

you as it should be. What I refer to is the habit of carefully recording all your observations when directly in contact with Nature, and also all the chief facts connected with them. Do not trust to your memory, for you may forget an important detail, or, worse, it may return to you a distorted image of the original, an image that has been gradually altered in the process of keeping.

Gentlemen of the first year, begin this practice at once with the objects presented to you in botany and histology. Make rough sketches of some of your dissections, even if you destroy them immediately after. In the chemical laboratory it is absolutely essential to progress to record everything that happens—your reasons for the experiment, and the conclusions deduced from it. Make notes of what you see and do in the physiological laboratory; what you see at the bedsides and at the autopsies. It should be the constant habit, not only of your student life, but after you leave us to engage in practice; and especially remember that these notes are always to be made with the object you describe before you. Now, if you have any doubt regarding the importance of this habit, convince yourselves of its value by trying this experiment on yourself. Make a simple series of re-actions on a substance in the laboratory, or examine carefully a plant or a diseased organ, and afterwards, in the quiet of your own room, sit down and write out what you did and what you saw; and unless you are more than ordinarily gifted, I feel sure a comparison of your notes with the original, next day, will convince you of the fact that to delineate *ad Naturam* your model must be always before you.

Much more might be added regarding the educational value of laboratory work in chemistry, but I will content myself with pointing out, in conclusion, that although other subjects, notably practical physics, are able to afford much the same sort of education, yet in none are the materials so available and of such constant properties, or the apparatus so inexpensive and simple, or the experiments so easily made, and the results so quickly obtained as in chemistry.

The tendency of education to-day, in all branches, from the kindergarten to the university, is more and more towards placing laboratory work and personal observation before tra-