

foster qualities exactly the reverse of those which it was desired to engender.

There is a cognate subject upon which I would like to say a few words before closing. Very much has been lately said about the training given by the teaching of science as opposed to that of the classics, and the point has been so far yielded that science now forms part of the curriculum of nearly every school. It is taken for granted that the qualities of observation and the principles of inductive philosophy which have wrought such a revolution in scientific thought are being inculcated. Generally speaking, nothing of the kind is being done. The boys are merely cramming their memories with long lists of technical terms and the abstract principles of science, which are little likely to waken in them the true spirit of scientific discovery or even of patient research.

So far as their mental training is concerned, the lists had much better be lists of Latin and Greek verbs, a knowledge of which would give them at least a chance of being inspired by the thoughts of the great classic literature. If science is to be taught, let it be taught on scientific principles, and from the beginning let the pupil be trained to observe facts for himself, to make experiments and to draw from them the necessary deductions. To shew that this is not only desirable, but practicable, even in the case of the poorest of schools, I might mention the work done by Mr. Woodhall in the science classes of the New York Industrial Education Association. Here all the grand principles of the natural laws are demonstrated by simple experiments, which children can easily repeat for themselves, and the total cost of the apparatus is only a trifle more than three dollars. This apparently incredible fact may be understood when we consider that the object in this case is to arrive at principles by correct methods, and not to make the great measurements for which the more elaborate and delicate instruments are required. Glass bottles, tubes and rubber corks are easily procured, and by these means can be illustrated a most surprising number of important phenomena.

This method of teaching science will do more to start the children on the path of discovery for themselves than any amount of book work, and will also give them much of the same mental discipline which I have been claiming for manual training.

Holding such opinions as I do on the subject of manual training, it is a matter of much satisfaction to me that unobtrusive efforts in this direction have already been made in