

In his discussion of the new Mitchell R-35 Studio Reflex Camera, Mr. Austin indicated that the R-35 combines many of the standard features plus continuous reflex focusing. The reflecting and focal plane shutters are arranged to prevent fogging when the cinematographer's eye is not over the eyepiece. The camera will accommodate 100 or 200-ft daylight loading spools and 400-ft darkroom loads. Other magazines will take up to 2000 ft. Essentially, the new camera will be for studio use, tripod mounted. Because it is designed for portability, the R-35 can be used successfully without a tripod. The new magazine is mounted to the rear and under the camera in such a way that it will fit against the operator's shoulder. With the new camera it is possible to dolly continuously from a long shot to an extreme close-up. Accessories, such as additional motors, remote control focusing, etc., will be available. A new series of lenses was designed especially for this camera by Bausch & Lomb.

Prior to the delivery of Mr. Hicks' paper on "The Reevesound Baby Recorder," a film, *The Sound Man*, was shown. The Reevesound Baby Recorder is a new concept in sound recording, according to Mr. Hicks. One-quarter-inch perforated magnetic tape is used in the recorder which is mounted on the camera magazine. A film sprocket replaces one of the rollers in the camera magazine. The film which is

threaded through the sprocket in the light-trap drives the tape transport mechanism. The recorder can be quickly and easily moved from one modified film magazine to another. Microphone, monitoring headset, transistorized record and playback amplifiers and recorder weigh approximately eight pounds and can be carried in a standard attache case. Monitoring can be either direct or from the recorded tape. With this system frame-to-frame synchronous sound with no elaborate control system can be recorded.

Both films shown at this meeting were made about 10 years ago by the Research Council of the Academy of Motion Picture Arts and Sciences for the members of the motion-picture industry. We used the films in this instance as reference materials for our guests and those of our members who do not work in the particular fields under discussion. It is part of our determined effort to make our programs understood by anyone who comes either as a guest or as an interested member. Thus far, this approach has proved to be an effective one.

Because of the very large amount of motion-picture and television equipment purchased and used here and elsewhere by the Federal and local government, we are inviting those people who are concerned with the various phases of purchasing, etc., to attend our meetings.—William E. Youngs, *Secretary Treasurer*, 231 Mayflower Dr., McLean, Va.



## books reviewed

### The Audio Cyclopedia

By Howard M. Tremaine. Published (1959) by Howard W. Sams & Co., Inc., 2201 E. 46th St., Indianapolis 6, Ind. v-ix + 1269 pp. including illus. (354 halftones, 1300 line drawings, charts, graphs, etc.). 6 by 9-in. Price \$19.95.

This book was developed from a series of lectures by the author on high-fidelity sound systems. It is primarily intended for technicians and engineers involved in any of the phases of the recording and reproducing of sound.

Its extraordinarily wide gamut of subject material, nearly all of it discussed in very close detail, represents an unusual accomplishment for a single author, and testifies to his broad range of interests.

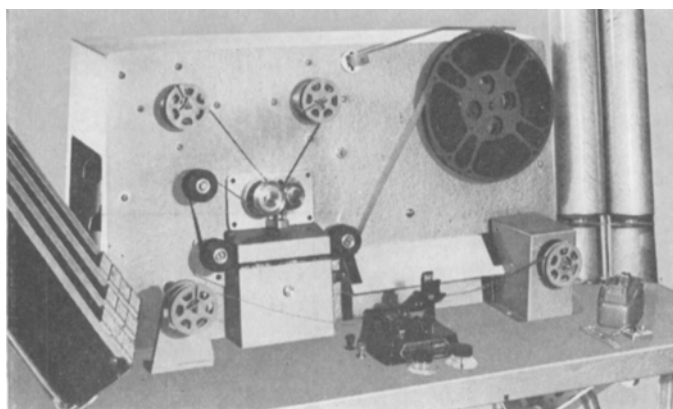
The book contains 26 chapters (called "sections"), each discussing some phase of the subject. A few sample titles are Acoustics and Studio Techniques; Microphones; Equalizers; Wave Filters; Vacuum Tubes, Transistors and Diodes; Audio Amplifiers; Disc Recording; Magnetic Recording; Optical Film Recording; Motion Picture Projection Equipment; Power Supplies; Test Equipment; Audio-Frequency Measurements; Installation Techniques; etc.

The format used consists entirely of specific questions and answers, which gives a slightly colloquial flavor to the text. There are over 3400 such questions and answers. An engineer might possibly feel that the constant repetition of "What is...?", "How is...?", "What determines...?", "Show the...," etc., adds very little to the presentation.

Two examples taken at random may be given of some of the subject matter. A 14-page chapter of 41 questions is devoted to VU and volume indicating meters. This outlines the electrical characteristics, the ballistics characteristics of the meter movement, the wiring diagram, discussion of the reference levels, analysis of what a volume unit means, the two scales used on VU meters, comparisons with the older VI meters and other level indicators, how readings are taken, what the impedance conditions are and how they may need to be adjusted, and reference level terminology.

A 48-page chapter of 173 questions covers motion-picture projection equipment. Not only are the soundtrack and its adjuncts, plus standards, film leaders, etc., described, but even the optical equipment is given some discussion. This includes the lenses, arc lamp, intermittent, screen brightness (the term "luminance" is not used)

## CURTIS AUTOMATIC 16/8mm FILM SLITTER



Reduces slitting and make-up cost to one fourth that of conventional methods. Accurate, clean, slitting assured by unique self sharpening cutters. High speed and make-up table models are available for both industrial and amateur footage. Send for circular.



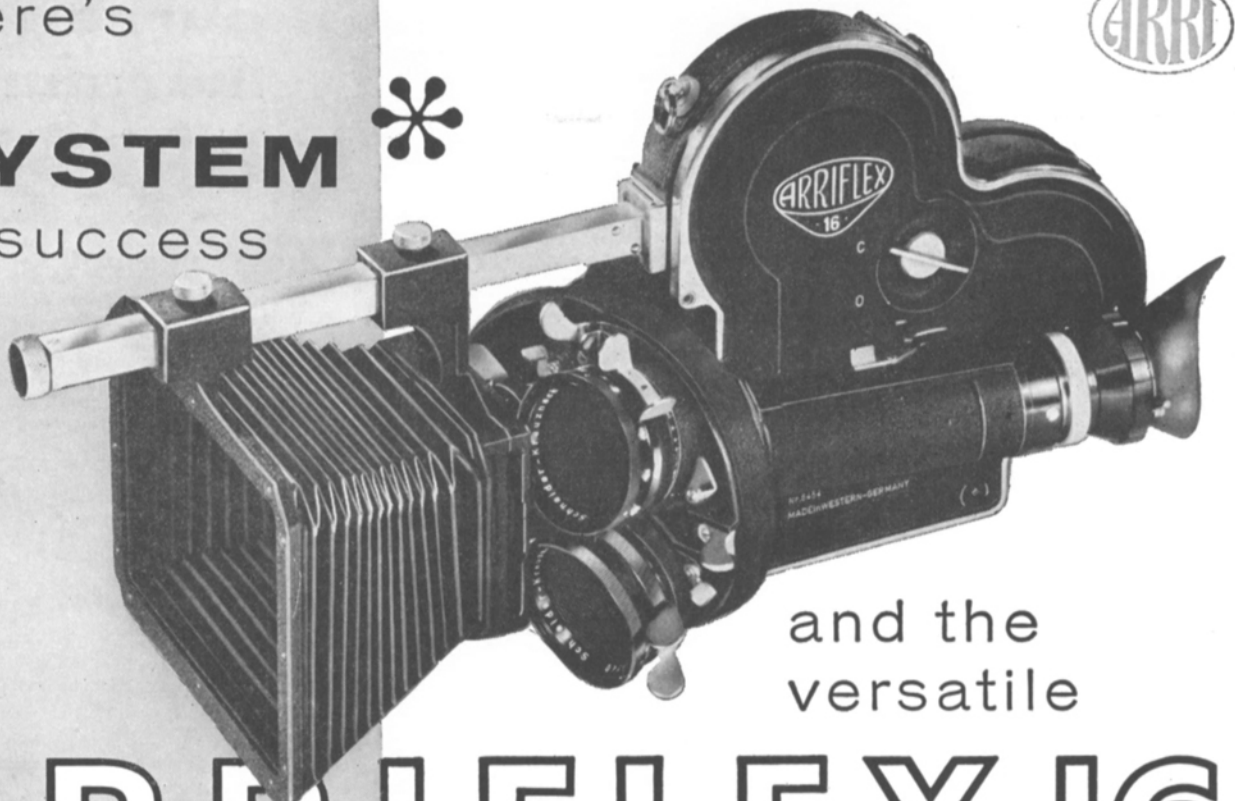
**CURTIS LABORATORIES, INC.**

2718 GRIFFITH PARK BOULEVARD

LOS ANGELES 27, CALIFORNIA



there's  
a  
**SYSTEM**  
to success



and the  
versatile

# ARRIFLEX 16

THE CHOICE OF PROFESSIONALS ALL OVER THE WORLD

has got it!

The Arriflex 16 is a system camera because it has been designed from its inception to perform as a hand camera, studio and sound camera.

Skillful planning, meticulous craftsmanship and superb engineering skills have made this versatile motion-picture camera and its accessories the choice of professionals all over the world.

There's no secret about the Arriflex 16 "system" for success nor the names of the thousands who are making profitable use of it. Write for literature that details it all.

**\* IT'S A HAND CAMERA!**

Weighing only 6½ lbs., the compact Arriflex 16 is a pleasure to carry, set-up and operate. And no other hand camera has all its professional features!

**\* IT'S A STUDIO CAMERA!**

The simple addition of component Arri accessories (400 ft. magazine, synchronous motor and tripod) quickly transforms the versatile Arriflex 16 into an ideal studio camera. Its easy set-up and take-down features makes it a perfect "one man" camera.

**\* IT'S A SOUND CAMERA!**

By placing the camera and magazine in the Arri 16 Blimp it is a full-fledged sound camera with all important camera features, like thru-the-lens-focusing, operated from the outside.



**ARRIFLEX**  
CORPORATION OF AMERICA

257 PARK AVENUE SOUTH, NEW YORK 10, N. Y.

For Sale, Rent or Lease through your Franchised Arriflex Dealer

standards, and the problems of anamorphic and other wide-screen projection. Most of the questions on magnetic tracks are reserved for another chapter.

The level of presentation is aimed at the technician and the more routine engineer, and the language used is kept absolutely as simple as possible. It must be said however that occasionally some probing into the nature of an effect or of a device, though adding some complication, could contribute clarity. To give an illustration, a Rayleigh disc is described as "a device used for measuring sound pressures. Invented by Lord Rayleigh, it consists of a small disc supported by a quartz fibre. The pressure is determined by the twisting action of the disc when subjected to sound pressure." It is possible that a reference to the phenomenon discovered by Lord Rayleigh, that such a disc tends to set itself normal to the direction of fluid flow and pressure, and that this tendency is what is used to measure the pressure, would clarify the description for the neophyte.

Another illustration lies in the discussion of the use of negative feedback. Some 10 pages and 32 questions are devoted to this, and even touch on stability and phase, but nowhere is the Nyquist stability criterion mentioned. A brief diversion in this direction could certainly give the reader a much sounder background on the technique.

It must be said in this regard that considerable reference is made to the literature (much of which is in the *SMPTE Journal*).

Some definitions are really suspect, such as "Critical Damping — The rate of change between periodic and aperiodic damping," and "Aperiodic Damping — A system which oscillates about the final position

before coming to a complete rest."

Nevertheless, these things do not really loom up large in the tremendous array of material that is presented in one handy volume. The book should find a ready use among the many technical people who have tasks in the field of sound.—*Pierre Mertz, Lido Beach, L.I., N.Y.*

**The third decennial Index** of the *Journal of the Acoustical Society of America*, 335 E. 45 St., New York 17, is scheduled for publication late this summer. The 1100-page volume will contain three sections: (1) Author and Subject Indexes to papers published in *J. Acoust. Soc. Am.* during the period 1949–1958 inclusive. (2) Author and Subject Indexes to contemporary papers on acoustics published in many other journals and listed in the *J. Acoust. Soc. Am.* (approximately 13,500 references). (3) Inventor, Subject and Numerical Indexes to acoustical patents reviewed during 1949–1958 (approximately 4000 patents). Prepublication price is \$15.00. After the publication date the Index will be priced at \$20.00.

**The American Society for Testing Materials**, 1916 Race St., Philadelphia 3, has announced publication of the 1959 Supplements to the *1958 Book of ASTM Standards*. Each Part-supplement brings up to date the corresponding Part of the 1958 Book of Standards by including new standards and revisions adopted in 1959. Published triennially, Supplements to the Book of ASTM Standards are issued in the intervening years. More than 2600 standard specifications, methods of test, recommended practices and definitions of terms for materials are included.

## current literature



.....  
The Editors present for convenient reference a list of articles dealing with subjects cognate to motion-picture engineering published in a number of selected journals. Photostatic or microfilm copies of articles in magazines that are available may be obtained from The Library of Congress, Washington, D.C., or from the New York Public Library, New York, N.Y., at prevailing rates.

**American Cinematographer** vol. 41, Jan. 1960  
Why the 35/32mm Method Results in Better 16mm Prints (p. 34)  
Product Report on the Pathé "Webo M" 16mm Camera (p. 36)  
A Light Unit that Mounts Anywhere (p. 38) *F. Foster*

The Need for Creativity in Nontheatrical Cinematography (p. 45) *C. Loring*  
Russia's Circular Kinopanorama (p. 46) *A. Voyce*

vol. 41, Feb. 1960  
Shooting with the New Eastman High-speed Reversal Color Film (p. 98)

A Synchronous Quarter-inch Tape System for Film Sound Recording (p. 102) *G. M. Galloway*  
Cinematography in Ophthalmology (p. 106) *J. C. Oberly*

Degrees Kelvin Versus Mireds in Color Temperature Evaluation (p. 111) *D. Norwood*

vol. 41, Mar. 1960  
Why Edge-Numbering Pays Dividends (p. 164) *H. Titelbaum*

Sharp Focus Safety with Hyperfocal Distance (p. 168) *J. Forbes*  
Protective Shield for Wildlife Photographers (p. 170) *R. Zeper*

Lip-Sync Sound With Any 16mm Camera (p. 172) *J. V. Mascelli*  
Why Renoir Favors Multiple Camera, Long Sustained Take Technique (p. 176) *J. Belanger*

The Auricon Super-1200, Pt. VIII (p. 180)

vol. 41, Apr. 1960  
Sound Stage Sea Saga (p. 228) *J. Ruttenberg*  
Filming *La Dolce Vita* in Black-and-White and Wide-Screen (p. 234) *L. Grandi*

Similarities and Differences in 16mm and 35mm B&W Printing (p. 235)  
A Synchronous Quarter-inch Tape System for Film Sound Recording, Part 2 (p. 236) *G. M. Galloway*

Colortran-Lightweight Set-Lighting Package (p. 240)  
A Sound System for Sixteen-MM (p. 244) *J. P. Gray*

**Bild und Ton** vol. 13, Mar. 1960  
Zur Geschichte des Agfacolor-Verfahrens (III) (p. 68) *K. Meyer*  
Neue Kinoprojektionsobjektive (p. 78) *R. Tiedeken*

**British Kinematography** vol. 35, Nov. 1959  
The New Philips Type FP20S Projector and Type SPP Light Source (p. 112) *W. J. M. Jansen*

Progress in Colour Duplicating Techniques (p. 125) *F. P. Gloyns*

vol. 35, Dec. 1959  
Colour and the Box Office (p. 140) *R. A. Leeks*

**Control Engineering** vol. 7, Apr. 1960  
New Process Develops Movie Film in 60 Seconds (p. 25)



**Off-The-Shelf Delivery!**  
**IMAGE-ORTHICON,**  
**VIDICON LENSES**

**Rent or Buy** Image Orthicon Lenses  
from World's Greatest Selection . . . choose from 28mm focal length to 60" . . . delivered right "Off-The-Shelf" at B & J World's Lens Headquarters!

Here you'll find the lens you need for practically ALL T.V. Cameras, R.C.A. (TK-41, TK-11): G. E. Black and white or color; Du Mont, etc.! Rely on the Industry's Prime Optics-Source . . . Pioneers in T.V. Optics Since 1936 and currently serving such stations as WGN, WNBQ, ETC.

Our Instrument Shops and "Know-how" offer you Special Mountings, Calibration and Custom Fittings! (Also Cine & Slide Equipment for your News Dept.!)  
*Write for New T.V. Optics Catalog.*



**BURKE & JAMES, INC.** 321 S. Wabash, Chicago 4. Ill.