RADIO PUBLICATIONS OF THE BUREAU OF STANDARDS.

The radio publications of the Bureau of Standards printed at the Government Printing Office can be secured by purchase from the Superintendent of Documents, Government Printing Office, Washington, D.C., at the prices stated in the following list. This list also includes references to articles emanating from this Bureau which have been published in outside periodicals. The Bureau can not supply copies of papers published in outside periodicals; inquiries for copies of such papers should be addressed directly to the periodical concerned. A list of Letter Circulars on radio subjects is also given herein; see section entitled "Letter Circulars" at end.

The Bureau does not maintain a mailing list for distribution of its radio publications as issued. Persons who wish to keep in touch with the radio publications of the Bureau as they are issued should subscribe to the "Radio Service Bulletin", published monthly by the Bureau of Navigation, Department of Commerce. Besides notices regarding new Government radio publications, the "Radio Service Bulletin" contains brief news items concerning Government radio work, additions and changes to the lists of radio calls and radio regulations, and other useful information. The Radio Service Bulletin also publishes each month a list of references to the more important radio articles appearing in the technical radio periodicals. These references are classified, and furnish a means of keeping in touch with the material appearing on a particular subject. Subscriptions should be sent to the Superintendent of Documents. The price is 25 cents per year for subscribers in the United States and its possessions, Canada, Cuba, and Mexico. To other countries the subscription price is 40 cents per year.

A complete list of the Bureau's past publications printed by the Government Printing Office on all subjects, with a brief abstract of each, is given in Circular No. 24, "Publications of the Bureau of Standards," which is obtainable on request from the Bureau. Current publications are announced in a series of card announcements. The Bureau will, upon request, place your name on a list to receive these announcements of its publications on all subjects.

The publications of the Bureau of Standards printed by the Government Printing Office are divided into five series: Scientific Papers, Technologic Papers, Circulars, Miscellaneous Publications, and Handbooks.

The Scientific Papers are published separately, and also in cloth-bound volumes. Scientific Papers Nos. 1 to 329 are included in volumes 1 to 14, which were called "Bulletin of the
Bureau of Standards.\textsuperscript{1} Volumes 15, 16 and 17, and subsequent volumes are called "Scientific Papers of the Bureau of Standards." Volume 15 includes Nos. 330-368, volume 16 includes Nos. 369-404, and volume 17 includes Nos. 405-436. The bound volumes can be procured only by purchase from the Superintendent of Documents. Volumes 1 to 14 cost $1.50 per volume, and later volumes cost $2.00 per volume. Subscriptions in advance for the separate unbound Scientific Papers constituting a volume, to be sent promptly as issued, may be placed with the Superintendent of Documents at the rate of $1.25 per volume. Advance subscriptions for unbound copies of the Technologic Papers may also be placed at the same rate. The earlier volumes (from vol. 1 to vol.14) were published in four paper-bound "Numbers" each, as well as in a complete cloth-bound volume, and "vol.10, No.4" means that the paper in question will be found in the paper-bound part of vol. 10 marked "No.4." These separate paper-bound numbers can be purchased separately.

The prices stated for publications printed at the Government Printing Office, include postage in the United States and its possessions, Canada, Cuba, and Mexico. On shipments to be sent to other countries the actual cost of the postage is charged, which is at the rate of eight cents per round. In general, an allowance should be made for foreign postage equal to about 25\% of the amount of the order.

The following abbreviations are used to indicate the several classes of publications:
\begin{itemize}
  \item S = Scientific Paper
  \item T = Technologic Paper
  \item C = Circular
  \item H = Handbook
  \item M = Miscellaneous publications.
  \item o = Not printed at the Government Printing Office.
\end{itemize}

For example, S189 means Scientific Paper No. 189.

Papers designated by the mark o are not printed by the Government Printing Office, but are publications in an outside periodical by a member of the staff of the Bureau. They should be consulted at libraries which maintain files of the particular periodical referred to.

\section*{General}


The radio work of the Department of Commerce. J.H. Dellinger. QST, 4, pp.18-21; June 1921.


Radio Wave Phenomena.


Antennas.


Applications of Radio.


Reprinted in Radio News, 5, p.133-150, August, 1923, as "Short wave directive radio transmission."


Electron Tubes


Determination of the output characteristics of electron tube generators. L. M. Hull. S356. 20 pages. 1919. 5¢ (B.S. Scientific Papers, 12, 497-517).


An electron tube amplifier using 60-cycle alternating current to supply power for the filaments and plates. P. D. Lowell. S450. 7 pages. 1922. 5¢. (B.S. Scientific Paper 18, 345-352).


A 100 to 3000 meter oscillator. H.J. Walls, QST, 6, p.48 of May, 1923.

**Receiving Apparatus**

The construction and operation of a simple homemade radio receiving outfit. Circular 120. May, 1923. 5¢

Construction and operation of a two-circuit radio receiving equipment with crystal detector. Circular 131. May, 1923. 5¢

Description and operation of an electron-tube detector unit for simple radio receiving outfits. C133. Nov., 1923. 10¢

Auxiliary condensers and loading coil used with simple homemade radio receiving outfits. C137. Feb., 1923. 10¢

Description and operation of an audio-frequency amplifier unit for simple radio receiving outfits. C141. March, 1923. 10¢


Radio Measurements


Electric units and standards. C60, 68 pages. Sept. 25, 1916. 15¢


Radio instruments and measurements. C74, 341 pages. March 23, 1918. 60¢


The cathode-ray oscillograph and its application in radio work. L.M.Hull. Proceedings Institute Radio Engineers, 2, p.130; April, 1921.


Capacity, Inductance, Resistance.


The capacity and phase difference of paraffined paper condensers as functions of temperature and frequency. F.W.Grover. S166. 82 pages. 1911. (B.S.Bulletin, 7, No.4, p.495).

The testing and properties of electric condensers. C36. 36 pages. June 30, 1912. 5¢

The energy losses in some condensers used in high-frequency circuits. L.W.Austin. S190. 8 pages. March 1, 1912. (B.S. Bulletin 2, No. 1, p.73). 5¢

A variable self and mutual inductor. H.B.Brooks and F.C.Weaver. S290. 1916. 10¢


Some effects of the distributed capacity between inductance coils and the ground. C.Breit. S427. 3 pages. Dec.31, 1921. 5¢

The high-frequency resistance of inductance coils. C.Breit. S430. 1922. (B.S. Scientific Papers 17, pp.569-587). 5¢


Formulas and tables for the calculation of the inductance of coils of polygonal form. F.W.Grover. S468. May, 1923. 10¢


- The effective capacity of multilayer coils with square and circular section. C.Breit. Philosophical Magazine, 43, pp.963-992; May, 1922.

Properties of Materials


Letter Circulars.

The following documents are not available in printed form. They have been prepared in mimeographed form only, like this pamphlet, and can be consulted at the Bureau of Standards. The Bureau has only a small number of copies of these, but where a person can show special need for the information, a copy may be furnished without charge.

Letter Circular No. 50, Bibliography of books and periodicals on tests, properties and uses of electrical insulating materials.
Letter Circular No. 51, List of the more important United States patents covering the material and methods of manufacture of insulating materials.
Letter Circular No. 73, Fees for testing radio apparatus.
Letter Circular No. 76, The standardization of inductors at radio frequencies.
Letter Circular No. 77, The comparison of condensers at radio frequencies.
Letter Circular No. 78, Design of a portable short-wave radio wavemeter.
Letter Circular No. 86, Methods of measuring voltage amplification of amplifiers.
Letter Circular No. 87, Methods of measuring properties of electron tubes.
Letter Circular No. 88, Radio signals of standard frequency and their utilization.
Letter Circular No. 92, Some measurements of voltage amplification of audio-frequency amplifiers.
Letter Circular No. 102, Tests of receiving sets, III.
Letter Circular No. 103, Description of a series of single-layer inductance coils suitable for radio-frequency standards.
Letter Circular 40--2/13/34.

Letter Circular No. 105, Application of statistical analysis to radio transmission problems.
Letter Circular No. 105, Tests of receiving sets, IV.

Department of Commerce,
Washington, D.C.