film mirror is undeformed the incident light is reflected by the film to an optical stop that prevents the light from reaching the screen. Light reflected by a deformed spot misses the optical stop and is imaged onto the screen.

Extended Services Concept, a new system concept for extending the range of services offered by the CATV industry through two-way cable communication, has been developed by General Electric's Research and Development Center, Schenectady, NY 12305. Present coaxial cable systems typically utilize a bandwidth of 95 MHz out of a possible 300 MHz. The GE extended ser-

vices concept is essentially a wideband communications system employing 275 MHz. Two-way communication will be possible through the use of a dual network amplifier enabling wideband gain in both directions. Cable subscribers will communicate by using a unit similar to a Touch-Tone telephone control pad or a small teleprinter. Data and image displays will be provided in a standard home television set. Up to 10,000 subscribers can be sampled once each second by a data control unit located at a central message center. All information will be held until keyed by the message center impulse and then transmitted.



A new closed-circuit vidicon television studio camera with automatic light compensation and built-in master sync for driving




The reason you find the Bauer Selecton II 0 16mm sound projector in so many auditoriums, screening rooms, ad agencies, studios, business and industrial plants is because the Selecton II 0 fills so many needs.

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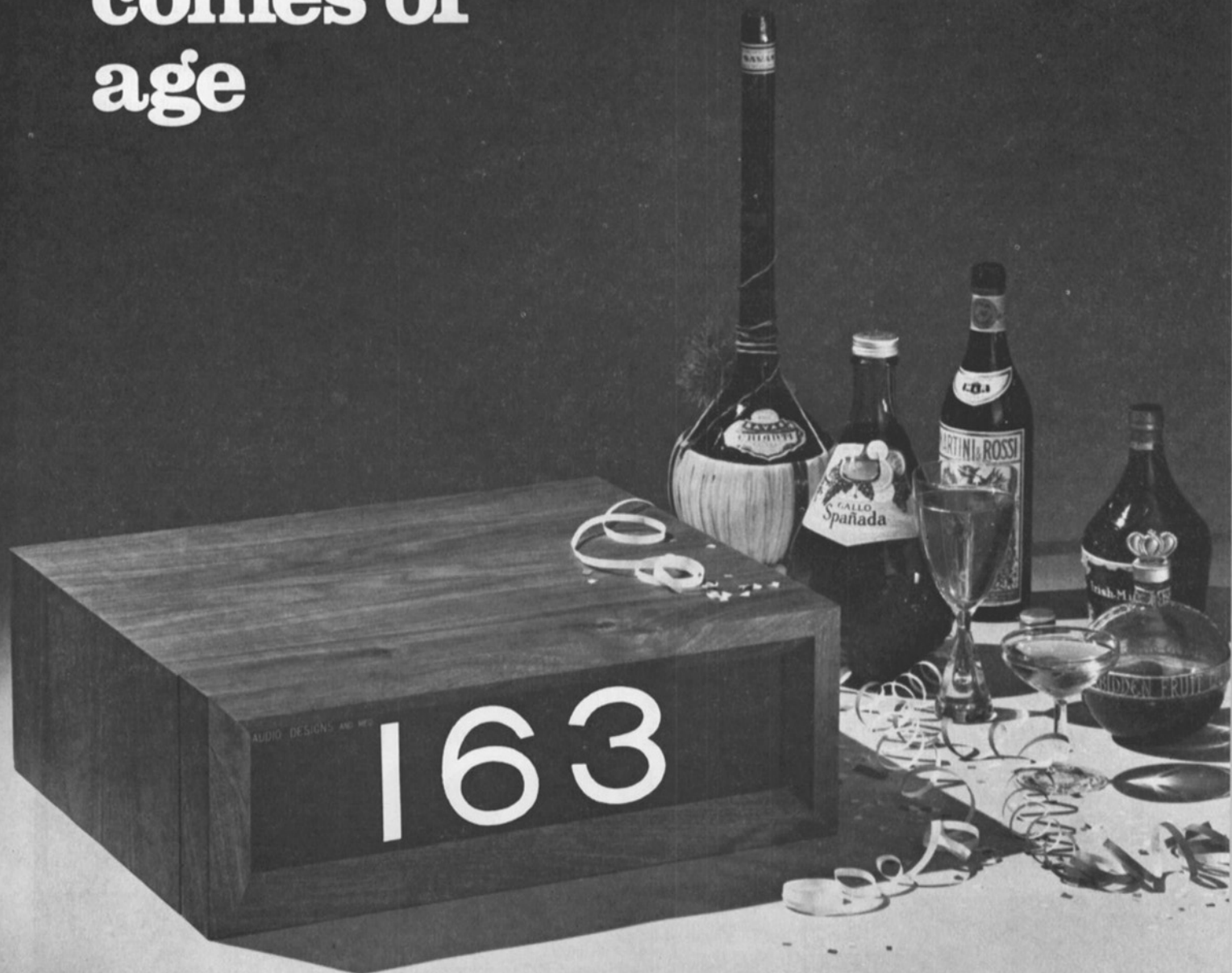
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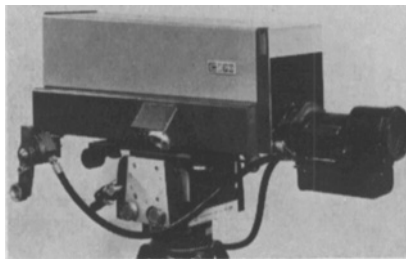
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up to three other similar cameras in small studio systems has been announced by General Electric Co., VCPD-A&SP, #2 Electronics Park, Syracuse, NY 13201. The camera, called the TE-34, has automatic light compensation to assure consistent picture quality over a 10,000 to 1 range. It provides full grayscale and full resolution performance with pickup tube faceplate illumination as low as 1 fc. Resolution of 600 lines center and 400 lines corners is maintained without readjustment over a temperature range of 0 to 50°C and over an input power range of 107- to 127-V ac. The camera is 8.25 in wide, 8.50 in high and 13.90 in long without the lens. It weighs 15.25 lb without the lens. The TE-34 with a GE Type 7735 vidicon pickup tube is priced at \$1,295 without the lens.

The Colorcasting Program Distribution Center, a complete system for selecting and originating color programs from motion-picture film, slides and video tape, developed by RCA Corp., was demonstrated at the recent National Cable Television Association convention in Chicago. The packaged system is operated from a 20-in control console which includes a built-in RCA 860 color video recorder/reproducer, a switching system, a four-input audio mixer/amplifier and monochrome picture and waveform monitors. The system includes two 16mm film projectors, a slide projector, optical multiplexer and the PK-701, a single-tube color camera for

film originations. The console is adaptable for live TV camera control. It is equipped with casters for use aboard vehicles at remote program recording assignments. It is priced at \$24,950.

Also introduced was the PK-490, a high resolution color camera that will make color pictures when a special color-encoding optical system is added and a small package of color processing electronics plugged in.



A color TV camera intended for use under normal ambient light conditions has been announced by Commercial Electronics, Inc., 880 Maude Ave., Mountain View, CA 94040. The camera uses three SEC vidicon tubes to allow full color at $f/8$ under normal lighting and at $f/16$ with typical black-and-white studio lighting. Designated Model 270, the camera was designed to operate with an $f/16$ lens opening at 100 fc with a color temperature of 2900 K. The SEC vidicon used in the camera is said to be about as sensitive as the unaided human eye and Plumbicon. The cam-

era head is 13 in high, 12.5 in wide and 31.625 in long. It weighs 95 lb without the lens. The price is about \$35,000.

Two vertical-interval, three-buss mix/effects production switches, the VS-150A and VS 152A, have been announced by Dynair Electronics, Inc., 6360 Federal Blvd., San Diego, CA 92114. The 150A, designed especially for CATV and educational as well as studio applications, accepts three noncomposite and two composite video inputs. Only the noncomposite busses are connected to the fader mechanism, thus preventing inadvertent fading of composite signals. The noncomposite signals are switched by solid-state switch junctions, with switching occurring during the vertical interval to assure a glitch-free transfer of signals. The switcher-fader, is designed to mount in a standard 19-in console arm, has a front panel height of 5.25 in and an overall depth of 4.25 in.

The VS-152A accepts six noncomposite and two composite video inputs. The noncomposite inputs are connected to three busses, two of which feed an effects amplifier with a split-lever control. The special-effects amplifier produces a single electronically combined signal from any two of the six noncomposite input sources with capabilities for inserts from each of the four corners and full horizontal and vertical wipes. The inserts can be expanded horizontally, vertically and diagonally. The switcher has a front panel height of 7 in and a depth of 5.5 in for mounting in a 19-in console arm.

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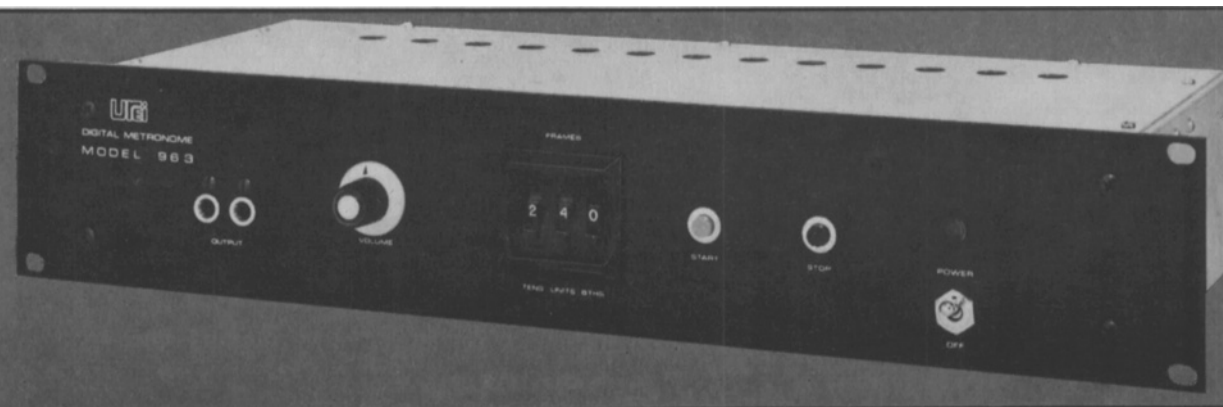
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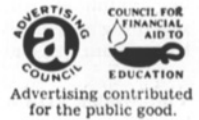
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The VS-150A is priced at \$750; the 152A, at \$1795.

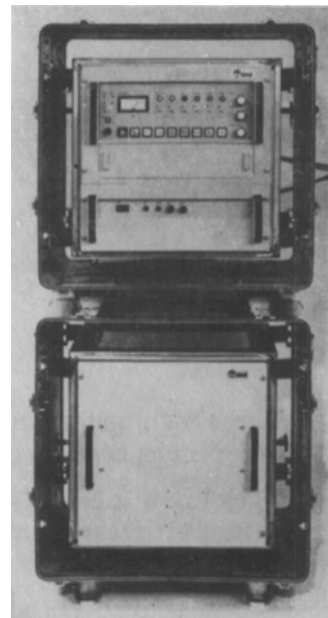
The Marconi Presentation Switcher, Type B3727, incorporating computer techniques with signal switching performed by solid-state circuits for automatic TV programming, has been announced by Marconi Communication Systems Ltd., Marconi House, Chelmsford, Essex, England. An unusual feature of the system is a worded display readout of the forthcoming program schedule. In operation, the system is loaded with the day's program schedule. From then on it automatically switches as many as 50 different program sources onto transmission. The switching instructions stored in the system can be inspected at any time on an alpha-numeric monitor screen. If desired, an adjustment to the schedule can be entered at any time since its effect on the schedule is immediately displayed.

Binary coded instructions, fed in by a simple keyboard of push buttons, control the system. The system can also be manually controlled so that if an emergency occurs program corrections can be made without disrupting the rest of the schedule. The system is of modular design so that the presentation switcher systems can be assembled with any combination of switching facilities. The price range is from about \$25,000 to \$100,000.

The Model VDA-8 Distribution Amplifier has been announced by Visual Electronics Corp., 356 W. 40 St., New York, NY 10018.

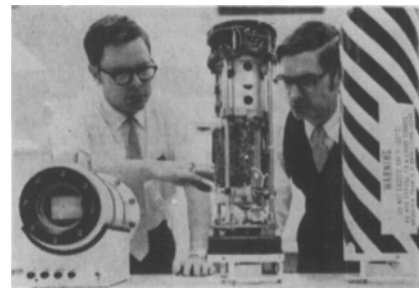
Features include silicon solid-state circuitry with a 5.25-in rack frame which accommodates eight VDA-8 plug-in modules. Each module has eight outputs (i.e., 64 video outputs per rack frame). Each power module receives power from a separate source and is capable of feeding all eight video modules in the event of failure in a companion unit. Two transformers feeding the power modules have separate cords so that each may be fed from different circuits in the station's power system. Both power module output voltages are diode matrixed to supply regulators for each of the individual VDA-8 modules, eliminating power wiring crosstalk. A frame of eight VDS-8—output video distribution amplifiers with two power supply modules and extender board is priced \$2,340. An individual VDA-8 video distribution amplifier is priced at \$225.

The Model 610C Video Pointer, designed to produce a series of oblong or crosshair patterns on the screen of a television monitor, has been announced by Colorado Video, Inc., P.O. Box 928, Boulder, CO 80302. By use of external voltages the patterns can be positioned to any location on the screen and changed in size over a range of ten to one. The instrument can be controlled manually or by a computer. Uses include calling attention to significant elements in a TV scene and as a gating signal for video keying. Model 610C is priced at \$1,950.



The Videodisc 1000 color TV disc recorder has been announced by Data Memory Inc., 1400 Terra Bella Ave., Mountain View, CA 94040. Versions of the recorder are available for both NTSC and PAL systems. Features include 4.2-MHz bandwidth with 20-s record time and "joystick" stop-action, slow-motion to real time speed control. A simplified head/disc drive system utilizes a single disc. An electronic module contains the power supply, electronics and maintenance service panel. Price range of the Videodisc 1000 is from \$52,000 to \$56,000.

A variable-speed, time-lapse videotape recorder, Model VTL 310, has been announced by Odetics, Inc., 1845 South Manchester Ave., Anaheim, CA 92802. Features include twin rotary heads made of a specially developed hot-pressed ferrite for longer recording life; a wide frequency range of over 3 MHz, providing more than 300 lines in horizontal resolution; and tape compatibility from one VTL 310 to another or to any Shibaden 0.5-in VTR. SNR is 42 dB. Speed rates can be selected ranging from 1:1 to 61:1. A manual control is provided for single-frame recording and frames can be advanced one at a time during playback if desired. Individual frames can be held for closer analysis or photography. The recorder can hold some 200,000 individual pictures on 2,400 ft of 0.5-in videotape. The unit measures 22 7/16 by 10 5/8 by 15 3/4 in and weighs 72 lb. The basic unit is priced at about \$4,000. Various accessories are available.



Underwater TV cameras using WL-30691 SEC tubes have been developed by the Westinghouse Ocean Research and Engi-

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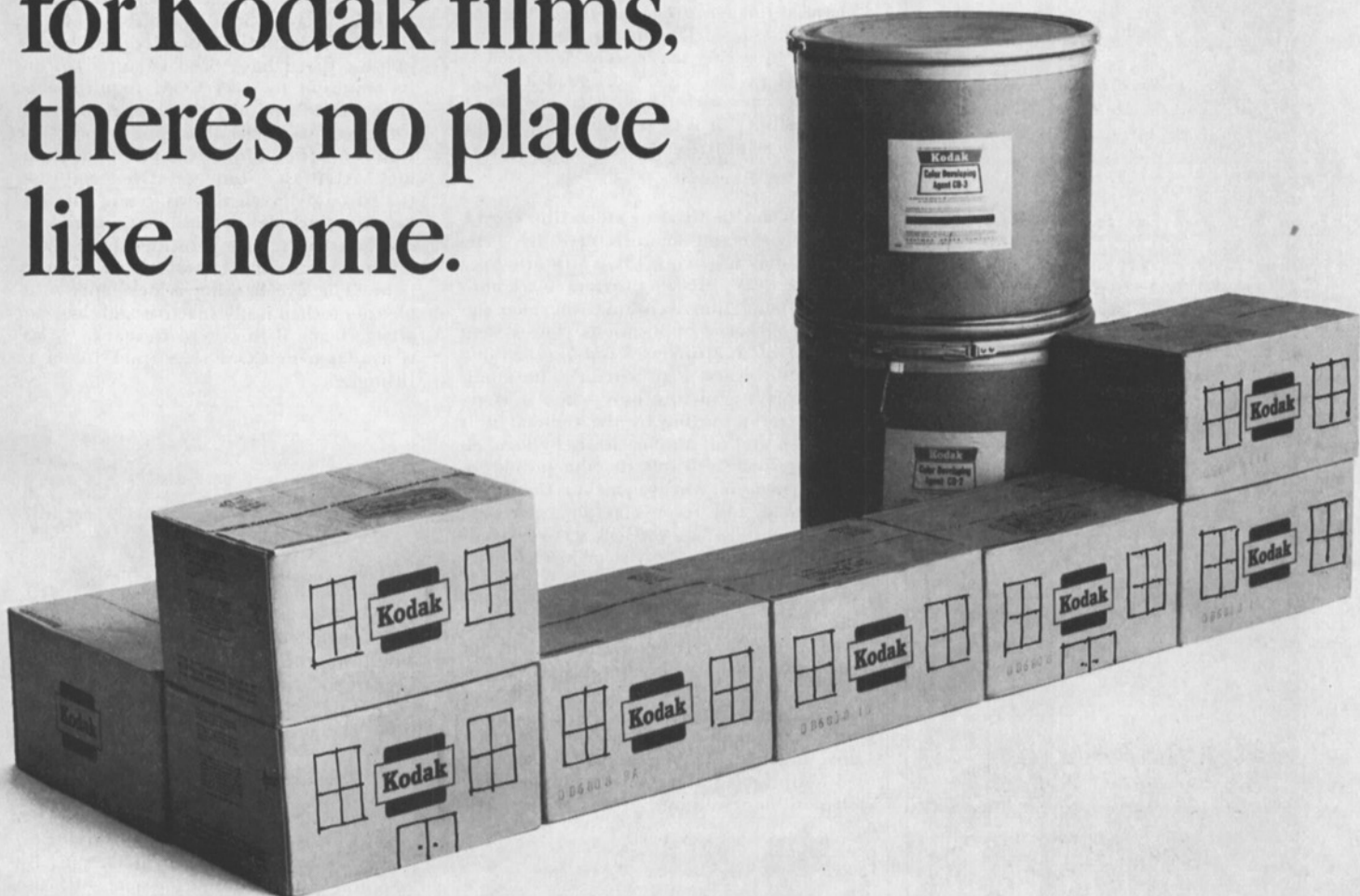
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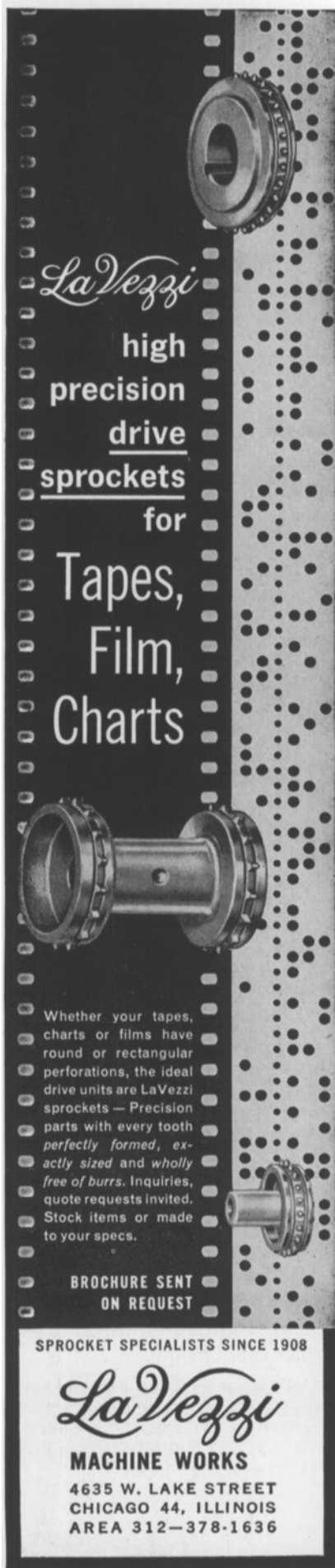
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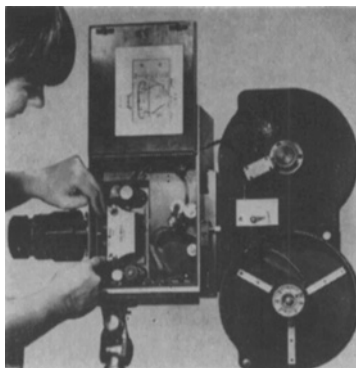
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neering Center in conjunction with the Aerospace and Electronic Systems Division. Units have been built for various purposes both for use by divers and for use on manned or unmanned underwater vehicles. One of the cameras is shown here. At the left is a miniature TV monitor. The camera is in the center and the shell, a strong, watertight enclosure is at the right. The electronic subassemblies are insulated from the shell. Remote focus and automatic aperture control circuitry and mechanical linkages are at the top of the unit behind the lens. The aperture or iris is activated by a CdS sensor. The lens used in the camera has a 50° diagonal field of view in water with remote focusing from 6 in to infinity. It is 22 in long with a diameter of 6.8 in. It can operate to a depth of 1000 ft.

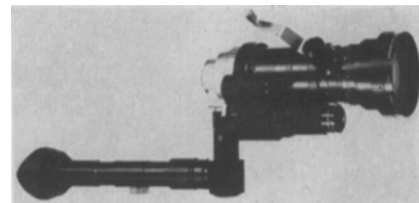
The DBM-AR5 airborne video film recorder, designed and manufactured by Tele-dyne Camera Systems, 131 North 5th Ave., Arcadia, CA 91006, provides black-and-white 16mm film recordings of video signals in airborne applications. The system consists of a Milliken DBM-5 camera, a TV monitor and logic circuit. The monitor displays a picture only when it is required for recording by the camera; it is keyed on and off automatically by logic elements which also initiate film pulldown. The system is synchronous to the input TV signal and records at any speed up to 10 frames/s. A phase lock servo is available which allows the system to record up to 30 frames/s. The system has a film capacity of 400 ft of 16 mm film. Recording can be stopped and re-started at any time. The electronics are solid state except for the display tube. To minimize effects of shock and vibration, the camera, monitor and associated components are mounted on a rigid support structure to ensure that any transmitted vibration will act equally on both camera and monitor for the highest possible resolution.



The DatagraphiX Movie Camera, a 16mm/35mm motion-picture camera for use with the DatagraphiX 4020 and 4060 microfilm recording systems to produce computer-animated movies, has been announced by Stromberg DatagraphiX Inc., P.O. Box 2449, San Diego, CA 92112. Installed in the 4020 or 4060 recording system, the pin-registered camera photographs computer information as it is displayed on a Charactron tube inside the recorder. The camera can operate at speeds up to 10 frames/s. The pin-registered control of the film transport prevents jitter or wander when the animated films are

properly projected. The 16mm/35mm camera is priced at \$19,500 and it can be leased for \$650 per month. A 16mm and a 35mm camera are also available, priced at \$12,500 each or they can be leased at a monthly rate of \$416 each.

An original-imaging silver halide film, specially developed for Computer-Output-Microfilm (COM) photography, has been announced by Stromberg DatagraphiX Inc., P.O. Box 2449, San Diego, CA 92112. Called Micromation Microfilm (MMF), the film's resolution, density and photographic speed have been balanced within its emulsion to meet COM requirements. It is photochemically developable in both white-line and black-line applications. The film consists of a high resolution, medium-high contrast, blue-sensitive emulsion coated on a flaxen tint triacetate support. Features include an antihalation backing developed to reduce ghosting, static marking and accidental exposure due to stray light. The dye backing is developer soluble, photochemically inactive and does not affect chemical life or performance. MMF is available in COM sizes from 16mm to 105mm.



The Angenieux 10X12 AVB DA, introduced at the Society's 107th Technical Conference in Chicago by Angenieux Corp. of America, 440 Merrick Rd., Oceanside, NY 11572, incorporates an automatic iris system into the 12-120mm, f/2.2 zoom lens with a 7.5-in viewfinder. The automatic iris system was previously available only for reflex cameras. The 10 × 12 AVB DA can be used as a "full time" automatic iris or as a semiautomatic iris zoom. By switching the electronic system off, the lens can be used as a normal manual zoom. The lens can be used on Auricon, Bell & Howell, Bolex and other non-reflex cameras. The system is self-contained and by measuring the light that actually passes through the entire lens, it is capable of accommodating all film emulsions within a range of ASA 10 through 400. The exposure focus system is employed for critical focusing. Upon pressing a button, the iris opens to full aperture. When released, the iris returns to the required opening. The lens is priced at about \$1,495.

Two new fixed focal length lenses, the M-1 for 16mm and 35mm cameras, have been announced by Angenieux Corp. of America, 440 Merrick Rd., Oceanside, NY 11572. Both lenses have an aperture of f/0.95 for filming at low light levels. The 25mm lens for 16mm cameras has a diameter of about 1.5 in and is slightly over 2 in in length. It weighs 5 oz. The 50mm M-1 for 35mm cameras is about 2.75 in in diameter and less than 4 in in length. It weighs 1 lb 4 oz. The M-1 for 16mm cameras is priced at \$275. The M-1 for 35mm cameras is priced at \$440.

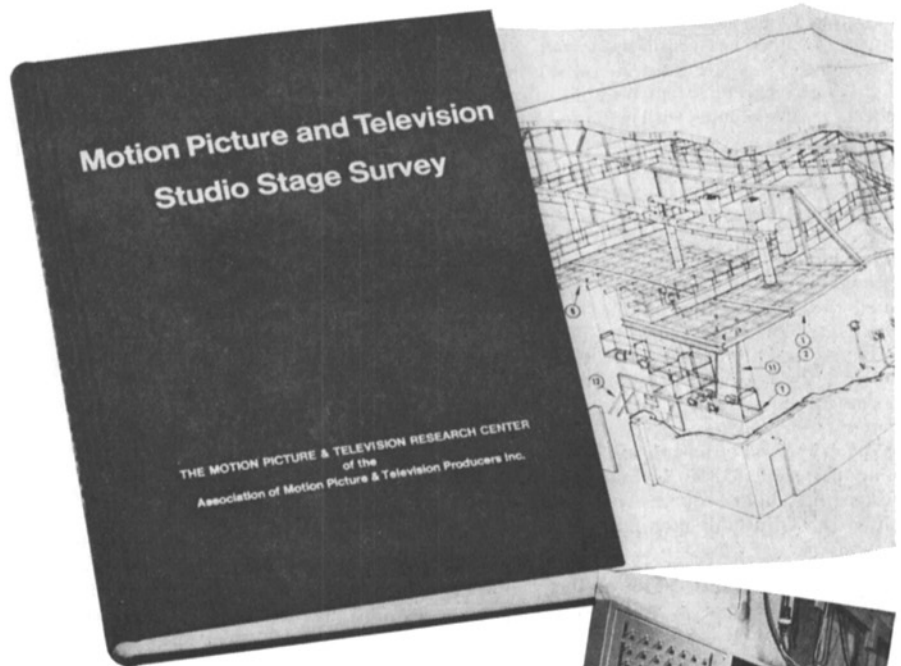
A new line of Schneider Vidikon lenses designed especially for closed-circuit TV has been announced by Burleigh Brooks Optics, Inc., 44 Burlews Court, Hackensack, NJ 07601. The lenses have a heavy duty brass mount for reliability and for electric conductivity. The diameters of the iris and focus control rings are standardized and can be easily coupled to the motor drives. The lenses are available either with a "C" mount or a special bayonet mount. The lenses can be supplied fully electro-motorized for remotely controlled operations. Various types of lenses are available including cinegon, xenon, Tele Xenar and Variogon. Prices range from \$110 to \$1,437, depending on speed, focal length and other features.

The new Split/Field Special Effects Lens has been announced by Alan Gordon Enterprises Inc., 1430 N. Cahuenga Blvd., Hollywood, CA 90028. Designed for motion-picture as well as still photography, one half of the lens is made of clear glass and the other half of a plus lens in various strengths including plus 0.5, 1, 2 and 3 in series sizes of 6-, 7-, 8-, 9- and 4.5-in diameters. The lenses are used to create various special effects. For example, by focusing on the subject through the plus side, a secondary subject in the clear area can be kept in focus; also, half the picture can be thrown completely out of focus, no matter what the lens setting is. The 4.5-in diameter lenses with +0.5, +1, +2, +3, and +4 diopters are priced at \$85 each. The series 9 lenses are priced at \$45 each.

A new version of the ECU-Rp (Extreme Close Up-Rear projection) optical system has been announced by Buhl Optical Co., 1009 Beech Ave., Pittsburgh, PA 15223. The basic ECU-Rp system is used in conjunction with the prime lens on a 16mm projector, usually with a 2-in focal length, and reduces this to the equivalent of 0.5-in for extreme wide-angle projection. It contains a sealed internal mirror which reverses the image for rear projection. The internal mirror is small, making possible economical use of high-reflectivity coatings. The revised system permits either righthand or lefthand use, i.e., the threading side of the projector can be towards or away from the screen. The ECU-Rp gives an image width of three-fourths of the projection distance, e.g., at a 10-ft projection distance, the image is 7.5 ft. Price is \$159 for the ECU-Rp and \$50 for the base.

A new airborne intervalometer for control of data cameras has been announced by Traid Corp., 777 Flower St., Glendale, CA 91201. Designated the SS-400-2, the instrument supplies control pulses from a package 7 in long and 2.25 in in diameter. Operating signals are supplied to aircraft cameras at rates varying from one pulse every 10 seconds to 20 pulses/s. The width of each pulse can be varied through a range from 5 to 100 ms. The SS-400-2 is designed to operate in temperatures ranging from -50 C to +70 C, altitude to

An Encyclopedia of Stage Design Trends



MOTION PICTURE AND TELEVISION STUDIO STAGE SURVEY

Produced by:
The Motion Picture and Television Research Center of the
Association of Motion Picture and Television Producers

Text and Layout by: AMPTP Stage Study Committee:
Milton Forman Wilton R. Holm, Chairman
Milton Forman
Fenton Hamilton

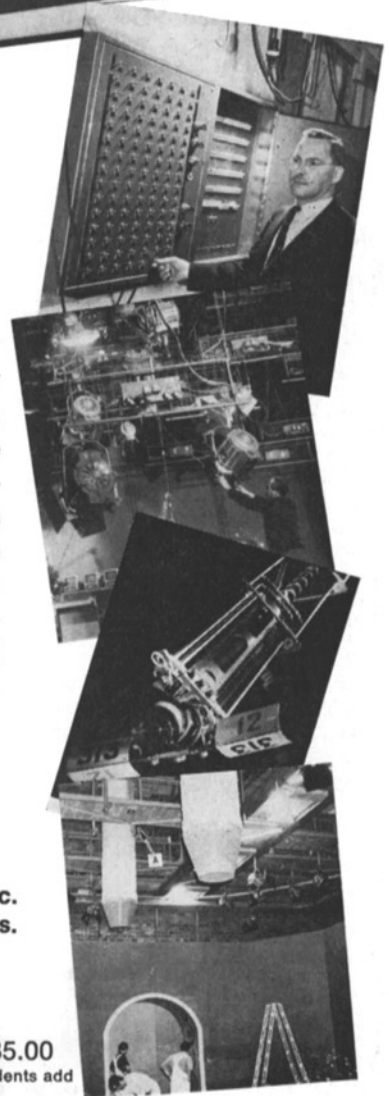
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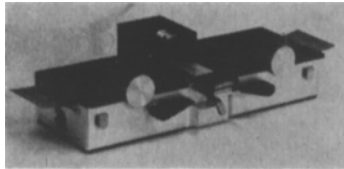


100,000 ft and during 10 G acceleration in 3 axes. The intervalometer is priced at \$1,080.

The Scatterplate Interferometer, Model SI-101, an instrument used to determine the quality of an optical component or system, has been announced by Group 128, Inc., 50 Sun St., Waltham, MA 02154. It is designed to be compact, rugged and easy to use. It does not require internal reference optics and it uses a conventional light source except for such applications as checking a telescope with a large number of elements, for which a laser source is available. Through the instrument eyepiece, the operator sees by direct view, or takes a picture with any camera, of the wavefront from the optics being tested. The picture is an interferogram which provides a record of the test. The SI-101 is used to determine the quality of lens elements, test plates, glass blanks, flat, spherical and parabolic mirrors, lens systems and telescopes. It provides quantitative measurements to about 1/20-wave over a wide range of diameters, *f*/numbers, optical geometries and transmission frequencies. The price of \$3,450 includes the interferometer, light source, power supply, three-axis adjustable mount and filters.

The C/D Synchronized Film Editor, a unit designed to accept a Moviescop viewer with two soundheads, has been announced by Calvin Cinequip Inc., 1909 Buttonwood St., Philadelphia, PA 19130. It is also

available from Calvin Cinequip, 1105 Truman Rd., Kansas City, MO 64106. The unit attaches directly to the baseplate of the Moviescop viewer to provide perfect sync alignment of magnetic sound and picture rolls. The unit is designed with stair-step stanchions to permit easy access to both magnetic tracks. The two magnetic heads can be put into a mixer that has dual volume controls from which one lead goes to an amplifier speaker. The basic unit is so designed that filmmakers with magnetic heads on synchronizers and the owners of Moviescops can easily add them to the basic unit. The unit, consisting of the baseplate and stair-step stanchions is priced at \$65.



The Hartman Color Tape Splicer, a portable 2-in tape splicer for editing color tape, has been announced by Television Equipment Associates, Box 1391, Bayville, NY 11709. Features include built-in optics, automatic battery-operated editing lamp and a new internal tape cutter. Other features include independently controlled tape lifters, splicing tape dispensed from within the unit, and tape positioning mechanism with 5:1 reduction ratio. Dimensions are 9 by 4.25 by 2.375 in and the unit weighs 3.5 lb. It is priced at \$1,900.

The Duplikin III, an accessory which enables the filming of 16mm scenes from 35mm color slides, and the Duplikin IV, an accessory printer head which enables the freezing of selected 16mm frames using standard 16mm cameras, has been announced by Century Precision Cine/Optics, 10661 Burbank Blvd., North Hollywood, CA 91601. The Duplikin III fits a 16mm camera like a lens and is designed to produce sharp and brilliantly saturated color results. The device can be used to produce "tie-in" shots to complement a filmed sequence, for location identification and dissolves, etc. It is priced at \$159.50 to fit 16mm "C" or Bolex H-16 RX mount cameras and a special model for Arriflex 16 is available at \$189.50.

The Duplikin IV enables the splicing in of frozen or filtered sequences and then allowing the action to resume. It has a built-in black-and-white micro copy lens and is prefocused. It is priced at \$189.50 for 16mm "C" mount reflex cameras and Bolex H-16. A model for the Arriflex 16 is priced at \$219.50.

The Leicina Super, a new super-8 camera, has been announced by E. Leitz, Inc., Rockleigh, NJ 07647. All mechanical movements are motorized and controlled electronically. When the super-8 cartridge is inserted in the camera it is automatically programmed for correct film speed. Manual override is provided for special effects. Running speeds are from 1 to 54 frames/s. The camera can be switched from 18 or 24 frames/s to 54 frames/s while filming. The lens is a Leitz Vario with a two-speed electric zoom and 8:1 focal length ratio. Other features include an electronic 9-pole receptacle for external power source; flash sync; tape recorder impulse generator for lip sync sound; and intervalometer control for time-lapse. The Leicina Super is priced at \$744.

The RE20, a dynamic cardioid microphone designed especially for recording, broadcast and sound reinforcement applications requiring essentially flat response over a wide frequency range, has been announced by Electro-Voice, Inc., Buchanan, MI 49107. An integral blast and wind filter covers each acoustic opening. Part of the filter also shock mounts the internal microphone element to reduce transfer of vibrations from other sources. Using the mechanical nesting concept of design with internal transducer parts nested one within the other, the RE20 can withstand the rigors of professional use. The diaphragm is made of Electro-Voice Acoustalloy. The microphone is priced at \$249.90.

The Dynamic Ball Head 850s, an ultra-cardioid dynamic microphone featuring a 25-dB front-to-back rejection ratio and a built-in on-off switch, has been announced by the Astatic Corp., Conneaut, OH 44030. The new microphone is designed for faithful reproduction of voice and music frequencies. It has a unidirectional (cardioid) polar pattern, a frequency response of 40 to 15,000 Hz, and an output of -50 dB. It is designed for either indoor or outdoor use. It is fixed stand mounted and the mount tilts beyond 90° from the vertical and fits any desk or floor stand.

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Also available is the Model 850 which features an "easy-on" swivel adapter in place of on-off switch assembly and can be changed from stand mount to handheld. Both models are dynamic moving coil microphones with a diaphragm made of Dupont Mylar. A grille assembly consists of a chrome plated steel ball head screen with acoustic filters, foam filters and a fine magnetic screen to prevent dust and magnetic particles from reaching the diaphragm. The 850s is priced at \$99. The price includes an 18-ft cable. Model 850 is priced at \$95.

Two new electret condenser microphones for professional use, the ECM-50 and the ECM-51, have been announced by Super-scope, Inc., 8150 Vineland Ave., Sun Valley, CA 91352. The ECM-50 is less than 0.75 in long and weighs less than 1 oz. The battery supply, transformer and Cannon output connector are contained in a separate, miniature package interconnected by a cable 10 ft long and 5/64 in in diameter. The ECM-51 has been designed for on-the-spot recording of news events. It is on a telescopic wand to make it easy for interviewers to reach interviewees. Each of the two microphones has a frequency response range from 50 to 16,000 Hz. Each is priced at \$195.

A projection screen material called PrismaLite designed especially for drive-in theaters has been developed by Richard Vetter, Vice-President of United Artists Theatre Circuit, Inc., 8831 Sunset Blvd., Suite 400, Los Angeles, CA 90069. A drive-

in screen of average size faced with PrismaLite comprises about 12 million refracting mirror elements. The mirrors are combined with plastic refractors resulting in an efficient reflective projection screen surface. Brightness is achieved by the second-surface cylindrical mirror reflectors and first-surface refractors which are offset to focus light downward to the viewing field. Lateral dispersion of light is 120° without fall-off from the center to the edges of the field. The mirror finish is laminated to the back (second) surface of the plastic and is protected from atmospheric attack with a sealant originally developed for the aircraft industry.

CS-140, a new Chromascreen display screen (*Journal*, p. 576, June 1970), has been announced by Panelgraph Corp., West Caldwell, NJ 07006. The new screen is available in a variety of standard sizes up to a maximum of 36 by 48 in on a clear, rigid methylmethacrylate substrate. Screen thicknesses may be 0.0625 to 0.125 in depending on the degree of rigidity required. Prices range from 75 cents per square foot for general purpose applications to \$5.00 per square foot for microfilm quality. Custom fabrication, applied graphics, special colors, etc., are available at a higher price.

Mirrorlite, a series of glassless, unbreakable mirrors, has been announced by Kamar Products Inc., 2 South Buckhout St., Irvington-on-Hudson, NY 10533. The mirrors are made of an ultra-thin metalized polyester film stretched on a rigid

aluminum frame. The reflectance is 90% over the entire mirror surface. The weight is about 6 oz/ft². The mirrors are designed to remain dimensionally stable over a temperature range of -40 to +135°F. The mirrors are available in sizes ranging from 12 by 16.25 in to 25 by 30.25 in and 0.75 in thick. Price range is from \$6.00 to \$13. Large mirrors can be supplied to order at a price of \$38 per square yard (or fraction thereof).



The Standolly, a camera platform for use in making moving shots in limited spaces, has been announced by Jack Pill & Associates, 1135 North Highland Ave., Hollywood, CA 90038. The cameraman may sit or stand securely with both hands free to hold the camera. A camera mount is available for use as a conventional dolly and wheel locks are provided. The Standolly is 28 in wide, 36 in long, 42 in high and weighs 96 lb. It can be folded into a compact package. It is priced at \$595 and is also available on a rental basis.

Two new Cine 60 power belt packs designed to power the Arriflex BL and the Eclair NPR have been announced by Alan Gordon Enterprises, 1430 N. Cahuenga Blvd., Hollywood, CA 90028. Each belt has a built-in charger and a capacity of 6000 ft per charge. The pack for the Arri BL is priced at \$369; that for the NPR, at \$379.

Solid-state power supplies, Types 122 and 144, have been announced by Street Laboratories and Industries, 139 Nevada St., El Segundo, CA 90345. Type 122 can power lamps from 150-W to 1000-W. Type 144 is designed specifically for 150-W short arc lamps. The 1000-W supply measures 7.5 by 11.75 by 15 in and weighs 55 lb. The 150-W supply measures 6 by 6 by 12.5 in and weighs 15 lb. Both are current regulated, and continuously adjustable over their range - 0.53 A for Type 122 and 0.8 A for Type 144. Type 144 is priced at \$380. A starter is available at a price of \$60. Type 122 is priced at \$1,000. A starter is available at a price of \$100.

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