THE TECH.

Noticeable Articles.

The July number of the Nineteenth Century contains an article by Lord Armstrong, the famous inventor of the Armstrong gun, and one of the most eminent and successful of English engineers, entitled, “The Vague Cry for Technical Education.” I should have been more surprised at anything looking like discouragement from such a source, if it had not been that when not long ago I visited the magnificent City and Guilds of London Technical College, recently erected at South Kensington, I had not been told by the Secretary that it was looked upon with much coldness, if not absolute disapproval, by many of the British manufacturers. John Bull is, of all men, most tenacious of old ways. When we come, however, to read Lord Armstrong’s paper, we discover that it relates rather to the first than the last words of his title. It is not so much to technical education that he objects as to what he considers the vagueness of the cry for it. The question is, however, whether any vagueness that may exist has not its seat in the writer’s own mind. Lord Armstrong, if one may say so, does not thoroughly understand the subject he is talking about; indeed, much that he says tells directly in favor of the reform he undertakes to criticise. With his criticism of the present condition of elementary education in England (and it applies equally to this country), almost everybody would agree. “That system has, in my opinion,” he says, “the radical defect of aiming at instruction in knowledge, rather than the training of the faculties. . . . It does little else than burden the memory with facts, rules, and information which, for the most part, are of little use for developing the intellect, or preparing it for the ordinary vocations of life. Such instruction excites little interest in the minds of the pupils, and in the vast majority of cases is speedily forgotten. . . . Professor Huxley has well said that our present system of elementary education is much too bookish.” Too true all this; but if Lord Armstrong had been better informed as to the aim of the movement he is criticising, he would know that one of its chief objects is to reform this very state of things. It is more surprising to find such a man bringing up the hackneyed objection that almost all the great English engineers and inventors—Watt, the elder Stephenson, Smeaton, Brindley, and the rest—were self-educated men; and to hear him repeating what has been said a hundred times before, and answered a hundred times over, of the great military and naval commanders of England, Wellington and Marlborough, Nelson and Blake, that “surely none of these would have directed the armies and navies of England with more effect if book-knowledge had been crammed into them at school; and it is highly probable that their services would have been lost to the nation if success in competitive examinations, such as are now in vogue, had been made a condition of their entering the army or the navy.” The not very original answer to all this is, that the cramming of book knowledge for competitive examinations is not education, and that the argument has very little point outside of examination-ridden England.

But if one would see the difference between an eminent man well informed and an eminent man ill informed, he has only to turn to Sir Lyon Playfair’s reply to this paper in the September number of the same magazine. Sir Lyon, to be sure, cannot discover that he and Lord Armstrong greatly differ on any fundamental point, and is at a loss to understand the reason for his fears; but his paper is one of the best expositions of the true rationale of technical education that can easily be found. It may well give us some pride to observe that he repeatedly quotes the Institute of Technology, of whose system he has a thorough knowledge, in illustration of his argument. He says in one place, “On my last visit to the great technological school in Boston, I found a display of competitive designs for a particular kind of bridge. While I was looking at the drawings, the largest builder of bridges in America came in, and, being much struck with the excellence of one of the designs, he sent for the student and engaged him at a good salary. The hundreds of students who pass through that school find no difficulty in obtaining employment, though at first their salaries are moderate, for they have much useful experience to learn in the actual work-shops of industry. The reason for this is obvious: the object of a school is to teach, while that of the work-shop is to pay; so the purposes of both must be brought into combination.”

Professor Playfair’s paper contains some interesting facts. At Munich a polytechnic school has been erected at a cost of £200,000, while one at Berlin has cost £450,000. “While Coventry and Spitalfields were losing their silk industries, the town of Crefeld in Germany was spending £215,000 on its