

"quently be exposed to public sale. When this is done, "it is generally the effect of fraud, and not of inability; "and the longest apprenticeship can give no security "against fraud. Quite different regulations are necessary "to prevent this abuse. The sterling mark upon plate, "and the stamps upon linen and wollen cloth, give the "purchaser much greater security than any statute of "apprenticeship. He generally looks at these, but never "thinks it worth while to enquire whether the workman "had served a seven years apprenticeship. The institu- "tion of long apprenticeships has no tendency to form "young people to industry. A journeyman who works "by the piece is likely to be industrious, because he "derives a benefit from every exertion of his industry. "An apprentice is likely to be idle, and almost always is "so, because he has no immediate interest to be other- "wise. In the inferior employments, the sweets of "labour consist altogether in the recompense of labour. "The boys who are put out apprentices from "public charities are generally bound for more than the "usual number of years, and they generally turn out "very idle and worthless.

Whatever may have been the influence of modern economists on the relations between master and apprentice, it is no less true that these conditions are considerably changed, as well in Europe as elsewhere. The workman has seen his favourite dream realized, the liberty of work, in this sense, at least, that the law is no longer at hand to protect the monopoly of working corporations and embarrass individual effort. But instead of the workshop, which the apprentice no longer follows but to acquire dexterity of hand, something else is necessary to be substituted for the lessons of long apprenticeship. Accordingly public schools and gratuitous courses of study, have been instituted. The secrets of the arts and industry have, in these courses, been revealed to those who frequented them. At first the progress of the new system has been, perhaps, but little felt; education, in fact, is a seed of which the germination is slow and of which the fruit does not ripen in a year. It required generations to convince Europe that it was necessary to give the workman an education corresponding to the kind of industry which he desired to follow, and to instruct him with reference to this industry especially. According to the acknowledgement of publicists who have given their attention to this important question the various governments of Europe recognise the fact that national supremacy must in future depend more and more on industrial supremacy. "Immediately after the war with France," says Professor Langl, "the authorities of the various industrial towns of Prussia were called upon by a circular issued by the Ministry of Commerce and Industry, to follow the example of France in the organization of Drawing and Industrial Schools; and their attention was directed to the industrial importance of these schools and to the fact that they form the true basis of the wealth of France."

England itself, in the year 1851, at the time of the universal exhibition at London, apprehended the importance of the movement inaugurated in France. That Exhibition showed that England was behind her rivals with respect to products susceptible of artistic treatment, and whose commercial value is, by this means, considerably increased. Profiting by defeat, England cast aside her former policy as to instruction, which was simply a *laissez-faire* policy, and set herself vigorously to work, in the hope that artistic instruction applied to industry might be reduced to rational methods, might be treated according to recognized principles, and determined no longer to abandon this kind of instruction. "We cannot make artists, nor even good designers by

dozens," said recently an English writer. "But we can encourage the teaching which will bring to light whatever ability there is hidden in this country and make all necessary preparations for that purpose. We can exercise to a certain degree, by elementary design, the eye and the hand of youth in the primary schools of our cities, sufficiently, at least, to allow them to distinguish, in a certain measure, forms and colours, what is graceful and well-proportioned, what is harmonious and conformable to the laws of taste, from what is not so. Even from a utilitarian point of view, this instruction is important to the workingman, because it enables him to understand and communicate ideas and views as to matters connected with his trade, by means of the pencil, and because it forms his eye and hand for the most delicate operations of his trade, and enables him, when the necessity occurs, to make diagrams and drawings of machines. It is not necessary to dwell on the importance of forming skilful designers and of assuring in this way a character of beauty as well as force and honesty in workmanship,—in a country, which to succeed in its trade counts so much on the industries of the weaver, the dyer, the printing of textile goods, pottery, porcelain, metal works of all kinds, &c."

Germany, whose industrial products are some times so exquisite and find so advantageous a place in foreign markets, has Schools of Art in her principal cities, and sometimes in cities of secondary importance with regard to population. Austria, since her defeat at Sadowa, has entered resolutely on the way that leads to the improvement of her industry by means of industrial education. The Vienna Exposition had for its chief object, it appears, to stimulate the Austrians by putting before their eyes what industrial education had effected in foreign countries. "But," writes Mr. S. R. Koehler, the movement in favor of art-industrial education is by no means limited to England, France, Germany, and Austria; it pervades all Europe,—the small states as well as the large. Even Russia forms no exception; with the last eleven years she has established various art schools modelled after the English, and it is said that they have greatly stimulated and improved the national taste. There is, indeed, but one opinion throughout Europe as to the importance of art-industrial education, and as to the wisdom of making it universal. In this connection it is well to note that the methods adopted by England for promoting this education are generally imitated. Even France, so long the leader of the world in matters of art, has of late been taking lessons of her neighbor across the Channel."

With respect to the efforts made by Russia to introduce industrial education, Professor T. C. Archer, attached to the Museum of Sciences and Arts of Edinburgh, having been present at the Polytechnic Exposition of Moscow in 1872, wrote: "Group No. 16 may be represented as a manufactory of ornamental plate in silver and silver gilt. Besides a splendid display in what may be termed the show-room, there are two very roomy and well fitted up workshops, in which the artisans may be seen working in the richly wrought and characteristic Slavonic designs, which are so notable in the plate produced in Moscow by the great firms of gold and silver smiths. The schools of art established about eight years ago, on the model of those at South Kensington, have, under the direction of Mr. Bowtloffski greatly stimulated and improved the national taste, and have especially led it to accept the pure Slavonic models, of which the imperial treasury in the Kremlin contains such an abundance of the best examples."

It was after having investigated the causes of the supe-