

you know, for instance, why the division of any quantity by a fraction gives a result larger than the dividend?"

"No," she said, she had never been able to understand that, and although she had gone conscientiously through the arithmetic to the entire satisfaction of her teachers, she had never felt that she understood the principle involved in the working of fractions.

I took a score of apples, and undertook to teach her in a single lesson what years of schooling had left untaught.

I showed her how every reduction in the size of the divisor increased the result. Going downward gradually, I reached one as the divisor, which gave, of course, just twice as large a result as two had given. Then with a knife I made halves of the apples, and taking one of these in my hand, as a divisor, I was about to continue the explanation when she fairly clapped her hands for joy. She saw the principle and understood now not only this, but every other fact she had learned concerning fractions, because she now knew practically just what fractions were. She at once adopted the plan with herself, and she has mastered the higher mathematics without a teacher, and almost without a serious difficulty.

His directions as to the study of English are excellent, as a few extracts will show:

Experience and observation have combined to convince me that no person can be taught to spell, but that any person may learn to spell. In other words, I am convinced that no teacher of spelling is either necessary or useful to persons who can read and write. If the student would learn to spell words, let him use words. Let him write every day, and in writing, whenever he shall come to a word which he does not certainly know how to spell, let him look for it in his dictionary, examining its derivation as well as its spelling, then let him look also at all the words derived from it, and when this is done he will never hesitate again as to the orthography of any of them.

Whenever the student hears, sees or uses a word of which he does not know the full and precise meaning, with its synonyms and their departures from absolute synonymy, he should at once make the word a study, examining the dictionary carefully for all the information there given on the subject, and comparing the word with its synonyms for the sake of learning the peculiarities of each, and the purpose each serves in our speech. The amount and variety of information to be acquired in this way is very much greater than most students will imagine, and there is no bet-

ter or more rapid way of learning English than precisely this. But to do this worthily will require a good deal of industry, and it may even cause some inconvenience at times. Indolence and self-indulgence are greatly in the way in this, as in all other attempts to learn anything thoroughly.

Let the student who would master English, then, write something every day. If he simply tells a homely anecdote, or relates the incidents of the day, or gives an account of something he has seen, to an imaginary circle of readers, or if he writes down what he has thought upon any subject, the result will probably be worth nothing in a literary way, but its writer will have had an excellent lesson in English.

There is another admirable exercise, closely akin to this. It was technically known in the High School where it originated as "narration;" certain pupils were named each day as the narrators for the following day, and each was required to take the rostrum and tell something to the school. They were allowed to tell anything they chose, but always in their own words, and the rapidity with which the pupils improved in their manner of saying what they had to say, not only on the rostrum but equally in other places, was very marked. The student without a school may quietly exercise himself in a similar way in the company of his fellows without letting anybody into his secret. An audience is an audience, whether its members are aware of the fact or not.

There is another exercise in English composition which helps to give the student freedom in the use of language, while its practice teaches him something else at the same time. It is to read brief editorial comments on current events, and to write something quite different upon the same subject and from the same facts. This is what is known in newspaper offices as paragraphing, and every editor knows how very few people do it thoroughly well. While it forms an excellent exercise in the use of English, it serves at the same time to sharpen the wits and to cultivate a habit of independent thinking which is absolutely essential to all profitable reading.

The author next takes up collegiate studies, which he classifies in such a way as to guide students in making a wise choice. For the study of languages he recommends M. Marcel's system, which we had occasion to lay before the readers of the *NEW DOMINION MONTHLY* some months ago, and therefore need not farther con-