

but while this is true, it must always be remembered that text books in the sciences are meant to be supplementary to practical work, and not to supersede it. One thing, however, with regard to such text books, is conceded by everyone and that it is that they should keep abreast of the progress that is being made in the sciences which they represent. Not only should they contain the latest verified facts of the science, but they should also set forth the latest developments in the methods of teaching the subject. It is not intended by this that our text books should be undergoing continuous revision, but merely that they should keep within measurable distance of the advances of the times.

A glance at the text books at present in use, will show that the situation in this respect could be improved. In physics, as far as the senior work at least is concerned, the subject has largely become mathematical. If this is the present trend of the study of physics then let the subject be transferred to the mathematical department, where it would appear to properly belong; but if as many yet believe physics is one of the experiment sciences, then the subject should be treated from that standpoint.

In botany the same text book has been in use for the last fifteen years and who will say that in this period great changes have not taken place in the treatment of this delightful subject? One has only to examine some recent work on the subject such as "*Bergen's Foundations of Botany*," published

by Ginn & Co., to understand how great the changes have been. Aspects of botany that were scarcely thought of ten years ago, now occupy a first place.

In chemistry, also, much the same state of affairs exist. Since the publication of the present authorized text book there have been not a few changes in this subject. More and more chemistry is becoming a study of the changes which matter undergoes and the causes which influence these changes. These new aspects of the subject have obtained such prominence as to require recognition in any course in chemistry no matter how elementary it may be.

There has recently been issued from the press of Edward Arnold, of London, a text book on chemistry, by W. A. Shenstone, of Clifton College, which fairly sets forth these latest ideas on the study of chemistry. The following extract from the author's preface, is a concise statement of the object of the work. "I have endeavored to provide a book which begins with a course of experimental work for quite young students, and develops at the later stages into a text book suitable for those who are older, that is, a text book containing fewer facts than these written solely for senior students, and in which the powers of the young workers are more carefully kept in view in the earlier and middle parts than is necessary in the case of books written for students of a different type." The author has also prepared a laboratory companion for use along with the text. This, in the opinion