

keep the required course; but let adverse winds drive him off the beaten track, and his voyage must only end in failure and misfortune. Just so is it with the ignorant druggist; he may indeed manage to bungle through the official directions, but should anything go wrong, or any departure from the usual course be required, his incapacity becomes at once apparent, and mortification and loss result.

The selection of an elementary work on chemistry is a matter of considerable importance. Some are much better adapted for a course of self instruction than others; and it must also be borne in mind, that during the last ten years, the principles of the science have undergone very material changes. Of the nature or merit of these alterations it does not, at present, become us to speak: but suffice it to say that the more modern views are almost universally adopted by chemists in the present day, and that the scientific literature of the times is all based on such views. It will be necessary, then, for the student to select a publication of the most recent date. Those which we would recommend are Roscoe's *Lessons in Elementary Chemistry*, Attfield's *Chemistry*, and Fowne's *Manual of Chemistry*. Editions of all these have been issued during the last three years, and students should see that they get the latest. Any one of the works will be sufficient, although it is often advantageous to compare the statements of different authors on the same subjects.

A course of Practical Chemistry may be taken at the same time with the study of any of the works above mentioned, but that of Dr. Attfield will be found by far the best adapted to the plan. The apparatus required is of the simplest possible description; a few ounces of glass tubing, half-a-dozen test tubes, two or three flasks, with such articles as an ordinary druggist's shop can supply, being all that are necessary to perform the greater part of the experiments. It is a mistaken notion to suppose that costly and complicated apparatus is indispensable; a few simple appliances and a fair stock of ingenuity will go a long way. The most celebrated discoveries of Dr. Black are said to have been made with a stock of apparatus which was usually arranged on a tea-tray, and the total cost of which would not exceed five shillings.

Botany is one of the most essential but most neglected branches of the pharmacist's education. The Council of the College have recognized its importance, and in the examination for Pharmaceutical Chemists, have decided that one fifth of the total number of marks required in passing must have been obtained through proficiency in this science. It is one of the most interesting, and at the same time, most healthful studies with which we have to do. During the