

CONDENSED DIRECTIONS FOR TEACHING ARITHMETIC.

BY JOHN SWEET.

1. Train beginners from five to six years of age on combination of numbers, not exceeding ten, in addition, subtraction, multiplication and division. Begin with counters such as small blocks of wood, shells, corn, beans or pebbles, and use them for two or three months, until the pupils can make the combinations without the aid of objects. (Grube method.)

2. After from three to six months extend the combinations to 20.

3. Teach figures and the forms of written arithmetic, in connection with the mental work.

4. Children under ten years of age should be limited to operations in addition, subtraction, multiplication and division, in order to secure accuracy and readiness. Problems and analysis come properly when the reasoning faculties are more developed.

5. If a text book is used by the pupils, omit all puzzling and complicated problems, and all questions involving large numbers

After the first year, teach decimals in connection with whole numbers, at least to the extent of adding and subtracting, and of multiplying and dividing them by whole numbers. Limit : first steps, *tenths* ; second, *hundredths* ; third, *thousandths*.

7. In the second and third years teach common fractions, limited mainly to *halves*, *thirds*, *fourths*, etc., to *twelfths*. Illustrate simple operations in the four rules by means of apples, crayons, or lines upon the blackboard.

8. Use the blackboard yourself for the purpose of making explanations or models of methods.

9. Drill your pupils at the board, sending up one half the class while the other half is engaged in slate-work. Give both divisions the same exercises, and insist on good figures and neat work.

10. Give frequent drills in addition—the operation in which more mistakes are made than any other.

11. Fix every new operation, or principle, by long-continued and frequently repeated drill.

12. Do not take more than one hour a day for arithmetic.

13. Accuracy is far more important than rapidity.