

## BOOK REVIEWS

### *Father of Radio:*

#### *The Autobiography of Lee de Forest*

Published (1951) by Wilcox & Follett, 1255 South Wabash Ave., Chicago 5. 502 pp. Appendix and Index. Illus. Price \$5.00.

Dipping his pen in a concentrated mixture of emotion and pride, Lee de Forest takes the reader across his years from childhood to today—rarely inhibited and often with a chip on his shoulder, resenting fate and contemporaries. There is no bashfulness in his title "Father of Radio," or in his array of numbered claims of "firsts," including: "1. World's first wireless transmission overland—1904. . . . 4. World's first broadcast—1907. . . . 5. World's first transmission of voices without wires. . . . 8. World's first successful telephone amplifier—1912. . . . 14. World's first theatrical presentation of sound-on-film talking motion picture—1923." The jacket proclamation tends to assert that the world would not have been the same without him and points to the "electron tube," meaning the Audion, declaring the debt of radio, phonograph, talking pictures, television, radar, the cyclotron, the guided missile," etc. "Even atomic bombs would be impossible without it."

Dr. de Forest's account of himself is extraordinarily subjective, even for an inventor's book about himself. The volume is curiously interlarded with the sweet dolor of his loves and marriages, and here and there bursts into poesy. You are liable to fall out of the laboratory into the moonlight as you turn a page and there is in addition an appendix, pages 469 to 476, entirely devoted to his odes and vesper songs.

Another appendix section presents extracts from his paper read before The Franklin Institute in 1920 to relate the evolution of the Audion, which is appropriate enough as bearing on Dr. de Forest's best known contribution. This reviewer thinks it could have been fuller.

Dr. de Forest traces the Audion's ancestry back to his quest for a detector for wireless signals. He explored their possible effects on heated gas from such

sources as the incandescent mantle lamp and the Bunsen burner, to no avail. Then he came upon a notion about the incandescent filament electric lamp. In the paper, he lightly and swiftly passes over a possibly highly basic fact with: "I was familiar with the Edison effect and many of the investigations thereof carried on by scientists."

That "Edison effect" can do with a bit more attention. In the early years of the incandescent light, Edison sought to double the life of the fragile lamp by making it with a spare filament, which could be cut into circuit when the first burned out. He found that there was an unexpected electrical potential generated in the idle spare filament when the first was in service. In fact he set William Kennedy Laurie Dickson, he of mixed and unhappy later fame in motion picture matters, to work exploring the subject and filling a notebook with data. There was too much to explore and do in those fecund and often troubled days and the "Edison effect" went into the future file, where it was to repose.

That for the reference to the "Edison effect," in the appendix. Now turning forward into the narrative, page 213, says Dr. de Forest: "Repeated failure with our own crude instruments and skill finally induced me in 1905 to follow Babs' advice to lay the problem of constructing an incandescent lamp containing a carbon filament and a small platinum plate . . . in the lap of a manufacturer of miniature lamps . . ."

Now to identify this helpful "Babs" one turns farther forward to page 151 of the narrative and finds: "At this stage (1902-03) I hired a queer looking, hawk-nosed inventive individual endowed with an encyclopedic memory by the name of Clifford D. Babcock. He had a wide experience with various inventors, Edison among others . . ."

This adds up, not to any animadversion on the origin of the Audion, but to observe that organization of the facts could have been improved. Sometimes Dr. de Forest is more poet than scientist.  
—TERRY RAMSAYE, New Canaan, Conn.

***American Standard Abbreviations for Use on Drawings, Z32.13-1950***

Published (1950) by the American Standards Association, 70 E. 45th St., New York 17. 32 pp. 8½ × 11 in. Paper bound. Price \$1.00.

This newly revised edition has profited from the several years field experience of its predecessor which was published in 1946. As stated in the foreword to the 1950 edition, "primary consideration was first given to suggested changes and additions volunteered by users of the standard." The new standard contains well over 2000 abbreviations selected for use on drawings where space and drafting time are considerations. These abbreviations are not intended for use in text matter or equations.

The abbreviations listed are, on the whole, for specialized terms that would in many cases be known and understood only by specialists in each of the various technical fields covered. This standard, therefore, would be of considerable help to anyone required to read or prepare drawings in a field other than his specialty. Motion picture and television engineers, for example, would have little difficulty in recognizing abbreviations such as MC, TV or UHF. If they strayed into other technical fields, however, they would certainly require the assistance of the Standard for such as APCI or NP.

Abbreviations in the electronics and television fields are extensive, but those relating to the motion picture field are scant. PROJ, for example, stands for project or projectile but not projector or projection. No abbreviations are given for camera, motion picture or angstrom. Also in the realm of constructive criticism, the section of the standard entitled "A Partial List of Engineering Societies and Industrial Associations" would benefit by including the Society of Motion Picture and Television Engineers (SMPTE) and by showing the revised name of the Radio and Television Manufacturers Association (RTMA). The standard, however, is an ever-growing compilation and this edition should be recognized for the excellent coverage it has given to so many varied and complex fields.—CHARLES A. MEYER, Tube Department, Radio Corporation of America, Harrison, N.J.

***The Use of Mobile Cinema and Radio Vans in Fundamental Education***

Published (1949) by the United Nations Educational, Scientific and Cultural Organization (UNESCO), Publication No. 582. Distribution agent in the U.S.A., Columbia University Press, 2960 Broadway, New York 27. 164 pp. 26 pp. photos and diagrams. 5¼ × 8½ in. Paper cover. Price \$1.00.

Mobile projection trucks (or vans) have been used only to a slight extent in the United States, for there is hardly a town or community in the settled portions of this country that does not either own its own sound-on-film and slide projector or have access to one. There are, however, some districts—for instance in the Appalachian highlands, the far South and the desert areas of the western states—where complete projection facilities, including power supply and living quarters, might fill a need. This book is of special interest for those who may want to bring educational films to people to whom more permanent facilities are not available.

*The Use of Mobile Cinema and Radio Vans in Fundamental Education* was prepared for UNESCO by the Film Center in London. It describes traveling radio and motion picture exhibition units and outlines the history and use of such units in Great Britain and the colonies, Canada, Russia and other countries. In these places the mobile units are under the education, public health or information departments of the governments.

Complete data are given for the building and furnishing of a truck with 16-mm motion picture, slide film, radio receiving and public address equipment. Included are details of such features as shock mounting, tropical treatment, stowage and living quarters for the crew.

One interesting application was the rebuilding of an army "duck," complete with power and living quarters, in order to show educational motion pictures to residents on the rivers in India.

There is a wealth of information in the appendixes. References, bibliography, equipment specifications, training courses, diagrams and excellent photographs complete the book.—WILLIAM K. AUGHENBAUGH, Radio Station WLW-T, The Crosley Broadcasting Corp., Cincinnati.

***Proceedings of the Speech Communication Conference at M.I.T.***

These *Proceedings* were published as a unit of 116 pp. which is part of the *Journal of the Acoustical Society of America*, vol. 22, no. 6, Nov. 1950. The following twenty-four papers were presented at this conference held May 31-June 3, 1950, at Massachusetts Institute of Technology, under the joint auspices of the Acoustical Society of America, the Carnegie Project on Scientific Aids to Learning at M.I.T., and the Psycho-Acoustic Laboratory at Harvard University:

- Introduction: A Definition of Communication, S. S. Stevens, Psycho-Acoustic Laboratory, Harvard University, Cambridge, Mass.
- The Information Theory Point of View in Speech Communication, R. M. Fano, Research Laboratory of Electronics, M.I.T., Cambridge, Mass.
- Speech, Language, and Learning, Norbert Wiener, M.I.T., Cambridge, Mass.
- Typology of Languages, Paul Menzerath, Phonetic Institute, Bonn University, Germany
- Description of Language Design, Martin Joos, University of Wisconsin, Madison, Wisconsin
- The Relation of Phonetics and Linguistics to Communication Theory, Oliver H. Straus, Research Laboratory of Electronics, M.I.T., Cambridge, Mass.
- Speech and Language, John Lotz, Columbia University, New York, N.Y.
- Pathology in Speech Communication, Ira J. Hirsh, Psycho-Acoustic Laboratory, Harvard University, Cambridge, Mass.
- Language Engineering, George A. Miller, Psycho-Acoustic Laboratory, Harvard University, Cambridge, Mass.
- Communication Patterns in Task-Oriented Groups, Alex Bavelas, Research Laboratory of Electronics, M.I.T., Cambridge, Mass.
- Sonograph and Sound Mechanics, Jean Dreyfus-Graf, Geneva, Switzerland
- The Calculation of Vowel Resonances, and an Electrical Vocal Tract, H. K. Dunn, Bell Telephone Laboratories, Inc., Murray Hill, N.J.
- An Apparatus for Speech Compression and Expansion and for Replaying Visible Speech Records, F. Vilbig, Air Force Cambridge Research Laboratories, Cambridge, Mass.
- Spectrum Analysis, Franklin S. Cooper, Haskins Laboratories, New York, N.Y.
- Correlation Function Analysis, L. G. Kraft, Research Laboratory of Electronics, M.I.T., Cambridge, Mass.
- System-Function Analysis of Speech Sounds, W. H. Huggins, Air Force Cambridge Research Laboratories, Cambridge, Mass.
- Portrayal of Some Elementary Statistics of Speech Sounds, S. H. Chang, Electronic Research Project, Northeastern University, Boston, Mass.
- Autocorrelation Analysis of Speech Sounds, K. N. Stevens, M.I.T., Cambridge, Mass.
- Theory of Operation of the Cochlea: A Contribution to the Hydrodynamics of the Cochlea, O. F. Ranke, Physiologisches Institut, University of Erlangen, Germany, U.S. Zone
- Theory of the Acoustical Action of the Cochlea, J. Zwislocki, University Clinic for Ear, Nose and Throat, Basel, Switzerland
- Neurophysiology of the Auditory System, Robert Galambos, Psycho-Acoustic Laboratory, Harvard University, Cambridge, Mass.
- Auditory Masking and Fatigue, Walter A. Rosenblith, Psycho-Acoustic Laboratory, Harvard University, Cambridge, Mass.
- Binaural Localization and Masking, W. E. Kock, Bell Telephone Laboratories, Inc., Murray Hill, N.J.
- Reversed Speech and Repetition Systems as Means of Phonetic Research, W. Meyer-Eppler, Phonetisches Institut der Universität, Bonn, Germany

Single copies of this *Journal* are available at \$2.00 each from the American Institute of Physics, 57 E. 55th St., New York 22.

**Dictionary of Color**  
**New Second Edition**

By A. Maerz and M. R. Paul. Published (1950) by McGraw-Hill, 330 W. 42d St., New York 18. 208 pp. 8¾ × 11¼ in. Price, \$25.00.

From inspection of the sample sheet sent out with literature advertising the second edition of this standard color names dictionary, it would seem that the job of reproducing the first edition has been a good one. Over seven thousand samples appear in the book, with color names keyed to samples matching (for the first edition) a wide series of color names taken from several sources to represent standard usage in many fields. In the second edition many names have been added, including those for the 9th edition of the *Standard Color Card* of the Textile Color Card Association of the United States, and those sponsored by *House and Garden*. Because newly developed pigments were used in this edition with a resulting "improvement of depth, purity, and brilliance of many of the colors, with small shifting of match in some cases" it is advised by the publishers that the edition of the book be stated when exact match or reference is desired. Eight groups of hue ranges are shown in plates of 144 or 72 blocks to a page, each group consisting of several pages which extend from the purest colors, through successive pages for darker, grayer colors until they reach near-blacks. The Maerz & Paul dictionary provides a large assortment of color samples at a very reasonable price. It has proved a standard reference work for color names since its original publication in 1930. The second edition should continue to fill the need for this type of color reference work.—DOROTHY NICKERSON, Cotton Branch, PMA, United States Department of Agriculture, Washington 25, D.C.

**Descriptive Color Names Dictionary**

Edited by Helen D. Taylor, Lucille Knoche and Walter C. Granville. Published (1950) by Container Corporation of America, 122 E. 42d St., New York 17. 60 pp. Price \$2.00.

This 60-page dictionary of color names used in mass-market merchandising, such as in the mail-order field, describes current work in the color names field. Both Mrs. Taylor and Miss Knoche have been collecting information and keying color names to materials actually used by large mail-order houses such as Sears Roebuck and Montgomery Ward, for many years. In this dictionary they have keyed the names to samples in the third edition of the *Color Harmony Manual*, published last year by the Container Corporation. While the book is intended as a supplement to the *Color Harmony Manual*, nevertheless it should be useful for general color names work, particularly when ICI and Munsell specifications are published for the samples of the *Manual*. Because the work has been done by persons so close to mass-market merchandising use, it should carry considerable authority. Publication of colorimetric data on the samples to which the names are keyed is promised by Mr. Granville for the near future. While some of the names overlap, so that several names may apply to the same sample, for other samples in the *Manual* no mass-market names are in use. The publication should be very useful to all interested in color names; it is a must for those who own the *Manual*.—DOROTHY NICKERSON, Cotton Branch, PMA, United States Department of Agriculture, Washington 25, D.C.

**Journals Out of Stock:** The Society's stock of JOURNAL issues for March, Part II, July, August, September, 1949, and February, 1950, has been exhausted as a result of an unexpected increase in demand and the Society's Headquarters is anxious to purchase a stock of each. Members or libraries having extra copies available are invited to send them in. The going price is 75c.

**SMPTE Officers and Committees:** The roster of Society Officers and the Committee Chairmen and Members were published in the April JOURNAL.