

istry, etc., to those intended to pursue these various callings. We do not need to follow the rule in vogue in Prussia, of teaching some trade to every youth whatever his station and prospects in life, but such a course as indicated would go far to prepare all for the sudden changes which may come at any moment. Thus trained he would, though flung by some rude stroke of misfortune from the bosom of a luxurious home, like a cat thrown from a window, light upon his feet, ready for the race of life. At all events, it would enable every one of ordinary powers of mind to maintain some intelligent acquaintance with the wonderful contributions the arts and sciences are constantly making to our modern civilization. Particularly, in the case of all who expect to get their living by working with their hands, is it important that they should be enabled to bring intelligence to bear upon their work, as the following remarks by Dr. Lyon Playfair admirably illustrate:—

“The educational principle of Continental nations is to link on primary schools to secondary improvement schools. The links are always composed of higher subjects, the three R's being in all cases the basis of instruction; elementary science, and even some of its applications, is uniformly encouraged and generally enforced. No armourplate of knowledge is given to our future artisan but a mere veneer of the three R's, so thin as to rub off completely in three or four years of the wear and tear of life. Under our present system of elementary teaching, no knowledge whatever, bearing on the life-work of a people, reaches them by our system of State education. The air they breathe, the water they drink, the tools they use, the plants that grow, the mines they excavate, might all be made the subjects of surpassing interest and importance to them during their whole life; yet of these they learn not one fact. Yet we are surprised at the consequences of their ignorance. A thousand men perish yearly in our coal-mines, but no schoolmaster tells the poor miner the nature of the explosive gas which scorches him, or of the after-damp which chokes him. Boilers and steam-engines blow up so continually that a committee of the House of Commons

is now engaged in trying to diminish their alarming frequency; but the poor stokers who are scalded to death, or blown to pieces, were never instructed in the nature and properties of them. In Great Britain alone more than one hundred thousand people perish annually, and at least five times as many sicken grievously, out of pure ignorance of the laws of health, which are never taught them at school. The present system is truly ignoble, for it sends the working man into the world in gross ignorance of everything that he has to do in it. The utilitarian system is noble in so far as it treats him as an intelligent being who ought to understand the nature of his occupation, and the principles involved in it. The great advantage of directing education towards the pursuits and occupations of the people, instead of wasting it on dismal verbalism, is that, while it elevates the individual, it at the same time gives security for the future prosperity of the nation.”

A striking illustration of this last remark is afforded by the career of the late Thomas Kingsford, whose name is a household word wherever that useful domestic commodity, Oswego starch, has come. Born in England, he received a fair blue-coat school education; apprenticed to a baker at the age of sixteen, afterward engaged to work in a chemical manufactory, his observant and experimentative faculties seem to have received a decided practical stimulus. In 1830 he came to New York seeking a living, poor, but industrious and enterprising.

From a reliable source we learn the following facts:

“He was introduced in the way of business to Wm. Colgate, and by him was employed in his starch factory. They became attached friends. A strange providence placed the thread in his hand, which, followed, led him on to good fortune and position. The importation of a large quantity of French starch glutted the market. It was essential that a cheaper starch be made, or that failure be endured. Mr. Kingsford, after many experiments, discovered a manner of separating the fecula from maize in a rapid and economical manner, it having been suggested to him that the Dutch inhabitants of Long Island, when they cooked their sweet corn, dried for winter use, boiled it first in lye to separate the hull.

“On this hint Mr. Kingsford prepared a