

SCIENCE

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SCIENCE AND MEDICAL TEACHING¹

PRESIDENT ELIOT, through the long years of his distinguished service, has begged for a larger cultivation of the sciences among our people and only recently he has demanded that such a wider tuition be introduced into our schools as a necessity of proper national reconstruction. The value of science to mankind is being everywhere more fully appreciated. It is of its prophets in the past that this paper is to deal.

In the preface to the fourth edition of Lavoisier's "Elements of Chemistry," as translated from the original French and printed in Philadelphia in 1799, one finds the following conception of the scientific method.

When we begin the study of any science, we are in a situation, respecting that science, similar to children; and the course by which we have to advance is precisely the same which Nature follows in the formation of their ideas. In a child, the idea is merely an effect produced by a sensation; and, in the same manner, in commencing the study of a physical science, we ought to form no idea but what is a necessary consequence, and immediate effect, of an experiment or observation. Besides, he who enters upon the career of science, is in a less advantageous situation than a child who is acquiring his first ideas. To the child, Nature gives various means of rectifying any mistakes he may commit respecting the salutary or hurtful qualities of the objects which surround him. On every occasion his judgments are corrected by experience; want and pain are the necessary consequences arising from false judgment; gratification and pleasure are produced by judging aright. Under such masters, we can not fail to become well informed; and we soon learn to reason justly, when want and pain are the necessary consequences of a contrary conduct.

In the study and practise of the sciences it is entirely different; the false judgments we may

¹ Address at the meeting for the award of honors to students of medicine of Harvard University, December 16, 1918.