

Contributors to This Issue

W. E. Archer, B.S. (Physics), 1966, and M.S. (Physics), 1968, University of Akron; Bell Laboratories, 1968—. Mr. Archer has been working on the development of electromagnetic contacts and crosspoints.

E. Barzilai, B.S.E.E., 1969, University of Illinois; M.S.E.E., 1970, Northwestern University; Bell Laboratories, 1969—. Mr. Barzilai has worked on designing trunk and service circuits. He has been involved in development, field testing, and evaluation of the remreed network design and is presently involved in improving remreed reliability.

D. Danielsen, Ing. (Electrical Engineering), 1947, Stockholm Technical Institute; 1949, Royal Technical University; Bell Laboratories, 1953—. Mr. Danielsen has been engaged in the circuit design and system development of several phases of electronic switching systems. He has worked on the recording of AMA data on magnetic tape, data transmission over voice-frequency channels, and the design of both ferreed and remreed networks for No. 1 ESS.

R. J. Gashler, B.S. (Physics), 1963, Fairleigh Dickinson University; M.S. (Physics), 1965, Stevens Institute of Technology; Bell Laboratories, 1963—. At Bell Laboratories, Mr. Gashler first worked on the development of sealed contacts for No. 1 ESS and later on the vacuum deposition of magnetic materials. Currently, he is supervisor of the dry reed relay, ferrod, remreed, and ferreed switch group.

T. G. Grau, B.A., 1960, Ohio Wesleyan University; M.S., 1962, Ohio State University; Bell Laboratories, 1960—. Mr. Grau has worked on studies of wire-spring relays to determine the effects of proposed design changes. He holds a patent describing a flux-limiting technique in magnetic-latching relays. He has designed a family of magnetic-latching, miniature, wire-spring relays and applied several of these relays to circuits. He has been responsible for testing exposed- and sealed-contact switching apparatus and connectors. Mr. Grau is presently supervisor of the Connector Evaluation and Reliability Group.

George Haugk, B.S.E.E., 1952, Newark College of Engineering; Western Electric Company, 1947-1948; Bell Laboratories, 1952—. At Bell Laboratories, Mr. Haugk first worked on design of circuits for electronic switching systems. He next supervised a group responsible for debugging, program evaluation, and operation of the Morris ess. He was next head of a department responsible for No. 1 ess evaluation, personnel training, and information activities. He presently heads a department responsible for the design of the No. 1 and No. 1A ess peripheral system. Member, IEEE.

James C. Kennedy, B.S.E.S., 1967, Pennsylvania State University; M.S.E.E., 1968, Stanford University; Ph.D. (E.E.), 1971, Stanford University; Bell Laboratories, 1967—. Mr. Kennedy did the basic planning and design of the No. 1 ess remreed line scanner including the evaluation of alternative scan elements and control schemes. He is currently working on hardware architectures to implement new No. 1 ess switching features. Member, Phi Beta Kappa, Tau Beta Pi, Sigma Xi, Pi Mu Epsilon.

H. J. Klein, Jr., B.S.M.E., 1958, University of Florida; M.S.E., 1959, University of Florida; M.S.E.M., 1962, New York University; Bell Laboratories, 1959—. At Bell Laboratories, Mr. Klein has been engaged in the physical design of electronic switching equipment. In this capacity he has been involved in the development of a variety of apparatus and equipment units which include the core store memory, remreed switching networks, and several connector designs used with the 1A technology. He is currently engaged in the development of the trunk and service circuit equipment for the HILO switching feature. Member, Phi Kappa Phi, Sigma Tau, Tau Beta Pi.

C. H. Klosterman, A.A.S., 1954, State University of N. Y.; Bell Laboratories, 1954—. Mr. Klosterman has worked on wire and cable development for the outside plant division. Since 1959, he has been involved in the transmission and protection design of trunk circuits and switching networks for No. 1 ess. He is presently engaged in four-wire conference circuit design.

Warren A. Liss, B.S.E.E., 1961, City College of New York; M.S.E.E., 1963, New York University; Bell Laboratories, 1961—. Mr. Liss did the design and development of the No. 1 and No. 2 ess centrex attendant's console lamp control circuit and was responsible for the basic maintenance plan on the Electronic Community Dial Office

project. As supervisor of the No. 1 ESS Network Planning Group, he has been involved in the remreed network and scanner developments. Member, Sigma Alpha Mu, Tau Beta Pi, Eta Kappa Nu.

R. I. Narney, Associate Degree of Electrical Technology, 1967, Ohio Institute of Technology; Bell Laboratories 1969—. Mr. Narney is currently responsible for the operation and maintenance of a computerized data acquisition system that is dedicated to evaluation of sealed contacts.

K. M. Olsen, B.S. (Chemistry), 1935, Cooper Union; M.S. (Metallurgical Engineering), 1942, Columbia University; Bell Laboratories, 1929-1975. At Bell Laboratories, Mr. Olsen was a supervisor in the Metallurgical Department responsible for alloy development and metallurgical processing. He was responsible for the development of the high-purity nickel alloys used as cathode materials in the long-lived vacuum tubes used in the repeaters in early submarine cables. He was also responsible for the development of the first commercial quality superconducting niobium-tin wire.

R. N. Rath, Diploma, 1966 (Electronics and Instrumentation Technology), Penn Technical Institute; Bell Laboratories 1966—. Mr. Rath has worked on life testing of wire-spring and flat-spring relays and has been involved in environmental testing of the miniature cross-bar switch and the remreed switch package. Currently, Mr. Rath is a member of a team involved in a field study of connectors used in the Bell System.

P. W. Renaut, B.S. (Physics), 1960, City University of New York, M.S. (Physics), 1963, New York University; Bell Laboratories, 1960—. Mr. Renaut's early work at Bell Laboratories consisted of various studies of dry reed sealed contacts. His work in the area of sealed contact development culminated in the development of the remreed contact. Currently, as supervisor of the connector contact development group, his work is directed toward a reduction in the amount of gold used by the Bell System for connectors. Member, Phi Beta Kappa.

James R. Smith, B.E.E.T., 1970, DeVry Institute of Technology; Bell Laboratories, 1970—. Mr. Smith worked on the circuit design of the No. 1 ESS wideband switching network and later took over the development of the No. 1 ESS remreed line scanner.

D. E. Tompsett, B.S. (Mechanical Engineering), 1967, Michigan State University; M.S. (Mechanical Engineering), 1968, Purdue University; Bell Laboratories, 1967—. Mr. Tompsett has worked on fluidics and holds a patent on an electric-to-fluidic transducer. He has also worked on mercury contacts and relays. For the past two years, he has worked on evaluation and reliability studies of the remreed switch. Currently, Mr. Tompsett is working on several connector-evaluation programs.

John E. Unrue, Jr., B.S.E.E., 1963, University of Toledo; M.S.E.E., 1965, New York University; Bell Laboratories, 1963—. Mr. Unrue is presently responsible for the design of new trunk circuits used in No. 1 ESS four-wire toll applications. He also has general responsibility for No. 1 ESS transmission. Member, Tau Beta Pi, Eta Kappa Nu, Phi Kappa Phi.

Edward G. Walsh, B.Ch.E., 1940, Cooper Union; Bell Laboratories, 1935—. Mr. Walsh has worked on new switching devices, which included work on push-button telephones and solderless connections, on development of antiaircraft gun control computers, and on electromagnetic fuses for mines and depth charges. He has been responsible for the development of the wire-spring multicontact relay for the No. 5 Crossbar System, for the development of processing and packaging of semiconductor devices, and for the development of sealed-contact apparatus, including ferreed and remreed switches. He is presently head of the department responsible for the development of connector technology.

N. Wasserman, Brooklyn Polytechnic Institute; Bell Laboratories, 1955—. Mr. Wasserman first worked on the development of keys, jacks, tube sockets, and separable connectors. He has more recently been concerned with the physical design of ferreed and remreed switches for No. 1, No. 2, and No. 3 ESS, as well as PBX systems.

R. G. Whitfield, B.S.E.E., 1966, University of Pittsburgh; S.M.E.E., 1968, Massachusetts Institute of Technology; Ph.D. (Industrial and Systems Engineering), 1975, Illinois Institute of Technology; Bell Laboratories, 1966—. Mr. Whitfield has been working on statistical problems involving field reliability and quality testing of remreed switching networks. He has recently been engaged in traffic engineering for local/toll applications. Member, ORSA, Eta Kappa Nu, Sigma Tau, Sigma Xi.

D. H. Yano, M.S. (M.E.), 1964, Lehigh University; Bell Laboratories, 1968—. Mr. Yano first worked on the exploratory development of fluidically controlled metallic crosspoints. Currently, he is engaged in the development of remreed switches.

R. C. Zolnoski, B.S. (E.E.), 1967, Polytechnic Institute of Brooklyn; M.S. (E.E.), 1969, Ohio State University; Bell Laboratories, 1963—. Mr. Zolnoski first worked on the design and development of vibrating reed selectors. Currently, he is involved with the development of ferreed and remreed switches.

O. M. Yarnall, Director, U.S. Forest Service, Washington, D.C.
Dear Sir: I have the honor to acknowledge the receipt of your letter of the 10th inst. and in reply to inform you that the same has been forwarded to the proper authorities for their consideration. I am, Sir, very respectfully,
Yours truly,
O. M. Yarnall

H. O. Johnson, Jr., U.S. Forest Service, Washington, D.C.
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