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U.S. DEPARTMENT OF COMMERCE NATIONAL BUREAU OF STANDARDS WASHINGTON 25, D. C.

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SOURCES OF RADIO INFORMATION



U. S. DEPARTMENT OF COMMERCE NATIONAL BUREAU OF STANDARDS WASHINGTON Letter Circular LC-916 (Supersedes LC-850)

### September 15, 1948

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## 1. U.S. Government Radio Publications

The papers on radio subjects issued by the National Bureau of Standards are published either by the Government Printing Office or in various periodicals. Most of them are of interest primarily to the radio engineer or scientist. A list of the Bureau's current radio publications can be secured by addressing a request to National Bureau of Standards, Washington 25, D. C. News of the Bureau's radio work, and announcements of new publications are given in the "Technical News Bulletin", issued monthly and available from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., for \$1.00 a year (to addresses in the United States and its possessions and to countries extending the franking privilege); other countries \$1.35. The publications of the National Bureau of Standards cover many subjects, including, besides radio, electricity, light, sound, heat, chemistry, metallurgy, engineering materials, standards of weight and measure, and many other scientific and technical subjects.

"Basic Radio Propagation Predictions" is a monthly publication for those concerned with radio communication in determining the best sky-wave frequencies over any path at any time of day for average conditions for the month of prediction, which are made three months in advance. Charts of extraordinary-wave critical frequency for the F2 layer and of maximum usable frequency for a transmission distance of 4,000 km, of highest frequency of sporadic-E in excess of 15 Mc are included. In addition, there are various maps, charts, diagrams, and nomograms needed to make practical application of the world-wide charts, together with examples of their use. These predictions are available from the Superintendent of Documents, Government Printing Office, Washington 25, D.C., for \$1.00 a year (to addresses in the United States and its possessions and to countries extending the franking privilege); other countries \$1.25.

The laws and regulations governing radio are given in publications listed in Section 2 below.

International actions on radio, not having the force of law but used as a guide in national regulations and practice, are the Opinions of the International Consulting Committee. Those in force are given in two publications: "International Radio Consulting Committee, Lisbon 1934, Report of the Delegation of the U.S.A." (State Department Publication 827, Conference Series 21), price 50 cents; and "International Radio Consulting Committee, Bucharest 1937, Report of the Delegation of the U.S.A." (State Department Publication 1352, Conference Series 41), price 35 cents; both obtainable from Superintendent of Documents, Government Printing Office, Washington, D.C.

The radio laws of the United States are given in "The Communications Act of 1934 with amendments and indexes thereto, revised to Mar. 6, 1943," price 15 cents; and "Radio Laws of the United States, Compiled by Elmer A. Lewis, 1939", price 10 cents: both obtainable from Superintendent of Documents, Government Printing Office, Washington, D.C.

The regulations issued by the Federal Communications Commission are published in the Federal Register, a daily publication obtainable from the Superintendent of Documents, Government Printing Office, at \$10 per year. These regulations are compiled in a series of pamphlets called "Federal Communications Commission Rules and Regulations", obtainable from the Superintendent of Documents, Government Printing Office. Those dealing with radio are listed here, with prices.

Part 1 - Rules of practice and procedure. 10%.

Part 2 - General rules and regulations. 10¢.

Part 3 - Rules governing standard broadcast stations. 10¢.

Part 4 - Rules governing broadcast services other than standard broadcast. 104.

Part 5 - Rules and regulations governing experimental radio services. 5¢.

Part 6 - Rules governing fixed public radio services. 56.

Part 7 - Bules governing coastal and marine relay services. 5¢.

Part 8 - Rules governing ship service. 15¢.

Part 9 - Rules and regulations governing aviation services. 5¢.

Part 10- Rules governing emergency radio services. 10¢.

Part 11- Rules governing miscellaneous radio services. 5¢.

Part 12- Rules governing amateur radio: Stations and operators. 10¢.

Part 13- Rules governing commercial radio operators. 5¢.

Part 14- Rules governing radio stations in Alaska other than amateur and broadcast. 56.

Of interest are the following publications, also obtainable from the Government Printing Office:

Standards of good engineering practice concerning standard broadcast stations (550-1600 kc). Revised to July 20, 1940. 30¢.

Study guide and reference material for commercial radio operator examinations.  $15\phi$ .

Of interest are the following publications, also obtainable from the Government Printing Office:

- Standards of good engineering practice concerning standard broadcast stations (550-1600 kc). Revised to June 1, 1944. 65¢
- Standards of good engineering practice concerning FM broadcast stations. Revised to January 9, 1946. 10¢
- Standards of good engineering practice concerning television broadcast stations. Revised to December 19, 1945. 10¢
- Study guide and reference material for commercial radio operator examinations. 154

Safety Regulations. - All ordinary precautions required for the safe operation of any electrical equipment should be observed in every radio station; for example, all high-voltage wiring should be carefully insulated and kept as far as possible from other wiring and so placed as to minimize the possibility that persons may come in contact with it, and suitable danger tags should be displayed.

Insurance companies and city governments make certain requirements regarding electrical installations in buildings, radio antennas, etc. The usual requirements are summarized in a small book, the National Electrical Code, which may be obtained for five cents from the National Board of Fire Underwriters, 85 John Street, New York, N.Y.

Standard rules for safety procedure are given in the National Electrical Safety Code. The rules applicable to radio are given in "Safety Rules for Radio Installations," National Bureau of Standards Handbook H35 (1939), which may be obtained for ten cents from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

# 3. Periodicals

The following is a partial list of periodicals largely devoted to radio. They are monthly, except where otherwise stated. A number of electrical and general magazines also publish considerable radio information.

A classified list of the articles of radio engineering interest appearing in periodicals is published each month in the Wireless Engineer, a British magazine listed below. A short abstract of each article is given.

Information on Government radio publications is given in Sections 1 and 2 above.

#### a. American Periodicals

- Bell System Technical Journal. Published by American Telephone and Telegraph Co., 195 Broadway, New York, N.Y. (Technical). (Quarterly).
- Bibliography of Scientific & Industrial Reports. Office of Technical Services, Department of Commerce, Washington, D.C. \$10.00 per year. (Technical). (Weekly).
- Communications. Bryan Davis Publishing Co., Inc., 19 E. 47th St., New York, N.Y. (Technical).
- CQ. Radio Magazines Inc., 342 Madison Ave., New York 17, N.Y.
- Electrical Communication. International Standard Electric Corp., 67 Broad Street, New York, N.Y. (Technical).
- Electronic Industries and Instrumentation (formerly Electronic Industries).

  Published by Caldwell-Clements, Inc., 480 Lexington Ave., New York 17,

  N.Y. (Technical).
- Electronics. McGraw-Hill Publishing Co., Inc., 330 W. 42nd St., New York, N.Y. (Technical).
- General Radio Experimenter. Published by General Radio Co., 30 State St., Cambridge, Mass. (Trade, technical).
- FM and Television. FM Go., 240 Madison Ave., New York, N.Y. (Technical).
- Proceedings of the Institute of Radio Engineers, 1 Last 79th St., New York 21, N.Y. (Technical).
- QST. Published by American Radio Relay League, West Hartford, Conn. (Technical).
- Radio-Craft. Radcraft Publications, Inc., 25 W. Broadway, New York, N.Y. (Semitechnical).
- Radio News. Ziff-Davis Publishing Co., 540 N. Michigan Ave., Chicago 11, Ill. (Semitechnical).
- Radio and Television Retailing. Caldwell-Clements Inc., 480 Lexington Ave., New York 17, N.Y. (Trade).
- Tele-Tek (formerly Electronics Industries). Caldwell-Clements, Inc., 480 Lexington Ave., New York 17, N.Y. (Technical).

#### b. Foreign Periodicals

Alta Frequenza. Associazione Elettrotecnica Italiana, Milano (2/2), Via San Paulo, NIO. (Technical - in Italian).

- Bulletin de la Societe Française Radio-Electrique. 55 Rue Greffulhe, Levallois-Perret (Seine). (Technical - in French).
- Institution of Electrical Engineers, Proc. Wireless Section (British); Chemical Pub. Co. of N.Y., Inc., 148 Lafayette St., New York, N. Y. (Technical).
- L'Onde Electrique. Published by E. Chiron, 40 rue de Seine, Paris, France. (Technical = in French).
- Wireless Engineer. Published by Iliffe & Sons, Ltd., Dorset House, Stamford St., London, S.E. 1, England. (Technical).
- Wireless World. Fublished by Iliffe & Sons, Ltd., Dorset House, Stamford St., London, S.E. 1, England. (Semitechnical).

#### 4. Books

This list comprises many of the books published on the various phases of radio. Under each subject the books are in chronological order. As a matter of convenience, the prices of some of these books are given, but this information may not be up to date.

The following is a list of the publishers and their addresses for the books given below:

Algemeene en Technische Boekhandel, 28 Prins Leopold Str., Borgerhont, Antwerp, Belgium D. appleton-Century Co., Inc., New York, N.Y. Allied Radio Corp., 833 W. Jackson Blvd., Chicago, Ill. Air Associates, Inc., Garden City, L.I., N.Y. Addison & Co., Inc., Madras, India American Radio Relay League, 38 La Salle Rd., W. Hartford, Conn. P. Blakiston's Sons & Co., Inc., 1012 Walnut St., Phila., Pa. British Information Services, 30 Rockefeller Plaza, New York, N.Y. Bureau de l'Union Internationale des Telecommunications, Berne, Switzerland Chapman & Hall, Ltd., London, England Collett's Fereign Department, 30 Gerrard St., London Wl, England Columbia University Press, New York, N.Y. Cornell-Dubilier Elec. Corp., South Plainfield, N.J. Culbertson, 3608 Angelus Ave., Glendale, Calif. A.B. DuMont Laboratories Inc., 2 Main Street, Passaic, N.J. Editors & Engincers, 1313 Kenwood Rd., Santa Barbara, Calif. J.W. Edwards, Ann Arbor, Michigan Electronics Research Publishing Co., New York, N.Y. FM & Television, 511 Fifth Ave., New York, N.Y. Federal Tel. & Radio Corp., 100 Kingsland Ave., Clifton, N.J. General Electric Co., Schenectady, N.Y.

Gold Shield Products, 350 Greenwich St., New York, N.Y. Harper Bros., 49 E. 33rd Street, New York, N.Y. Illiffe & Sons, Ltd., Porset House, Stamford Street, London SEI, England Institute of Radio Engineers, 1 East 79th Street, New York, N.Y. The Instruments Publishing Co., Pittsburgh, Pa. General Secretary, International Electrotechnical Commission, 28 Victoria Street., Westminister, London SWI, England Lafayette Radio Corp., 901 W. Jackson Blvd., Chicago 7, Ill. Longsmans, Green & Co., New York, N.Y. J.B. Lippincott, 227 So. 6th St., Phila., Pa. MacMillan & Co., Ltd., London, England MacMillan Co., 60 Fifth Ave., New York, N.Y. McGraw-Hill Book Co., 330 W. 42nd St., New York, N.Y. Methuen & Co., Ltd., London, England Wayne Miller, The Engineering Bldg., Chicago, Ill. Murray Hill Books Inc., 232 Madison Ave., New York 16, N.Y. National Electronics Conference, Chicago, Ill. U.S. Naval Institute, Annapolis, Md. New York Chemical Publishing Co., New York, N.Y. Oxford University Press, Amen House, Warwick Square, London EC4, England Sir. I. Pitman & Sons Ltd., London, England Pitman Publishing Co., New York, N.Y. Prontice-Hall Inc., 70-Fifth Ave., New York, N.Y. Radgraft Publications, Inc., 99 Hudson Street, New York, N.Y. Radio Ltd., 1300 Kenwood Rd., Santa Barbara, Calif. Radio & Technical Publishing Co., 45 Astor Pl., New York 3, N.Y. Radio Treatise Co., Inc., 404 Fourth Ave., New York, N.Y. RCA Institute's Technical Press, 75 Varick St., New York, N.Y. J.F. Rider Publishing Co., 404 Fourth Ave., New York, N.Y. Ronald Press, New York, N.Y. Supreme Publications, 328 South Jefferson St., Chicago 6, Ill. Sherwood Press, 552 Edgewater Branch, Cleveland, Ohio J. Springer, write Stechert & Hafner, 3130 E 10th St., New York, N.Y. C.C. Thomas, Springfield, Ill. D. Van Nostrand Co., 250 Fourth ave., New York 3, N.Y. John Wiley & Sons, 440 Fourth Ave., New York, N.Y. William Wood & Co., Inc., Baltimore, Md. Wireless & Television Review, Cobbs Court, Broadway, London, EC4, England Wireless Press Inc., 326 Broadway, New York, N.Y.

The sources of Government publications on radio are described in Sections 1 and 2 above.

# a. Books on Radio Principles

Frinciples of wireless telegraphy. G.W. Pierce. 1910. McGraw-Hill Book Co.

Wireless telegraphy. J. Zenneck. Translation by A.E. Seelig. 1915. lst ed. McGraw-Hill Book Co.

- Principles underlying radio communication. 2nd ed. 1922. Signal Corps Radio Communication Pamphlet No. 40. Obtainable from the Superintendent of Documents, Government Printing Office, Washington, D. C. \$1.00.
- Robison's manual of radio telegraphy and telephony. 1927. United States Naval Institute.
- Propagation of wireless waves. P. Pedersen. 1927. Vimmelskaftet, Copenhage, Denmark.
- Radio engineering principles. Lauer & Brown. 2nd ed. 1927. McGraw-Hill Book Co. \$3.50.
- Wireless principles and practice. L.S. Palmer. 1928. Longmans, Green & Co.
- Radiotelegraphy and telephony. Duncan & Drew. 2nd ed. 1931. John Wiley & Sons. \$8.50.
- Foundations of radio. R.L. Duncan. 1931. John Wiley & Sons. \$2.50.
- Experimental radio engineering. J.H. Morecroft. 1931. John Wiley & Sons. \$3.50.
- The radio handbook. J.A. Moyer and J.F. Wostrel. 1931. John Wiley & Sons. \$3.50.
- Radio elementary principles. E.E. Burns. 1932. D. Van Nostrand Co. \$2.00.
- Elementary principles of wireless telegraphy. R.D. Bangay. Revised by O.F. Brown. 1933. Iliffe & Sons, Ltd.
- Principles of radio communication. J.H. Morecroft. 1933. 3d ed. John Wiley & Sons. \$8.50.
- Elements of radio communication. J.H. Morecroft. 2nd edition. 1934. John Wiley & Sons. \$3.25.
- The book of practical radio. John Scott-Taggart. 1935. Wireless and Talevision Review.
- Phenomena in high-frequency systems. A. Hund. 1935. McGraw-Hill Book Co. \$6.00.
- The fundamentals of radio. R.R. Ramsey. 2nd ed. 1935. Bloomington, Ind. \$3.50.
- Principles of radio engineering. R.S. Glasgow. 1936. McGraw-Hill Book Co. \$4.00.

- Communication engineering. W.L. Everitt, 2nd ed. 1937. McGraw-Hill Book Co. \$5.00.
- Modern radio communication. J.H. Reyner. 2 volumes. 1938. Pitman Publishing Co.
- The radio manual. G.E. Sterling. 1938. 3d ed. D. Van Nostrand Co. \$6.00.
- Experimental radio. 4th ed. 1938. R.R. Ramsey. Bloomington, Ind. \$2.75.
- High-frequency alternating currents. K. McIlwain and J.G. Brainerd. John Wiley & Sons. \$6.00.
- Electrical Communication. A.L. Albert. 2nd ed. 1940. John Wiley & Sons. \$5.50.
- Understanding radio. H.M. Watson and G.S. Eby. 1941. McGraw-Hill Book Co. \$2.80.
- Experimental radio engineering. E.T.A. Rapson and E.G. Ackermann. 1941. Sir Isaac Pitnans.
- Radio engineering handbook. K. Henney. 3d ed. 1941. McGraw-Hill Book Co. \$5.00.
- Electromagnetic theory. J.A. Stratton. 1941. McGraw-Hill Book Co. \$6.00.
- Electric communication and electronics (Electrical Engineer's Handbook). 3d ad. revised. H. Pender and K. McIlwaine. 1942. John Wiley & Gans. \$6.00.
- Practical radio communication. A.R. Nilson and J.L. Horning. 2nd ed. 1942. McGraw-Hill Book Co. \$6.00.
- Basic radio. J.B. Hoag. 1942. D. Van Nostrand Co. \$3.25.
- The electrical fundamentals of communications. A.L. Albert. 1942. McGraw-Hill Book Co. \$3.50.
- Fundamentals of radio. W.L. Everitt, E.C. Jordan, P.H. Nelson, W.C. Osterbrook, F.H. Pumphrey, etc. 1942. Prentice Hall Inc. \$5.00
- a course in radio fundamentals. G. Grammer. 1943. American Radio Belay League.  $50\phi$ .
- Radio Engineer's Handbook. F.E. Terman. 1943. McGraw-Hill Book Co. \$7.00.

- Electromagnetic waves. S.A. Schelkunoff. 1943. D. Van Nostrand Co. \$7.50.
- Elements of radio. 2 volumes. A. Marcusand Wm. Marcus. 1943. Prentice-Hall. \$4.00.
- Laboratory manuals for fundamentals of radio. C.W. Caldwell. 2 books. 1943. Obtainable Lafayette Radio Corp. \$1.35 each.
- Ghirardi s radio physics course. 1943. A.A. Ghirardi. Radio & Technical Publishing Co. \$5.00.
- Radio materiel guide. F.E. Olmstead and F.R.L. Tuthill. 1943. McGraw-Hill Book Co. \$2.00.
- Pre-service course in radio. Vin Zeluff and John Painting. 1943. John Wiley & Sons. \$2.50.
- Practical radio for war training 1943. Supreme Publications. \$2.95.
- "ABC of Radio". 1943. Electronics Department, General Electric Co., 25¢.
- First principles of radio communication. 1943. A. Morgan. D. Appleton-Century Co. \$3.00.
- Experiments in electronics and communication engineering. E.H. Schulz and L.T. Anderson. Illinois Inst. of Technology. 1943. Harper Bros. \$3.00.
- Fundamental radio experiments. R.C. Higgy. 1943. John Wiley & Sons. \$2.00.
- The technique of radio design. E.F. Zepler. 1943. John Wiley & Sons. \$4.00.
- Fundamentals of radio communication. 1944. A.R. Frey. Longmans, Green & Co. \$4.00.
- Physics and radio. M. Nelkon. 1944. E. Arnold & Co., Ltd.
- Radio fundamental principles and practices. F.E. Almstead, K.E. Davis, G.K. Stone. 1944. McGraw-Hill Book Co. New York, N.Y. \$1.80.
- Basic radic. C.L. Boltz. 1944. Ronald Press Co. \$2.25.
- Fields and waves in modern radio. S. Ramo and J.R. Whinnery. 1944. John Wiley & Sons. \$5.50.
- Radio Waves and the ionosphere. 1944. T.W. Bennington. Iliffe & Sons.

- Communication circuits. L.A. Ware and H.R. Reed. 2nd ed. 1944. John Wiley & Sons. \$3.75.
- Introduction to practical radio. D.J. Tucker. 1945. MacMillan Co. \$3.00.
- Electromagnetic engineering. Vol. 1. 1945. R.W.P. King. McGraw-Hill Book Co. \$6.00.
- Principles of radio. Keith Henney. 5th ed. 1945. John Wiley & Sons. \$3.75.
- Elementary electric circuit theory. R.H. Frazier. 1946. McGraw-Hill Book Co. \$4.00.
- Introduction to electronics. R.G. Hudson. 1946. MacMillan Co. \$3.00.
- Wave propagation in periodic structures, electric filters and crystal lattices. L. Brillouin. 1946. McGraw-Hill Book Co. \$4.00.
- Electronic Engineering Principles. J.D. Ryder. 1947. Prentice-Hall. \$6.65.
- Essentials of Radio. M. Slurzberg and W. Osterheld. 1948. McGraw-Hill Book Co. \$5.00.
- Fundamentals of Electric Waves. H.H. Skilling. 2nd ed. 1948. John Wiley & Sons.
- Elementary manual of radio propagation. D.H. Menzel. 1948. Prentice-Hall, Inc. \$7.85.
- Radio engineering. F.E. Terman. 3rd ed. 1947. McGraw-Hill Book Co. \$7.00.
- Radio receiver design. K.R. Sturley. 1946. Part I -R.F. amplification and detection. 4th printing. Part II A.F. amplification, television, and FM receiver design. 1948. John Wiley & Sons. \$5.50 each.
- b. Books on High Frequencies (Short Waves)
- Physik und Technik der Ultrakurzen Wellen. H.E. Hollman. 1st Band-Erzeugung ultrakurzwelliger Schwingungen. (Physics and Engineering Development of Ultra-Short Waves - Vol. 1 - Generation of ultrashort wave oscillations). J. Springer. 1936.
- Short wave radio. J.H. Reyner. 3rd ed. 1942. Pitman Publishing Co.

- Ultra-high frequency technique. J.G. Brainerd, G. Koehler, H.J. Reich, L.F. Woodruff. 1942. D. Van Nostrand Co. \$4.50.
- Hyper and ultra-high frequency engineering. R. Sarbacher and W. Edson. 1943. John Wiley & Sons. \$6.00.
- Ultra-high-frequency radio engineering. W.L. Emery. 1944. Macmillan Co.
- V.H.F. Radio simplified. 1945, M.S. Kiver. D. Van Nostrand Co. \$3.25.
- Short wave wireless communication. A.W. Ladner and C.R. Stoner. 4th ed. 1947. John Wiley & Sons. \$6.00.
- Ultra and sxtreme short wave reception, principles, operation and design. M.J.O. Strutt, (Philips Co., Ltd., Eindhoven) 1947. D. Van Nostrand Co. \$7.50.
- "Radio" handbook. 9th ed. 1948. Radio. \$2.50.
- The ARRL handbook. 1948. American Radio Relay League. \$2.00.
- Ultra-high-frequency transmission & radiation. Nathan Marchand John Wiley & Sons. \$4.50.
- Very high-frequency techniques. Staff of Radio Research Lab. Harvard Univ. Two volumes. McGraw-Hill Book Co. \$14.00.

#### c. Books on Microwaves

- Microwave transmission. J.C. Slater. 1942. McGraw-Hill Book Co. \$3.50.
- Introduction to microwaves. S. Ramo. 1945. McGraw-Hill Book Co. \$1.75.
- Understanding microwave transmission. V.J. Young. 1946. J.F. Rider Publishing Co. \$6.00.
- Theory and application of microwaves. A.B. Bronwell and R.E. Beam. 1947. McGraw-Hill Book Co. \$6.00.
- Microwave transmission design data. T. Moreno. 1948. McGraw-Hill Book Co. \$4.00.
- Microwave transmission circuits. G.L. Ragan. 1948. McGraw-Hill Book Co. \$8.50.

- Microwaves and radar electronics. E.C. Pollard and M.J.M. Sturtevant. 1948. John Wiley & Sons.
- Microwave receivers. S.N. Van Voorhis. McGraw-Hill Book Co. \$8.00.
- Principles of microwave circuits. C.G. Montgomery, R.H. Dicke and E.M. Purcell. McGraw-Hill Book Co. \$6.00.
- Microwave duplexers. L.D. Smullin and C.G. Montgomery. McGraw-Hill Book Co. \$6.50.
- Microwave mixers. R.V. Pound. McGraw-Hill Book Co. \$5.50.

#### d. Books on Radar

- Principles of radar. MIT Staff. 1946. McGraw-Hill Book Co. \$5.00
- Radar. O.E. Dunlap. 1946. Harper Bros. \$2.50.
- Radar engineering. D.G. Fink. 1947. McGraw-Hill Book Co. \$7.00.
- Radar system engineering. L.N. Ridenour. 1947. McGraw-Hill Book Co. \$7.50.
- Loran. J.A. Pierce, A.A. McKenzie and R.H. Woodward. McGraw-Hill Book Co. \$6.00.
- Radar beacons. Edited by Arthur Roberts. 1947. McGraw-Hill Book Co. \$6.00.
- Radar aids to navigation. J.S. Hall. McGraw-Hill Book Co. \$5.00.
- Radar scanners and radomes. W.M. Cady, M.B. Karelitz and L.A. Turner. 1948. McGraw Hill Book Co. \$7.00.

#### e. Books on R.F. Heating

- The medical applications of the short wave current. W. Bierman and M.M. Schwarzschild. 1938. William Wood & Co.
- Short wave diathermy. Tibor de Cholnoky. 1938, Columbia University Press. \$4.00.
- Technique of electrotherapy and its physiological basis. S.L. Osborne and H.J. Holmquist. 1944. Charles C. Thomas. \$7.50.
- Theory and application of R-F heating. G.H. Brown, C.N. Hoyler, and R.A. Bierwirth. 1947. D. Van Nostrand Co. \$6.50.

## f. Books on Radio Measurement

- Prepared radio measurements with self-computing charts. Ralph Batcher. 1921. Wireless Press.
- Radio-frequency measurements. E.B. Moullin. 2d ed. 1931. J.B. Lippincott.
- High-frequency measurements. A. Hund. 1933. McGraw-Hill Book Co. \$5.00.
- Measurements in radio engineering. F.E. Terman. 1935. McGraw-Hill Book Co. \$4.00.
- The measurement of inductance, capacitance, and frequency. A. Campbell and E.C. Childs. 1935. MacMillan & Co., Ltd.
- Alternating-current measurements at audio and radio frequencies. D. Owen. Methuen & Co., Ltd.
- Testing radio sets. 3d ed. 1937. Sherwood Press. \$4.50.
- Radio instruments and measurements. N.B.S. Circular 74. 1937.
  Reprint of book issued in 1924. Obtainable from Superintendent of Documents, Government Printing Office, Washington, D.C. 75 cents per copy.
- Standards on "Radio Receivers" and "Electroacoustics". 1938. 2 pamphlets. 50¢ each. Obtainable from Institute of Radio Engineers.
- Radio-frequency electrical measurements. H.A. Brown. 2d ed. 1938. McGraw-Hill Book Co. \$4.00.
- Radio-frequency measurements by bridge and resonance methods.

  L. Hartshorn. 1941. John Wiley & Sons. \$4.75.
- The inductance authority. E.M. Shiepe. 1942. Gold Shield Products. \$2.50.
- A.S.T.M. Standards on electrical insulating materials. American Standards Testing Materials Headquarters. 1942. \$2.25.
- A-c calculation charts. 1942. J.F. Rider. \$7.50.
- 3 pamphlets: Standards on "Radio wave propagation -- Definition of Terms", 20¢; "Standards on Radio wave propagation -- Measuring methods", 50¢; "Standards on Facsimile-Definitions of terms", 1942, 20¢. Obtainable from Institute of Radio Engineers.

- Radio data charts. R.T. Beatty. 1943. Iliffe & Sons, Ltd.
- Reference data for radio engineers. 2nd ed. 1946. Federal Tel. & Tel. Co. \$2.00.
- Inductance calculations. F.W. Grover. 1946. D. Van Nostrand Co. \$5.75.
- Electronic instruments. I.A. Greenwood, Jr., J.V. Holdam, Jr., and D. MacRae, Jr. McGraw-Hill Book Co. \$9.00.
- Technique of microwave measurements. C.G. Montgomery. McGraw-Hill Book Co. \$10.00.

#### g. Books on Vacuum Tubes

- The thermionic vacuum tube and its application. H.J. Van der Bijl. 1920. McGraw-Hill Book Co. \$5.00.
- Theory of thermionic vacuum tube circuits. L.J. Peters. 1927.

  McGraw-Hill Book Co.
- Electron tubes and their application. J.H. Morecroft. 1933. John Wiley & Sons. \$5.00. Out of print.
- Theory of thermionic vacuum tubes. E.L. Chaffee. 1933. McGraw-Hill Book Go. \$6.00.
- Electronics. R.G. Hudson, 1933. John Wiley & Sons. \$2.00.
- Electrons at work. C.R. Underhill. 1934. McGraw-Hill Book Co. \$3.00.
- The physics of electron tubes. L.R. Keller. 1934. McGraw-Hill Book Co. \$3.00.
- Thermionic emission. A.L. Reimann. 1934. John Wiley & Sons. \$5.50.
- Industrial electronics. F.H. Gulliksen & E.H. Vedder. 1935. John Wiley & Sons. \$4.00
- Electronics and electron tubes. E.D. McArthur. 1936. John Wiley & Sons. \$2.50.
- Radio receiving and television tubes. J.A. Moyer and J.T. Wostrel. 1936. 3d ed. \$4.00.
- Electron tubes in industry. E. Henney. 2nd ed. 1937. McGraw-Hill Book Co. \$5.00.

- Fundamentals of engineering electronics. W. Dow. 1937. John Wiley & Sons. \$5.50.
- Fundamentals of vacuum tubes. A.V. Mastman. 1937. McGraw-Hill Book Co. \$4.00.
- Theory and design of valve oscillators. H.A. Thomas. 1939. Chapman & Hall, Ltd.
- The oscillator at work. J.F. Rider. 1940. John F. Rider. \$1.50.
- Electronics. J. Millman and S. Seely. 1941. McGraw-Hill Book Co. \$5.00.
- The radiotron designer's handbook. 3d ed. 1941. F. Langford Smith. RCA Mfg. Co. \$1.00.
- Principles of electron tubes. H.J. Reich. 1942. McGraw-Hill Book Co. \$3.50.
- Principles of electronics. R.G. Kleeffler. 1942. John Wiley & Sons. \$2.75.
- Applied electronics. 1943. Electrical Engineering Staff of Mass. Inst. of Technology, Beston, Mass. John Wiley & Sons. \$6.50.
- High-frequency thermionic tubes. A.F. Harvey. 1943. John Wiley & Sons. \$3.50.
- Graphical constructions for vacuum tube circuits. A Preisman. 1943. McGraw-Hill Book Co. \$2.75.
- Electron-inertia effects. F.B. Llewellyn. 1944. The MacMillan Co. \$2.00.
- Theory and applications of electron tubes. H.J. Reich. 1944. McGraw-Hill Book Co. \$5.00.
- A primer of electronics. D.P. Coverly. McGraw-Hill Book Co. 1944. \$2.00.
- Proceedings of the National Electronics Conference. Vol. 1, 1945. Vol. II, 1946. National Electronics Conference. \$3.00 each.
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