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Turning Points In American Electrical History

For engineers, scientists, historians, educators and students
—the core papers in American electrotechnology, from
Franklin to Fano, annotated and with authors' biographies.

Beginning with Benjamin Franklin, Americans have made major—often revolutionary—contributions to the development of electrical science and technology.

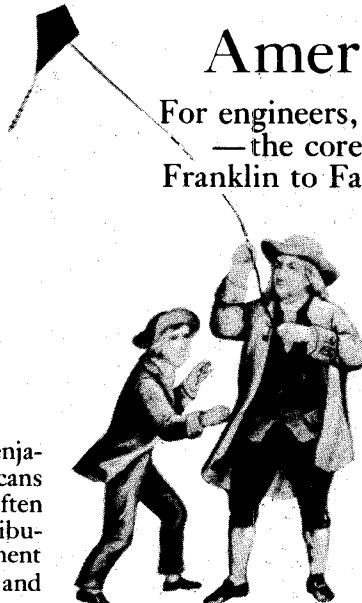
This rich heritage of American electrical and electronics engineering is not fully appreciated, generally, even by those who are members of the profession. To do so, one previously had to delve into dusty original sources and wide-ranging scholarly studies—a difficult and forbidding task in this fast-paced age of specialization.

TURNING POINTS IN AMERICAN ELECTRICAL HISTORY provides a refreshing and much-needed change. Now everyone with an interest in the development of electricity in America has ready access to the papers that made electrical engineering history.

The papers appearing in this book recount the key developments—usually in the words of the person who made the contribution—that proved to be turning points in the progression of electrical science and technology from colonial days to the present. Among the many authors represented are such early luminaries as Franklin, Henry, Bell, Edison, Steinmetz, and De Forest, and later contributors such as Armstrong, Bardeen and Brattain, Sporn, Shannon, Pierce, Terman, and Fano.

The book is divided into two major parts, the first covering the period from colonial times to 1876, and the second part covering the last century. The papers in each part are subdivided into the nine sections listed below in the Contents.

A unique feature of the book is that *each* paper is preceded by editorial comments on the significance of the development it describes and also by a biographical sketch of the person or persons involved. The distinctive character and style of electrical engineering in America is a constant theme. Bibliographic information is given for those who may want to dig deeper into any aspect covered.



James E. Brittain • The Editor

Dr. Brittain teaches the history of science and technology at Georgia Institute of Technology. A graduate electrical engineer, he has specialized in the history of electricity. Before joining Georgia Tech, he did research on antennas at the University of Tennessee and taught E.E. at Clemson. Upon developing a strong professional interest in history, he undertook graduate work on the history of science and technology, receiving a Ph.D. in this area from Case Western Reserve University.

Dr. Brittain is Associate Editor of *Technology and Culture*, the journal of the Society for the History of Technology. He served as a guest editor of the September 1976 issue of the *Proceedings of the IEEE*, which was devoted entirely to the electrical history of America. He is also a member of the IEEE History Committee and is Associate Editor for History of the *IEEE Transactions on Education*.

Contents:

Preface, Introduction, Franklin's Electrical Theory and Lightning Rod, The Electrochemical Battery and Electromagnetism, Telegraphy and Telephony, Electric Lighting, Professionalization, Electric Light and Power Systems, Electrical Communication Systems, Electronics, Feedback Control and Computers, Subject and Author Indexes. A total of 64 reprinted papers. A Book of Selected Reprints. 1977. 416 pages.

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