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DEPARTMENT OF COMMERCE BUREAU OF STANDARDS WASHINGTON

Letter Circular LC 233

PUBLICATIONS RELATING TO ELECTRICAL LEASURING INSTRULENTS, LETERS AND THEIR ACCESSORIES

(June 14, 1927)

This letter circular fives a selected list of publications originating at the Bureau of Standards which deal with the design, testing or performance of electrical measuring instruments and meters. In making up the list, a number of the older publications of the Bureau were omitted because they have been virtually superseded by later papers, or because the particular devices treated in them are no longer in general use.

Many requests for information in this field received by the Bureau of Standards can best be answered by reference to some standard text book. Accordingly there are listed below a few such books which contain in convenient form the information which is most frequently requested.

The Bureau makes no tests on motors, generators or transformers used for power or lighting service, and has no current publications on their design or performance.

The publications listed can be consulted in almost any large public library and in particular at the "government depository libraries", a list of which is given in the Supplement to Bureau of Standards Circular 24. Publications marked with a star may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D. C., at the prices stated. Only those marked "(f)" are available for free distribution by the Bureau of Standard

. Publications of the Bureau of Standards:

Scientific Papers

(The earlier Scientific Papers were issued in the Bulletin of the Bureau of Standards; volume and page numbers below refer to the Bulletin).

- 5130, The Determination of the Constants of Instrument Transformers, P.G.Agnew and T. F. Fitch, (July 5, 1909) 19 pp. Vol. 6, p.281.
- S145, A Device for Measuring the Torque of Diectrical Instruments, P. G. Agnew, (June 27, 1911) 4 pp. Price 5 cents.* Vol. 7, p.45.



- S164. A Study of the Current Transformer with Particular Reference to Iron Loss, P. G. Agnew, (June 1, 1911) 52 pp. Price 10 cents.* Vol. 7, p.423.
- S172, Deflection Potentiometers for Current and Voltage Lieasurements, H. B. Brooks, (June 23, 1911) 23 pp. Vol. 8, p.395.
- S173, Outline of Design of Deflection Potentiometers, with Notes on the Design of Moving-Coil Calvanometers, H. B. Brooks, (June 23, 1911) 26 pp., Vol 8, p.419.
- S207, A Comparative Study of American Direct-Current Watthour Meters, T. T. Fitch and C. J. Huber, (July 11, 1913), 30 pp. Price 15 cents.* Vol. 10, n.161.
- S211, Accuracy of the Formulas for the Ratio, Regulation, and Phase Angle of Transformers, P. C. Agnew and F. B. Silsbee (July 11, 1913) 15 pp. Price 5 cents.* Vol. 10, p.279.
- S217, Testing Potential Transformers, H.B.Brooks, (Feb.7,1914, 6 pp. Price 5 cents.* Vol. 10, p.419.
- S233, A Watthour Meter Mothod of Testing Instrument Transformers, P. G. Agnew, (July 18, 1914), 11 pp. Vol.11, p.347.
- S281, A Study of the Inductance of Four-Terminal Resistance Standards, F. B. Silsbee, (July 12, 1916) 48 pp. Price 15 cents.* Vol. 13, p.375.
- S290, A Variable Self and Mutual Inductor, H. B. Brooks and F. C. Wesver, (Oct. 12, 1916) 12 pp., Vol. 13, p.569.
- S291, A System of Remote ^Gontrol for an Electric Testing Laboratory, P. G. Agnew, W. H. Stannard, and J. L. Fearing, (Oct. 12, 1916) 17 pp. Vol. 13, p.581.
- S292, International System of Electric and Magnetic Units, J. H. Dellinger, (Oct. 11, 1916), 33 pp. Price 10 cents.* Vol. 13, p. 599.
- S309, A Method for Testing Current Transformers, F.B.Silsbee, (Nov.3, 1917) 13 pp. Price 5 cents.* Vol. 14, p.317.
- S370, A New Form of Vibration Galvanometer, P. G. Agnew, (Mar. 12, 1920), 10 pp. Price 5 cents*. Vol.16, p.37.
- S516, A Shielded Resistor for Voltage Transformer Testing, F. B. Silsbee, (July 11, 1925) 25 pp. Price 15 cents.* Vol. 20, p.489.

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Circulars

- C20, Electrical Measuring Instruments, Price 15 cents.*
- C24 (f) Publications of the Bureau of Standards.
- C31, Copper Wire Tables, Price 20 cents.*
- C56, Standards for Electric Service, Price 60 cents.*
- C60, Electric Units and Standards, Price 15 cents.*
- C73, Copper, Price 20 cents.*
- C74, Radio Instruments and Measurements, Price 60 cents.*

Handbooks

- H3, National Electrical Safety Code (Superseding C54), A new edition of this Handbook is now in press and will be obtainable from the Superintendent of Documents within a few months. Parts of the code have been issued separately in the follosing handbooks.
- H6, Safety rules for the installation and maintenance of electrical supply stations (Comprises Part 1 and grounding rules of the 4th edition of the national electrical safety code.) 10 cents.*
- H7, Safety rules for the installation and maintenance of electric utilization equipment (Comprises Part 3 and grounding rules of 4th edition of the national electrical safety code). 15 cents.*
- H8, Safety rules for the operation of electrical equipment and lines (Comprises Part 4 of the 4th edition of the national electrical safety code and supersedes C 49). 15 cents.*
- H9, Safety rules for radio installations (Comprises Part 5 of the 4th edition of the national electrical safety code.) 10 cents.*
- H10,Safety rules for the installation and maintenance of electrical supply and communication lines (Comprises Part 2 of the 4th edition of the national electrical safety code) (In press).

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LC 233 - 6/14/27

Fee Schedules (f)

132, Direct-current ammeters 133, Direct-current voltmeters 134, Alternating-current ammeters 135, Alternating-current voltmeters 136, Wattmeters 137, Direct-current watthour meters 138, Alternating-current watthour meters 139, Frequency meters 1310, Current transformers 1311, Voltage (potential) transformers

Letter Circular (f)

222, Testing of Electrical Instruments, Meters, and Instrument Transformers, Feb. 1927, (In explanation of fee schedules).

Articles Published in Outside Journals by Lembers of the Bureau Staff

- The Testing of Instrument Transformers, by P. G. Agnew and F. B. Silsbee, Trans. Amer. Inst. Elec. Engrs. vol.31, p.1635, 1912.
- Accuracy of Commercial Electrical Measurements, by H. B. Brooks, Trans. Amer. Inst. Elec. Engrs., vol. 39, p.495, 1920.
- The Two-Stage Current Transformer, by H. B. Brooks and F. C. Holtz, Trans. Amer. Inst. Elec. Engrs., vol. 41, p.382, 1922.
- Lead Resistance for Current Transformers, by F. B. Silsbee, Electrical World, vol.81, p.1082, May 12, 1923.
- The Standardization of Electrical measuring Instruments, by H. B. Brooks, Trans. Amer. Inst. Elec. Engrs., vol. 42, p.894, 1923.
- Methods for Testing Current Transformers, by F. B. Silsbee, Trans. Amer. Inst. Elec. Engrs., vol. 43, p.282, 1924.
- Accuracy Tests for Meggers, by H. B. Brooks, Electrical World, vol. 85, p.973, 1925.



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LC 233 - 6/14/27

Publications by Outside Organizations.

Standards of the American Institute of Electrical Engineers. (33 West 39th Street, New York City).

- No. 14. Standards for Instrument Transformers, March 1925, 30 cents.
- No. 33, Standards for Electrical Measuring Instruments, January 1927, 30 cents.
- Annual Reports of the Meter Committee of the National Electric Light Association, 29 West 39th Street, New York City.

Handbook for Electrical Metermen (4th ed. 1923). National Electric Light Association, 29 West 39th St., New York City. \$4.00.

- Code for Electricity Meters. National Electric Light Association, 29 West 39th Street, New York City.
- Pender's Handbook for Electrical Engineers, John Wiley & Sons, New York City, (2d ed. 1922).
- Standard Handbook for Electrical Engineers, McGraw-Hill Book Co., New York City (5th ed. 1922).
- Industrial Electrical Measuring Instruments, Kenelm Edgcumbe, D. Van Nostrand Co., New York City, (2d ed. 1918).
- Electrical Measurements, F. A. Laws, McGraw-Hill Book Co., New York City.

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