

there to illustrate the close connection between theory and practice. This I do the more readily because I have found many teachers sceptical about the practical value of mental science. It is sometimes argued, in depreciation of the study of the science that underlies art, that a ploughman will not drive a straighter furrow for knowing Euclid, nor a cook make a better plum-pudding for knowing the chemical constituents of the ingredients. I admit the force of the argument as regards ploughmen and cooks, though I can conceive cases where the ploughman would be all the better for a little geometry, and the cook all the better for a little chemistry; but the work of the teacher is of a very different character from that of either the ploughman or the cook. It deals with much more difficult problems, in the solution of which rule of thumb, skill and the recipes of some educational Mrs. Beeton go but a little way.

I have said enough by way of preface. Let us come to business, and, in order that we may have some definite order of procedure, let us follow the ordinary classification of the human faculties.

We all know that attention is a condition, of all mental processes. We cannot observe, recall our observations, analyse them, classify them, combine them, or reason from them, without attention. And as it is without our own independent efforts in the acquisition of knowledge, so it is in teaching, which is, properly, only a mode of stimulating the efforts of our pupils. If our pupils are not attending to us, our labors, no matter how excellent, are thrown away. We are wasting our sweetness on the desert air. The pitcher is not beneath the spout. This last, by-the-way, is a most inadequate illustration, for a pitcher is the passive recipient of the water which flows into it, whereas the

child must be an active recipient before the stream of knowledge can flow into his mind at all. "We learn," it has been said, "only so much as we teach ourselves." We cannot transfer knowledge from our mind to the minds of our pupils as we could transfer some material object from one room to another. The pupil must do something for himself, and the first thing for him to do is to attend to his teacher, the next to attend to whatever his teacher sets him to do.

Now, I constantly find that teachers disregard this essential preliminary. They begin to teach before the pitcher is under the spout, and often continue to teach long after the pitcher has moved away. They forget that the human pitcher has power of locomotion, of expansion and of contraction, and that it has an unfortunate propensity to get from under the spout, or contract its mouth, even while seeming to be perfectly still. As a consequence of this propensity a large part of the instruction given in our schools never enters the pitcher; it is simply spilled. More serious even than the loss of information supposed to be conveyed by the teacher is the failure, consequent upon inattention, of the child's independent efforts to perform the task assigned him. If he gives but a corner of his mind to matters which demand the whole, his progress will be commensurate with his attention. Mr. Darwin tells us that "a man who trains monkeys to act in plays used to purchase common kinds from the Zoological Society at the price of five pounds each; but he offered to give double the price if he might keep three or four of them for a few days, in order to select one. When asked how he could possibly learn so soon whether a particular monkey could turn out a good actor, he answered that it all depended on their power