reasonable clearness and method. But time has modified somewhat my estimate of the docility of the average youth. I have as much faith as I ever had in his responsiveness to the right stimulus and influence, but I have more respect than I used to have for his discrimination. In these days of many electives, the pupil is encouraged to ask very early in his career, which one of several studies is the more profitable to him, and to govern himself accordingly. And this is as it should be. The student, sixteen or seventeen years of age, has a right to know why he is asked to learn or to do a particular thing. If he cannot be shown that a certain study which he is following is for his advantage, either he has an incompetent teacher or he is following that study too far. If he can see no use in any of his studies, his career as a student should end.

In urging that the use of every study, and every part of every study, should be demonstrable to the student, I am far from maintaining that the usefulness of any acquirement is to be measured solely, or even chiefly, in dollars and cents. The boy must be a very uncommon one, without sense of beauty or sublimity, without admiration for intellectual achievement, without interest for the welfare of coming generations, who cannot be made to feel that the phenomena of physical science, the history of its doctrines, its generalizations, its problems, its prophecies, are of interest for their own sake. The teacher should therefore cultivate a broad view of his subject. If he happens to be, like so many of us, not too generously endowed with imagination, he should seek the society, or read the books, of those to whom nature has been more lavish in this regard. He should read popular lectures and essays like those of Helmholtz, of Tait and of Tyndall. He may even do well to read, with a large interrogation point at hand, the products of distinctly rensational writers, ardent souls who are not always correct in their principles, but to whom much may be forgiven.

Nevertheless, the purely utilitarian value of the study of physics is very great, and it should be the care of the teacher to make it as great as possible, consistently with the intellectual development of the student. One of the most distinguished among living mathematicians is said to have named the Theory of Numbers as his favourite branch of mathematics, "because it has never been prostituted to any practical use." He tells of his hunt for an elusive mathematical truth in language as fervid and picturesque as any other man could call to his service in describing the chase of a Rocky Mountain goat; but he is a genius, and the ordinary teacher cannot safely imitate his methods. He is unpractical, but never dull. The ordinary teacher has to guard himself from being unpractical and dull at the same time.

Often a teacher fails to present matters in their due proportions, and sometimes it happens that wholesome, if unpalatable, advice will come from some frank acquaintance in a kindred subject, who knows enough of physics to see what it may do for a student, but not enough to be unduly interested in any one part of it. One must not let his pride, as a specialist, prevent his taking a useful hint, from whatever source it comes. The teacher of a certain type is not always able to let go of a subject when he knows that he had better do so. He undertakes to prepare some difficult experiment for an impending lecture, and his first attempt fails. He tries again and fails. There is yet time to prepare something else, this particular thing is not very important, but the difficulty of it piques him. He tries