

The inductive method of presenting the subject has been followed as far as possible. The pupil is called upon all the way through to express what he has discovered, thus arriving at exact definitions and statements of facts. Review exercises relating to the particular part of the subject under discussion, and also special review sections covering the whole ground already familiar to the pupil, are introduced with each chapter. This will, we believe, secure to the child all the advantages of the "spiral method" without its many evident disadvantages. Each chapter ends with a series of problems which requires the pupils to be independent of special rules or suggestions arising out of chapter headings.

The book is not a book of problems only. This, we believe, will commend it to teachers. We are firmly convinced that a careful and exact statement of facts, by means of definitions, will be found helpful to both pupil and teacher. Want of exactness in statement and the lack of appreciation of the precise meaning of words are among the chief causes of defective teaching, especially in subjects which may be classified as exact sciences. Rules, therefore, we have omitted, but definitions have been plainly stated after the facts which make them necessary have been worked out. Occasionally a chapter begins with a statement of fact or a definition, but where such is the case it is because the facts upon which it is based have become familiar through previous work.

Further, we have not hesitated to introduce solutions where it seems necessary to make clear the process involved and to guide the pupil in a method of doing his work. Many years of experience as teachers and examiners in mathematical subjects have convinced us that not enough attention is paid to securing, on the part of pupils, clear statements of the meaning of the steps involved in the working of problems.

We have introduced, under denominate numbers in Part I, only the tables of measures in common use in this country. The metric system, tables of English money, Troy weight, etc., will be found at the end of Part II. Teachers who desire can present these tables earlier. This arrangement has been adopted to avoid confusion in the elementary stages.

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