tant, he would gain confidence in the use of the reasoning powers of his mind. After having acquired some good notions of elementary physics and chemistry, his impression was that the next best study was human physiology, he meant in an elementary shape. That might appear at first sight to be rather an anomalous proposition, but yet, when they came to think of it, they would find that it was not so. Of course, to be a physiologist in the highest sense of the word, to be a perfectly technical physiologist, was quite another matter. While it was so difficult to understand advanced physiology, it was not difficult to comprehend elementary physiology—and for one reason among the rest, that the subject of their inquiries was their own bodies, and they could always have it at hand. They could demonstrate and feel in themselves the living action going on. This could be done, especially if it were supplemented by practical instruction. He did not want in that place to touch upon the subject of sundry unhappy controversies, but he did not wish them to go away with the notion that he was altogether a lunatic. It had been said, and repeated for years, that he had recommended that the children in schools who were learning elementary physiology should be encouraged to see and to perform the very difficult and complex experiments by which the higher truths of physiology were demonstrated. He could speak with great charity about the person who had said this, because it could only arise from the grossest ignorance. He meant that no one who knew anything about the matter could tell a falsehood of this kind. It was too gross and too patent. If those who had circulated a statement of that kind understood what physiological experimenting meant, and what sort of appliances, knowledge, and dexterity were needed, the whole thing would be seen to be simply childish and absurd. The practical instruction which he had recommended was that sort of anatomical knowledge which could be gained without the slightest difficulty by the ordinary materials of the butcher's shop. By a sheep's heart, for the purpose of elementary physiology, they could explain the structure of the human heart, and so on with the other organs. He did not say that would do for the professed student of human physiology, but to give elementary instruction the materials were amply sufficient. He had thought it right to take this occasion of explaining exactly what he meant in that elementary book of his which had been so terribly travestied. He did not suppose any of them would have believed the contrary, but he hoped all would take it now upon his authority that that was exactly what he meant. The extent to which they would carry this teaching would depend upon the time which could be given to it. If the time was given to the teaching of science that was allowed to the teaching of classics—he did not say whether that was desirable or not—there was not the smallest doubt that the boy of eighteen could be turned out of school a man of science in the same sense that the boy of eighteen was turned out a scholar. He supposed that for many years to come they would only get a fractional part of the time which was devoted to teaching in general, but he would be quite content with not more than an hour a day, or about a sixth part of the time given to school instruction. If their instruction in science was to have a greater value than information afforded, to have the value of discipline, less time would not do. In conclusion, the Professor urged the emphatic necessity of the teacher of science knowing thoroughly what he taught, and referred to the deficiencies in this respect which were at present exhibited by the teachers in most of our schools.

On the motion of Professor Hodgson, a hearty vote of thanks was awarded to Professors Huxley; a similar compliment being paid to the Chairman, and to Professor Hodgson himself, by whose arrangement the lecture had been delivered.—*The Educational Times.*

The Cultivation of the Memory.

DAVID B. SCOTT.

Is there not danger that, in the multitude of radical advisers on the paramount question of school-training, the faculty of memory may be quite thrust aside? The daily and weekly press, secular as well as religious, seldom lose an opportunity of thrusting a lance into what is called the most mischievous error of the schools, "parroting." The educational press have occasionally joined in this outcry, without considering that there might possibly be danger in yielding the whole point involved, without earnest protest. For the point covers a great deal more than appears at first sight, and its abandonment may involve that of the training of one of the most useful faculties we possess.

Surely, it may safely enough be granted that the mere learning of verbal definitions, rules, selections of poetry and prose, pages of history, and the one parrot-like repetition of the same to the teacher, under the idea that this is schooling, is the most absurd folly. Any such idea of the teacher's business, embracing this and little or nothing besides, ought to show the utter unfitness of the person holding it to fill any position as a teacher of youth. But it may safely be questioned whether there are many persons of any experience in the business of teaching who hold such an idea, and base their practice upon it. At least the number can not be so large that it should occasion fear sufficient to warrant the attacks we so often read against the prevailing method of instruction. Within the limits of cities, towns, and well-organized school-districts, it is becoming more and more difficult to find any considerable quantity of school-room work that lies open to such an objection. The whole tendency has been quite otherwise for a number of years.

The complaints that have found utterance through the public press are explainable enough, on another theory than "parroting." The lessons to be learned at home are in many cases most excessive in amount. They are given out often by pages, but are not intended to be committed to memory word for word. Unfortunately sufficient care is not always taken by the teacher to show what portions of the lesson are to be committed to memory, what are to be read carefully, and what may be either read hurriedly or left for class-room instruction on the morrow. If this be not done, the pupil has no other way left open to him when he prepares his lesson, than to memorize everything. This he seldom accomplishes. It is often hard, dry, technical, and unintelligible. The mere mass frightens him, and unless he has uncommon natural powers, he abandons it unlearned with disgust. Such work presses still more heavily upon girls than on boys, because the young feminine mind seems to commit to memory the school lesson more readily than boys; at least it adheres to its work with a finer conscientiousness than does the average young masculine mind. So it happens that when the hours fly by and the task is unfinished, the girl's pride quite breaks down, and the whole sympathy of the family is evoked by her tears. It is therefore not wonderful if the parental and maternal mind, losing all patience, inveighs strongly against memory lesssons, and expresses itself when it can, through the avenues of the press, with more force than courtesy, finding a convenient term in the word "parroting."