understanding of the gross differences among equipment types, so that the new engineer can choose. The presentation is exactly at the proper level for the intended audience.

The content runs the complete range from television fundamentals to color television. Considerable space is devoted to the image orthicon tube and the camera in which it is used. Field pickups and the appropriate equipment are discussed in some detail. Studio equipment, lighting, projectors and film problems are well treated, as are the TV transmitter, antennas and feed lines. Even building planning is presented, with many helpful hints for the new broadcaster. The chapter on color television covers the field-sequential system which was the law of the land at the time of the manuscript, but which has since been replaced by the compatible system of NTSC. However, there are many applications of the field-sequential system which well justify the treatment.

All through the chapters runs the theme of achieving a professional level of operations. It is clearly demonstrated that care with small matters will automatically resolve system difficulties and result in an operation of which the newcomer to television can be proud.

This volume deserves wide distribution in the radio and television field as a thoroughly practical operating handbook. It proves that television, while an electronic miracle, is still a creature of ordinary man; and that ordinary man can understand and control it. This book is wholeheartedly recommended to the membership of the Society for interesting reading and conscientious study. In preparing it, Mr. Chinn has rendered a valuable service to the television broadcast industry.—*A. E. Hungerford, Jr.*, General Precision Laboratory Inc., Pleasantville, N.Y.

Thermionic Vacuum Tubes and Their Applications, 6th ed.

By W. H. Aldous and Edward Appleton. Published (1952) by John Wiley & Sons, Inc., 440 Fourth Ave., New York 16, N.Y. 151 pp. + 98 illus. 4 × 6½ in. $2.00.

This little book treats conventional vacuum tubes, including magnetrons, klystrons and traveling wave tubes as to internal electron action and the applications thereof as amplifiers, rectifiers, frequency changers, oscillators, reactance tubes and relaxation devices.

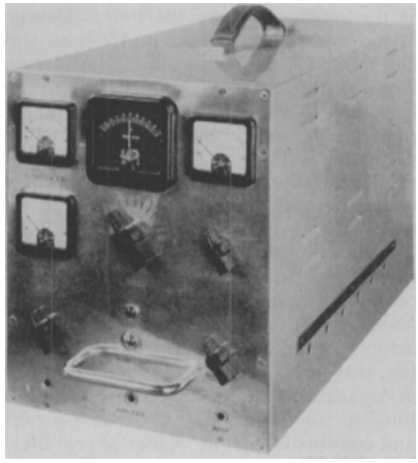
Numerous equations are given in explanation of the phenomena to the physicist and for purposes of design for the engineer. A terse approach has been taken and more factual information has been provided than would be surmised from the size of the volume.

The book is British: W. H. Aldous being on the Research Staff of the M. O. Valve Co. at the G.E.C. Research Laboratories, Wembley, England; and Sir Edward Appleton being Principal and Vice-Chancellor of Edinburgh University.

Over a hundred references are listed for further reading.—*Harry R. Lubcke*, Reg. Patent Agent, 2443 Creston Way, Hollywood 28, Calif.

New Products

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.



The Gaumont-Kalee Flutter Meter is designed to measure small frequency variations of a given carrier frequency. If the meter is provided with

a signal of the correct frequency and of suitable amplitude, variations from constant speed of the recording and/or reproducing machine can be measured. The instrument operates at a nominal carrier frequency of 3000 cycles/sec, but will tolerate up to 5% variation in mean carrier frequency, thus enabling measurements to be made on machines that are running off speed, or using film of disks whose recorded 3000-cycle tone is inaccurate.

The meter consists of a narrow-band amplifier, a limiter, a discriminator and detector, and a metering system, the whole unit being self-contained with its own power supplies. The input amplifier is tuned to 3000 cycles/sec and has a bandwidth of 1000 cycles/sec. It is provided with an input control for adjusting signal level. An amplitude limiter, which eliminates effects caused by signal level variations, is followed by a power amplifier which drives a discriminator operating at a mean frequency of 3 kc. The discriminator may be tuned from 2850 to 3150 cycles/sec to accommodate variations in mean carrier frequency. The error in the input frequency expressed as a percentage of speed is indicated on a scale. The input signal level at the discriminator, which is set up on a meter by means of a control in the limiter circuit, is maintained constant by the limiter.

The Gaumont-Kalee Flutter Meter is distributed in the U.S. by S.O.S. Cinema Supply Corp., 602 West 52d St., New York 19.

Employment Service

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

Positions Wanted

Motion-Picture Television Technician: 10 yr intensive skill and know-how related to 16-35mm cinematography, animation, recording (optical, tape, disk), editing, laboratory processing practice (black-and-white, color); also kinescope recording techniques; self-reliant; inventive; relocate if required; write: CMC, Technical Associates, 60 East 42d St., New York 17, N.Y.

Motion-Picture Cameraman: Retiring from Naval Service. 15 yr experience in camera operation, printing, processing, adm. and supervision of production crews. Desires position in TV, educational or industrial field, inaugurating a motion-picture program. Available after May 1954. Prefer West Coast. Write: W. W. Collier, 422 W. Jackson Ave., Warrington, Fla.

Positions Available

Wanted: Sound Engineer for New York film production studio, operation and maintenance on optical and magnetic sound equipment; electronics background essential. Send résumé to R. Sherman, 858 West End Ave., New York, N.Y.

Technical Photographer, age 27 to 38, for senior position with large California industrial research organization. Should be conversant with contemporary techniques for recording data; acquainted with microscopy, graphic arts and color processes. Job involves application of photographic techniques as experimental tool in research projects. Administrative experience helpful. Excellent career opportunity for an ingenious and inventive person. Retirement pension and other benefit plans. Application held in strict confidence. Write giving personal data, education and experience to Henry Helbig and Associates, Placement Consultants, Examiner Bldg., 3d and Market Sts., San Francisco 3, Calif.

Sound Engineer: Complete responsibility for sound control, including printing, processing, maintenance of standards, etc. Tri Art Color Corp., 245 West 55th St., New York 19, N.Y.

Motion-Picture Supervisor, GS-8: Duties as Chief of Motion Picture Section to include all phases of aeromedical research cinematography. Experience in planning, directing, lighting, color control, recording in single or double-system sound. Laboratory work requires experience with sensitometric control equipment, contact printers, automatic processors, Moviola, sound synchronization equipment, titlers, etc. For detailed information write: Photography Officer, USAF School of Aviation Medicine, Randolph Field, Texas.

Motion-Picture Sound Transmission Installer and Repairer, for the Signal Corps Pictorial Center, Long Island City, N. Y.—one at $2.59/hr; one at $2.29/hr (40-hr week). Applicants for $2.29/hr position must have had 4½ yr progressively responsible experience in the construction, installation and maintenance of electronic equipment, of which at least 1½ yr must have been in the specialized field of motion-picture film, disk or magnetic sound recording or reproducing equipment. Applicants for $2.59/hr position must have had at least 5 yr responsible experience in the design, development and installation of electronic equipment, of which at least 2 yr must have been in the specialized field of motion-picture film, disk or magnetic sound recording or reproducing equipment. Must be familiar with filter design and transmission testing, involving the use of a wide variety of testing and measuring