

The San Francisco Section met on June 14 at Ampex Corp. Plant in Redwood City with an attendance of 49. Guest speakers were Cyril Teed of Marconi Corp. of London; Charles Swisher and Charles Anderson, both of Ampex Corp. The meeting was devoted to discussions of the Marconi Mark IV Camera and new developments in video-tape recording.

Mr. Teed described the various features of the Marconi Mark IV in his discussion of the new 4½-in. image orthicon and emphasized the high stability and ease of operation of the camera.

Mr. Swisher, representing Ampex Corp. as distributor of Marconi products in the U. S., pointed out other features of the Mark IV including plug-in circuit board, remote iris controls and the new type of lens turret change mechanism. A demonstration of the camera with its associated equipment followed these discussions.

During the second part of the meeting, Mr. Anderson dealt with the newer developments in video-tape recording. He explained and demonstrated Inter-Sync. The use of this new development allows the playback unit to be locked to the station sync making supers and laps possible. The second part of Mr. Anderson's discussion was devoted to an explanation and exhibition of the new miniature Videotape* recorder.—Frank Mansfield, Secretary-Treasurer, 57 Stoneyford Ave., San Francisco 24. (*TM, Ampex Corp.)



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 pair of Norelco Universal 70/35mm projectors (originally the Philips/Todd-AO) have been installed in the Hollywood Theater of the Screen Directors Guild. The installation, announced by the Motion Picture Equipment Division of the North American Philips Co., 100 E. 42 St., New York 17, was completed early this year. The two Philips machines occupy the two center ports in the theater and are connected with a sound system installed by Ampex Corp. Two Simplex XL 35mm projectors occupy ports on either side of the Philips machines and an Eastman Model 25 arc 16mm projector occupies a

fifth port. The theater has a Raytone 2 : 1, 50 by 28-ft curved screen. Three hundred permanent seats have been installed and additional portable seats bring the seating capacity up to 437.

Earlier, this 70/35 projector made a long-run record in two British theaters, the Dominion Theater in London and the Gaumont in Manchester, each reporting that the first prints of *South Pacific* topped the 1000-run mark.

The design of the projector is based on an illumination principle developed by Philips of the Netherlands in which the light source is a super-high-pressure mercury-vapor lamp operated by current pulses, thus dispensing with the need for a shutter. The projector itself is of simplified design with all components relating to the film path mounted on the flat front panel of a sheet steel column of rectangular cross section to alleviate difficulty of lining up the film path when installing the projector (*Journal*, p. 61, Jan. 1960). About 100 of the Norelco projectors have been installed in the United States and Canada.

An experimental model of an electronic rear-projection system based on a light-modulation process developed by General Electric Co. to give extreme brightness and a wide range of image throw-distances was installed in the Los Angeles Sports Arena for the 1960 Democratic National Convention. Designated the Light Valve Projection System, it was leased by Tele-Prompter Corp. for use at the Democratic Convention. The screen, which shows greatly magnified images, hangs about 35 feet behind the speakers platform and about 55 feet above it. A G-E closed-circuit camera is mounted behind a transmissive mirror in the rostrum in front of the speaker. The mirror reflects the text of the speech and the camera is concealed from the speaker as well as the delegates. The projection system is self-contained except for power supplies. It is manufactured by General Electric Co. for military use. It is not commercially available.

A high-sensitivity color TV camera tube designed especially for colorcasts of night sporting events has been announced by the Radio Corp. of America. Designated the RCA-4401, the orthicon is directly interchangeable with types 5820, 6474 or 7513 in existing cameras. The 4401 tubes have been tested for operation under adverse lighting conditions. Results of the tests indicate that 40 ft-c of incandescent illumination can be used with a lens stop of f/5.6.

Anso Super Hypan, a black-and-white film used for such applications as high-speed studies, newsreels, instrumentation, time-lapse, etc., is now available in 16mm size, according to an announcement by Anso, Binghamton, N.Y. The exposure index is 500 Daylight and 400 Tungsten. It may, however, be exposed at indexes up to 1000 Daylight and 800 Tungsten (or higher), according to the manufacturer's report, which suggests a fine grain developer such as D-76. The film is provided with standard perforations along both edges and with single perforations, Sound B. It is also supplied specially perforated for use

PULSE OR SEQUENCE? HULCHER 70mm DOES BOTH

The Hulcher 70, Model 102 camera is available for remote or local pulse operation by hand or programmed switch, at rates up to 5 per second and simply by flipping a switch, the camera will operate at 10 f.p.s. sequence with same preset exposure. It can also be immediately switched back to pulse operation. Pulse system is complete, requiring only an external switch. Shutter speeds range from 1/50th to 1/1440th of a second for pulse operation. The same camera still operates at sequence rates from 5 to 20 per second. A wide range of lenses with reflex focusing are available. Camera is available for use with 12, 24 or 115 volts.

Write for detailed information.

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in high-speed cameras. It is announced as capable of being used in telecasting directly from the negative by means of electronic reversal. For direct use in television transmission, processing to a gamma in the range of 0.70 to 0.90 is recommended. For use as a normal motion-picture negative, a gamma of 0.60 to 0.65 is recommended. Prices begin at \$4.60 for a 100-ft roll, regular and Sound B, and \$5.15 (100-ft roll) perforated for high-speed cameras.



A modified version of the Auricon Cine Voice II, a portable, transistorized camera used for newsreel photography, has been announced by Television Specialty Co., 350 W. 31 St., New York 1. The camera has a built-in transistor amplifier, VU meter, monitoring jack, and microphone input and weighs less than 16 lb. The amplifier is described as essentially flat from 100 to 20,000 cycles. Ranging from 100-ft to 400-ft magazine and with or without turrets and viewfinders, prices range from about \$1800 to \$2300.

The Rubylite Power-Pac, a self-contained power supply designed to operate the Auricon Cine Voice camera on 115-v a-c current, has been announced by Photomart, 228 S. Franklin St., Tampa, Fla. It is used in locations where regular current is not available. The unit weighs 6 lb with charger and nickel cadmium battery and is said to run 30 rolls of film without recharging. It is priced at \$139.50. Larger models for other Auricon cameras.

Red-I-Frame Lenscreen portable daylight rear-projection screens are produced by Polacoat, Inc., Blue Ash, Ohio. The screen frame is assembled from sections of tubular parts to which the elastic screen panel is hooked. The rear-screen membrane is of vinyl-latex plastic permeated with special lens cells. The screen may be tilted forward or back. Available in sizes ranging from 4 by 5-ft to 40 by 80-ft (without border) the screen is priced at \$2.50/sq ft.

Two items, 6½-in. and 8-in. high impact plastic video-tape reels, have been added to the line of video-tape reels and handling equipment produced by the Hollywood Film Co., 956 N. Seward St., Hollywood 38. Each reel is packed in a corrugated shipping container and 48 units are packed in a master carton. The 6½-in. with container weighs 10 oz, and the 8-in. reel with container weighs 14 oz.

A new ball-socket tripod, the Gyrosphere Junior, has been announced by S.O.S. Cinema Supply Corp., 602 W. 52 St., New York 19. By means of a spirit level, the top plate is horizontally adjusted. Both friction and fluid heads are accepted by the Gyrosphere and work independently of it. The ball socket and adapter may be installed on S.O.S. Junior and Professional Junior Tripods. Other features include twin-point shoes and one piece leg locks.

A portable motion-picture lighting unit, the Cine-Light 250B, said to provide 30 minutes of shooting time at 250-w output, has been announced by the Synctron Division of Electro Powerpacs, Inc., 5 Hadley St., Cambridge, Mass. Designed for versatility, the unit weighs only 14 lb. A heavy-duty filament is used in the light for accurate color temperature. A separate transistor-controlled battery charger is included. Price, including battery charger and nickel-cadmium batteries, is \$350. A catalog listing other lighting equipments is available from the company.

The RA-1627 Mixer announced by Westrex Corp., a Division of Litton Industries, 111 Eighth Ave., New York 11, is a compact, table-mounted, completely transistorized re-recording mixer. Designed primarily for use with the Westrex RA-1621 Rerecorder, it is also applicable to other re-recording systems where a nominal input level of -5 dbm and a nominal output level in the range of -20 to +16 dbm are to be accommodated. The design is based on a number of electronic modules for incorporation into custom consoles. A 12-page bulletin of illustrations and specifications is available.

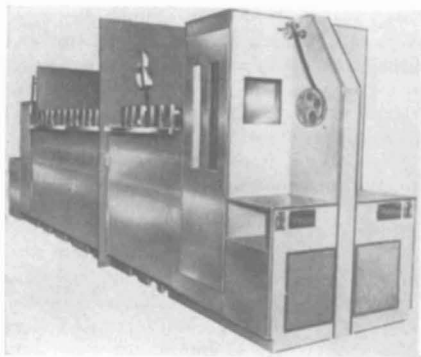
The Series 1200 Portable Magnetic Recording Systems has been announced by Westrex Corp., a Division of Litton Industries, 111 Eighth Ave., New York 11. The recorders are designed for economy and portability. All cables, two headsets, and a spare set of glassware are included with each system. Microphones, mixer tripod and a bar-type handle to support the mixer in inclined position on a flat surface, are available if required.

A professional combination stereophonic/monophonic recorder, the Model 354, was introduced by Ampex Professional Products Co. at the recent Electronic Distributors Show in Chicago. The unit will record and reproduce two-track stereophonic, two-track monophonic (for full-track use), or half-track monophonic. It is priced at \$1775.

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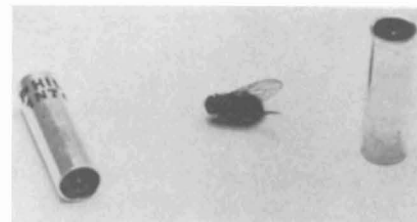
A series of machines for processing Kodachrome or Moviechrome (a reversal color film developed by Ansco—ASA rating, 20) has been introduced by Houston Fearless Corp., 11818 West Olympic Blvd., Los Angeles 64. Six models include units for 8/16mm film, 35mm film, and machines that process both simultaneously. The machines are designed with automatic controls to make one-man operation possible. Each unit is self-contained and includes a recirculation and temperature control system. Eight replenishing tanks with pumps and flowrators for each processing solution are provided. Constant-speed drive is from the bottom and the racks are removable. The duplex models have a single set of solution tanks, rinse and wash tanks and dry box with a complete 8/16mm film drive system on one side of the machines and a 35mm drive system on the opposite

side. Both 8/16mm motion-picture film and 35mm slide film can be processed at the same time or independently. Processing speeds are from 1500 to 3600 ft/hr for 8/16mm film and from 300 to 1500 ft/hr for 35mm film. The Model 3512 (35mm) and the Model 1625 (16mm) are both priced at \$28,450. The Model 525 (duplex) is priced at \$37,850.

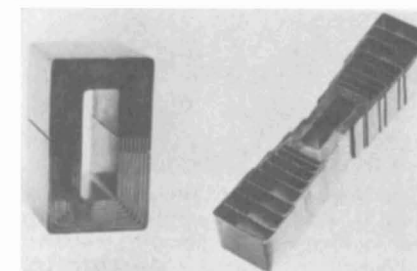
The Macbeth QuantaLog Model ET-20 Transmission Attachment, a product of Macbeth Corp., P.O. Box 950, Newburgh, N.Y., is designed for expeditious connection to the firm's EP-1000 Photometer. When used in combination, the two equipments provide a transmission densitometer said to be capable of reading ASA diffuse transmission densities of 0-4.0 with filters in place, and 0-6-7 log cycles without filters. The transmission attachment has a cantilever type measuring arm to permit accommodation of samples of different thicknesses and an illuminated sample stage allowing for the accurate positioning of samples to be measured. The photometer is equipped with the recommended color printing filters for use on the enlarger easel. Other filters can be easily substituted. The ET-20 Transmission Attachment is priced at \$295. The EP-1000 Photometer is priced at \$645.

An automatic processor for rollfilm used in cineradiography has been announced by Picker X-Ray Corp., a subsidiary of

C.I.T. Financial Corp., 25 South Broadway, White Plains, N.Y. The processor is 15 in. wide and 3½ ft long. It will operate on an ordinary electrical outlet (60-cycle a-c). It is said to yield a gamma of 1.7 on cineradiographic film and will process film in lengths up to 100 ft. It can also be used to develop photofluorographic film or any rollfilm up to 70mm. It is priced at \$1720.



Two new microwave diodes, the IN26BR and IN78DR, featuring low overall noise figures of 10 db and 7.5 db, have been announced by Philco Corp., Lansdale Division, Lansdale, Pa. As with their forward polarity counterparts (the IN26B and IN78D, introduced last year), both reverse crystals feature a metal-to-ceramic hermetic seal within the crystal cartridge designed to withstand operating temperatures of 150 F. Unit prices in the two series range from \$9.00 to \$72.00 for quantities of 100 or more.



A new type of electrical transformer, smaller and lighter than conventional types although designed to have identical operating characteristics, has been introduced by Sylvania Electric Products, Inc., a subsidiary of General Telephone and Electronics Corp., 730 Third Ave., New York 17. The transformer, called the Flexi-core, weighs 18.2 lb and measures 4½ by 5½ by 6½-in.

The Adler Type UST-10BC Translator (a rebroadcast transmitter) and the RA-7, a 100-w UHF amplifier, both developed by Adler Electronics, Inc., One LeFevre Lane, New Rochelle, N.Y., are the basic units of the Florida Educational Television Rebroadcast Network. The Network is intended primarily as a low-cost system for the rebroadcasting and relaying of television signals radiated by standard ETV stations operating in Florida. Based on the Heterodyne Repeater principle of TV broadcasting, the RTA-3A heterodyne repeater, designed by the firm for network use, features 10-w output power, no demodulation, use of only 29 tubes, built-in metering and monitoring, crystal-controlled frequency stability, use of 6-mc channel, color or monochrome transmission, and adaptable to standard multiplexing systems.

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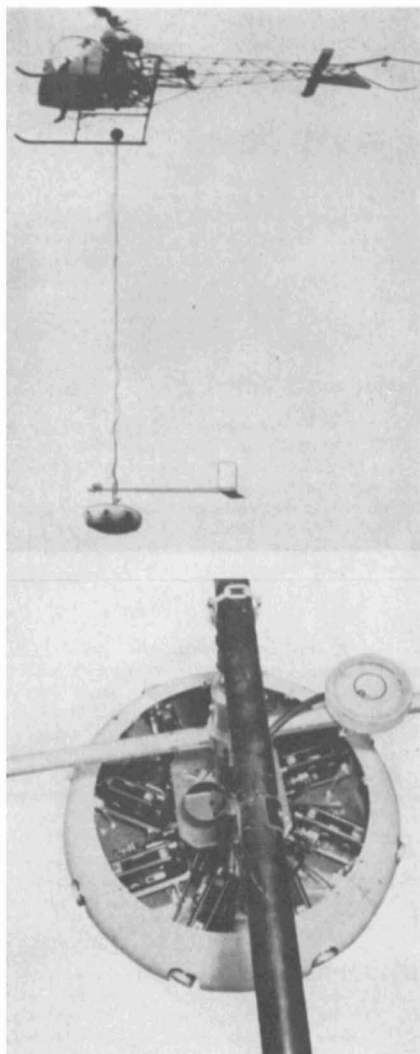
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The **Camart Core Dispenser** is a product of Camera Mart, 1845 Broadway, New York 23. The dispenser is attached to a wall for convenient access. It is available in three sizes, 16-, 24- and 36 in., priced at \$9.50, \$11.50 and \$14.50. Also available is a 24-in. dispenser for 50-ft or 100-ft plastic reels. It is priced at \$24.00.

Heavy-duty Car-Top Clamps to support a camera tripod on top of a car or other moving vehicle have been announced by Camera Mart, Inc., 1845 Broadway, New York 23. The clamps are of bronze weather-proof construction. A set of three is priced at \$28.00.



A camera system composed of eight separate cameras attached to a towing helicopter has been announced by Par Products Corp., 602 Colorado Ave., Santa Monica, Calif. Known as the Flying Saucer Camera (FSC), the eight cameras, synchronized to operate as one, are mounted on a rotatable circular platform housed in a disc containing eight shooting ports. The bottom of the disc is protected while landing by a pneumatic bag attached to the under structure. To stabilize the camera system in flight, a boom is attached to the disc which has flight-stabilizing fins, flutter indicator and a flight level indicator. The system is attached to the towing helicopter by a 25-ft cable and is controlled by the cameraman. A series of films is

planned to be made during an around-the-world trip, starting in Manhattan and covering Paris, Egypt, India, Japan, the Pacific, San Francisco and the Grand Canyon before returning to New York. The films will be shown at Freedomland in the Bronx, late in 1960. They will be shown in a specially constructed theater to carry out the flying saucer motif.

The **M3000 digital tape transport**, announced by Midwestern Instruments, Inc., P.O. Box 7186, Tulsa, Okla., features higher effective transfer rates and higher usable tape speeds. It is designed for easy modification to meet particular system requirements. The unit has been engineered to avoid the use of parts, components or techniques that might be susceptible to excessive wear or require complicated servicing. Since the equipment is intended for use in widely differing systems special attention has been given to modular arrangements of components.

An extremely fast (30 frames/sec) pulse camera, Model 370, has been announced by Chadwick-Helmuth Co., 472 E. Duarte Rd., Monrovia, Calif. Designed to be used with the firm's Slip-Sync system in industrial studies such as destructive resonances in vibration tests, it is also used for conventional pulse camera data recording and for time-lapse work. The camera uses standard 16mm 100-ft roll film. Auxiliary Slip-Sync equipment permits slow-motion photography of cyclic

events. In vibration tests the stroboscopic illumination and the camera are both synchronized to the vibration. Price of the camera with 1 in. f/1.9 lens is \$1850.

A photographic recorder designed particularly for telescope tracking installations has been announced by Benson-Lehner Corp., 1860 Franklin St., Santa Monica, Calif. Designated the HS-70A photographic recorder, it is capable of a speed up to 80 frames/sec. It has a film capacity of 1000 ft in interchangeable magazines. The shutter is of the focal plane rotating disc type and the opening is adjustable from 2° to 90° with manual adjustment.

A new technique, which combines magnetic and optical effects to permit direct visual observation of transformations between superconductive and normal states, has been developed at General Electric Research Laboratory, Schenectady, N.Y. The technique is based on the fact that a sufficiently strong magnetic field can change a material from superconductive to normal, but while the material remains superconductive it is a magnetic insulator. The specimen to be observed is usually prepared in the form of a flat disc. On top of the sample is placed a plate of a special cerium phosphate glass about 1/100 in. thick. When magnetized this glass has the property of rotating the plane of polarized light. Monochromatic polarized light is beamed on the glass, and the reflected

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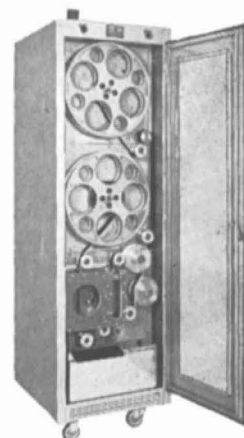
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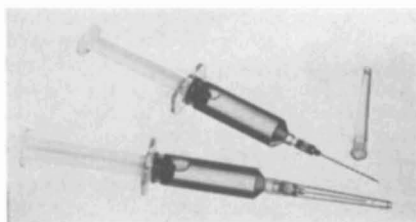
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light is viewed through a polarizing filter which can be rotated to any desired angle. At certain magnetic field strengths the specimen is in the intermediate state, that is, portions of it are normal and other portions are superconductive. The superconductive areas shield the portions of the glass plate directly above them from the magnetic field, so these parts of the glass are not magnetized. The portions of the glass above the normal areas are not shielded and are magnetized. The parts of the glass that are magnetized rotate the plane of polarized light they reflect, while the parts that are shielded do not. By adjusting the polarizing filter through which the reflected light is observed, the magnetized portions of the glass can be made to appear dark and the unmagnetized portions light, or vice versa. Since this pattern of light and dark corresponds exactly to the pattern of superconducting and normal metal in the sample, changes in the state of the sample can be observed and photographed directly.

An electronic enlarger used in both color and black-and-white still photography is a product of LogEtronics, Inc., Alexandria, Va. Announcement was made by Colortronics, 911 G St. N.W., Washington 1, D.C., which recently installed the machine. The enlarger utilizes a moving-spot light source similar to the light in a television tube. Scanning the photographic negative to be used in making an enlarged print, it varies in brightness automatically as it moves across the picture.



A new type of handy packaging for instrument lubricants has been announced by National Camera Repair School (NCRS), Box 174, Englewood, Colo. The lubricants are contained in disposable syringes to serve the double purpose of keeping the oil clean and at the same time instantly available for pin-point application. Two types of lubricants are available. All-Temp Lube for sliding levers and similar friction points is priced at 60 cents, and Moly Lube for motion-picture camera springs is priced at 70 cents.

A new method of packaging two-part epoxy adhesives has been developed by Plastic Associates, 2900 S. Coast Blvd., Laguna Beach, Calif. Small plastic containers called PA Packettes hold premeasured quantities of both adhesive and catalyst. The exact amount of catalyst required to activate the adhesive is included in each container when it is filled. The contents are mixed immediately before using, the adhesive applied to the parts to be bonded and the empty container thrown away, thereby relieving mixing and meas-

suring and clean-up problems. A number of bonding agents are offered in the new package including PA-815, designed for bonding glass or ceramic surfaces; PA-746, a special formulation for treated Teflon, and PA-708, a metal-to-metal adhesive. The latter is priced at \$1.50 for a box of 10 Packettes, mixing sticks and protective gloves.



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