

Contributors to this Issue

ORSON L. ANDERSON, B.S., M.S. and Ph.D., University of Utah, 1948, 1949 and 1951; Institute of Rate Processes, University of Utah, 1949-1952; Bell Telephone Laboratories, 1952-. Dr. Anderson has been engaged in the investigation of mechanical and electrical properties of solids, with emphasis on glasses, and in studies of the mechanism of plastic flow of amorphous bodies. A member of the mechanics division of the Mathematics Department, he is now studying the strength and flow properties of glasses under high pressure. Member of American Physical Society, American Ceramic Society and Society of Glass Technology.

J. K. GALT, A.B., Reed College, 1941; Ph.D., M.I.T., 1947; O.S.R.D., M.I.T. and Harvard University, 1943-1945; National Research Council Fellow, Bristol, England, 1947-1948; Bell Telephone Laboratories, 1948-. Dr. Galt has been engaged in research on the properties of solids, especially of ferrites, with emphasis on their magnetic properties. Fellow of the American Physical Society and member of Phi Beta Kappa.

W. P. MASON, B.S. in E.E., University of Kansas, 1921; M.A., Ph.D., Columbia, 1928. Bell Telephone Laboratories, 1921-. Dr. Mason has been engaged principally in investigating the properties and applications of piezoelectric crystals, in the study of ultrasonics, and in mechanics. Fellow of the American Physical Society, Acoustical Society of America and Institute of Radio Engineers and member of Sigma Xi and Tau Beta Pi.

J. L. MERRILL, JR., B.S. and M.S., Pennsylvania State University, 1928 and 1930; Elliot Research Fellow, 1928-1930; American Telephone and Telegraph Company, 1930-1934; Bell Telephone Laboratories, 1934-. Mr. Merrill spent his first years with the Laboratories on transmission features of such projects as the time and weather announcement systems and operator training programs. During World War II, he engaged in planning system operation of air raid warnings as well as work on tactical wire and radio networks for the armed forces. Since the war he has been concerned with the design and application of negative

impedance repeaters for the improvement of exchange transmission. He holds several patents and is the author of numerous technical articles. Member of Theta Alpha Phi.

IRAD S. RAFUSE, B.S. in E.E., Cooper Union, 1927; Columbia University; Western Electric Company, 1920-1925; Bell Telephone Laboratories, 1925-. He worked on the development of high quality vertical disc recording for a number of years before turning to measurements and testing of switching apparatus. During World War II he engaged in the development of sonar equipment in cooperation with the N.D.R.C. and the Bureaus of Ships and Ordnance from which he received a commendation for his work. He was later in charge of a group engaged in the development of a new wire-spring, multi-contact relay and now is in charge of a group developing glass sealed switches.

ARTHUR F. ROSE, B.S. in E.E., Colorado College, 1914; American Telephone and Telegraph Company, 1914-. Mr. Rose immediately joined the General Engineering Department of the A.T.&T. Co. Upon completing the student training course for new employees, he was assigned to the development work then under way on the New York-San Francisco route which culminated in the first transcontinental telephone service in 1915. As a result of this initial acquaintance with telephone repeaters, he continued in transmission work dealing particularly with these devices. In 1919, when the General Engineering Department was divided and the Operating and Engineering Department formed, Mr. Rose was assigned to the group that was concerned primarily with the application of repeaters and carrier systems in toll engineering. In 1939 he was transferred to the Plant Extension Section and in 1953 returned to the Transmission Section as Exchange Transmission Engineer.

J. O. SMETHURST, B.S. in Communications, Tufts College, 1929; Bell Laboratories, 1929-. For many years he was concerned with overseas telephony, concentrating especially on control terminals for radio telephone circuits. During World War II he was associated with various government projects and after the war he worked on NIKE. Since 1953 he has concentrated on E2 and E3 repeaters.

HARRY SUHL, B.Sc., University of Wales, 1943; Ph.D., Oriel College, University of Oxford, 1948. Admiralty Signal Establishment, 1943-46; Bell Telephone Laboratories, 1948-. Dr. Suhl conducted research on the properties of germanium until 1950 when he became concerned with

electron dynamics and solid state physics research. His current work is in the applied physics of solids. Member of the American Institute of Physics and Fellow of the American Physical Society.

LAURENCE R. WALKER, B.Sc. and Ph.D., McGill University, 1935 and 1939; University of California, 1939-41. Radiation Laboratory, Massachusetts Institute of Technology, 1941-1945; Bell Telephone Laboratories, 1945-. Dr. Walker has been primarily engaged in research on microwave oscillators and amplifiers. At present he is a member of the physical research group concerned with the applied physics of solids. Fellow of the American Physical Society.