

are given for this state of things. The teachers do not know how to teach science, and proper facilities for the work are not furnished for the class-rooms.

In the county academies and high schools studies are undertaken in botany, physics, chemistry, mineralogy and physiology. But the study of these subjects is chiefly a mechanical memorizing of text-books. Little experimental work is undertaken. Of the twenty-six candidates who received Grade A certificates in 1897, twenty-three were on the classical and only three on the scientific side. Of the thirty-seven academic teachers holding Grade A licenses, only two hold the "A scientific." In explanation of this difference, we are told that the means provided for teaching science in the schools are insufficient, and the teachers are not interested in the subject, also, that many of the candidates for examination are college graduates and the colleges are poorly equipped for teaching science. Candidates, it is said, must spend three years in studying classics before they can enter college, but they may be admitted without spending an hour on science. The conclusion is that, if we take account of the schools as a whole, there is very little science-teaching, and that little is poorly done.

Some of these statements call for consideration. When the devotees of what is called science urge that this department ought to have much more time and more efficient service, what do they mean by science? Oftentimes it is not easy to tell what idea the term is intended to convey. The facts in any department of nature are innumerable. That children should be taught to observe the facts of nature, is certainly desirable. But it ought not be expected that scholars between the ages of eight and sixteen should comprehend very clearly the theories under which the leaders of what is called science seek to group these facts. It is not clear what scholars between these ages are expected to do when they are assigned to science-studies. The memorizing of facts is discredited. The scholar must observe and "draw conclusions." If the scholar is left to himself, it is certain that his conclusions will be practical rather than scientific. If this tendency is discouraged, the apt scholar will catch some hints from the teacher in respect to the conclusion to be reached, and then, according to the doctrine laid down, the work is vitiated because it is not original with the scholar.

The tone in which the reference to the Colleges is made is hardly justified by the facts. Much valuable work in science is done in these institutions. The object of the College is to provide a curriculum for general education. The demand of the authorities of the public schools is for teachers who are specialists in certain subjects and who are skilled in the art of teaching these subjects to children. The preparation of teachers for this work certainly belongs to the Normal School. The authorities of the public schools seem to be complaining of a lack which it was their business to have supplied. If with such means as these authorities can command normal pupils