

Contributors to this Issue

M. M. ATALLA, B.S., Cairo University, 1945; M.S., Purdue University, 1947; Ph.D., Purdue University, 1949; Studies at Purdue undertaken as the result of a scholarship from Cairo University for four years of graduate work. Bell Telephone Laboratories, 1950-. For the past three years he has been a member of the Switching Apparatus Development Department, in which he is supervising a group doing fundamental research work on contact physics and engineering. Current projects include fundamental studies of gas discharge phenomena between contacts, their mechanisms, and their physical effects on contact behavior; also fundamental studies of contact opens and resistance. In 1950, an article by him was awarded first prize in the junior member category of the A.S.M.E. He is a member of Sigma Xi, Sigma Pi Sigma, and Pi Tau Sigma, and a junior member of the A.S.M.E.

FRANK E. BLOUNT, B.S. in E.E., Oregon State College, 1928. Bell Telephone Laboratories 1928-. Mr. Blount tested panel system circuits for a year and then transferred to development work on special switching and signaling circuits. His interest in circuit design has also included circuits for automatic toll ticketing for the step-by-step system, for radar testing, and more recently for No. 5 crossbar system. Member of Tau Beta Pi, Eta Kappa Nu and Phi Kappa Phi.

J. T. LINDSAY BROWN, B.S. College of the City of New York, 1915. Western Electric Company, 1915-1925. Bell Telephone Laboratories 1925-. For twenty-five years Mr. Brown was concerned with the development and testing of telephone instruments and such allied apparatus as loudspeakers, microphones, and earphones. In 1940 he transferred to work on the development of glass sealed magnetic switches. He is currently in charge of a group developing mercury contact relays. Member of the A.I.E.E., I.R.E. and Acoustical Society of America.

WALLACE A. DEPP, B.S. and M.S. in E.E., University of Illinois, 1936 and 1937. Bell Telephone Laboratories, 1937-. In his early laboratories

association Mr. Depp was concerned with thoriated tungsten and tantalum emitters and later with cold cathode tubes. During World War II he worked on pulsing thyratrons and fixed spark gap tubes for radar, and miniature thyratrons used in the proximity fuse. He was subsequently in charge of the basic development of all types of gas-filled tubes. Recently he transferred to Transmission Systems Development with responsibility for broad band carrier terminal equipment, N and O carrier systems and automatic switching for the L3 coaxial cable system. Member of the A.I.E.E., Eta Kappa Nu, Tau Beta Pi, Phi Kappa Phi and Sigma Xi. Senior member of the I.R.E.

JAMES M. EARLY, B.S. cum laude, New York State College of Forestry, 1943; M.S. and Ph.D. Ohio State University, 1948 and 1951. Bell Telephone Laboratories 1951-. After teaching Electrical Engineering at Ohio State University for five years while studying for his Master's and Ph.D. degrees, Dr. Early joined an electronic apparatus development group, participating in the development of the junction transistor. At present he is doing theoretical as well as development work on high frequency junction transistors. Member of the I.R.E. and Eta Kappa Nu. Associate of Sigma Xi.

JOSEPH GRAMELS, B.S. in E.E., New York University, 1936. Bell Telephone Laboratories 1925-. Mr. Gramels was first occupied with testing and development work in transmission, including handsets, recording apparatus and 33 rpm records. In 1937 and 1938 he worked on electrolytic condensers and silicon carbide varistors. Since 1938 he has been concerned with investigations of selenium rectifier cells both for Bell System applications and for military use. Member of the A.I.E.E.

MASON A. LOGAN, B.S. in Physics and Engineering, California Institute of Technology, 1927; M.A. in Physics, Columbia University, 1933. Carnegie Institute of California, Seismological Laboratory, 1926-1927. Bell Telephone Laboratories, 1927-. His early Laboratories' projects were concerned with wire transmission problems particularly those of losses, noise and cross induction in local, manual and dial telephone circuits. This was followed by circuit research on alternating current methods of signaling including the use of non-linear elements and electronic terminal equipment. From 1941 to 1948 he worked on military projects, including a mine fire control system, anti-aircraft gun director, magnetic proximity fuses, and guided missiles. For the past five years he has been a

member of the Switching Apparatus Development Department in which he is supervising a group concerned with static and dynamic behavior of new electromagnets and relays. He is also engaged in investigations of the performance of electrical contacts on telephone relays.

C. E. POLLARD, JR., Polytechnic Institute of Brooklyn, 1927-1931. Bell Telephone Laboratories, 1925-. Mr. Pollard first worked on voice recording and reproducing equipment and spent some time on the development of telephone carbon microphones before becoming interested in mercury contact relays. In this field he has been concerned with a wide variety of relays, and during World War II concentrated on their application to military projects. He is currently engaged in development work on mercury contact relays.

JOHN H. ROWEN, B.E.E., Ohio State University, 1948; M.S., Ohio State University, 1951. U.S.N.R., maintenance of Air Force radar equipment, 1944-1946; Ohio State University, Research Foundation, Antenna Laboratory, 1948-1951; Bell Telephone Laboratories, 1951-. Concerned with the practical application of fundamental research, he has spent his two years at Bell Laboratories on studies of the microwave behavior of ferrites. While at Ohio State University, Mr. Rowen worked on several methods of measuring the radiation efficiency of small aperture antennas. Member of the I.R.E. and Eta Kappa Nu.

MARK A. TOWNSEND, B.S. in E.E., Texas Technological College, 1936; S.M. in E.E., Massachusetts Institute of Technology, 1937. General Electric Company, 1937-1943; Massachusetts Institute of Technology, Radar School, 1943-1945. Bell Telephone Laboratories, 1945-. Mr. Townsend has been concerned with the basic development of gas-filled tubes. His projects have included work on the voltage reference tube, cold cathode stepping tubes, and the development of tubes for use in transmission and switching. At present Mr. Townsend is in charge of a group responsible for basic development of gas-filled tubes. Member of the A.I.E.E., Tau Beta Pi and Sigma Xi.

