

up the whole; explain, and drill the pupil in, the conventions—in the full significance of signs, brackets, vincula, indices, &c., and the study of Algebra will become a pleasure and a profit.

Geometry has always come in for a fair share of abuse from the young student. It is so unlike the simple mnemonical tasks to which he has been accustomed that, as he says, "he can't get the idea into his head." Under these circumstances, it is evident that the most important and first work is "to get the idea *into* his head." Now, the way to do this is not by rushing carelessly through the definitions, impatient to attack the problem of the Equilateral Triangle, or of memorizing, in a beautiful style, each proposition as its turn comes—a process as difficult, though quite as useful, as committing the table of the moon's southings at Greenwich in Belcher's Almanac. I do not mean to insinuate that any one in Nova Scotia to-day teaches Geometry in the manner in which I was first taught—when I triumphantly crossed "Pons Asinorum,"—with a most beautiful and exact diagram of the said bridge on the Board, with the "master's" eyes on Euclid and mine intent on my fingers. But how can we account for the fact that under excellent scholars, and in good schools, a pupil can recite a whole proposition; and if you ask him, when he has successfully finished, why the line AB is equal to AC, or what right he had to assert the angle DEF is equal to the angle KLM, he is quite blank with astonishment at your unreasonableness in not considering Euclid a sufficient authority for it. I have known students to have "gone through"—I use the vernacular, "gone through"—one, two, three, four and more books of Geometry, who couldn't give the definition of a straight line, a plane surface, a parallelogram or a circle without having it either redundant, defective or absurd. In fact, I have seen some who appeared to be of the opinion that definitions, axioms, and the like, were of no use except for little children who were beginning, and were not able to learn the larger lessons in the middle of the book, "which were called Theorems and Problems." "They might be very useful in an elementary school; but they couldn't see the use of the more advanced paying much attention to them." Now, supposing a person with such ideas as these could recite every proposition from cover to cover, I feel that I am perfectly safe in saying that he knows no more of Geometry than Geometry knows of him. In truth, his book is a better geometrician than himself, for it is likely to contain the propositions more accurately than his memory retains them.

There are too many young students, and some older ones, who, in their attention to this branch of study, derive benefit only from the knowledge of the mathematical truths enunciated; while one of the principal educational advantages which the science is capable of affording is the discipline consequent