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# ELECTRICITY
AND
# MAGNETISM

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## AN ELEMENTARY TEXT-BOOK

## THEORETICAL AND PRACTICAL

BY

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# PREFACE.

SOME words are perhaps necessary to explain the publication of another book dealing with Elementary Electricity. A considerable portion of the present work has been in type for a long time; it was used originally as a part of the practical work in Physics for Medical Students at the Cavendish Laboratory in connexion with my lectures, and was expanded by Mr Wilberforce and Mr Fitzpatrick in one of their Laboratory Note-books of Practical Physics.

When I ceased to deliver the first year course I was asked to print my lectures for the use, primarily, of the Students attending the practical classes; the lectures on Mechanics, Heat and Light have been in type for some years. Other claims on my time have prevented the issue of the present volume until now, when it appears in response to the promise made several years ago.

Meanwhile the subject has changed; but while this is the case the elementary laws and measurements on which the science is based remain unaltered, and I trust the book may be found of service to others besides my successors at the Cavendish Laboratory.

As in the other books of the Series, I have again to thank Mr Fitzpatrick for his very valuable assistance.

He has read all the proofs and suggested numerous improvements, and has thus brought the book up to date as representing a course which many years' experience has proved to be a useful one for elementary students.

The book is to be used in the same way as its predecessors. The apparatus for most of the Experiments is of a simple character and can be supplied at no great expense in considerable quantities.

Thus the Experiments should all, as far as possible, be carried out by the members of the class, the teacher should base his reasoning on the results actually obtained by his pupils. Ten or twelve years ago this method was far from common; the importance to a School of a Physical Laboratory is now more generally recognized; it is with the hope that the book may be of value to those who are endeavouring to put the method in practice that it is issued now.

R. T. GLAZEBROOK.

National Physical Laboratory.
*July* 19, 1903.

# CONTENTS.