Contributors to this Issue

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G. E. MUELLER, B.S., Missouri School of Mines and Metallurgy, 1939; M.S., Purdue University, 1940. Bell Telephone Laboratories, 1940–46. Mr. Mueller was engaged in television and radio research. During the war he worked on radar antenna development. Mr. Mueller is now Assistant Professor of Electrical Engineering at the Ohio State University.

SLOAN D. ROBERTSON, B.E.E., University of Dayton, 1936; M.Sc., Ohio State University, 1938; Ph.D., 1941, Instructor of Electrical Engineering, University of Dayton, 1940. Bell Telephone Laboratories, 1940–. Dr. Robertson was engaged in microwave radar work in the Radio Research Department during the war. He is now engaged in fundamental microwave radio research.

D. E. THOMAS, B.S. in Electrical Engineering, Pennsylvania State College, 1929; M.A., Columbia University, 1932. Bell Telephone Laboratories, 1929–. On Military leave from 1942–46 with U. S. Army Signal Corps and U. S. Army Air Forces. Mr. Thomas has been engaged in investigations of submarine telephone cable systems.

W. A. TYRRELL, B.S., Yale University, 1935; Ph.D., 1939. Bell Telephone Laboratories, 1939–. Dr. Tyrrell has been engaged in waveguide research, principally in the field of microwave loss measurements. During the war he developed a number of waveguide components for Navy radar.

Alkaline Earth Porcelains Possessing Low Dielectric Loss.[11] M. D. RIGTERINK and R. O. GRISDALE. Alkaline earth porcelains have been prepared from mixtures of clay, flint, and synthetic fluxes consisting of clay calcined with at least three alkaline earth oxides. These porcelains possess excellent dielectric properties, have low coefficients of thermal expansion, are white, and are especially valuable as bases for deposited carbon resistors for which they were developed. Their characteristics make it probable that other uses will be found for materials of this type.

An illustrative composition is 50.0% Florida kaolin, 15.0% flint (325 mesh), 35.0% calcine (200 mesh). The composition of the calcine is 40.0% Florida kaolin, 15.0% $MgCO_3$, 15.0% $CaCO_3$, 15.0% $SrCO_3$, 15.0% $BaCO_3$, calcined at 1200°C. The electrical properties of this body at 1 mc. are Q at 25°C., 2160; Q at 250°C., 280; Q at 350°C., 90; specific resistance at 150°C., $10^{13.5}$ ohm-cm. and at 300°C., $10^{10.7}$ ohm-cm.

Attenuation of Drainage Effects on a Long Uniform Structure with Distributed Drainage.[12] J. M. STANDRING, JR. This paper discusses the general behavior of forced drainage currents on long uniform underground communication cables with particular regard to the case where drainage is applied at regular intervals. Expressions are developed for the structure-to-earth potential which is caused by uniformly spaced drainers when the power supply is from variable e.m.f. sources, such as rectifiers, and also for the case where fixed e.m.f.'s, such as galvanic anodes, are employed.

[11] *Jour. Amer. Ceramic Society*, March 1, 1947.
[12] *Corrosion*, June 1947.