

Special Papers.

TO COUNTY MODEL SCHOOL STUDENTS.

SECOND ARTICLE.

In this article we wish to address you on teaching. As beginners in the work you cannot at first realize the difficulties which will meet you in teaching young children. To be successful in this, you must proceed along the lines on which the child has passed. Your methods must be in harmony with those which the child has practised—with those by which he has been teaching himself, under the guidance of nature, before he enters the school. He comes to school knowing a great deal, and it will be well for you to inquire how he has obtained his information. He has not learned it from books. From conversation with others he has learned merely the names of things, of qualities, of actions, etc., but how has he learned the *meaning* of these words?—not from the words themselves, for words alone do not convey thoughts.

If, to illustrate, I use a word with which you are not familiar, there will be no corresponding thought in your mind. If you hear the word roup for the first time, no thought is awakened; but if, instead of roup, we say "a sale of goods by auction," at once the mind grasps the thought. If you ask yourselves why is this, you will see that, while there is no thought in the words, yet each has been used by you before in connection with an idea in the mind, as its sign, so to speak, and, being retained by the mind, as soon as the sign is seen or its name heard, at once the corresponding idea is called up in the mind, and associated with its sign. But it must never be forgotten that a sign or symbol has no meaning or use unless there is a corresponding idea already in the mind to be called into activity. If a child has no idea of the number seven, the figure 7 has no meaning whatever for it.

This may seem a simple matter, but probably few of you have ever thought of it before. The neglect of this is the cause of much failure in teaching, not only in the failure to impart information, but in causing children to become confused, and to lose heart in their work.

Young teachers, fresh from High Schools and High School text-books, are apt to use a rigid phraseology of technical terms, and fixed definitions, which are often worse than meaningless, inasmuch as they are confusing, if not stupefying, to a child.

You will, in all probability, realize the truth of this when you come to teach. You will stand before your pupils, and in your eagerness to teach, will undertake to tell them all you know of the subject to be taught. You will talk and talk and talk on, expecting that because you tell, your pupils must, of course, learn; but, when the result is tested, it will too often be found, like the little questions or "sums" which we give as the first exercises in addition, when we "add the lines up" there is *nothing* to carry.

Nearly every young teacher has bitterly felt the disappointment of having his work weighed in the balance at the first visit of his inspector and found to be wanting.

If this should be your experience do not blame the pupils, do not class them as stupid. There may be stupidity somewhere in the work, but the chances are it can be found in using stilted forms of speech, which "went over the children's heads," causing confusion rather than thought, and in forgetting the worthy maxim: "The *more* you *tell* the *less* you *teach*"; or, to put it in another form: "A multiplicity of words causes poverty of thought."

We started out by advising you to teach little children as far as possible in the way in which they had already been acquiring knowledge. What is this natural way? How does this product which we call knowledge first get into the mind, so to speak? It comes primarily from without, from the world outside of ourselves, from realities, from entities, from what is usually called the concrete. And, in order that there may be knowledge of these entities, there must first be contact between them and our organism. This contact must first be of the realities *themselves*, not of their names, not of their signs or symbols. And this contact must be made through the senses—seeing, hearing, touching, etc. It can be made in no other way. There is no other avenue by which knowledge of the externality can be acquired by the mind. Language, at first, is absolutely useless. Of course, when the mind has acquired knowledge through the reality, it can, in obedience to language, call up this knowledge, and by imagination rearrange it and transform it into new compounds in harmony with verbal description. But we must ever remember that imagination, however active, deals only with material already in the mind. It may form new compounds, but it cannot create the elements. These must come, as we have said, primarily from without, through the senses to the mind.

For example, if a person had been born blind, had no thought-material whatever in his mind of color, how could you by words explain to him what purple meant? How would you begin? If you were to attempt it you would at once find out how utterly useless words in themselves were to convey thought from your mind to that of the blind man. You would also realize in your helplessness, as you never realized before, that there is no other way of giving a knowledge of color to the mind than by conveying the light through the eye, and that if this or any other sense is destroyed nothing can be done to enable imagination or anything else to act as a substitute for it. This truth, being understood, should have a most important bearing on your teaching. It is in obedience to this natural law that objects are put before little children to enable them to distinguish number before figures or names are given to them, that the moulding board is used to teach the natural divisions of land and water before names or definitions are given, that botany,

chemistry, etc., are now taught rationally, are taught through the plants or other things to be learned; it is, in short, the foundation of all objective teaching.

You should be careful, however, not to limit your teaching of this kind merely to what may be illustrated by means of what is commonly understood by the term *object*. It should include much more than this. In grammar nearly everything should at first be taught in this way. The sentence, the different kind of sentences, the subject, the predicate, all the parts of speech, the inflections of words, etc., should be taught objectively. Just as you put a piece of chalk in a child's hand in order that he may know what chalk is, so the different things to be taught in grammar should first be placed before the pupil, in order that he, under the skilful direction of the teacher, may see for himself the form and the use of the thing to be learned before any technical term or definition is presented. In this way only can there be any real knowledge.

In arithmetic, also, the objective teaching should not be limited to objects to illustrate number. It should always be used for primary examples of operations to be performed, and should be extended, if possible, to assist pupils, when necessary, to understand difficult problems. Occasionally a teacher is found who teaches reduction objectively, by means of measures, as gallons, quarts, and pints, and requires the pupil to find out for himself the number of quarts in a gallon, etc., and afterwards, by induction, leads him to establish his own rule for solving problems. Long measure and other tables are taught in the same way.

The teaching of reduction in this way, with the use of objects to illustrate number, and the use of bundles of splints and single splints to explain the operations of "carrying" in addition, and of "borrowing" in subtraction, which is practised in most schools containing primary classes, is strictly in accordance with this natural law of which we have been speaking, that anything must first be learned through *itself*.

We would advise you, in your teaching of arithmetic, to apply it to all primary operations to be performed. 6 plus 3 conveys no meaning at first to a child's mind, and there is a time in every child's life when he has no conception whatever of what you mean when you say six and three are nine. And he can grasp the meaning only in one way—first by knowing what six is and what three is, and then by putting six objects and three objects together and noting the result.

As in addition, so in subtraction, multiplication, and division. Let the child first *know* what these terms mean, not by putting figures and signs upon the blackboard, but by putting objects in his hand and allowing him to perform the operations for himself. In what are commonly known as type problems, have a sufficient number solved by means of objects, wherever possible, in order to prove to you that the operation is thoroughly understood by the pupil before figures are used at all. In this way only can you be certain that the