

Contributors to this Issue

CLIFFORD N. ANDERSON, Ph.B., University of Wisconsin, 1919; M.S., 1920. Supervising principal of schools, Amery, Wisconsin, 1913-17. Ensign Aircraft Radio, U.S.N.R.F., 1917-18. Instructor, Engineering Physics, University of Wisconsin, 1919-20; Standardizing Laboratory, General Electric Company, Lynn, Massachusetts, 1920-21; Fellow to Norway, American Scandinavian Foundation, 1921-22; Department of Development and Research, American Telephone and Telegraph Company, 1922-34; Bell Telephone Laboratories, Inc., 1934 to date. Mr. Anderson's work with the Bell System has been largely in connection with radio-telephony between boats and shore stations.

A. E. BOWEN, Ph.B., Yale University, 1921. Graduate School, Yale University, 1921-24. American Telephone and Telegraph Company, Department of Development and Research, 1924-34. Bell Telephone Laboratories, 1934-. With the American Telephone and Telegraph Company, Mr. Bowen's work was concerned principally with the inductive coordination of power and communication systems. Since 1934 he has been engaged in work in the ultra-high-frequency field, particularly on hollow wave guides.

R. S. CARUTHERS, B.S., University of Maryland, 1926; E.E., 1930. General Electric Company, 1926-28; M.S., Massachusetts Institute of Technology, 1928. U. S. Bureau of Standards, 1928-29. Bell Telephone Laboratories, 1929-. Mr. Caruthers has been engaged in the development of carrier systems.

R. N. HUNTER, B.S., Worcester Polytechnic Institute, 1915. Test Department, General Electric Company, 1915-16. Research Assistant at Massachusetts Institute of Technology, 1916-18. American Telephone and Telegraph Company, Engineering Department, 1918-19; Department of Development and Research, 1919-34. Bell Telephone Laboratories, 1934-. Mr. Hunter's work has been largely on problems of crosstalk reduction in open-wire and in shielded conductor circuits.

L. M. ILGENFRITZ, B.S. in Electrical Engineering, University of Michigan, 1920. American Telephone and Telegraph Company, Department of Development and Research, 1920-34; Bell Telephone

Laboratories, 1934-. Mr. Ilgenfritz has been engaged in the development of carrier systems.

A. G. JOHNSON, B.S. in Ceramic Engineering, Iowa State College, 1924. Western Electric Company, Development Engineering Branch, 1924-. Prior to October 1935, Mr. Johnson was engaged in development work on ceramic, rubber, phenol fibre, and plastic molding manufacture. At the present time, he is Engineer of Raw Materials at the Hawthorne Plant, Chicago, Illinois.

FREDERICK B. LLEWELLYN, M.E., Stevens Institute of Technology, 1922; Ph.D., Columbia University, 1928. Western Electric Company, 1923-25; Bell Telephone Laboratories, 1925-. Dr. Llewellyn has been engaged in the investigation of special problems connected with high-frequency circuits and vacuum tubes. In his present capacity as Circuit Research Engineer he directs a group in the study of amplifying problems.

J. D. MATHIS, B.A., University of Texas, 1924; M.A., University of Texas, 1925; Tutor in Physics at University of Texas, 1924-25. Telephone equipment maintenance, 1920-24. Southwestern Bell Telephone Company, equipment engineering, 1925-. Since 1932 Mr. Mathis has been engaged principally in the engineering of central office equipment for telephone repeaters and carrier systems in Texas.

JOHN RIORDAN, B.S., Sheffield Scientific School, Yale University, 1923. American Telephone and Telegraph Company, Department of Development and Research, 1926-34; Bell Telephone Laboratories, 1934-. Mr. Riordan's work has been mainly on problems associated with inductive effects of electrified railways.

L. I. SHAW, B.S. in Ceramics, Alfred University, 1907; M.S., Syracuse University, 1908; Ph.D., University of Wisconsin, 1911; Instructor, Northwestern University, 1911-17; Assistant Chief Chemist, U. S. Bureau of Mines, 1919-24. Western Electric Company, Hawthorne Plant, Chicago, Illinois, 1924-. As Development Engineer, Dr. Shaw's work has been largely in the fields of ceramics, chemistry, hazards, and raw materials.

L. C. STARBIRD, B.E.E., University of Arkansas, 1921; Instructor, University of Arkansas, 1921-25. Southwestern Bell Telephone Company, 1925-; Equipment Engineer, 1926-32, Transmission and Protection Engineer, Texas Area, 1932-. Mr. Starbird's work has been largely in the application of carrier and repeater equipment.

A. L. WHITMAN, Harvard University, A.B., 1918; B.S. in Electrical Engineering, 1920. Harvard University Sheldon Fellowship for traveling study in Europe, 1920-21. American Telephone and Telegraph Company, Department of Development and Research, Inductive Interference and Noise Prevention Group, 1921-34. Member of Technical Staff, Transmission Development Department of Bell Telephone Laboratories, 1934-. Mr. Whitman is now engaged in field studies of noise and crosstalk as related to carrier-telephone transmission systems utilizing a broad band of frequencies.

