

PREFACE

METHODS of teaching elementary physics have undergone, within scarcely more than a decade, many radical changes. The educational pendulum has vibrated between extreme methods of all text-book and no text-book, all laboratory and no laboratory, the inductive method and the deductive method, all oral instruction and little oral instruction. At present it seems to have approached the point of equilibrium where the good in each of these methods is given its due weight. It appears to be the consensus of opinion among teachers of physics that the method of instruction which includes a due proportion of text-book study, lecture-room demonstration, and individual work in the laboratory is the method conducive to the highest order of results from an educational point of view.

In revising this book, the attempt is made to emphasize its *text-book* feature. It has been the author's purpose to place before the pupil in simple language and in logical order, with due regard to child psychology, the general principles and the important laws of physical science, and not to allow them to be obscured by a multiplicity of experimental details which would be more appropriate in a teachers' handbook or in a laboratory manual. Some experiments have been introduced with a view to making the presentation of the subjects