

## Foreword

This issue marks the 40th anniversary of the Bell System Technical Journal, which has been published continuously since July, 1922. Through these 40 years the B.S.T.J. has had one basic purpose: to be a journal of definitive technical papers that help to record the progress of Bell System communications. The B.S.T.J. is thus an important factor in carrying out the Bell System policy of prompt publication of new research, development and systems engineering knowledge.

Although the pace of change has increased in recent decades, B.S.T.J. papers from the beginning have dealt with many themes that are still of fundamental importance to communications research and technology. Among the important early contributions, for example, were articles by Harvey Fletcher on the nature of speech, by R. V. L. Hartley and T. C. Fry on binaural hearing, by George A. Campbell on wave filters, and by E. C. Molina on traffic theory. Early articles of significance to telephone transmission included those on carrier transmission by Hartley, long cable circuits by A. B. Clark, and radio communications by Lloyd Espenschied. K. K. Darrow published the first of a notable series of articles reporting advances in physics, and among the first articles in the area of materials research, G. W. Elmen and H. D. Arnold reported on Permalloy.

These early contributions helped to establish standards of technical excellence that have been a challenge and inspiration to subsequent authors and to those who have served as editors and advisors. As new knowledge about communications advances even farther in scope and depth, the B.S.T.J. will continue to serve both the Bell System and the entire scientific and engineering community.