

Contributors to this Issue

CHARLES CLOS, C.E., New York University, 1927; New York Telephone Company, plant extension engineering, valuation and depreciation matters, intercompany settlements and tandem and toll fundamental plans, 1927-47. Pratt Institute, Evening School, Mathematics Instructor, 1946-49. Bell Telephone Laboratories, studies on development planning for local and toll switching systems and research in switching probability, 1947-. Member of A.I.E.E., New York Electrical Society, Mathematical Association of America, A.A.A.S., American Statistical Association, Iota Alpha, and Tau Beta Pi.

R. H. COLLEY, A.B., Dartmouth College, 1909; A.M., Harvard University, 1912; Ph.D., George Washington University, 1918; Austin Teaching Fellow in Botany, Harvard University, 1910-12; Instructor in Botany, Dartmouth College, 1909-10 and 1912-16; Pathologist, Division of Forest Pathology, Bureau of Plant Industry, U. S. Department of Agriculture, 1916-28. Bell Telephone Laboratories, 1928-52. Dr. Colley was chairman of Committee 05 — Wood Poles, of the American Standards Association for nearly twenty years. He was president of the American Wood-Preservers' Association 1943-44. During his years with the Laboratories he worked particularly on development and research problems connected with material and preservative treatment specifications for poles and other timber products used in outside plant. His more recent activities were directed toward improvement of laboratory techniques for evaluating wood preservatives, and toward the development of a coordinated plan for fundamental research on oil preservatives. He was Timber Products Engineer for the Laboratories from 1940 to 1950, and Timber Products Consultant from 1950 to 1952. His article in this issue of the *JOURNAL* was prepared before his retirement on May 31, 1952.

KARL K. DARROW, B.S., University of Chicago, 1911. He studied at the Universities of Paris and Berlin in 1911 and 1912, specializing in physics and mathematics; Ph.D., University of Chicago, 1917. He then joined the staff of Bell Telephone Laboratories, at that time known as the Engineering Department of Western Electric Company. Here his

work has included the study, correlation, and representation of scientific information for his colleagues, keeping them informed of current advances made by workers in fields related to their own activities. As a corollary to his work, Dr. Darrow appears from time to time before scientific and lay audiences to lecture on current topics in physics and the related sciences. He has taken an active interest in education, teaching physics during summer and other sessions at Stanford, Chicago, and Columbia Universities and at Smith College. From 1944 to 1946, he served as consultant to the Metallurgical Laboratory in Chicago. Dr. Darrow is the author of *Introduction to Contemporary Physics* (1939), *Electrical Phenomena in Gases* (1932), *Renaissance of Physics* (1936), *Atomic Energy* (1948). He is a member of the American Physical Society, which he has served as secretary since 1941, the Physical Society of London, Société Française de Physique, the American Philosophical Society, of which he was a counsellor for four years, and the International Union of Pure and Applied Physics, of which he was vice president from 1947 to 1951. In 1949 he received an honorary doctorate from the Université de Lyon.

GEORGE R. FROST, Bell Telephone Laboratories, 1943-. Mr. Frost has had over twenty-three years of service with the Bell System. Since 1943 he has been an instructor at the Laboratories' School for War Training and in the Communications Development Training Program, until recently when he became a member of the Publication Department's group responsible for displays. From 1941-43 he taught communications at Fenn College, and from 1946-47 mathematics at Pratt Institute.

WILLIAM KEISTER, B.S. in E.E., Alabama Polytechnic Institute, 1930; Bell Telephone Laboratories, 1930-32 and 1936-. As a member of the switching department, he is currently preparing text material and teaching general switching circuit theory and telephone switching systems to members of the technical staff. Co-author of *The Design of Switching Circuits*, with S. H. Washburn and A. E. Ritchie (Van Nostrand, 1951). Member of A.I.E.E., Eta Kappa Nu, Tau Beta Pi, and Phi Kappa Phi.

ALISTAIR E. RITCHIE, A.B., Dartmouth College, 1935; M.A., Dartmouth College, 1937. Bell Telephone Laboratories, 1937-. As a member of the switching development group, Mr. Ritchie tested panel and crossbar circuits and made noise studies on panel and crossbar systems until

1942. He then became an instructor in the Laboratories' School for War Training. From 1945-51, he taught switching circuit design. Since 1951, in the switching engineering group, he has been working out new techniques for measuring telephone traffic in central offices. Co-author of *The Design of Switching Circuits* with W. Keister and S. H. Washburn (Van Nostrand, 1951). Member of the A.I.E.E.

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ROGER I. WILKINSON, B.S. in E.E., 1924, Professional Engineer (honorary), 1950, Iowa State College; Northwestern Bell Telephone Company, 1920-21; American Telephone and Telegraph Company, 1924-34; Bell Telephone Laboratories, 1934-43 and 1946-. U. S. War Department, Washington and South Pacific, 1943-45. Mr. Wilkinson has been engaged in applications of the mathematical theory of probability to telephone problems. Medal for Merit, 1946. Member of A.S.E.E.; A.S.A.; Institute of Mathematical Statistics; American Society for Quality Control; Fellow, Operations Research Society of America; Associate Member of A.I.E.E.; and Member of Eta Kappa Nu; Tau Beta Pi; Phi Kappa Phi; and Pi Mu Epsilon.

