

Contributors to this Issue

R. M. BURNS, A.B., University of Colorado, 1915; A.M., 1916; Ph.D., Princeton University, 1921; Instructor, University of Colorado, 1916-17. Second Lieutenant, Chemical Warfare Service, U. S. Army, 1918-19. Research chemist, Barrett Company, 1921-22. Western Electric Company, 1922-25. Bell Telephone Laboratories, 1925-; Assistant Chemical Director, 1931-. Dr. Burns' work has been largely in the electrochemical field and particularly on the subject of the corrosion of metals and its prevention.

JOHN R. CARSON, B.S., Princeton, 1907; E.E., 1909; M.S., 1912. American Telephone and Telegraph Company, 1914-34; Bell Telephone Laboratories, 1934-. As Transmission Theory Engineer for the American Telephone and Telegraph Company and later for the Laboratories, Mr. Carson has made substantial contributions to electric circuit and transmission theory and has published extensively on these subjects. He is now a research mathematician.

CARL J. CHRISTENSEN, B.S., Brigham Young University, 1923; M.S., University of Wisconsin, 1925; Ph.D., University of California, 1929. Instructor in Chemistry and Physics, Brigham Young University, 1923-24 and 1925-27. Bell Telephone Laboratories, 1929-. Dr. Christensen has been engaged in research in connection with microphone carbon.

H. E. CURTIS, S.B. and S.M. in Electrical Engineering, Massachusetts Institute of Technology, 1929. American Telephone and Telegraph Company, Department of Development and Research, 1929-34; Bell Telephone Laboratories, 1934-. Mr. Curtis has been engaged in high-frequency transmission problems as related to carrier systems.

KARL K. DARROW, B.S., University of Chicago, 1911; University of Paris, 1911-12; University of Berlin, 1912; Ph.D., University of Chicago, 1917. Western Electric Company, 1917-25; Bell Telephone Laboratories, 1925-. Dr. Darrow has been engaged largely in writing on various fields of physics and the allied sciences.

E. I. GREEN, A.B. Westminster College, 1915; University of Chicago, 1915-16; Member of faculty, Westminster College, 1916-17; U. S. Army, 1917-19 (Captain, Infantry); B.S., Harvard University, 1921. Department of Development and Research, American Telephone and Telegraph Company, 1921-34; Bell Telephone Laboratories, 1934-. Mr. Green has been engaged principally in work on multiplex wire transmission systems.

H. E. HARING, B.S., Franklin and Marshall College, 1916; M.A., Princeton University, 1917. Assistant Chemist, Ordnance Department, U. S. Army, 1917-19; Associate Chemist, U. S. Bureau of Standards, 1919-28; Electrochemist, Victor Talking Machine Company, 1928-29; Bell Telephone Laboratories, 1929-. Since 1919 Mr. Haring has been engaged in electrochemical research in connection with storage batteries and other electrochemical apparatus, electro-deposition, and corrosion.

H. P. LAWTHOR, JR., B.A., University of Texas, 1912; M.A., Harvard, 1913; Ph.D., Harvard, 1916. Southwestern Bell Telephone Company, 1919-. Transmission and Protection Engineer, Texas Area, 1928-32; General Transmission and Protection Engineer, St. Louis, Missouri, 1932-.

F. A. LEIBE, M.E., Stevens Institute of Technology, 1922. Westinghouse Lamp Company, 1922-25; American Telephone and Telegraph Company, Department of Development and Research, 1925-34; Bell Telephone Laboratories, 1934-. Mr. Leibe has been engaged in transmission development work on carrier telephone systems.

SALLIE PERO MEAD, A.B., Barnard College, 1913; M.A., Columbia University, 1914. American Telephone and Telegraph Company, Engineering Department, 1915-19; Department of Development and Research, 1919-34. Bell Telephone Laboratories, 1934-. Mrs. Mead's work has been of a mathematical character relating to telephone transmission.

G. L. PEARSON, A.B., Willamette University, 1926; M.A., Stanford University, 1929. Bell Telephone Laboratories, 1929-. Mr. Pearson has been engaged in a study of noise in electric circuits.

W. O. PENNELL, B.Sc., Massachusetts Institute of Technology, 1896; Instructor, Lafayette College, 1896-98. Equipment and Traffic Engineer, Bell Telephone Company of Philadelphia, 1898-1902; Engineering Department, American Telephone and Telegraph

Company, 1902-03; Chief Engineer, Missouri and Kansas Telephone Company, 1903-12; Southwestern Bell Telephone Company, St. Louis, Missouri, 1912-, and for the last eighteen years its Chief Engineer. Mr. Pennell has from time to time contributed articles to various technical publications.

ARTHUR C. PETERSON, JR., B.S. in Electrical Engineering, University of Washington, 1928. American Telephone and Telegraph Company, Department of Development and Research, 1928-34; Bell Telephone Laboratories, 1934-. Mr. Peterson's work has been primarily concerned with short-wave radio transmission development.

RALPH KIMBALL POTTER, B.S., Whitman College, 1917; Artillery Corps, U. S. Army, 1917-19; E.E., Columbia University, 1923. American Telephone and Telegraph Company, Department of Development and Research, 1923-34; Bell Telephone Laboratories, 1934-. Mr. Potter has been engaged in short-wave radio transmission development work.

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GEORGE C. SOUTHWORTH, B.S., Grove City College, 1914; Sc.D. (Hon.), 1931; Ph.D., Yale University, 1923. Assistant Physicist, Bureau of Standards, 1917-18; Instructor, Yale University, 1918-23. Editorial staff of *Bell System Technical Journal*, American Telephone and Telegraph Company, 1923-24; Department of Development and Research, 1924-34; Research Department, Bell Telephone Laboratories, 1934-. Dr. Southworth's work in the Bell System has been concerned chiefly with the development of short-wave radio telephony. He is the author of several papers on very high-frequency electrical phenomena.

