

This is a collection, in a loose-leaf binding, of a series of diagrams, graphs and tables pertaining to a number of elementary optical relationships. The information will probably be of great value to the practical photographer. It is presented in a ready-reference form to enable him to determine quickly the required lens and camera settings for a variety of magnification ratios, as well as corresponding field sizes, exposure corrections for lens extensions, and depths of field. Two computers of the rotating dial type are included, one for determining exposure corrections corresponding to various magnifications, and the other showing the relationship between the per cent of reduction or enlargement of original subjects and the corresponding dimensions of the reproductions.—*Allan L. Sorem*, Research Laboratories, Eastman Kodak Co., Rochester 4, N.Y.

### The Science of Photography

By H. Baines. Published (1958) by Fountain Press 46/47 Chancery Lane, London W.C. 2; distributed in U.S.A. by John Wiley & Sons, Inc., 440 Fourth Ave., New York 16. 320 pp. incl. index. Profusely illus. 8½ by 5½-in. Price \$7.50.

The Foreword by Percy W. Harris describes *The Science of Photography* as "a treatment of photography from the scientific viewpoint without any attempt to dodge the difficult parts and yet couched in language which the ordinary photographer can understand." The book admirably conforms to this description.

Pellucid prose and a sound scientific approach are all too seldom combined in the same treatise, so a perusal of this work is a delight not only to the photographer but to the less tutored reader as well.

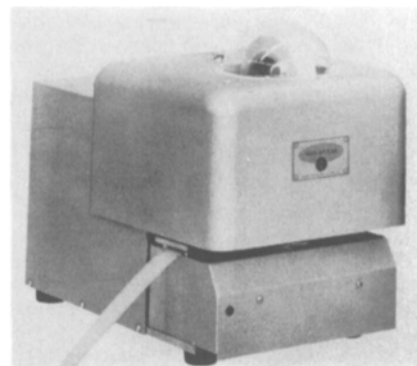
The book does not contain a bibliography, but careful, scholarly research is evident on every page. As a random example, the first chapter (How Photography Began) contains such little gems of information as, "Silver nitrate was known to Albertus Magnus before 1280..." and then goes on to give—with rare economy and clarity—a survey of the history of photography. The book's 25 chapters range over chemistry, developers, sensitometry, reciprocity failure and other photographic effects, granular structure, color photography and other subjects having to do with the science of photography as distinguished from photography as an art.

**They See What You Mean: Visual Communication With the Overhead Projector** is published by the Audio-Visual Department of Ozalid Division, General Aniline and Film Corp., Johnson City, N.Y. The 88-page book is divided into sections dealing with (1) Visual Communication and the Overhead Projector; (2) Handmade Transparencies; (3) The Diazo Process; (4) Transferon; (5) Transparency Mounting Techniques; and (6) Transparency Design. The book contains a bibliography and a list of Ozalid products referred to in the text. It is profusely illustrated.

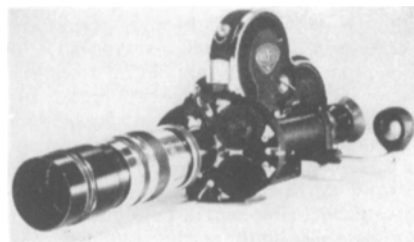


## new products (and developments)

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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.



**The Unicorn Automatic Film Splicer** for darkroom splicing operations has been announced by Computer Measurements Co., 12970 Bradley Ave., Sylmar, Calif. The splicer is designed to be used safely in total darkness with the automatic splicing operation completed in six seconds. In operation, the two film ends are placed in positioning grooves and clamped in place and a button is pushed to complete the splice. The manufacturer recommends the use of pressure-sensitive Mylar tape (a product of E. I. du Pont de Nemours) for unbreakable splices. The splicing tape is rolled completely around the trimmed edges of the film and the corners and edges are sealed to permit free passage through processing machines, precision squeegees, applicators and slitters. Dimensions are 12 by 15 by 11-in.; weight is 47 lb; power requirements are 115-v, 60-cycle a-c. Three standard models are available for 16mm, 35mm and 70mm film. Splicers for other film widths are available on special order. Price of the 16mm and 35mm models is \$2200. The 70mm model is priced at \$2700.



**The Auxiliary Target Finder** for Arriflex cameras has been announced by Arriflex Corp. of America, 257 Park Ave.

at your service!

16MM  
BLACK & WHITE

reversal printing and processing

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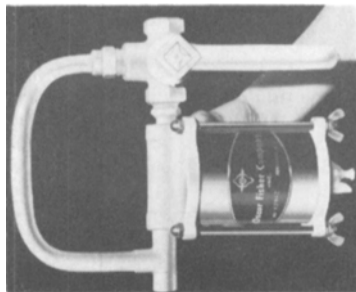
723 Seventh Avenue at 48th Street, N.Y. 19. N.Y.

South, New York 10. Designed for use with long focal length lenses, the Target Finder compensates for the extremely small field of view by enabling the photographer to "find" small fast moving objects quickly and easily. The Albada optics of the finder are mounted and aligned as shown in the illustration. The design of the instrument is to enable the cameraman to see a bright clear reticle projected in space out over a wide field. The center dot of the reticle is superimposed on the target. When the instrument has been aligned, centering the target in the reticle of the target finder automatically centers the object in the frame of the camera. Three models of the finder have been constructed for use with late and early models of the Arriflex 16 and the Arriflex 35. The finder is priced at \$80.

**Availability of two lenses** manufactured especially for Arriflex cameras has been announced by Arriflex Corp. of America, 257 Park Ave. South, New York 10. The Angenieux 140 Varifocal lens has a focal range from 35mm to 140mm and a maximum aperture of  $f/3.5$ . It focuses down to 5 ft. It is manufactured by Angenieux in Arriflex mounts. Designed to cover the 35mm motion-picture frame, it may be used on both Arri-16 and Arri-35. It is priced at \$1395.

The Pan Cinor, model 85, lens for the Arriflex 16 is available in limited quantities. The focal range is 17.5mm to 85mm, aperture  $f/2$ . The "zoom" movement is lever operated. It can be focused down to 6 ft. The price is \$399.

Used widely in television studios throughout Great Britain, a set has been installed in the London studios of Independent Television News. A complete description of the equipment is available from Press Information Service, Rank Precision Industries, Ltd., 122 Wardour St., London W1.

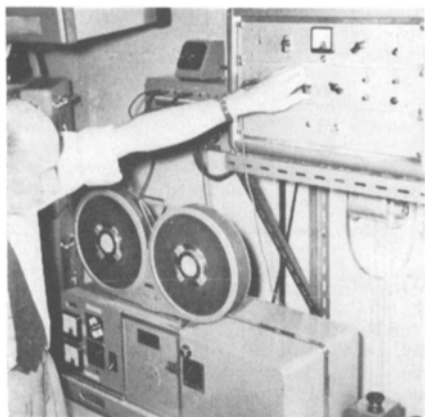


**An all-metal filter** designed around a permanent metallic filter element is a product of Oscar Fisher Co., Box 426, Newburgh, N.Y. Called the Fisher Micro-filter, it employs the sintered metal principle. Designed for ease of installation and operation, it is connected by using standard half-inch pipe fittings and can be cleaned by momentarily reversing the flow of water. The unit is  $10\frac{1}{2}$  in. high,  $8\frac{1}{2}$  in. long, and 4 in. wide. It is equipped with a 2-4 micron filter. Other filter cores are available. The price is \$48.

**A general purpose audio compressor-limiter** for use where the amplitude of

the original sound is greater than the useful range of the recording or broadcasting equipment has been introduced by Westrex Corp., a division of Litton Industries, 6601 Romaine St., Hollywood 38. The system consists of an RA-1593-A amplifier and RA-1594-A control unit. After initial settings are made on the control unit from a preliminary audio level test, the amplifier automatically compresses its output or chops peaks to keep the volume to within limits of the system. The amplifier consists of a three-stage push-pull program amplifier and a control amplifier. Various types of compression and limiting may be obtained by varying the d-c grid bias of two remote-cutoff pentodes in the first stage of the program circuit. Distortion is said to be less than one per cent under all conditions below peak chopping. The compression meter and operating controls are in the control unit which may be remotely located from the amplifier.

**Two Servotherm preamplifier models** for use with infrared radiation detectors have been announced by Servo Corp. of America, 111 New South Road, Hicksville, L.I., N.Y. These devices are for use where infrared radiations are a factor in measurement or control and are used to handle targets in motion that are fast, hot, inaccessible, or too rigid in specifications for direct contact. Descriptions and detailed specifications are contained in a bulletin, TB 1300-60, available upon request from the company.



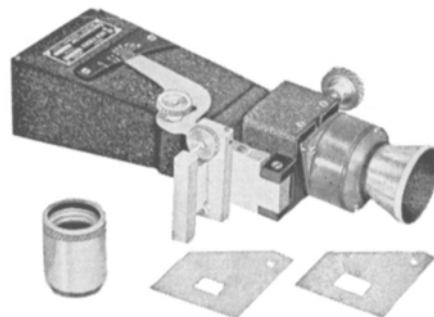
**The Gaumont-Kalee Cross Modulation Measuring Set** is designed to make test recordings and to read the degree of distortion of recorded sound for television. In this equipment a carrier frequency, obtainable at 4, 6, 7, 8 or 9 kc, is amplitude-modulated by a 400-cycle/sec frequency which is directly recorded for use in setting the level of recording and as a reference. Other frequencies also available are a 1-kc signal, useful for general testing, and a low frequency of 37-cycle/sec provided for measurement of densities. The measuring set consists of three components built into a single housing. The top panel is the cross-modulation analyzer Type 1704. The middle panel is the oscillator unit Type 1705, and the bottom panel carries the supply circuits Type 1706. The units may also be supplied separately for rack-mounting, in which case, the supply circuits would probably not be required.

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Has all the advanced features which have made this type of viewfinder the choice of Hollywood studio cameramen for TOP performance in scope and operation. Optically and mechanically precision engineered to the exacting standards of the motion picture industry requirements. An engraved aperture outline, with crosshairs in the center, shows the field of the standard 25mm lens for 16mm cameras. A border outside the actual picture area allows for anticipation of incoming scenes. A secondary magnifying lens gives an enlarged view. Mattes are provided for lenses of longer focal length and an auxiliary lens is used to cover the 15mm wide angle field.

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- You shoot with both eyes open. Smooth precision focus control from two feet to infinity. Accurate parallax control calibrated on an engraved scale.



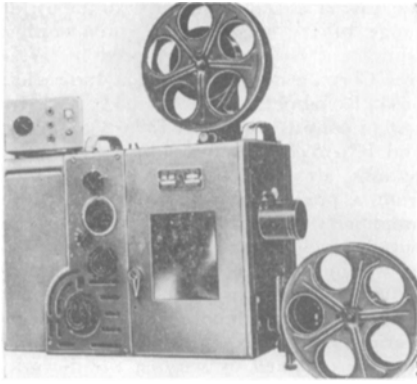
- Instant action positive lock control allows use between two or more cameras.
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**The CECO 35mm Stop Motion Projector** is a product of Camera Equipment Co., 315 W. 43 St., New York 36. It is manufactured by Paromel Electronics. The projector features variable speed from 8 to 24 pictures per second in both forward and reverse operation; positive single-frame operation, forward and reverse; 1000-ft capacity reel arms; and positive frame registration,  $\pm 0.0005$  in. Aperture size is 0.825 by 0.600 in. or 0.680 by 0.970 in., with additional apertures available. It has a  $3\frac{1}{4}$ -in.  $f/1.9$  lens and operates on a 110-v 50-60-cycle motor. Light projection is with a 1000-w lamp. The price is \$1800.

The firm also has announced a new model of the CECO P16-S105 Weinberg-Watson 16mm Analyst Projector which can be operated by remote control. It has a variable speed from 2 to 24 frames per second in both forward and reverse

and an electrically operated single-frame advance in both forward and reverse. Its price is \$1695.

**An ultra high frequency transistor**, announced by the Lansdale Division of Philco Corp., Lansdale, Pa., is said to have a maximum frequency oscillation of close to 4000 mc. The new device is called a coaxial micro-alloy diffused-base transistor. It is priced at \$125.

**Five new microminiature precision resistors** have been added to the line manufactured by Cinema Engineering Div., 1100 Chestnut St., Burbank, Calif. They range in size down to diameters of 0.080 in. and a length of  $\frac{3}{8}$  in. Wattage rating starts at 0.05 w to  $\frac{1}{4}$  w at 125 C and derated to zero at 150 C with accuracies to 0.025%. They are described in brochure No. IC 1066 available from the company.

**A compact, lightweight solenoid actuator** called Type L13 Electromagnetic DC Actuator is a product of James Cunningham, Son & Co., 103 Litchfield St., Rochester 8, N.Y. The actuator utilizes a linkage system for magnifying the original air-gap movement in an 8 to 1 ratio to deliver maximum pull and stroke from small input. The unit is said to have a life of 100 million operations and to be capable of 7 msec operating time at normal voltages. It may be set for either push or pull by simply reversing the position of the arm. The maximum stroke of 0.125 in. exerts a pull of 100 to 550 grams.

## employment service

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

### Positions Wanted

**Motion Picture Editor and Cameraman.** Presently with N.E.T.R.C. Math Study Film Project at Univ. of Ill. as Head Editor and Head Cameraman. Formerly with N.O.T.S. China Lake as Cameraman and Editor. B.A. and part M.A. from Univ. of Southern Calif. Dept. of Cinema. Also experienced in motion picture laboratory, still work, and other aspects of film production. Interested in a challenging position with potential. Write or telephone for resume or Form 57; day: EMPIRE 7-6611, ext. 3837; night: EMPIRE 5-1038; Stanley Follis, 1311 South Cottage Grove, Urbana, Ill.

**Sound Engineer.** Young Indian desires position as sound engineer in a well-established organization. Brilliant academic career. Graduate in Science. Three years Diploma in Sound Engineering. Well versed in equipment maintenance and procedures and motion-picture laboratory practice. Enterprising and hard-working. Prepared to work as 'Apprentice Trainee', if desired. Member of Audio Engineering and Associate Member of SMPTE. Write: M. K. Srivatsa, 17, Rangarao Road, Shankarapura, Bangalore-4, India.

**Trainee.** Israeli student, 31, motion pictures graduate UCLA '60, speaks 7 languages, with rich background in public relations, needs opportunity for practical training in any phase of cinematography or television production. Will travel. New York or Los Angeles areas preferred. Write P.O. Box 24533, Los Angeles 24.

**Writer-Director.** Experienced in production of technical, educational, training and promotional films. Background includes editing, camera and sound. Experienced in military electronics field. Desires position with unit actively engaged in production. Married, BA degree, willing to relocate. Write: Film Director, 4813 "B" St., Philadelphia 20, Pa.

**Producer-Director.** Winner of national awards. Currently employed, but desirous of obtaining challenging position where hard work, enthusiasm and ability are needed. Experienced in all phases of production. Capable of handling crews and supervising production from script to screen. Background in industrial and educational films. College cinema grad. Write: Producer, 3100 Kelton Ave., Los Angeles 34, Calif.

**Motion-Picture Engineer.** B.Sc. Elect. Eng., 15 yrs experience all engineering phases motion-picture production and services, mainly sound recording. Administrative and management experience as well as complete layout, design, installation, operation and maintenance of two sound recording studios. Fellow SMPTE, member of Sound Committee. Age 38, married, fully bi-lingual, French and English, would relocate. R. J. Beaudry, 9 Badger Dr., Toronto 18, Ont., Canada.

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