THE STARTING POINT OF THE THINKING PROCESS.

As already hinted, the starting point of the pupil's power of thought is the thing that works its worry for the teacher. How shall this point be reached? Not surely in pursuit of the rote method in any of its forms. What the pupil studies must be studied in as full an apprehension as possible of its meaning and application. If the study be *a* of the literary alphabet or *1* of the arithmetical alphabet, it should be pursued in the development of the value in use and forms of application of *a* and *1*. The figure as well as the letter is a sign and a sound. Each has its value and forms of application. The use of the *a* is associated with the process of making words and sentences. The use of the *1* is associated with the working of numbers. *a* is a letter. *1* is a figure. For the present purpose we consider the figure. What is it? A sign, expressed orally by a sound. It is a sign—a mark *1*. It is a sound and has a value—one. The memory of the sign and the sound is essential, but it is not sufficient as a matter of mere memory. The value of *1* and the way to use it intelligently, are the points of development in the art of teaching. Ask the child that knows only what *1* is as a mark and a sound, and if you get an answer, which is doubtful, it will be nothing beyond the mere declaration that it is a mark, and that it is one. The mark in its character as a figure and in its power as a number is unknown and therefore useless. Ask the pupil who is considerably advanced in the rote practice what a figure is, and he will answer, "It is a number." Ask what is a number, and the answer will be, "It is a figure." The idea of the difference between a figure and a number is never produced by the rote system. If it is understood by the pupil, it is because the teacher has suggested it. The teacher suggests every portion of the pupil's intelligent knowledge in any and all of his studies.

DIFFERENCE BETWEEN A FIGURE AND A NUMBER.

The following play upon the intelligent drill of the class has often occurred in the Primary Schools: What is a figure? A number. What is a number? A figure. Let us prove these answers. How many figures are there? Ten. What are they? 1, 2, 3, 4, 5, 6, 7, 8, 9, 0. How many numbers are there? Ten. What are they? 1, 2, 3, 4, 5, 6, 7, 8, 9, 0. Then a figure is a number, is it? Yes. Are there but ten numbers? Yes. There are only ten numbers? Can you count fifty? Yes. Is fifty a number? Yes. Can you count one hundred? Yes. Is a hundred a number? Yes. How many can you count? Generally no answer. Can you count a thousand? Yes. How many thousand can you count? A hundred thousand. Can you count until you are tired? Yes. Can you rest yourself and count again? Yes. When you have counted all you can, have you counted all the numbers? No. Then there are more than ten numbers? Yes. Are there more numbers than you can count? Yes. Now are figures numbers? No. What is the difference? No answer. It requires the exercise of the reasoning power to give the answer, and if the pupil has not been taught how to exercise the reasoning power this question, like many others, cannot be answered. Let us practice the reasoning for a moment. Place a figure five upon your slates. What is it? A figure. What figure is it? Five. What number is it? Five. Place another figure five by the side of it. What is the number? Fifty-five. How many figures have you? Two. Have you two figures or the same figure repeated? We have the same figure repeated. Then you have but one figure repeated, and the one is five and the two fifty-five? Yes. Place three figure fives on the slate, and what is the number? Five hundred and fifty-five. With one figure you can make tens and hundreds and thousands and millions? Yes. Then a figure is not a number, but it has something to do with the number. What has it to do with the number? It stands for the number. Does it represent