Contributors to this Issue

S. Theodore Brewer, B.S. in E.E., M.S. in E.E., Purdue University, 1937 and 1938; Bell Telephone Laboratories, 1937–. His early work involved broad-band carrier systems and transformer coupled video amplifiers, and the design of measuring equipment associated with these systems. Later, he was concerned with electronically controlled automatic switching. He holds patents on control and feedback systems and switching networks. Mr. Brewer is presently working on the application of transistors to high-speed switching networks. During World War II, he served as radar staff officer with the 62nd Fighter Wing. Member of I.R.E., Eta Kappa Nu, Tau Beta Pi and Sigma Xi.

Norman E. Earle, B.S. and M.S., M.I.T., 1929 and 1930. Bell Telephone Laboratories 1930–31, Timken Silent Automatic 1932–1933, Postal Telegraph 1934–1935, Western Electric Company 1936–. From 1936 to 1947 he engaged in product engineering on various types of transmission coils and transformers. Since 1947 Mr. Earle has been Engineer on Engineering Development and Test Set and Machine Design at the Haverhill Coil Shops. He is a member of the I.R.E.

James Gammie, B.Sc. in Electrical Engineering, University of Aberdeen, 1944; B.Sc. in Mathematics, Birkbeck College, University of London, 1951. Mr. Gammie was employed by the Standard Telephones and Cables Ltd., North Woolwich, London, from 1944 to 1951. He joined Bell Telephone Laboratories in 1952. For the British concern he was engaged on the design of test and frequency translating equipment associated with its coaxial and other carrier systems. At Bell Laboratories he has worked on the L3 coaxial system. Recently, Mr. Gammie has been doing development work on a short haul radio system.

George Hecht, B.S., 1930; E.E., 1951, Cooper Union. Mr. Hecht joined the Western Electric Company in 1924 and transferred to the Bell Telephone Laboratories the following year. His early work entailed fundamental studies of quartz crystals and tuning forks as resonators, and their applications as precision oscillators and frequency standards. In 1938 he began four years of work on circuit research in the field of ac

key pulsing receivers for toll systems. From 1942 to 1945 he worked on military projects, particularly radar range indicators. Since 1945 he has been connected with research in switching, studying means of applying electronics to telephone systems. Senior Member, Institute of Radio Engineers.

CONYERS HERRING, A.B., University of Kansas, 1933; Ph.D., Princeton University, 1937; National Research Fellow, Massachusetts Institute of Technology, 1937–39; Research Associate, Princeton University, 1939–40; Instructor of Physics, University of Missouri, 1940–41; Division of War Research, Columbia, 1941–45; Professor of Applied Mathematics, University of Texas, 1946; Bell Telephone Laboratories, 1945–. Dr. Herring has been engaged principally in research in physical electronics and solid state physics. He has given a number of lectures on solid state physics at the Institute for Advanced Study, Princeton, N. J. Fellow of the American Physical Society and member of the executive committee of the Society's Division of Solid State Physics. Member, A.A.A.S.; Board of Editors of the Physical Review, 1952–54. Awarded the Army-Navy Certificate of Appreciation.

OLE M. HOVGAARD, B.S. in E.E., Massachusetts Institute of Technology, 1926; Tropical Radio Telegraph Company, 1921–23; Briggs and Stratton Corp., 1927–28; Bell Telephone Laboratories, 1928–. Mr. Hovgaard's early work at Bell Laboratories was concerned with the design of broadcasting transmitter antennas. Later, he was engaged in the development of quartz crystals, precious metal contacts engineering, and military developments. He is presently concerned with the development of sealed switches. Mr. Hovgaard is the author of several technical papers. Senior member of I.R.E.

EDWARD L. KAPLAN, B.S., Carnegie Institute of Technology, 1941; Ph.D., Princeton University, 1951. Dr. Kaplan worked at the U. S. Naval Ordnance Laboratory in Silver Spring, Md. from 1941 to 1948 and was a research assistant at Princeton University from 1948 to 1950. Since 1950 he has been concerned with military and Bell System applications of probability theory and statistical methods at Bell Telephone Laboratories. Member of American Mathematical Society, Institute of Mathematical Statistics, American Statistical Association, Tau Beta Pi and Sigma Xi.

J. L. MERRILL, JR., B.S. and M.S., Pennsylvania State University,

1928 and 1930; Elliott 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 transmissions 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. Later, he was concerned with the design and application of negative impedance repeaters for the improvement of exchange transmission. He is presently engaged in long range studies of transmission systems. He holds several patents and is the author of a number of technical articles.

GEORGE E. PERREAULT, B.S. in M.E., Worcester Polytechnic Institute, 1930; Bell Telephone Laboratories, 1930–. His early work was concerned with machine design of sound picture machines, picture transmission apparatus, vibration pickups, and hearing-test machines for the Bell System exhibit in the New York World's Fair. Later, he was engaged in the mechanical design of plotting boards and servo-mechanisms for various electrical gun directors. More recently he has been engaged in the apparatus development for vibrating reed selectors and crossbar switches. Mr. Perreault is presently concerned with development work on dry reed and mercury contact relays. He has been awarded several patents.