

Contributors to This Issue

ARMAND O. ADAM,* New York Telephone Company, 1917-1920; Western Electric Company, 1920-24; Bell Telephone Laboratories; 1925-. Mr. Adam tested local dial switching systems before turning to design on the No. 1 and toll crossbar systems. From 1942 to 1945 he was associated with the Bell Laboratories School For War Training. Since then he has been concerned with the design and development of the marker for the No. 5 crossbar system. Currently he is supervising a group doing common control circuit development work for the crossbar tandem switching system.

WALLACE C. BABCOCK, A.B., Harvard University, 1919; S.B., Harvard University, 1922. U.S. Army, 1917-1919. American Telephone and Telegraph Company, 1922-1934; Bell Telephone Laboratories, 1934-. Mr. Babcock was engaged in crosstalk studies until World War II. Afterward he was concerned with radio countermeasure problems for the N.D.R.C. Since then he has been working on antenna development for mobile radio and point-to-point radio telephone systems and military projects. Member of I.R.E. and Harvard Engineering Society.

FRANKLIN H. BLECHER, B.E.E., 1949, M.E.E., 1950 and D.E.E., 1955, Brooklyn Polytechnic Institute; Polytechnic Research and Development Company, June, 1950 to July, 1952; Bell Telephone Laboratories 1952-. Dr. Blecher has been engaged in transistor network development. His principal interest has been the application of junction transistors to feedback amplifiers used in analog and digital computers. He is a member of Tau Beta Pi, Eta Kappa Nu and Sigma Xi and is an associate member of the I.R.E.

W. E. DANIELSON, B.S., 1949, M.S., 1950, Ph.D., 1952, California Institute of Technology; Bell Laboratories 1952-. Dr. Danielson has been engaged in microwave noise studies with application to traveling-wave tubes and he has been in charge of development of traveling-wave tubes

* Inadvertently, Mr. Adam's biography was omitted from the January issue of the JOURNAL in which his article, "Crossbar Tandem as a Long Distance Switching Equipment," appeared.

for use at 11,000 megacycles since June of 1954. He is the author of articles published by the Journal of Applied Physics, Proceedings of the I.R.E., and the B.S.T.J., and he is a Member of the American Physical Society, Tau Beta Pi, and Sigma Xi.

AMOS E. JOEL, JR., B.S., Massachusetts Institute of Technology, 1940; M.S., 1942; Bell Telephone Laboratories, 1940-. Mr. Joel's first assignment was in relay engineering. He then worked in the crossbar test laboratory and later conducted fundamental development studies. During World War II, he made studies of communications projects and from 1944 to 1945 designed circuits for a relay computer. Later he prepared text and taught a course in switching design. The next two years were spent designing AMA computer circuits, and since 1949 Mr. Joel has been engaged in making fundamental engineering studies and directing exploratory development of electronic switching systems. He was appointed Switching Systems Development Engineer in 1954. Member of A.I.E.E., I.R.E., Association for Computing Machinery, and Sigma Xi.

ESTHER M. RENTROP, B.S., 1926, Louisiana State Normal College. Miss Rentrop joined the transmission group of the Development and Research Department of the American Telephone and Telegraph Company in 1928, and transferred to Bell Laboratories in 1934. In both companies she has been concerned principally with control of crosstalk, both in field studies and transposition design work. During World War II, she assisted in problems of the Wire Section, Eatontown Signal Corps Laboratory at Fort Monmouth, and later she worked on other military projects at the Laboratories for the duration of the war. Miss Rentrop is presently a member of the noise and crosstalk studies group of the Outside Plant Engineering Department and is engaged in studies of interference prevention.

JACK L. ROSENFELD is a student in electrical engineering at the Massachusetts Institute of Technology. He will receive the S.M. and S.B. degrees in 1957. He has been with Bell Telephone Laboratories on cooperative assignments in microwave tube development and electronic central office during 1954 and 1955. He is a student member of the I.R.E. and a member of Tau Beta Pi and Eta Kappa Nu.

JOSEPH A. SALOOM, JR., B.S., 1948, M.S., 1949, and Ph.D., 1951, all in Electrical Engineering, University of Illinois. He joined Bell Laboratories in 1951. Mr. Saloom worked on electron tube development at

Murray Hill until 1955 with particular emphasis on electron beam studies. He is now at the Allentown, Pa., laboratory where he is engaged in the development of microwave oscillators. Member of the Institute of Radio Engineers, Sigma Xi, Eta Kappa Nu, Pi Mu Epsilon.

CHARLES S. THAELE, Moravian College, 1923-25, Lehigh University 1925-28, E.E., 1928. During the summer of 1927 he was employed by the Bell Telephone Company of Pennsylvania, returning there after graduation, where he was concerned with transmission engineering and the Toll Fundamental Plan. In 1943 he was on loan to the Operating and Engineering Department of the A.T.&T. Co., working on toll transmission studies. From 1944 to the present he has been with the Operating and Engineering Department and is currently engaged in toll circuit noise and crosstalk problems on open wire and cable systems. Mr. Thaeler is an Associate Member of A.I.E.E., and member of Phi Beta Kappa, Tau Beta Pi, and Eta Kappa Nu.

PING KING TIEN, B. S., National Central University, China, 1942; M.S., 1948, Ph.D., 1951, Stanford University; Stanford Microwave Laboratory, 1949-50; Stanford Electronics Research Laboratory, 1950-52; Bell Telephone Laboratories, 1952-. Since joining the Laboratories, Dr. Tien has been concerned with microwave tube research, particularly traveling-wave tubes. In the course of this research he has engaged in studies of space charge wave amplifiers, helix propagation, electron beam focusing, and noise. He is a member of Sigma Xi.

ARTHUR UHLIR, JR., B.S., M.S. in Ch.E., Illinois Institute of Technology, 1945, 1948; S.M. and Ph.D. in Physics, University of Chicago, 1950, 1952. Dr. Uhlir has been engaged in many phases of transistor development since joining the Laboratories in 1951, including electrochemical techniques and semiconductor device theory. Since 1952 he has participated in the Laboratories' Communications Development Training Program, giving instruction in semiconductors. Member of American Physical Society, Sigma Xi, Gamma Alpha, and the Institute of Radio Engineers.

ROGER I. WILKINSON, B.S. in E.E., 1924, Prof. E.E., 1950, Iowa State College; Northwestern Bell Telephone Company, 1920-21; American Telephone and Telegraph Company, 1924-34; Bell Telephone Laboratories, 1934-. As a member of the Development and Research Department of the A.T.&T. Co., Mr. Wilkinson specialized in the applications of the mathematical theory of probability to telephone problems.

Since transferring to Bell Telephone Laboratories in 1934, he has continued in the same field of activity and is at present Traffic Studies Engineer responsible for probability studies and traffic research. For two years during World War II, in a civilian capacity, he engaged in operations analysis studies for the Far East Air Forces in the South Pacific, for which he received the Medal for Merit. He has also served as a consultant to the Air Force, the Navy and the Air Navigation Development Board. Mr. Wilkinson is a member of A.I.E.E., American Society for Engineering Education, American Statistical Association, Institute of Mathematical Statistics, Operations Research Society of America, American Society for Quality Control, Eta Kappa Nu, Tau Beta Pi, Phi Kappa Phi and Pi Mu Epsilon.