THE FRANKLIN PRIMARY ARITHMETIC

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The Franklin Primary Arithmetic by Edwin P. Seaver & George A. Walton

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EDWIN P. SEAVER & GEORGE A. WALTON

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PRIMARY ARITHMETIC

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PREFACE.

The Franklin Primary Arithmetic is intended to be an aid in teaching numbers by the objective or intuitive method. As it is from objects that the child gets his first notions of numbers, so it is by the use of objects that the teacher will best succeed in imparting clear and lasting knowledge of numbers. Throughout this book, therefore, numbers are treated as numbers of things; and the things are supposed to be either actually, or in imagination, present before the pupil. To aid in this appeal to the senses a very liberal use has been made of pictures and other illustrations: these will, to some extent, take the place of tangible objects; while taken in connection with the text they serve a no less important purpose in awakening and training the imagination, or in aiding the memory to retain observed facts.

Another feature of the book is the work for the slate given in connection with all the oral exercises, by which children may early learn to express in figures their mental operations. Thus mental and written arithmetic are, as indeed they ought to be, learned at the same time. Constant use of the pencil, even in the case of very young pupils, not only greatly aids the memory in retaining results, but gives useful practice in the art of ciphering.

The method of the book turns mainly on the fact that among all the countless combinations of numbers dealt with in arithmetic there are a few elementary combinations which, when once they are thoroughly learned, give the key to all the

rest. High importance, therefore, is attached to these elementary combinations. By giving chief attention to them, not only will time be saved, but there will result a knowledge of numbers more rational and more useful than would be gained by studying a much larger number of combinations under the separate heads of Addition, Subtraction, Multiplication, and Division. To secure thorough training, then, in the elementary combinations is the prime object of this book, and the lessons have been arranged accordingly. The earlier lessons treat of all combinations that produce small numbers not exceeding ten; next come combinations that produce numbers from ten to twenty; and finally applications of these elementary combinations to numbers not exceeding one hundred. Every new number is studied with reference to the combinations that produce it. Sometimes a whole lesson or even two lessons are taken up with the combinations that produce a single number. The number is separated into parts, and the parts again united; the whole is compared with each of its parts, and each part with the whole, to find either a remainder or the excess of one number over another. Products, divisors, and quotients are found by the further study of numbers that are made up of equal parts. Thus all the language and all the operations of elementary arithmetic are brought into play while the child is dealing with small numbers, and he gets constantly renewed practice in them as he goes on with larger numbers.

The method of teaching arithmetic implied in this book is believed to be a sound and fruitful one. It is not a new method; it has stood the test of long use; but the fresh treatment and illustration it has here received may, neverthless, be of service to those who wish to see less rational methods disnsed.

> E. P. S. G. A. W.

Bosron, May, 1879.

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PRIMARY ARITHMETIC.



Lesson I.



Hold up your right hand.

Hold up your left hand.

One hand and one hand are
two hands.

How many hands have you? The little boy in the picture has one orange in his right hand and one orange in his left hand. How many oranges has he?

Hold up one finger. Hold up two fingers.

Point to one chair. Point to two books.

Take two steps forward. Take one step backward. Clap your hands once. Clap your hands twice.

Make one dot on your slate. Make another dot.

How many dots have you made?

How many ones are there in two? Rub out one dot; how many dots are left?

Here is the figure that stands for two.....2.