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continuous wave (CW) communications, with a comparison of AM and FM. The second part covers amplitude and angle modulation in CW systems, and pulse modulation. The third part covers binary channel communication, without and with additive noise, fading communication media, linear diversity combining techniques, and decision-oriented diversity for digital transmission. There are two mathematical appendices, a rather extensive bibliography, and an index.

The study in each subject goes into fairly detailed mathematical analysis, sometimes of a rather sophisticated nature. Thus the book gathers together and summarizes much of the analytical literature that has appeared in this field. The dust jacket says "The needs and background of the practicing engineer have been kept in mind, with the result that theory and practice are closely interwoven." However, at a number of places the reader can well wonder at the choice made of the "practice" described.

A single illustration may be noted. There is no mention anywhere of the recent and by now classic work of Alexander, Gryb and Nast on the noise and other impairments measured on actual transmission over common carrier communications plant and influencing its capabilities for coded information transmission. Other authors have also examined facets of this problem and are not cited, and this is despite the demonstrated hazard of using only conventional hypothetical probability theory noise for many cases of engineering design.

Nevertheless the book does give a very convenient compilation of much of the current and extensive analytical thinking on the transmission of information.—*Pierre Mertz*, Consultant, 66 Leamington St., Lido Beach, L.I., N.Y. 11561



The American System of Broadcasting; Variations in Negro/white television preferences; the FCC's 50-50 requirements; and religious broadcasting are among subjects discussed in papers appearing in the current issue of the *Journal of Broadcasting*, published by the Association for Professional Broadcasting Education, University of Southern California, University Park, Los Angeles, Calif. 90007. The issue also contains a list of schools teaching broadcasting.

The duality of the American system of broadcasting is discussed by W. Theodore Pierson, a communications lawyer located in Washington, D.C. The "duality" refers to the separation of commercial and non-commercial stations. In his paper Mr. Pierson takes the point of view that this separateness should be preserved and that the intent and purposes of the two types of broadcasting should be distinct.

In his report on differences in Negro and Caucasian TV program preferences, James M. Carey, who is Research Assistant Pro-

fessor in the College of Journalism and Communications at the University of Illinois, sets forth results of national audience research data that show substantial differences do exist and that many Negroes prefer programs of decidedly better quality.

The FCC "50-50 requirement" is explained by Ashbrook Bryant, Chief of the Federal Communication Commission's Office of Network Study. The issue also contains the third installment of Donald Dick's bibliography of religious broadcasting for the years 1920-1965.

The Make-Up Artist is the title of a series of books by Vincent J-R Kehoe covering all major make-up methods for all mediums. The series is published by The Make-Up Artist Publishing Service, 429 E. 52 St., New York, N.Y. 10022. Of special interest is *The Make-Up Artist in the Laboratory* and *The Make-Up Artist in the Film and TV Studios*. Other books in the series include *The Make-Up Artist for the Stage*, *The Make-Up Artist in the Beauty Salon* and *The Make-Up Artist at the Wigmakers*. The books are in loose-leaf form so that new pages can be added to keep each volume up to date. Each volume is priced at \$7.50. An earlier book by Mr. Kehoe, *The Technique of Film and Television Make-Up (Journal)*, p. 704, Oct. 1958) is highly regarded as a valuable source of information in this important field.

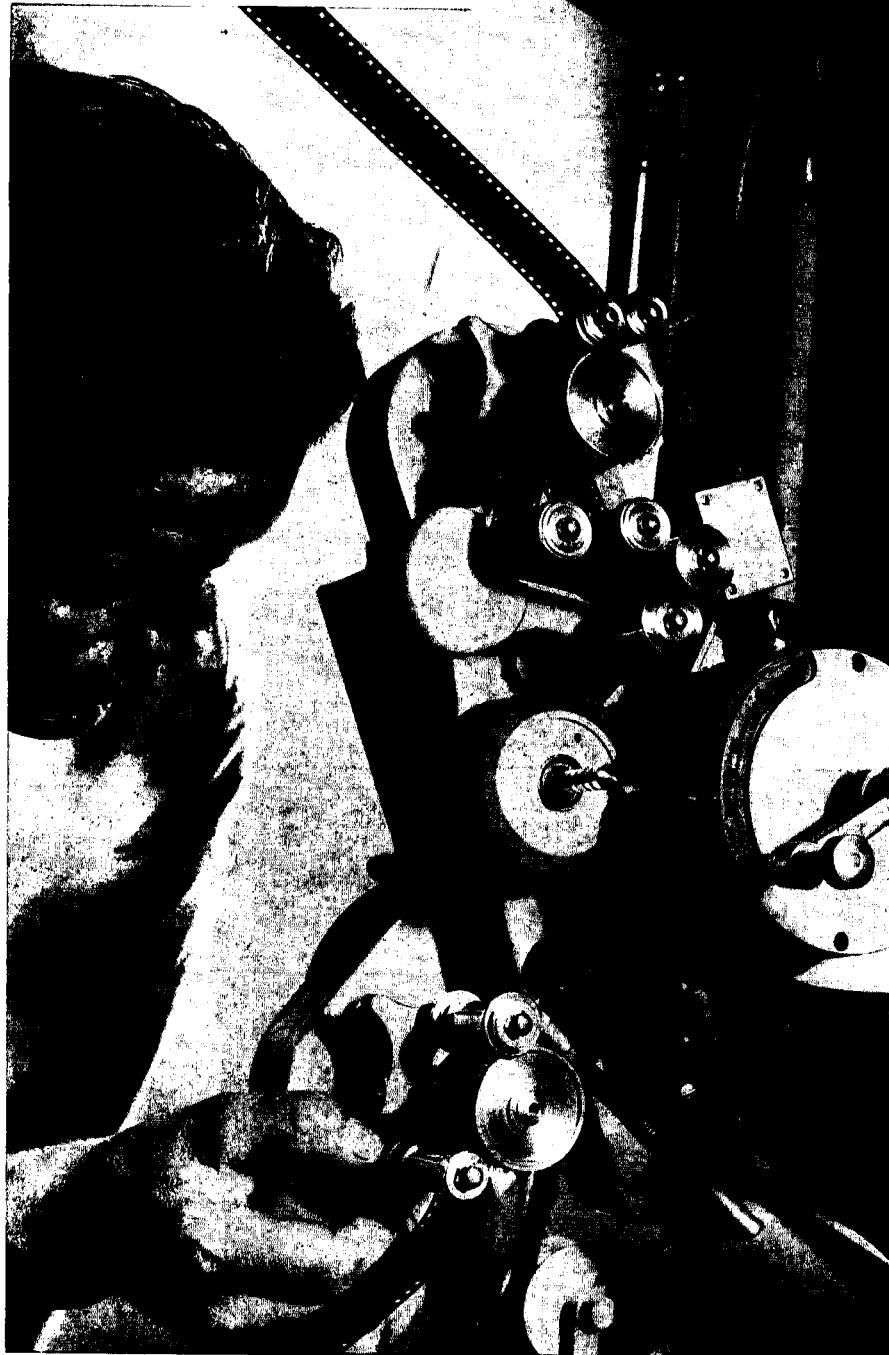
A library of "How-To" electronic books has been introduced by IRC, Inc., 414 N. 13 St., Philadelphia, Pa. 19108. The first 12 books in the library are: *Diodes*; *The Volt-Ohm Milliammeter*; *Basic Alternating Current*; *How To Read Circuit Diagrams*; *Basic Electronics Math*; *Handbook of Transistor Circuits*; *Learn Electronics in 5 Minutes, 37 Seconds*; *The Oscilloscope*, *The Vacuum-Tube Voltmeter*; *Elements of Electronics*; *How to Use and Enjoy Your Tape Recorder*; and *Practical Radio*. Called the 103 Series, the library will consist of 103 books when it is completed. The books are priced at \$1.25 each.

Technical Review No. 166, a 24-page publication available from B&K Instruments, Inc., 5111 W. 164 St., Cleveland, Ohio 44142, contains a 7-page paper on "Windscreening of Outdoor Microphones" by Fred Skode, and a 7-page paper on "A New Artificial Mouth" by Peter Wilhjelm. The booklet also has a section called Brief Communications which contains items covering the practical aspects of the use of B&K instruments.

Motion Pictures: An Indispensable Aid to Industry, a 14-page illustrated booklet available from Paillard Inc., 1900 Lower Rd., Linden, N.J. 07036, is one of a series of reprints from *Bolex Reporter Magazine*. The booklet includes brief articles on Manufacturing Methods; Industrial Photographic Unit; Product Demonstration; the Bolex H16 Rex; Applications and Techniques; Sales Training; Visual Information; Sales Promotion; Sound Production; Security; and Agricultural Research.

The 1966 Optical Industry and Systems Directory (12th ed.) is available from Opti-

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cal Publishing Co., 7 North St., Pittsfield, Mass. 01201. It is priced at \$15.50. The Directory lists about 1200 United States firms dealing with technical optics. The publishers point out that while the number of firms has not changed significantly during the last few years, there have been a great number of corporate changes. They believe that a significant trend is indicated by the number of giant corporations that have recently acquired optical departments, usually by absorption of small optical companies. In addition to up-to-date information the Directory's format has been revised to include as far as possible the function of each company relative to a given product. The new Directory contains 548 pages.

Industrial Motion Pictures is an Eastman Kodak booklet designed especially for producers of in-house films for business, industry, education and religion. It discusses procedures and techniques for making good-quality service-type motion pictures in a straightforward and relatively inexpensive manner. Some of the areas covered include preparation for making pictures; equipment and procedures for shooting; pictorial continuity; lighting; special camera effects and techniques; editing; titling; sound and industrial applications. The booklet is available from Motion Picture and Education Markets Div., Eastman Kodak Co., Rochester, N.Y. 14650. It is priced at \$1.00.

Electronic shutters, lenses and other photographic equipments are listed in Supplement No. 4 to the 68th Annual Catalog available from Burke and James Inc., 333 W. Lake St., Chicago, Ill. 60606. The shutters feature a battery-energized system of capacitors to enable repeated exposures from 32 s to 1/200 s.

The Mighty Mite xenon arc system is described in a brochure available from Strong Electric Corp., 456 City Park Ave., Toledo, Ohio 43601. The new system is designed to maintain steady color uniformity and daylight white light (6,000 K). It is produced in three wattages, 450, 900 and 1,600.

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