

Contributors to this Issue

W. H. MARTIN, A.B., Johns Hopkins University, 1909; S.B., Massachusetts Institute of Technology, 1911. American Telephone and Telegraph Company, Engineering Department, 1911-19; Department of Development and Research, 1919-. Mr. Martin's work has related particularly to transmission of telephone sets and local exchange circuits, transmission quality and loading.

H. S. OSBORNE, B.S., Massachusetts Institute of Technology, 1908; Austin Research Fellow in Engineering, 1908-10; Eng.D., 1910; American Telephone and Telegraph Company, Engineering Department, 1910-19; Department of Development and Research, 1919-20; Department of Operation and Engineering, 1920-. Mr. Osborne is Transmission Engineer and as such is responsible for assisting the Associated Companies in connection with telephone and telegraph transmission and protection matters.

G. W. ELMEN, B.S., University of Nebraska, 1902; M.A., 1904; Research Laboratories of the General Electric Company, 1904-06; Engineering Department of the Western Electric Company, 1906-25; Bell Telephone Laboratories, 1925-. Mr. Elmen's principal line of work has been magnetic investigations. He is the inventor of the permalloy alloys. For this he was awarded the John Scott Medal in 1926 and the Elliott Cresson Medal in 1928.

H. O. SIEGMUND, B.S., University of Illinois, 1917; E.E., University of Illinois 1926; Instructor, U. S. Army School of Military Aeronautics, 1917-1918; Assistant Professor of Electrical Engineering, Drexel Institute, 1918-1919; Engineering Department, Western Electric Company, 1919-1925; Bell Telephone Laboratories, 1925-. Mr. Siegmund has been engaged in apparatus development work and has made contributions relating to telephone power plant apparatus and circuits, to provide more quiet transmission.

KARL K. DARROW, S.B., University of Chicago, 1911, University of Paris, 1911-12, University of Berlin, 1912; Ph.D. in physics and mathematics, University of Chicago, 1917; Engineering Department, Western Electric Company, 1917-25; Bell Telephone Laboratories, Inc., 1925-. Mr. Darrow has been engaged largely in writing studies and analyses of various fields of physics and the allied sciences. Some of his earlier articles on Contemporary Physics form the nucleus of a recently published book entitled "Introduction to Contemporary Physics" (D. Van Nostrand Company).

JOHN R. CARSON, B.S., Princeton, 1907; E.E., 1909; M.S., 1912; Research Department, Westinghouse Electric and Manufacturing Company, 1910-12; instructor of physics and electrical engineering, Princeton, 1912-14; American Telephone and Telegraph Company, Engineering Department, 1914-15; Patent Department, 1916-17; Engineering Department, 1918; Department of Development and Research, 1919-. Mr. Carson is well known through his theoretical transmission studies and has published extensively on electric circuit theory and electric wave propagation.

EDWARD C. MOLINA, Engineering Department of the American Telephone and Telegraph Company, 1901-19, as engineering assistant; transferred to the Circuits Design Department to work on machine switching systems, 1905; Department of Development and Research, 1919-. Mr. Molina has been closely associated with the application of the mathematical theory of probabilities to trunking problems and has taken out several important patents relating to machine switching.

W. P. MASON, B.S., University of Kansas, 1921; M.A., Columbia, 1924; Ph.D., Columbia, 1928. Engineering Department, Western Electric Company, 1921-25; Bell Telephone Laboratories, 1925-. Mr. Mason's work has been largely in transmission studies.

L. G. BOSTWICK, B.S. in E.E., University of Vermont, 1922; American Telephone and Telegraph Company, Development and Research Department, 1922-1926; Bell Telephone Laboratories, Inc., Research Department, 1926-. While with the Development and Research Department, Mr. Bostwick's work involved general problems on systems for the high quality transmission of speech and music; since then his work has been largely on loud speakers and loud speaker measuring methods.

H. A. FREDERICK, B.S., Princeton, 1910, E.E., Princeton, 1912; Engineering Department, Western Electric Company, 1912-1925; Bell Telephone Laboratories, 1925-. Mr. Frederick is in charge of researches and engineering on telephone transmission instruments.

DONALD MACKENZIE, Ph.D., Johns Hopkins University, 1914; Assistant in Astronomy, Johns Hopkins, 1914-17; Ensign, National Naval Volunteers, 1917-1918; Bureau of Standards, 1918-1920; Engineering Department, Western Electric Company, 1920-1925; Bell Telephone Laboratories, 1925-. Engaged since 1922 in the development of a system of sound recording by photographic means.

H. M. STOLLER, E.E., Union College, 1913; M.S. in electrical engineering, 1915; Engineering Department of Western Electric Company, 1914 and 1916-1925; Bell Telephone Laboratories, 1925-. Most of Mr. Stoller's work has dealt with special problems connected

with electrical power machinery, particularly voltage and speed regulators. He designed a multi-frequency generator which is now employed in the voice frequency carrier telegraph system.

E. O. SCRIVEN, B.S., Beloit College, 1906; instructor, Fort Worth University, 1906-08; S.M., Massachusetts Institute of Technology, 1911; Engineering Department, Western Electric Company, 1911-25; Bell Telephone Laboratories, 1925-. Mr. Scriven has been identified with the development of apparatus employing vacuum tubes, e.g., amplifiers, oscillators, carrier current equipment, etc. At present his work is largely confined to public address and related audio frequency systems.