

a mind of the depth and exactitude of that possessed by the famous chronologer Mr. Blair, who, in his famous work, describes Adam and Eve as "created Friday, October 28th, B. C. 4004." But names are not the whole of science. Names are to know things by, and it so happens that scientific names enable us not merely to know the objects they describe, but also give us a vast deal of information packed into the smallest possible compass regarding such objects. And when persons object to study science because of their non-familiarity with its terms, the man of science might reasonably expect such objectors to refuse to study German because the type differs from our English style, and because German phraseology is of singular, and, to one unacquainted with the language, of uncouth nature. There is no royal road to science any more than there is an easy pathway to acquire a foreign language in a true or grammatical fashion. But as the difficulties of orthography are lessened, and disappear when the rudiments of the grammar have been thoroughly acquired, so in science, when, through demonstration and skilful teaching the pupil has learned to use eyes and fingers, the so-called "barbarisms" of scientific language no longer represent "a confusion of tongues," but appear as veritable aids to the clear and succinct expression of our thoughts.

Beyond all scientific methods, however, there is the highest delight to be found in the direct study of nature, such as a true system of science-teaching exemplifies. The careless, unskilled visitor to a garden is soon satiated with the beauty around him, and speedily wearies of the continual feast which nature is presenting to every sense. He sees insects buzzing about, prying with curious intent into flowers, and searching as if for some concealed floral treasures, without in the least degree appreciating the ends of their search. The colours of flowers possess for him no meaning deeper than that of ministering to sense, or of having been produced aimlessly and in a meaningless manner. But to the mind which has come prepared by previous knowledge to understand, and through understanding to enjoy, the prospect set before it, how different does that prospect appear! The insects are seen to visit the flowers, attracted by the floral odours, and for the purpose of discussing the stores of sweets which the flowers secrete; and the botanist would show us that, as the insect leaves the flower, it carries off with it to another flower the pollen or matter wherewith to fertilise the seeds of the latter. Nature thus employs the insects as unconscious flower-fertilisers, and the colour, scent, and sweets of flowers exist for the purpose of attracting these little ministers of the floral state. And were our knowledge more perfect, we should be able to show that each combination of colour in flowers is destined to serve the end just mentioned in the best possible manner. Then, also, the eye of the botanist sees in every green leaf a great provision of nature for the purification of our atmosphere. But for the presence of the green colouring matter, our atmosphere would become a huge stagnant pond of deadly vapour, and animal life at large would simply become extinct. The discovery of purpose and design subserved by structures teeming with beauty and grace, and a sense of the highest enjoyment in knowing and understanding even a part of the order of nature—such are by no means the least notable amongst many other results of a simple study of Natural Science, such as all may undertake, and for the due acquirement of which there is, or should be, every opportunity at school.

I think I may perchance hear some of my young friends saying, that such studies might be left until

school-days are over. Every mind who tries to snatch a few hours for culture from the busy routine of life well known how easy appears the task of learning after school days are past, and how difficult—nay, how impossible—in many cases such an undertaking will prove. The world is in truth "too much with us" after school days, to make learning an easy matter; and it is only in the time of youth, when the faculties are bright, and accustomed to overtake and surmount difficulties in learning, that any study can as a rule be successfully acquired. Besides, the very training of the mind involved in the study of science is too valuable a result to be lost sight of, and too powerfull an argument in favour of science being studied in youth to be omitted. There are, I am sure, many persons hearing these words who will re-echo their purport in an expression of regret that their school-days may not come again, or that time and opportunity may not once more present themselves for acquiring a better and fuller knowledge of this fair world. Carlyle speaks with regret of the absence of all natural history knowledge from his school days, and the want of such knowledge represents in truth a gap in the intellectual life which nothing else—not even the highest literary culture—can fill. Unless, then, you will hold that it is better to remain wholly ignorant of nature,—unless you will maintain that you may very reasonably feel less curiosity about its living and wonders than you do about the ordinary concerns of life,—unless human nature, with all its faults, is much worse than I take it to be,—you will heartily respond to the call I make upon you as parents and guardians to see that your boys and girls are trained, as they should be, in the study of nature, and the universe and its constitution. I claim no great gift of foresight or prophecy; but I have no hesitation in declaring my belief that, ten years hence, a school without science will represent the condition of a certain primitive village I have "in my mind's eye," wherein a week's old newspaper is thought to contain the very latest intelligence, and wherein the oldest inhabitant declares that no event of public importance has occurred since the battle of Waterloo. If one could only remember all that one thought about in the train, my remarks would have a much better chance of successfully appealing to you in the cause of a reasonable scheme of education. But I make bold to think that, in some things I have elicited your sympathy and approval. And if, in any one point, I have succeeded in inducing a belief in the power of science not only to educate, but to supplement other branches of education, I shall feel that my labour has assuredly not been in vain.

Spelling "Reform."

To spell well has hitherto been considered to be one of the primary marks of an educated man. That the art is not really difficult of acquirement is proved by the fact that it is very generally acquired, and that most men would as soon think of confessing to a weakness in this respect as of acknowledging a diffidence as to the proper use of the aspirate. It would, of course, be absurd to deny that our accepted system of spelling is full of anomalies and absurdities, but if we are to set ourselves to the immediate redress of all anomalies and absurdities in our practical life, we shall find ourselves committed all at once to a variety of important changes which will suffice to put the question of Spelling Reform out of sight for a generation or two at least. It is well