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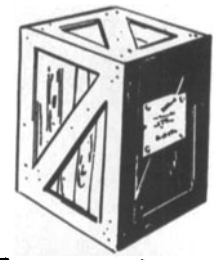
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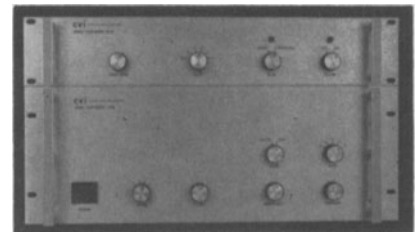
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new products (and developments)

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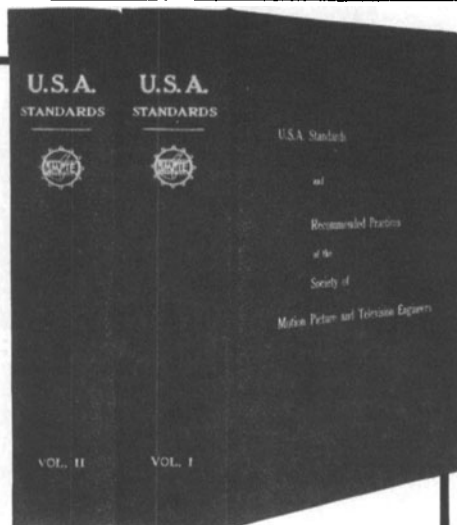
A new line of eddy current miniature (1-in diameter) tachometers designed for use in professional motion-picture cameras has been announced by Epic Inc., 150 Nassau St., New York, NY 10038. Calibration on the dial is in frames/s. Type WAF 2.5 consists of an eddy current tachometer, an ac generator and a pilot frequency generator mounted in the same cylindrical housing. An aluminum-nickel-cobalt magnet mounted on the driving axle is surrounded by a magnetic deflection adjustment ring with an air gap into which an aluminum drum slides. A magnetic flux is formed between the polyphase magnetized magnet and the adjustment ring, permeating the air gap and the aluminum drum. As soon as the magnet starts rotating eddy currents are produced in the drum causing it to rotate in the direction of the magnet. A counter spring connected to the drum causes a counter torque so that the pointer, also connected to the drum, can deviate only to a certain point. The value shown by the pointer is in accordance with the input speed and is proportional to the picture frequency. The WAF 2.5 is priced at \$24. The tachometer without the pilot generator (WAV 2.5) is priced at \$36.



CVI Models 201B and 220B Video Converters, representing a "second generation" television signal bandwidth compression system, has been announced by Colorado Video, Inc., Box 298, Boulder, CO 80302. The 201B accepts 525-line EIA video and provides narrow-band output rates of 8, 4, 2, 1 or 0.5 kHz, depending on the transmission facilities available. The time required to transmit a single image may vary from 4 s to 2 min, depending upon the rate selected and the resolution required. The 220B accepts the narrow-band video information generated by the 201B and reconverts this signal to standard 525-line video format. Reproduced images are nonfading and can be viewed on conventional monitors, video-taped or retrans-

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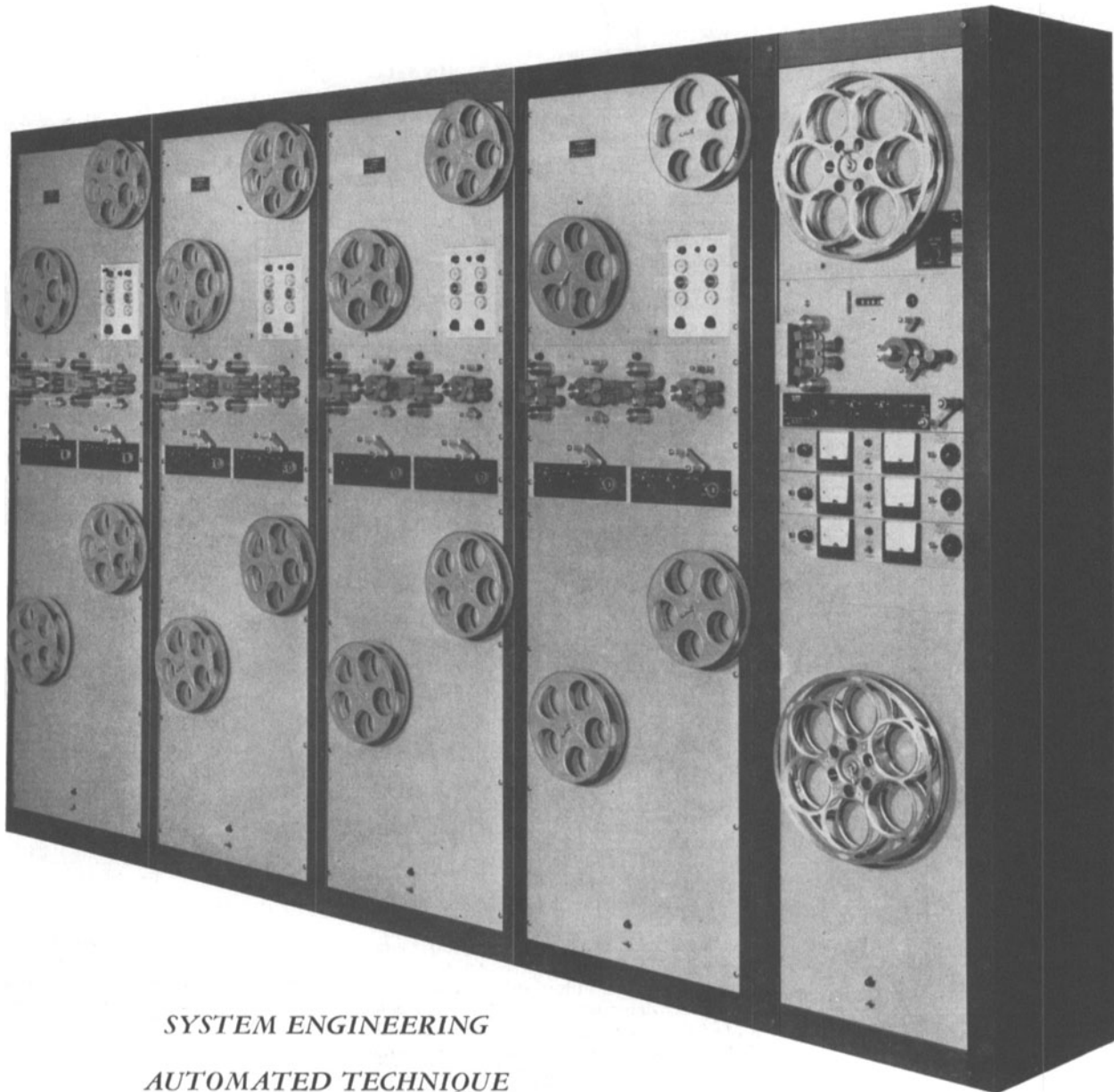
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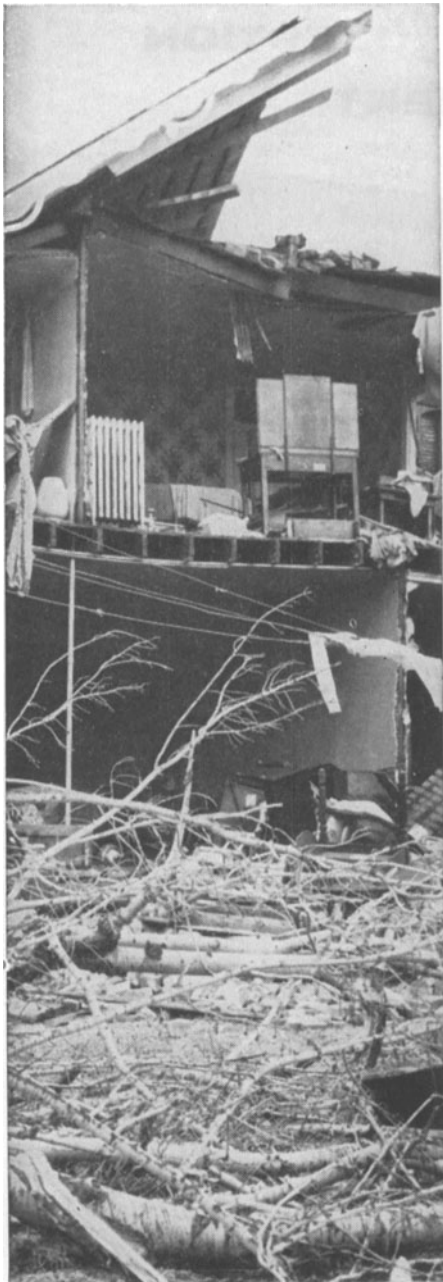
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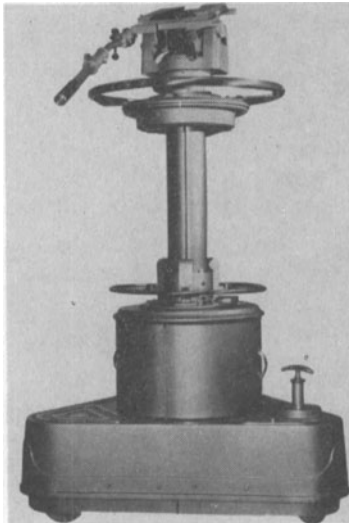
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mitted over RF distribution systems. Price of Model 201B transmitting converter is \$2,500. The 220B receiving converter is priced at \$5,500.

The Color Educator, a color television receiver designed specifically for educational and industrial training and other non-theatrical uses, has been announced by Setchell Carlson, Inc., St. Paul, MN 55112. The receiver is designed so that all tuning and operational adjustments can be made from the front so that it can be overhead-rack-mounted or recess-mounted into walls if desired. Features include all-solid-state construction (except the color picture tube), audio and video input provisions, (optional) UHF/VHF tuners, 75- Ω antenna input, plug-in circuit functions and a locking door over front controls. Deflection circuit protection is provided to prevent damage to components in the event of drive failure or picture tube flashover. Price of the color educator is about \$650, depending on choice of optional features, including the UHF/VHF tuner.

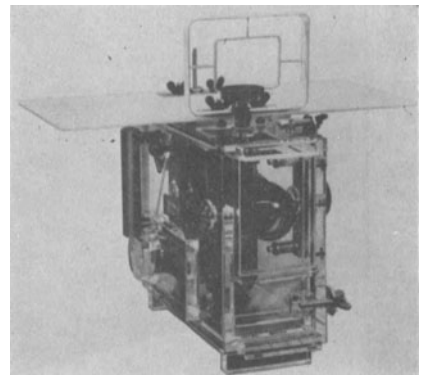


A new cam head for color and monochrome TV cameras designed to accommodate a camera tilt of 50° from horizontal has been announced by Television Equipment Associates, Box 1391, Bayville, L.I., NY 11709. A camera lock device complements the standard V-wedge mount. The cam head is available in three models and is designed to accommodate all color cameras and mount on all professional pedestals and tripods. The cam head is priced at \$950. The firm also introduced a pneumatic pedestal which accommodates any camera weight up to 500 lb. It is priced at \$2,580.

A high-voltage pulse burst generator, designated Model GA-7, which produces 10-kV pulses with repetition rates up to 2 MHz, has been announced by Crystalab Products Corp., 19 Legion Pl., Rochelle Park, NJ 07662. The instrument is used in laser applications where an electrooptics light modulator (EOM) is used as a Q-switch or light shutter. The GA-7 has a high repetition rate capability which permits generation of multiple Q-switched light pulses during each flashlamp firing. When the EOM is located external to the

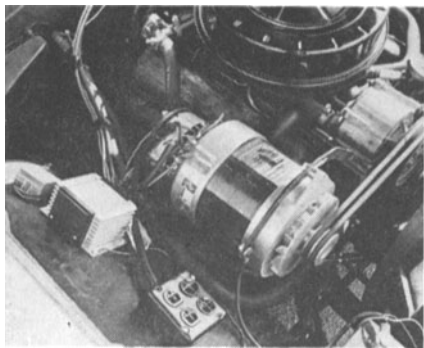
optical cavity it can function as a high-speed repetitive shutter with a 20-ns closure rate. Pulses of light having an 85-ns width and a 2-MHz repetition rate can be obtained. Prices begin at \$3,875.

A new heavy-duty underwater housing for the Canon Scoopic 16mm camera has been announced by Canon U.S.A., Inc., 64-10 Queens Blvd., Woodside, NY 11377. Designated Scoopic Underwater Housing Model II, it is designed to permit operation of all camera controls while under water, including focus, manual exposure and zoom. Made of heavy-duty $\frac{3}{4}$ -in-thick clear acrylic plastic, the unit can be used at 150 ft and has been tested at 300 ft. The housing is fitted with three oversized knobs for easy underwater operation. The clear plastic permits viewing through the camera eyepiece and the front plate of the housing is optically flat for distortionless filming. A sports finder-and-wing combination is supplied for attaching to the top of the housing. The wings aid in stabilizing the camera under water and the sports finder is used for fast action where viewing through the lens is not necessary. The Scoopic 16 can be loaded or unloaded, if desired, without having to remove it from the underwater housing. Model II is priced at \$675.



An underwater camera housing called the Sea Glove, designed and developed by Brundza for the Nikon F camera, has been announced by Sea Research & Development, Inc., P.O. Box 589, Bartow, FL 33830. The housing is constructed of a polycarbonate to provide strength, light weight, transparency and noncorrosion. Interchangeable lens ports allow choice of optical systems. An underwater connector called the Sea Link is an integral component of the housing. It permits on-the-job modification and integration of light and other accessory systems. A specially designed gear block system and matching gears provide control of such camera functions as focus, f-stop setting, shutter trigger, film advance and shutter speed selector. The Sea Glove is priced at \$350.

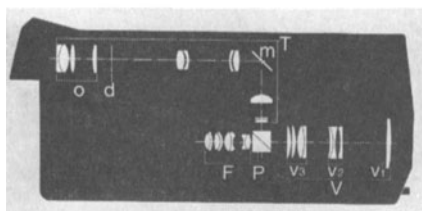
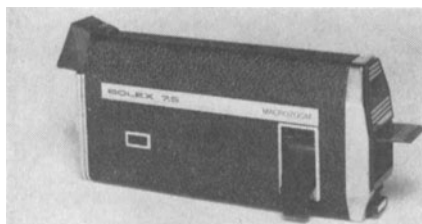
A lightweight portable alternator ac power source has been announced by Jack Pill's Camera Equipment, 1135 N. Highland Ave., Hollywood, CA 90038. The alternator, designated JP 7091G is 12 $\frac{1}{8}$ in long and 7 in in diameter. It is designed to fit under the hood in many types of vehicles and is driven by the fan belt. It provides 6,000 W of tungsten-halogen



light and is of a rotating field design thus eliminating the need for commutators and commutator brushes. It is designed to withstand temperatures up to 350° F. Windings are air cooled and excitation is external. The JP 709 1G is priced at \$750. The price includes control panel, winding loom, pulley, U mounting bracket, belt tightening arm and control cable.

A new tracking detector (Hewlett-Packard Model 676A) that uses filters to remove signal harmonics and noise and uses logarithmic amplifiers to increase the dynamic range has been announced by Hewlett-Packard, 1501 Page Mill Rd., Palo Alto, CA 94304. The detector is essentially a tunable, dual-channel, narrow-band filter with detectors to measure the signal amplitude in each channel. It measures the phase difference between test and reference channels simultaneously over a 360° range. Combined with the HP Model 675A, the new tracking detector forms a network analyzer for the 10KHz - 32-MHz frequency range. Price of Model 676A Tracking Detector is \$1,275. The 675A Sweeping Signal Generator is priced at \$2,250.

The firm also announced the Model 8054-A Real-Time Audio Spectrum Analyzer for presenting audio-frequency data in real time. The new analyzer measures in 24 1/3-octave frequency bands simultaneously. It measures time-varying and transient as well as complex steady-state signals and has digital outputs for computer processing of data. It is priced at \$8,950.



A miniaturized 8 mm camera, called the 7.5 Macrozoom, measuring 8 in long, 4 in high and 2 in wide, has been announced by Paillard Inc., 1900 Lower Rd., Linden, NJ 07036. The Macrozoom lens consists of

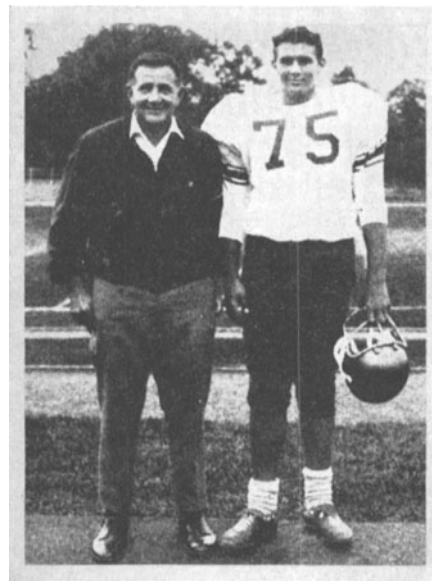
27 lenses and two prisms. It is divided into five groups, each having a definite purpose. Variable group V consists of eight lenses divided into three groups and forms a real inverted image on a definite plane. This group permits changing the angle of view by a factor of approximately 2.8 and the distance between 5 in and infinity. This angle of view provides the focal length of the lens from 7.5 to 21 mm. The prism is directly behind variable group V and divides the light so that 78% falls on the film and about 22% into the viewer. The prism guides the outer light rays to the optical system of the exposure meter. The basic lens consists of eight lenses and forms on the film plane the image formed by the variable group V. The diaphragm and conversion filter for use in daylight is located in front of the lens group. The optical system of the exposure meter guides the light rays, diverted by the outer ranges of the prism, to the two photoresistors of the exposure meter. The optical construction of the viewer consists of 11 lenses and mirror. The viewer forms on ground glass the image originally formed by the variable group V and the viewer sees the image magnified through the eyepiece. The 7.5 Macrozoom is priced at \$189.50.

The Bolex Multimatc projector for automatic projection of super 8 cartridges has been announced by Paillard Inc., 1900 Lower Rd., Linden, NJ 07036. The projector has been designed for easy operation and elimination of all film handling. After the film is processed it is placed in a Bolex cartridge and up to six cartridges can be inserted in the projector at one time. As projection begins the film is automatically threaded. When the first film has been viewed the next cartridge advances automatically and is then projected while the previous reel is rewound and ejected. Since they are not taken off the original reels the films can be easily removed from the cartridge for editing or for projection on an ordinary machine. The Multimatc provides forward or reverse projection at 18 or 24 frames/s, slow motion at 6 or 8 frames/s and single-frame stop action. All operations are controlled by an arrangement of keys grouped on top of the projector. Prices begin at \$229.50.

A monochrome TV studio camera designed especially for cable TV and other small studio originations has been announced by RCA. The camera, called the PK-530, weighs less than 25 lb, including its 5-in electronic viewfinder. The PK-530 is solid state in design and measures about 11 by 15 by 6 1/2 in. It will accept either fixed-focus or zoom types of lenses. It is priced at under \$2,000.

The Heurtier Dual Projector, used to project both 8mm and super 8 films, is available in an all-transistorized version, as announced by Cinema Beaulieu, a division of Hervic Corp., 14225 Ventura Blvd., Sherman Oaks, CA 91403. The projector weighs 43 1/2 lb. It is available in both sound and silent versions. Because of modular design, the soundhead, speaker and 6-W transistorized sound amplifier base can be added to the basic silent projector at any time. Features include automatic film

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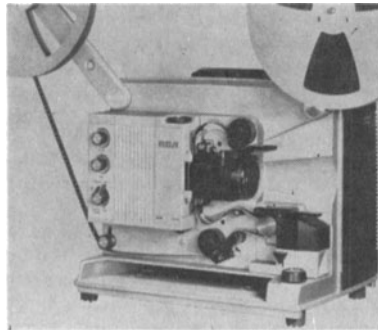
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A super 8 magnetic sound projector called Mark-S-712 has been announced by Eumig (U.S.A.), 101 West 31 St., New York, NY 10001. The projector is 12½ in long, 5½ in wide, 8½ in high and weighs about 16 lb. Features include a Eupronet *f*/1.6 15-27mm zoom lens, 8-V 50-W ellipsoid reflector bulb preheated for longer lamp life, a single control knob for forward or reverse projection and speeds from 18 to 24 frames/s. The projector has an all-gear drive, ac induction motor, 600-ft reel capacity and automatic threading through the film gate. Other features include an interchangeable recording-playback sound-head and capability of either sound or silent projection. The Mark-S-712 is priced at less than \$240.



The Super 1600, a new projector for use with 16mm sound or silent film, has been announced by RCA Audio-Visual Products, Bldg. 15-5, Camden, NJ 08102. Features include a new sound system consisting of a transistorized 15-W rms (30-W peak power) amplifier, a wide-range 4- by 8-in internal speaker and an improved exciter lamp of the BAK type. Other features include an improved fluid clutch for even take-up tension on any size of reel, a smoother and faster rewind system and greater motor torque. The projector is equipped with a 2-in *f*/1.6 field flattener lens. It is available in two versions, sound speed only at a price of about \$656 or sound/silent speed at a price of about \$671. An automatic "Safe-Threader" is available as an option at a price of \$66.50.

The Traid PVR (Projector-Viewer-Reader), an automatic data film reader, has been announced by Traid Corp., 777 Flower St., Glendale, CA 91201. The projection unit is 11 in wide, 18 in high and 25 in deep and weighs 80 lb. The projection screen unit is 18 in wide, 18 in high, 25 in deep and weighs 28 lb. The rear projection screen is a 12- by 14-in Polacoat. The PVR accepts interchangeable film transports for 16mm, 35mm and 70mm film and is designed for operation in four modes: (1) as film viewer using the rear-projection screen, (2) as a wall projector by detaching

the rear-projection case and swinging a built-in mirror into place, (3) as a manual film reader, the operator reading out *X* and *Y* values from crosshair dials and (4) as a fully automatic film readout machine with measurements transmitted through a solid-state electronic interface to IBM/-cardpunch, typewriter or other readout mechanism. Price of the PVR is \$6,100 without lens and film transport.



A new reel-to-cassette tape duplicator system has been announced by Telex, 9600 Aldrich Ave. South, Minneapolis, MN 55420. The duplicator, called Model 235-CS, consists of an open-reel master transport and cassette transports. Each slave module contains three cassette transports. Both master and slave transports feature two-speed hysteresis synchronous motor drives with the master operating at 15 and 7.5 in/s and the cassette slaves at 7.5 and 3.75 in/s. The system can be expanded by adding slave modules. Designed especially for non-technical users, the unit is contained in a console designed for table or bench-top use with slanted transport panels for convenience. The system is solenoid-controlled and is operated by pushbuttons from the master transport. The system is available in three configurations. A half-track, two-channel duplicator is priced at less than \$2,000. A six-slave duplicator is under \$2,500 and a nine-slave system is under \$2,700.



A new cassette tape duplicator, Model C-1000 has been introduced by Pentagon Industries, Inc., P.O. Box 48277, Chicago, IL 60648. Model C-1000 provides the capability to duplicate four cassettes

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simultaneously from a reel-to-reel master at eight times the standard speed of $1\frac{1}{2}$ in/s. For example, four cassettes, which have a playing time of one hour can be reproduced from either a $3\frac{1}{2}$ in/s or a $7\frac{1}{2}$ in/s reel-to-reel master in about four minutes or less. Features include solid-state logic contained on plug-in circuit boards for reliable performance and positive control, automatic tape lifters, servo-controlled constant tape tension and hysteresis synchronous direct capstan drive motor on master deck. The Model C-1000 is priced at less than \$4,000.

A new zoom spotlight featuring horizontal xenon arc illumination has been announced by the Ushio USA Div. of Radiarc, Inc., 526 North Garfield Ave., Monterey Park, CA 91754. Designated the Xenosolar spotlight, it is available as Model 1000 S with a light output of 31,000 lm or Model 2000 S with 70,000 lm. Zooming system spot ratio is 7:2.5. Designed to operate with three modes the Xenosolar provides flood, spot and maximum spot illumination. Throw distances are 33 ft to 230 ft for the 1000 S. Basic price of the 1000 S is \$1,500.

A dye process for increasing the sharpness of the image in photographic plates used for integrated circuit mask-making has been developed at Bell Telephone Laboratories. In standard, high-resolution photographic plates, degradation of fine-image detail can be caused by out-of-focus, diffracted, or scattered illumination being recorded by the emulsion. Each of these effects is exaggerated when the depth-of-focus of micro-

projection systems and monochromatic photorepeaters is less than the thickness of the emulsion of the photographic plates. The new process limits the effective depth of the emulsion to the top few microns, thus minimizing these effects. The dyes used may be one of several nonphotosensitive, non-fluorescing, water-soluble materials. They must be specifically absorbing at the wavelength of interest, capable of uniform absorption by the emulsion, and totally removed during development processing. For a wavelength of 436 nm, such dyes are Tartrazine and Naphthol Yellow S, two food dyes and Metanil Yellow, an acid-sensitive, indicating dye. Uniform dyeing of Kodak High Resolution Plate emulsion was obtained by a 5-min immersion of the plate in a gently rocking aqueous solution of the dye with a nonionic wetting agent.

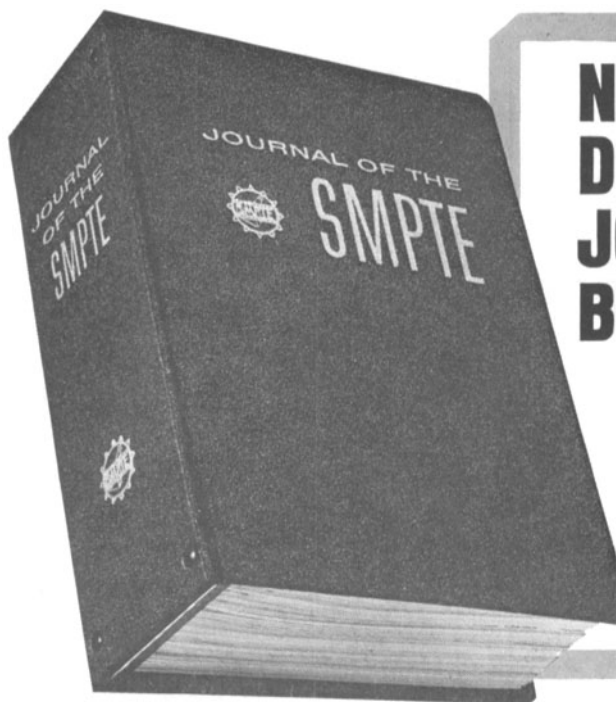
Clean work stations, Models 242 and 262, and a double-size clean room supplied in sizes up to 20 ft wide by 50 ft long have been announced by Agnew-Higgins, Inc., 7532 Anthony Ave. (P.O. Box 857), Garden Grove, CA 92641. Models 242 and 262 laminar flow clean work stations consist of free-standing modules mounted on separate legs from the work table or bench so that there is no direct transmission of vibration. The work stations are available with separate tables or benches or can be positioned over existing work benches. Prices begin at \$1,370.

The double-size clean room is prefabricated and contains everything necessary for the erection of the clean room, including

blower-filter modules for the laminar flow of clean air, wall panels, ceiling panels and lighting fixtures. Doors and windows are pre-assembled into wall panels at the factory. Numbered parts and drawings are included in the clean-room kit. Two men can usually erect the clean room in less than five days, the announcement states. Prices begin at \$4,620 for the 10-ft-wide rooms and \$9,780 for the 20-ft-wide rooms.

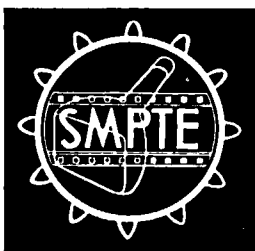


A portable Sun Gun light unit designed for 8mm and 16mm motion-picture cameras has been announced by Sylvania Electric Products Inc., 730 Third Ave., New York, NY 10017. The light unit, which weighs 3 lb operates on nine nickel cadmium energy sources. Each energy source has a running time of 10 min, or about two 50-ft rolls of film. The power pack can be recharged in 60 min with a separate recharger plugged into household current. It can also be recharged from an automobile generator. The unit is equipped with a 150-W tungsten-halogen lamp. Color temperature is 3,400° K. The light beam can be regulated from spot to flood by means of a control switch back of the light head. The new unit is about $9\frac{1}{2}$ in high, $5\frac{1}{2}$ in around and 7 in deep. The battery pack is $9\frac{1}{2}$ in high, $4\frac{1}{2}$ in wide and $1\frac{1}{2}$ in deep. The price, including power pack is \$119.95.



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