

## Special Papers.

## THE SOCRATIC METHOD.

FROM a very interesting and suggestive lecture before the English College of Preceptors on "Socrates and His Method of Teaching," by J. G. Fitch, Esq., M.A., LL.D., we clip the following extracts from the excellent practical hints they contain:—

"Occasionally, I have no doubt, it is useful to take a lesson on a single word—I will say, *constitutions, virtue, experience, proof, law, influence*—trace it through all the stages of its development, and the shades of its meaning; and then ask the scholar himself, after this inductive exercise, to define the word, and to take care that the definition shall cover all its legitimate applications. We want, of course, that our scholars shall know the meaning of the words they use. But the meaning of a word as learned by heart from a dictionary or a spelling-book is of no value. It is, indeed, owing to its necessary brevity, often worse than useless. The true way to teach to young learners the significance of a word is, after a brief explanation, to tell them to take the work and use it. 'Write four or five sentences containing the word.' 'Give me a short narrative in which this word shall be used three times in different senses.' Or, 'Take these two words, which are apparently synonymous, and employ them in such a way as to show that you see the less obvious distinction in their meaning.' I think that the same object that was aimed at by the Socratic *elenchus* among grown-up controversialists may be attained, among young scholars, by this simpler and less irritating process.

"You will see that, on one point much discussed among the educational reformers of our time—the educative virtue of mere handicraft—Socrates would probably not have agreed with the current opinion. He would not have regarded manual training as a good substitute for intellectual discipline. He had seen that certain mechanical dexterities might easily co-exist with complete stagnation of mind, with great poverty of ideas, and with a curious conceit as to the proportion and relative worth of the sort of knowledge the artizan did not happen to possess. I think, if he were to be consulted in our day by the advocates of technical education, he would say, 'Train people's hands and eyes by all means, but train the understanding at the same time. Let your pupil know well the properties of the materials he is using, and the nature and limits of the forces he employs. Let your handiwork be made subservient to careful measurement, to the cultivation of taste and intelligence, to the perception of artistic beauty, and then it will play a real part in the development of what is best in the human being; but, unless you do this, you will get little or no true culture out of carpentering, modelling, or needlework.'

"The well-known story of the sophist Meno and the slave-boy illustrates one conspicuous feature in the Socratic teaching as it is expounded in Plato. You will remember Meno has been complaining that Socrates's conversations had the effect of benumbing the hearer both in mind and mouth, and preventing him from feeling any confidence in himself. So he calls the slave-boy to him, draws on a line two feet long a square on the ground with a stick, and asks him first whether it is possible to have a square double the size, and next what should be the length of the line on which such a square should be drawn. The boy answers promptly, that for the double square the line should be of double the length, or four feet. Socrates turns to Meno, and says, 'You see that this boy thinks he knows, but does not really know.' He then goes on to draw another square on the double line, and teacher and pupil observe together that this is not twice but four times the size. The boy is puzzled and suggests a line three feet long; but further trial shows that the square thus formed contains nine square feet instead of eight. Whereupon Socrates enquires of the boy, since neither a line of three feet, nor a line of four feet, will serve as the base of the required double square, 'What is the true length?' and the answer is, of course, 'I do not know.' Here the master again turns to Meno, and says, 'Observe, this boy at first knew

not the right length of the desired line, neither does he yet know; but he then fancied he knew, and answered boldly, as a knowing person would. But he is now at a loss, and, as he knows not, does not even think he knows.' 'True,' says Meno. 'But then,' replies Socrates, 'is he not in a better condition now than at first, in regard to the matter of which he was, and is still, ignorant?' 'Certainly.' 'So in benumbing him, and making him speechless for a time, have we done him any harm?' 'Then by a series of experimental drawings, which Socrates makes, with questions of his own, and by help of suggestions on the part of the boy, he comes at last to draw the diagonal of the first square, and to erect a second square on that, and so to discover the true method of solving the problem proposed.

"You will notice one important point in connection with this dialogue with Meno. Socrates had a notion that all teaching should not come in the shape of teaching. 'You see,' said he, 'that I teach this boy nothing. I only help him to find and express what is already in his mind. The truth is there. It is discoverable if we only put him on the right track. It is better that he should find it for himself than that we should give him any information about it in an explicit or didactic form.' How much more impressive a truth is when, in this way, we have had a share in discovering it for ourselves, than when it is simply forced upon our acceptance by authority, every teacher knows. At any rate, the belief that learning consisted rather in searching and finding knowledge, than in passively receiving it, was a prominent item in Socrates's creed. He thought that a great part of what men wanted to know they might find out by self-interrogation, by meditation, and by purely internal mental processes.

## A DANGEROUS TENDENCY.

THE following passage from Prof. Huxley's speech at the annual dinner of the Royal Academy, contains some weighty suggestions from a high authority, which all educators will do well to ponder. As the *Schoolmaster* well observes:—"In these days of apparent desire to curtail the education of the poor man's child to the means of getting a living, it is impossible to attach too much importance to the demand of the eminent scientist for a general training as the basis of true education, before the narrowing influence of special work is allowed to make itself felt. This is as necessary for the child of the poor man as for the offspring of his social superiors. The same principles should underlie the education of both."

Prof. Huxley said:—"I do not know if you will think it permissible in a man devoted to one subject if I say that in my belief this Victorian epoch will be distinguished in history as the age of science. That is no mere expression of scientific fanaticism, but I am convinced it will be the judgment of posterity; for that which has changed the world, changed the face of nations, changed the possibilities of political arrangements, has been the development of physical science during the last fifty years in a manner which is perfectly unexampled in the whole previous history of the world. It is not unnatural that we men of science should be somewhat proud, however little each and everyone of us may have contributed towards the vast consummation. But, as in all human affairs, this has its Nemesis. For the accumulation of scientific work in consequence of the well-organized scientific activity of the present time is so prodigious that we individual workers are becoming swamped under it, and more and more hopeless of being able to master anything but a small and fractional portion of the whole. We labor under this disadvantageous alternative—that if we endeavor to grasp too much we become superficial, and if we are very thorough over a little we become narrow. And I think one of the greatest dangers which besets the scientific world at the present time is the danger which arises from the necessities of the case, of men becoming specialists occupied with a comparatively small field. The remedy for this evil—and a very great evil I think it must be—lies in the recognition which this Academy, at any rate, has always accorded to the great truth that art, and literature, and science are

one, and that the foundation of every sound education and preparation for active life in which a special education is necessary should be some efficient training in all three. At the present time, those who look at our present systems of education, so far as they are within the reach of any but the wealthiest and most leisured class of the community, will see that we ignore art altogether, that we substitute less profitable subjects for literature, and that the observation of inductive science is utterly ignored. I sincerely trust, sir, that, pondering upon these matters, understanding that which you so freely recognize here, that the three branches of art and science and literature are essential to the making of a man, to the development of something better than the mere specialist in any one of these departments—I sincerely trust that that spirit may in course of time permeate the mass of the people, that we may at length have for our young people an education which will train them in all three branches, which will enable them to understand the beauties of art, to comprehend the literature at any rate of their own country, and to take such interest not in the mere acquisition of science, but in the methods of inductive logic and scientific inquiry, as will make them equally fit, whatever specialised pursuit they may afterwards take up. I see great changes; I see science acquiring a position which it was almost hopeless to think she could acquire. I am perfectly easy as to the future fate of scientific knowledge and scientific training; what I do fear is that it may be possible that we should neglect these other sides of the human mind, and that the tendency to inroads which is already marked may become increased by the lack of the general training of early youth to which I have referred.

THE *Toronto School Bell*, a spicy little paper, edited and published by the boys of the Wellesley street school, Toronto, has reached its third number. The following extracts from its report of the visit of Lord and Lady Lansdowne to the Wellesley and Ryerson schools will be interesting as samples of the genuine boys' style, and as showing their way of seeing things. After describing the exterior decorations of the Wellesley school, the *Bell* proceeds: "Finding that the Vice-Regal party would not arrive for some time, the *School Bell* reporters determined to make an excursion to Yonge street for refreshments and lead pencils. When the Vice-Regal party arrived, Lord Lansdowne took off his stove-pipe hat very gracefully and smiled. Two girls came forward and presented the cause of all the demonstration with a basket of exquisite flowers. All the girls then began to march into the school-room, and the reporters of the *School Bell* had to leave their place, but through the great kindness of Miss Sturrock they were allowed to go to another window where they were in no danger of being walked over. At the Ryerson school Lady Lansdowne occupied an easy chair while His Excellency stood, and with a benign look addressed the assemblage. . . . Having said a few more words he sat down, apparently relieved at having finished, for all through his speech he evinced considerable nervousness, while his lady sitting beside him was a great deal cooler and more self-possessed than he (as is generally the case). They then shook hands with every teacher, and the pleased caretaker also received this mark of gracious condescension. Finally her ladyship was presented with a basket of the most exquisite flowers by pretty Mabel Charlton. These she passed on to the aide-de-camp in attendance, who smelt them. This greatly pleased Mabel."

In the Donalda Special Course for Women, in connection with the McGill University, now endowed with the sum of \$120,000 by the munificence of Sir Donald A. Smith, the work of the third year in Arts is making satisfactory progress. The number of regular undergraduates has increased to 20, and the total number of students to 78. This affords encouraging evidence of public approval, and shows that these classes are meeting a real educational want. Next session, when the fourth year will be in operation, it is expected that there will be 30 regular students, and a total attendance of perhaps 100. At the close of next session, a graduating class of eight students are coming up for the degree of B.A.—*Educational Record*.