

also, who are scarcely acquainted with the ordinary rudiments of a common education, much less with the more intricate studies that would be found so useful to them in their several occupations. To all such, well appointed mechanics' institutes offer the peculiar advantages they require.

There are also large numbers of our youth who have received a fair amount of rudimentary training, but who left school at an early age to engage in the more active duties of life, and are thus apt to forget in those engagements what they had previously learned. To such the evening classes furnish the means for exercising and further improving their minds.

The author\* of *Handbook of Mechanics' Institutions* on this subject, remarks:

"The interval between the period at which children usually leave school, and that in which, as youths and men, they become fully occupied with the duties and responsibilities of providing for themselves and families, and taking a recognised position in society, is peculiarly fitted for the acquisition of those branches of knowledge which have been imperfectly learned or wholly neglected at school, or to make further progress in studies already commenced, combining the daily maturing power of the understanding and reason with the exercise of the memory."

As to what may be done to supply early deficiencies of youth, and the importance of elementary acquirements to success in life, the author says:

"If the intervals of leisure which fall to the lot of most youths and young men be improved, even by those who have not received the blessings of early instruction, it is quite inconceivable to those who have not had the opportunity of witnessing it, what earnest application, under wise directions, can accomplish. Thus, in the most mechanical, yet, perhaps, most decisive, of a young man's attainments in relation to advancement in position—penmanship, it is curious to notice the progress from the uncouth scrawl, produced with painful distortion of limb and feature, which perplexes and baffles the reader; the helpless efforts at orthography, and the oblivious disregard of the simplest rules of grammar, so common among young men who have had a very scanty measure of early schooling, or who have neglected for a few years to apply such knowledge as they have acquired at school, and to compare these uncouth efforts with the results of a few lessons of an hour each, when the system is good. The defects and deformities disappear, the crooked and cramped characters become symmetrical, parallelism takes the place of the vagaries of zigzag, angles and most irregular polygons settle into curves, and almost imperceptibly a plain and frequently a very good style of writing is attained.

"If the very large number of young men whose prospects of advancement in life are blighted from their inability to write a fair hand, had any idea of

what a simple matter this accomplishment is, with a little application under a good teacher, they would subdue the silly bashfulness which too often keeps them aloof from the class-rooms of a Mechanics' Institution, and sweep away so insignificant an obstacle to success in life. Spelling, if wholly neglected, is a much more serious affair; but if the pupil be sufficiently impressed with its importance, and with the necessity of becoming his own vigilant monitor, every scrap of matter carefully committed to paper strengthens the habit of accuracy, and increases the knowledge of orthography. Grammar is generally a most interesting study, and affords an excellent exercise for the memory and the reason.

"Again, Arithmetic, if accompanied, as soon as the rudiments are mastered, by a gradual exposition of the *rationale* of the processes, besides being of eminent practical value, is an admirable mental discipline, and one upon which young people generally will enter with as much gratification as profit. Steadily conducting the mind onward in the acquisition of knowledge, which, valuable in itself, has a further and, perhaps, higher value, as preparatory to a wider range of study, it is most desirable to make Geometry a subject of attainment,—the teacher giving the pupil, by the way, glimpses of those sciences whose phenomena only admit of a mathematical explanation, as Astronomy, Mechanics, and Optics. But such pursuits are apt, if followed too exclusively, to beget a neglect of, and sometimes a contempt for, other important and interesting classes of inquiry,—those which keep alive the intelligent sympathy with human concerns, and which subdue prejudices and foster circumspection in the formation of opinion. Hence we would encourage those studies which bring the light of history to bear on our views of the age in which we live, acquaint us with the results of the enterprise and observation of travellers in other climes, amongst other races of mankind, and under widely different forms of government, and thus enable the student to obtain a clearer and juster idea of the religious, moral, social and political circumstances amid which his lot is cast. In short, a comprehensive course of elementary instruction should be given, such as every man ought to go through, to prepare him to fulfil his duties satisfactorily, to fit his mind to comprehend at least, if not to improve upon, the mode of conducting any operations he is employed in; to habituate him to derive a considerable degree of pleasure from intellectual pursuits, and to endow him with the power to read such books as he may have access to, and the current literature of the day, with a deeper and truer insight, and, therefore, a greater interest and profit, than the uncultivated mind can enjoy.

"Hence we do not hesitate to say, with regard to persons not arrived at maturity, means should be provided in all educational institutions which receive them, to give them this elementary course of instruction and discipline.

"Among the number of those who have had no opportunity of procuring this preparatory training, we have frequently noted with pity the chagrin and disappointment, the wounded self-esteem, and conscious incapacity of young men anxious to make their way in the world, and thoroughly sensible of

\* W. H. J. Traise, Secretary to the Leeds Mechanics' Institute and Literary Society, 1856.