

Your petitioners, therefore, pray that all enquiries may be made, accounts be investigated, and steps taken to remedy the above-mentioned grievances, and that the existing system be entirely remodelled.

#### THE THEATRES.

The Toronto dailies are in the habit of publishing notes on musical and dramatic performances, which the public is supposed to regard as criticisms. But then, readers are pretty well aware that the remarks of these newspapers are certainly not prompted by any very high spirit of criticism, but are often both dishonest and untrustworthy. The theatre and music hall are generally 'done' by any spare reporter who happens to be free for the evening, and his standing instructions are to praise everything that advertises well. Whether the performer is Lawrence Barrett or Billy Rice, his efforts are noticed in almost the same strain and receive the same ladleful of indiscriminate praise. Our dailies are, in most particulars, very creditable newspapers, and it is to be hoped that they will soon have the good sense to secure the services of competent dramatic critics whose notices will be more than an echo of the advertising columns.

The present week has witnessed an event of some importance in the dramatic world. A lady who enjoys a world-wide reputation as a reader, and, as such, has justly won for herself admirers in every city on the continent, has returned to the stage after many years' absence from it, and made her *debut* in Toronto. Whether she has acted wisely or not, yet remains to be seen. As a lady reader she was *facile princeps*; as an actress she has never shone, and a dozen years' absence from the stage is not a good preparation for becoming a star. We have seen her this week in three different characters. The newspapers, as usual, have been lavish in their praise, and, although it has been again misplaced, she is a much worthier object of adulation than those who have often received it. Mrs. Scott-Siddons' readings of *Juliet* and *Rosalind* could not in justice be called successes. The first was but a cold representation of the warm-blooded daughter of Capulet. *Rosalind*, we are told, is her favorite character, and yet, in this, her failure was even more complete. Her acting was stiff and stagey, her utterance harsh and too rapid, and she contrived to throw a certain *quasi-grandeur* into the part which was an innovation, neither correct nor desirable. In tragic parts she succeeds tolerably well, but she should practice love-making a little more. One fact was patent to the audience in both these plays,—it was neither *Juliet* nor *Rosalind* they saw before them, but Mrs. Scott-Siddons. As a reader this lady made her reputation, and, although she may choose to go upon the stage, she will still remain merely an excellent reader in costume.

#### SCIENCE AND EDUCATION.

Whatever view may be taken of utilitarian education, whether we believe or not the theory of school training which maintains that a boy ought, in the process of learning his lessons, to acquire those general faculties or qualities which go far to insure his success in after life, there can be no question that the general qualities which promise success in any walk of life are precisely those which are the essential requisites of success in scientific research, and they are, therefore, peculiarly nurtured and strengthened by scientific work.

Very striking is the analogy between the difficulties one meets with in actual life, and those which beset the chemist in his attempt to solve a chemical problem, and between the intellectual resources necessary in each case to overcome the difficulty.

What philosophers call "the problem of life" cannot, with any degree of truth, be compared to a mathematical theorem, deduced by a long train of reasoning from axioms and definitions, still less with the construing of a Greek play or the construction of Latin verse; but it may justly be compared to a long series of experiments through which the investigator gropes his way, with broken light and faltering steps, now losing his way, now finding it again, and arriving in the end at a happy issue only by dint of perseverance, of a keen application of mind, of conscientious exactitude and cautious judgment.

One of the most common mental views is the habit of looking without perceiving, of stupid staring without comprehending. This fault is by no means confined to the uneducated, it is far too common among men whom the world credits with a liberal education; but these seer-noughts are hardly to blame, for they have never been trained to see. Neither classics nor mathematics—though essential factions in the early part of a thorough scientific education—have the power of teaching the student the difficult art of accurate observation; such a power comes from the study of the physical and natural sciences only. To beget this accuracy is indeed their peculiar province, by virtue of which they claim to have a share in moulding the minds of the young.

There are very few among those who have taken a practical science course, who have not noticed this impediment either in themselves or their fellow-workers; who have not occasionally been wilfully inaccurate,

lazy or careless, allowing brown to pass as black, grey as white, and six and three as *nearly* ten; and whose attention has not finally been aroused by failure, to see written in large scrawling letters over all their labored work, that black is black only, as much as white is white, and that six and three make *nine*.

Perhaps the student's longest struggle is with the tendency which ever prompts to see what he wishes to see,—for human nature is very similar on both sides of the laboratory walls. It appears to him, for instance, that a certain series of experiments would end in establishing certain results. Beginning with this hope, he may, at first, find nature pliable enough, but, after a time, little clouds of suspicion arise, and he goes over the work again, the fear of having blundered causes him to see with keener eye, and the suspicion becoming absolute distrust, he finds his linked facts break up in absolute confusion.

Dangers of this kind are always hovering over one who aims at proficiency in any of the departments of natural science, and experience shows they can be avoided only by a steadfast watchfulness, carried on until the forced attitude of attention becomes a natural habit; and the question with him is not, What ought it to be? not, What can I make it be? but simply, What is it? He is thus taught, as he can be taught by no other means, through the painful exactitude of nature's ways, not only that there is such a thing as truth, and that it is within the grasp of man, but that by it alone can the nature of things be measured.

We may then place the qualities necessary for success in scientific enquiry, under the two heads of attention, and what may be called sincerity in the mind. They are qualities which do not belong naturally to the mind; they need, if not to be planted in all minds, at least to be cultivated in all. These mental qualities may be acquired in after life, but only in the repressive and painful school of experience; but the punishments of this school are, when inflicted at all, too severe and depressing in their influence on the average mind to produce the highest results. The punishment of science on the other hand though light, is quick and sure, seldom missing its mark. It is just this frequent repetition of little chiding blows that makes science so valuable, as an intellectual training. Characters cannot be beaten into shape by a few heavy blows; it is only by light taps and almost imperceptible touches, repeated day after day, that the careless, impulsive boy is moulded into the sober, watchful, sincere and successful man.

In dwelling thus, somewhat at length, on the intellectual qualities and the temperament most likely to be engendered by the pursuit of science, I may have wearied the reader, though I have by no means exhausted the subject. Practical science in its progress, is fast wrapping itself around our individual lives, and working itself so thoroughly into our national existence, that it would be difficult indeed to exaggerate the importance and value of a sound, practical science education.

There has been, until recently, in Canada, and even in the Senate of our University, a fear expressed that those dangerous rivals, the sciences, would prove too strong for the older studies, if placed on an equal footing with them, and that the light of classical lore would be quenched in the flood of utilitarian knowledge. Though this is complimentary to the growing strength of science, it is hardly just either to the tendency of scientific work, or the intrinsic value of the classics. The educationists of to-day are gradually waking up to the fact, that,—to borrow a metaphor from Chemistry—the molecule education is not composed solely of one atom of classics, united to one atom of mathematics.

Professor Huxley, in an able address recently delivered, answered the arguments of this class of scholars, in their capacity as Levites, in charge of the ark of culture, and monopolists of liberal education.

The educational value of classics and mathematics has had many able advocates; but it is a fact, admitted even by their strongest advocates, that the mathematics lack one thing.

Admirably rigid and exact, peculiarly powerful in accustoming the mind to clear conceptions and accurate reasoning, they lose half their hold on most students, just because they are so rigid and exact that a great gap seems fixed between their operations and the flexible uncertain occupations of everyday life.

That gap is filled by the experimental sciences, for they, while exact enough, to claim our respect, have another side, which, by its uncertainties, and experimental method of enquiry, establishes a common ground between themselves and every-day human life.

R. F. R.

'**VARSITY MEN.**—Messrs. J. A. Culham, M. A., F. W. G. Haultain, B. A., C. C. McCaul, B. A., W. A. Shortt, B. A., are studying law in the firm of Messrs. Bethune, Moss, &c.—Mr. J. McDougall, B. A., at present reading with numerous pupils, intends entering on the study of law in November.—Mr. W. K. T. Smellie is Assistant Master in the Gananoque High School.—Mr. J. W. Elliott, B. A., is a student-at-law in the office of Messrs. Pearson and Lees, of Toronto, and so is Mr. T. H. Gilmour, B. A., in the office of Messrs. Morphy & Morphy.—Mr. T. N. Marshall, B. A. has settled down to the study of law in his native hamlet, Brockville.