HAMILTON'S STANDARD ARITHMETIC: BOOK ONE

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Hamilton's Standard Arithmetic: Book One by Samuel Hamilton

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SAMUEL HAMILTON

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BOOK ONE

BY

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PREFACE

THE aims of "Hamilton's Standard Arithmetic" are: first, to give the pupils such training as will lead to speed and accuracy in the use of numbers; second, to develop their power of mathematical reasoning; third, to appeal to the interests of the children by presenting the problems in settings connected with their everyday experiences.

The series consists of three books. *Book One* is intended to cover the work of the *first four years*. The Suggestions to Teachers give advice on those phases of number work which may be taught incidentally in the first year in connection with other subjects.

Attention is invited to the following features of this book:

1. The elementary presentation of each subject before the complete treatment of it.
2. The number games and the motivated drills.
3. The frequency of systematic reviews.
4. The easy steps in gradation.
5. The interesting character of the problems drawn from the child's activities at home, at school, and at play, and from his relations to community life.
6. The close relation of business problems to real conditions.
7. The utilization of the child's self-activity in constructive work and in the framing of original problems.

8. The emphasis placed on correct interpretation of problems and on choosing the most economical methods for their solution.

9. The training in estimating and in checking results.

10. The appeal made to observation as a stimulus to mathematical thought.

The first and second chapters, which include work for the *second year*, are devoted mainly to the forty-five primary number facts of addition and subtraction. The textbook may be placed in the hands of the pupil when he enters upon this work.

The purpose of the third and fourth chapters, which contain the work for the *third year*, is to give an elementary treatment of the fundamental operations.

The fifth and sixth chapters, containing the *fourth year's work*, continue the previous work with larger numbers, and give the pupils a thorough training in the four fundamental operations.

SAMUEL HAMILTON.

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SUGGESTIONS TO TEACHERS

I. Exercises that involve the recognition of number.

1. *Sorting and arranging objects* according to definite directions.

a. Stringing wooden beads; for example, one red bead and two white beads or two red beads and three white beads, etc.

b. Making borders of parquetry papers; for example, two circles and one square repeated a given number of times.

c. Laying sticks by twos, threes, etc., to form borders.

d. Placing colored pegs in a peg board according to a given plan.

2. *Weaving mats* — over one, under two, over three, etc.

3. *Distributing material* by permitting pupils to select from a box three splints or four cubes, or one mat and five strips, etc.

4. *Games:*

a. Play "Soldier Boy" until six pupils have been chosen or until eight flags have been distributed.