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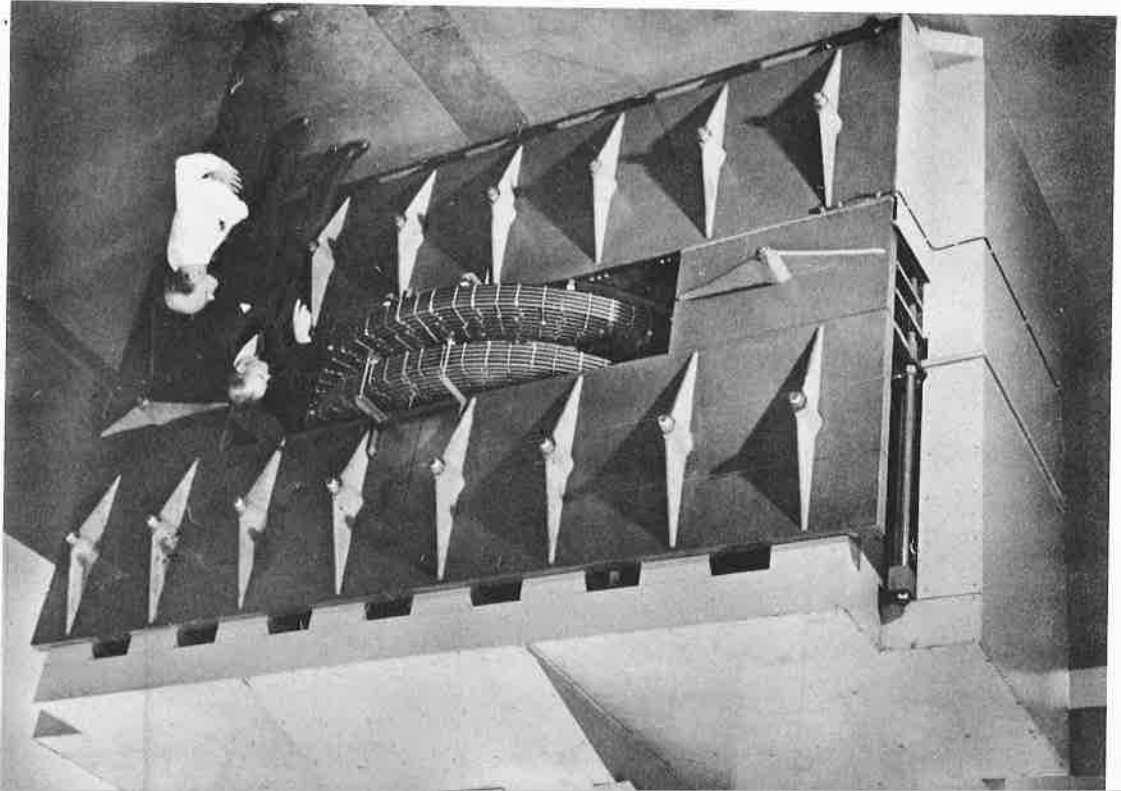
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# ELECTRICITY AND MAGNETISM

by  
FRANCIS WESTON SEARS  
*Professor of Physics  
Massachusetts Institute of Technology*

1951

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100-Million volt induction electron accelerator.  
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## PREFACE

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This book is the second volume of a series of texts written for the two-year course in General Physics at the Massachusetts Institute of Technology. The time allotted to Electricity and Magnetism in this course covers approximately the first 20 of the 30 weeks of the second year. The remainder of the second year is devoted to Optics.

Students using the book have completed, during their first year, a course in Mechanics, Heat, and Sound. They have also studied Analytical Geometry and Calculus for a full year and are completing Calculus and Differential Equations during their second year. This thorough grounding in Mathematics and Physics makes it possible to develop the subject of Electricity and Magnetism on a somewhat higher level than in the usual college course in General Physics.

Except for brief mention of the electrostatic and electromagnetic systems, rationalized mks units are used throughout. The symbols and terminology, with a few exceptions, are those recommended by the Committee on Electric and Magnetic Units of the American Association of Physics Teachers in its report of June, 1938.

The author wishes to express his gratitude to Dr. Charles W. Sheppard, who wrote the sections on chemical emf's, and to Dr. Mark W. Zemansky for his assistance in preparing the manuscript for publication. Acknowledgement is also made to numerous contributors to the American Physics Teacher and the American Journal of Physics.

The line drawings for all of the books in the series were made by Mrs. Jane A. Osgood, and the wash drawings by Mr. Joseph S. Banks. The entire staff of Addison-Wesley Press, and Mrs. Olga A. Crawford in particular, have been most co-operative in the task of seeing the series of texts through the press.

Cambridge, Mass.  
March, 1946

FRANCIS WESTON SEARS.

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