

## Contributors to this Issue

FRANK GILL, European Chief Engineer of the International Western Electric Company. Mr. Gill has had long experience as a telephone engineer, first, with the United Telephone Company in London, then with the National Telephone Company and later as a consulting engineer. At the outbreak of the war, he was called upon to undertake important work in the Ministry of Munition for which he was later awarded the Order of the British Empire. As European Chief Engineer of the International Western Electric Company, he is taking a leading part in the discussion and study of conditions necessary for the establishment of an adequate long distance telephone service through Europe.

OLIVER E. BUCKLEY, B.Sc., Grinnell College, 1909; Ph.D., Cornell University, 1914; Engineering Department, Western Electric Company, 1914-1917; U. S. Army Signal Corps, 1917-1918; Engineering Department, Western Electric Company (Bell Telephone Laboratories), 1918—. During the war Major Buckley had charge of the research section of the Division of Research and Inspection of the Signal Corps, A. E. F. His early work in the Laboratories was concerned principally with the production and measurement of high vacua and with the development of vacuum tubes. More recently he has been connected with the development and applications of magnetic materials and particularly with the development of the permalloy-loaded telegraph cable.

HARVEY FLETCHER, B.S., Brigham Young, 1907; Ph.D., Chicago, 1911; instructor of physics, Brigham Young, 1907-08; Chicago, 1909-10; Professor, Brigham Young, 1911-16; Engineering Department, Western Electric Company, 1916-24; Bell Telephone Laboratories, Inc., 1925—. During recent years, Dr. Fletcher has conducted extensive investigations in the fields of speech and audition.

CHARLES W. CARTER, JR., A.B., Harvard, 1920; B.Sc., Oxford, 1923; American Telephone and Telegraph Company, Department of Development and Research, 1923—.

ARTHUR S. CURTIS, Ph.B., 1913; E.E., 1919; Sheffield Scientific School; Instructor in Electrical Engineering, Yale University, 1913-17; Engineering Department, Western Electric Company, 1917-24; Bell Telephone Laboratories, Inc., 1925—. Mr. Curtis' work has been connected with the development of telephone instruments.

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, 1917-24; Bell Telephone Laboratories, Inc., 1925—. Mr. Darrow has been engaged largely in preparing studies and analyses of published research in various fields of physics.

LLOYD ESPENSCHIED, Pratt Institute, 1909; United Wireless Telegraph Company as radio operator, summers, 1907-08; Telefunken Wireless Telegraph Company of America, assistant engineer, 1909-10; American Telephone and Telegraph Company, Engineering Department and Department of Development and Research, 1910—. Took part in long distance radio telephone experiments from Washington to Hawaii and Paris, 1915; since then his work has been connected with the development of radio and carrier systems.

AUSTIN BAILEY, A.B., University of Kansas, 1915; Ph.D., Cornell University, 1920; assistant and instructor in physics, Cornell, 1915-18; Signal Corps, U. S. A., 1918-19; fellow in physics, Cornell, 1919-20; Corning Glass Works, 1920-21; asst. prof. of physics, University of Kansas, 1921-22; Dept. of Development and Research, 1922—. Dr. Bailey's work while with the American Telephone and Telegraph Company has been largely along the line of methods for making radio transmission measurements.

C. N. ANDERSON, Ph.B., M.S., University of Wisconsin, 1919; Technical Asst. U. S. Naval forces in France, 1917-19; instructor Engineering Physics, University of Wisconsin, 1919-20; General Electric Co., 1920-21; Fellow to Norway, American-Scandinavian Foundation, 1921-22; American Telephone and Telegraph Co., Dept. of Development and Research, 1922—. Mr. Anderson's work has been chiefly on radio transmission.