Technical Training and the Study of Literature.

The value of literary training in technical education has come to be everywhere recognized by educators, but students in general are as yet hardly responsive to it. A year or two ago a Sophomore at the Institute, with perhaps more frankness than judgment, wrote to the Secretary: "The only reason I can give for being absent from English is that the subject does not interest or benefit me in the least." The obvious reply was that for reasons which seemed to them ample, the Faculty, chiefly composed of scientific men, had made English literature an essential part of every course, so that without it technical training at the Institute was not regarded as complete. Whether this particular student was satisfied with such a reply I do not know; certain it is that the place and the office of this study are not as a rule easily appreciated by technical students.

What are sometimes called "culture studies" have come to be more and more insisted upon in technical schools; so that the importance of convincing students of their value has increased greatly. Work done under constraint is seldom satisfactory, and this is especially true of the present generation, so little affected by respect for conventional standards, and so inflexibly insistent upon independence of action. It is necessary that students shall be made to appreciate that the rank which is now given to these branches is not brought about by whim or mere theory; but that it is the result of a wide knowledge of the conditions under which work is today performed. The boys now in training should if possible be induced to realize that the increased prominence given to literary work in technical schools is the direct outcome of actual and practical experience.

The pressure and competition of modern life, it must be remembered, are constantly altering the conditions under which technical work is done. Where a quarter of a century ago technical workers were so few that a man need only to have come safely through a technical school to be assured of employment of a good grade, today the number of men trained to practical professions has so increased that he who seeks a place has to contend in fitness with numerous candidates. Of half a dozen men, all graduated with credit in technical work, but one can secure a given place. The number of candidates

affords the employer an opportunity for selection which did not exist formerly, and, in consequence, it imposes on the candidates the need of a more comprehensive training. The employer is now able to secure a man not only highly trained professionally, but chosen as well for his all-round character. The worker, then, if he wish to take high rank in his profession, to secure the best places, and to be advanced, is forced not only to be well trained technically, but to excel his rivals in adaptability, in breadth, and in general development of character.

Adaptibility, breadth, and character are not developed exclusively by any one branch of study, so that literature is not a sovereign remedy for stiffness, for narrowness, or for lack of mental vigor. Exclusive attention to any one line of work, however, will inevitably have a tendency to render the mind inflexible, contracted, and limited in resource; and hence the man who pursues only his technical education is practically sure to be confined in his outlook and is likely to lack responsiveness. There is danger that emergencies which unexpectedly arise in practical life will find him insufficient in his powers of appreciation and of devising expedients to meet them. Work outside of the immediate technical training is the only corrective, and while various sorts of human wisdom may be called into requisition for this purpose, there is none which for enlarging the mental view, for producing responsiveness, and for nourishing that imagination which is the creative force in technical as in all other human work, can rival the study of literature.

The estimating of values is one of the most important things which a professional worker is called to do. It may be the relative importance of one fact as compared with other facts: the erratic action of the magnetic needle under one set of circumstances as opposed to that in another, the characteristics of one ore as matched with another, the roof-line of a building and the contour of a roof of different design. Many of these things are to be tested by accurate scientific investigation, but independent judgment must still play a large part in the work of any successful man. To discover and to estimate the relation and the relative values of things the mind must be trained beyond the mere technical rules of any profession. Familiarity with the workings of great minds upon all sorts of topics as set down in literature may seem remote from training in technique; but no