

pupils should be led farther afield, and be made acquainted with a number of works by different first-rate authors—at any rate, all the leading plays of Shakspeare might be read through in class. Much might be done by the aid of a good selection of typical extracts, exemplifying the peculiarities of style of different authors. The skilful teacher could make any subject disciplinary; and thoroughness and accuracy could be cultivated quite as well by the study of the English language and literature as by the study of the Greek and Latin classics.

The Chairman observed that the chief point was to awaken intelligence and to stir up interest in the subject. It was not possible to travel over the whole field of English literature; nor could we crowd into the school time all that it would be useful for a boy to know. Enough might be done for the cultivation of taste by the proper study of even two or three plays of Shakspeare. Attention ought specially to be given to teaching the pupils to read with intelligence, expression, and feeling, which was one of the best kinds of mental training that could be afforded. There could be no doubt that rapid progress was now being made, especially in the education of girls; and time was actually found for the study of English literature, without neglecting other important subjects.

Mr. Storr having replied to the different speakers, a vote of thanks to the lecturer concluded the proceedings. —(*Educational Times*).

Technical Education.

The Paris Exhibition of 1867 gave rise to a general demand for Technical Education. The report of the British Commissioners and of the working men sent over by the Society of Arts were full of lamentations on the superiority of all foreign work which involved a knowledge of art. The subject is again before the public committees. City companies and newspapers are at work, and it is hoped their deliberations will result in something practical; at present there appears no common basis of either action or agreement; no two persons are of the same opinion as to what is wanted to remedy the defect. The reverend principal of the Artisans' Institute thinks he is doing a noble work by encouraging a little dilettante modeling and carpenter's work in a garret in St. Martin's Lane, and some of the City companies have given donations to this work; and occasionally we hear of the technical education of bricklayers and masons, but what is meant by this technical education is not quite so clear to the outside public. Opinions differ very widely, not only in what is meant, but what is wanted, and the definitions which have from time to time appeared only add to the general bewilderment. One says, a knowledge useful to men in their work. Another, an intelligent appreciation of natural laws in their application to the industrial arts. Another, the teaching of mathematics and drawing in their relationship to various trades and handicrafts; and Professor Huxley, in a recent address, regards technical education not as the teaching of technicalities, but as the best training for enabling the pupil to learn them himself, and this training appears to be training of a good Science School.

The vagueness of these definitions arises from men not making a sufficient distinction between the science and practice of an industrial art. The union of science with practice is at present a dreamy impossibility, because it is difficult to unite the two qualifications in

the same person, except in very rare cases. To learn the practical work of mining, a man must go to work in a mine, but the theory of ventilation, the best methods of getting, transporting, and raising material can be taught in a schoolroom. In the same way a carpenter, to learn the practical part of his work, must engage in the work of the shop; but to understand the scientific principles involved in the construction of a roof, so as to use his wood to the best advantage in resisting the various forces acting upon it, he must know some geometry, mechanics, and mathematics. In 1820, Baron Charles Dupin began teaching the apprentices and workmen of Paris geometry and mechanics in their application to the manufacturing arts. Several professors and engineers, animated by a generous desire to promote this instruction, commenced courses of lessons to the apprentices and workmen in nearly all the manufacturing towns of France. This instruction was gratuitous; and in 1825, Baron Dupin says, thanks to the general and effectual assistance of a great number of municipal councils, mayors, prefects and sub-prefects, friends to useful knowledge, ninety-eight towns are endeavouring to rival each other in their zeal for imparting this new instruction to the working classes; and I can assert, because I have indisputable authority for the assertion, there are workmen who, since the opening of these classes, have improved their tools and instruments, and have constructed others more perfect, —workmen who have carried into their trades and occupations that geometrical and mechanical spirit which has simplified their proceedings, and which leads to that accuracy, economy, and precision without which the arts cannot produce anything either good or beautiful. There is no difficulty now in understanding what is meant by an apprenticeship to the trade of a carpenter; the lad in a certain number of years, dependent on his aptitude and the willingness of the men to teach him, learns the names and proper use of tools. In time he becomes a journeyman; if he be a careful, painstaking lad, able to set out his work, sparing no pains or labour in keeping his tools in order, and planing up his wood so that the stiles and different parts of his frame-work are out of twist, the tenons are accurately cut, and the mortices carefully made so that every part fits tightly and compactly together, he is regarded by his fellows and his master as a good workman. And if he take pleasure in his work, striving to do everything as perfectly as possible, there is nothing to which such a man may not succeed. Now this perfection in the Industrial arts may be attained, and often has been attained by men who could neither read nor write. But with a system of bargain and contracts, which encourage loose slovenly work, it is difficult to attain success. For every workman taking an interest in his work, and striving to do it well, except in some of the more artistic industries, there are hundreds, perhaps thousands of workmen, who never in their whole life did a piece of honest, good work. The men are not entirely to blame for this wide-spread demoralisation. The master, who used to work with his men, is now away in his yacht, and in companies there is no master. Between the workman and his employer there are a number of men who never did a day's work, either on the scaffold or in the shop. The foreman of a large engineering and fitting firm, employing a large number of apprentices, said to the writer: "When they go out of the yard we have nothing more to do with them till they come in again, and then it is our business to look after them." A large railway company, employing some thousands of skilled workmen and apprentices, used very properly