

more to keep youth from falling into vicious and depraved habits, during days of unemployment, than the encouragement of Home Industry. It is a description of employment that may be made profitable as well as pleasing, and often when mechanics are thrown out of employment during times of depression, their idle hours could be turned to profitable account, and many a young man prevented, by the force of circumstances, from leaving his native town to become a citizen of a foreign land.

Few mechanics, when unemployed, know how to employ their time, and frequently, in consequence, grow into the evil habit of loafing around taverns; but through an industrial society, or through classes formed by mechanics, teaching how to manufacture various articles of use or ornament, which could be sold, sooner or later, and realize money, such as articles of furniture, carving, decoration, knickknacks, and a hundred different things, in the construction of which the material costs but little, it would help to keep a household in bread and butter until better times turned up.

Nor should the children of wealthy families feel above learning many of the useful arts. Sons and daughters of the noblest and wealthiest in Great Britain take a pleasure in many of these mechanical and industrial pursuits. Ladies excel in the lighter class of art work, such as carving, fret work, modelling and painting.

Although the object of this article is to show how Mechanics' Institutes could be made schools of technical instruction, a few words on the importance of technical education in our public schools will not be out of place.

When we consider that the great mass of the people of the Dominion is composed of agriculturists, and mechanics, and when we reflect that the world owes to the latter class some of the greatest and most important revolutions which have almost changed the surface of the globe; civilized nations that for centuries would have remained in barbarism, have been increased in riches a thousand fold, and added to their personal comfort and health; and that many of these important inventions have been the conceptions of men who were mere working mechanics; surely the class of education suitable to develop the latent talent of youth should be a matter of grave consideration to the educational departments of the country. While we appreciate most highly the rapid advance made of late years in the education of the masses, particularly in the Province of Ontario, and the superior attainments of the teachers, we cannot but feel that the education of the working-classes, such as are destined to become mechanics and agriculturists, is of too superficial a nature. We want a different education for the masses than that which qualifies them simply to be clerks, of which we already have too many for the country's good. We want more children instructed in the elements of chemistry for agriculturists, and in technics for mechanics; we want more practical teaching and practical training. When we see so much importance attached to practical training in Great Britain, France and Germany, and other advanced civilized powers of the world; countries which owe their present greatness over others to the perfection to which they have arrived in arts, science, manufactures and mechanical inventions, we should strain every nerve to take such steps as will be most conducive to produce similar results in this young country.

It is not long since that the Guilds of London appointed an executive committee to prepare a grand scheme and report for the technical training of artisans.

In one portion of this report the committee recommend that the teaching of artisans should be confined to imparting a knowledge of the principles of science and art, to familiarise them with the great facts and theories upon which the industry a boy is to pursue is based. To illustrate instances, they would not propose to instruct an iron-worker in the actual manufacture of his tools and appliances, but they would endeavour to impart such instruction as would enable him to understand why, in spite of his manual skill, his puddle bar is occasionally bad, or his pig iron of inferior quality. Chemistry, as applied to iron-work, would, therefore, be the most important subject in the curriculum of technical education for iron-workers. Similarly with regard to textile manufactures. It would be unwise to establish model factories, as has been done on the continent, with the view of enabling the operator to acquire extra dexterity; but it is essential to improvement that the pick of the workmen should have such an acquaintance with chemistry, as to appreciate the effects of different kinds of water, and to estimate the properties of dyes and their effects upon materials. While then artistic taste should be trained to avoid those combinations which offend against the accepted canons, applied chemistry is what is required, and not theoretical. What the iron-worker, and the worker of textile fabrics and the agriculturist require, is a knowledge of chemistry as it affects the industry in which he is engaged, or about to follow. Its further deep study must be left to his own inclination; for no institution or school for practical training can afford to devote more time than is absolutely necessary to its students, the aim being, we take it, to spread a knowledge of principles among the mass of workers rather than to turn out a limited number of specially skilled and highly instructed artisans. The principle object in the education of mechanics is to convey as much practical information as possible in the shortest period of time, and not to waste a pupil's time in the study of classics or abstruse science, particularly as so many are withdrawn from school, to enter the workshops, at an early age; further deep study should be left to their own inclinations; but the first consideration should be to ground him thoroughly in what concerns his own particular line of art or trade, so as to make him a perfect workman. The ordinary course of a plain English education is of the first consideration, and in which a youth should be thoroughly grounded before entering on higher studies; and then if a boy has to leave his school at an early age; let him be, at least, sufficiently educated in his own language. In advocating a change in the usual course of common school education, we by no means ignore the higher studies if there is time to learn them, but even then, we give a preference to German and French, over classics. Nor do we altogether object to theoretical teaching—simply preferring plain practical training. Above all, it is far preferable that a boy should leave school perfect in those studies essential to his future following, than to have his mind blurred with a merely superficial knowledge of a multitude of abstruse studies, so evanescently learned as to be lost to memory in a few months after leaving school.

Too much attention has been paid to the study of Latin and Greek, but of late years the public are awakening to the fallacy of this course of education.

At the recent opening of the "Mason Scientific College" at Birmingham, in which there are to be no classes for classical education, Professor Huxley, who delivered