





100-Million volt induction electron accelerator.
(Courtesy of General Electric)

PRINCIPLES OF PHYSICS SERIES

ELECTRICITY AND MAGNETISM

by

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1951

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PREFACE

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.

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Cambridge, Mass.
March, 1946

FRANCIS WESTON SEARS.

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