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

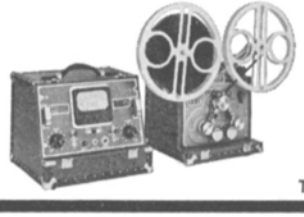
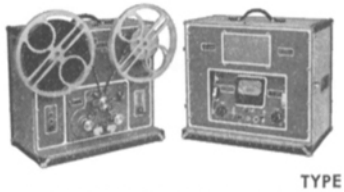
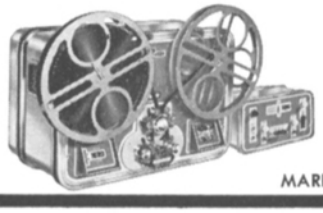
Colour and the Box Office (p. 140) *R. A. Leeks*

Control Engineering vol. 7, Apr. 1960

New Process Develops Movie Film in 60 Seconds (p. 25)

*How to select a recorder to start your MAGNASYNC-MAGNAPHONIC SOUND SYSTEM

Sound Equipment Checklist

		LIGHTWEIGHT	MEDIUM WEIGHT	16 MM FILM	17½ MM FILM	35 MM FILM	REWIND	FOOTAGE COUNTER	POWER AMPLIFIER	MONITOR SPEAKER	TORQUE MOTORS	PLUG-IN AUDIO	PUSH BUTTON CONTROL	REMOTE CONTROL	SLIDE-WIRE POTS	FILM MONITOR	SYNKINETIC MOTION	PLUG-IN HEADS
 X-400	When lightweight portability is a **must** the 27 lb. X-400 Type 1 is the answer! Another reason so many producers choose this machine is that it is genuinely professional, and yet, surprisingly economical! From $985.	X		X			X	OPTIONAL	OPTIONAL	OPTIONAL						X	X	OPTIONAL
 TYPE 1	The Type 1 is a miniaturized version of the Type 5. Low power consumption and extreme portability has made this 39 lb. unit a popular selection for remote location production by leading professional motion picture studios. From $1360.	X		X	X		X	X	X	OPTIONAL		X				X	X	OPTIONAL
 TYPE 15	The X-400 Type 15 is designed for the man who wants everything in one case . . . playback amplifier, monitor speaker, footage counter and torque motors. You can be proud to have this machine represent you on any sound stage! From $1385.		X	X			X	X	X	X	X					X	X	OPTIONAL
 TYPE 5	The most popular magnetic film recorder in the world is the Type 5! With this unit and all its operational conveniences, you are definitely in the "major league." The Type 5 owner always starts his pictures with a special feeling of confidence in the realization that he has allowed no compromise in the selection of equipment. From $1570.		X	X	X	X	X	X	X	X	X	X				X	X	OPTIONAL
 MARK 1X	There is nothing on the market that compares with the remarkable Mark 1X. This unit is in a class by itself . . . with push-button remote controlled relay functions, plug-in audio elements and all the "extras" that make for flawless recording under the most adverse conditions. From $2145.		X	X	X	X	X	X	X	OPTIONAL	X	X	X	X	OPTIONAL	X	X	X

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International Projectionist vol. 35, Jan. 1960

Color Films Draw Better, British Survey of Preferences Indicates (p. 10)

Front-Surface Mirrors: Their Structure, Function, and Care (p. 14)

New High-Speed Color Film Introduced by Eastman Kodak — Has 160 Index (p. 22)

vol. 35, Feb. 1960

Correcting Distortions in Theatre Projection (p. 5) *R. A. Mitchell*

An Analysis of Various Methods for Minimizing Aperture Heat in Projection (p. 12) *H. H. Schroeder*

vol. 35, Mar. 1960

Large-Area Frames and Picture Quality (p. 5) *R. A. Mitchell*

Kino-Technik vol. 14, Jan. 1960

Stand und Entwicklungstendendenzen der Filmaufnahmetechnik (p. 1) *E. Leistner*

Die Technik der Theater-und Fernseh-Filmbearbeitung (p. 4) *A. Kochs*

Der technische Stand moderner Filmwiedergabe (p. 6) *H. Tümmel*

Die Zukunft des Kinefilms (p. 10) *W. Behrendt*

Bild- und Tonanlagen für Fernsehstudios (p. 13) *H. Friess*

Neue Technik der Farbreproduktion oder neue Theorie des Farbensehens? (p. 17) *M. Richter*

Die ersten deutschen 8-mm-Spiegelreflexkameras (p. 19)

Der Universalprojektor U 99 von Frieseke & Hoepfner (p. 21)

vol. 14, Feb. 1960

Studiotechnik im Wachstum (p. 31) *F. Winckel*

Moderne Studiotechnik (p. 32) *O. Diciol*

Die kombinierte MagOptical-Kopie (p. 36) *R. Frenk*

Die Abteilung Tontechnik der Realfilm (p. 39) *R. Fehrmann*

vol. 14, Mar. 1960

Drahtlose Ubertragungsverfahren für Stereophonie (p. 65) *G. Janus*

Die zeitgemässe Kine- und Schmalfilmentwicklung (p. 67) *E. Mutter*

Rückprojektion am Tricktisch (p. 71) *F. Krautschneider*

Normung beseitigt Spulen-Wirrwarr (p. 77) *H. Tümmel*

Die Xenon-Hochdruck- und -Hochdruck-Langbogenlampen und ihre Bedeutung in der Praxis (p. 81) *R. Lehmann*

Aus der Geschichte der Kinematographie (p. 88) *H. Tümmel*

Philips Technical Review

vol. 21, No. 2, 1959/60

A Wide-Band Triode Amplifier with an Output of 10 W at 4000 Mc/s (p. 41) *J. P. M. Gieles and G. Andrieux*

Experiments in the Field of Parametric Amplification (p. 47) *B. Bollée and G. de Vries*

Modern Acoustical Engineering, II. Electro-Acoustical Installations in Large Theatres (p. 52) *D. Kleis*

Photo-Technik und Wirtschaft

vol. 11, Feb. 1960

Das laufende Band zum stehenden Bild (p. 30) *F. Karwen*

Fortschritte in der 8-mm-Bild- und Tonwiedergabe (p. 34) *H. Thiele*

Proc. Institution Electrical Engineers

vol. 107, Pt. B, No. 31, Jan. 1960

The Performance of a Balanced Aerial When Connected Directly to a Coaxial Cable (p. 21) *G. D. Monteath and P. Knight*

An Analysis of a Type of Comb Filter (p. 39) *A. G. J. MacFarlane*

The Measurement of Atmospheric Radio Noise by an Aural Comparison Method in the Range 15–500 kc/s (p. 53) *J. Harwood and B. N. Harden*

A Coaxial Film Bolometer for the Measurement of Power in the U.H.F. Band (p. 67) *I. A. Harris*

RCA Review vol. XX, No. 4, Dec. 1959

Electroluminescence of Polycrystallites (p. 532) *S. Larach and R. W. Shrader*

The Achievement of Maximum Photoconductivity Performance in Cadmium Sulfide Crystals (p. 564) *R. H. Bube and L. A. Barton*

Infrared Photoconductive Detectors Using Impurity-Activated Germanium-Silicon Alloys (p. 599) *G. A. Morton, M. L. Schultz and W. E. Harty*

Sintered Cadmium Sulfide Photoconductive Cells (p. 635) *C. P. Hadley and E. Fischer*

Role of Space-Charge Currents in Light Amplifiers (p. 648) *A. Rose and R. H. Bube*

A Simplified Theory of Two-Carrier Space-Charge-Limited Current Flow in Solids (p. 682) *M. A. Lampert*

A Review of Electrofax Behavior (p. 753) *J. A. Amick*

A Volume-Charge Capacitor Model for Electrofax Layers (p. 770) *J. A. Amick*

Abstracts

Abstracts from other Journals, chosen for importance and timeliness, are published in the *Journal* from time to time. The greater number of these abstracts are translations, chiefly from the U.S.S.R., and made available by the *Kodak Monthly Abstract Bulletin.*

AERIAL PHOTOGRAPHY

The Influence of Atmospheric Smoke on the Contrast of Aerial Photographs Taken From Great Heights and With Wide Viewing Angles

An automatic aerial camera for taking photographs from great heights and with wide viewing angles is described. The basic part of the apparatus is a camera with a 400mm, *f*/6.3 objective. Photographs were obtained on a cloudless day in August on Panchrom X Film (sensitivity, 1000 GOST units) with a ZhS-18 Filter. The exposure time was 1/300 sec at *f*/8. It is said that high-quality pictures were obtained. (S. C. G.)—[Translated from *Tekh. Kino i Televideniya*] E. F. Yudin and N. M. Federova. *Optiko-Mekh. Prom.*, pp. 10–13, No. 3, 1959.

CAMERAS AND EQUIPMENT (except High-Speed)

A Universal Portable Device for Shooting Tests on Motion-Picture Cameras

The device consists of a tube which fits into the lens mount of the camera and which contains an objective at a distance of twice the focal length from the plane of the film and a test object at twice the focal length from the objective on the other side, with a light source behind the test object. Methods for carrying out a number of different tests on the camera with the apparatus are described. (S. C. G.)—O. I. Reznikov. *Tekh. Kino i Televideniya*, pp. 73–5, Nov., 1959.

Czechoslovak Motion-Picture Apparatus

A survey of the products of the Czechoslovakian motion-picture industry includes descriptions of 8mm motion-picture cameras for amateur use, professional motion-picture cameras, projectors, sensitometric