

It is only because, within the last 50 years, language has been subjected to the process of analysis and induction, a method devised and perfected for, and illustrated by the pursuit of physical investigations, that its study has been raised from a mere acquisition of words and arbitrary rules, to the dignity of a science, and that it is entitled to the high rank which it undoubtedly occupies as an instrument of mental training.

The truth appears to me to be, that language, mathematics, and physical science, and mental science, probably, also, may, in skilful hands, be equally well employed as the basis for disciplining the mind. There will be some difference in the special tendencies of each, and in their adaptation for different degrees of maturity in the intellect to be dealt with, and to some extent in the peculiar qualities of individual intellects most likely to be benefited by them. Each of these studies has at the same time a practical use from the knowledge acquired, irrespective of the process of acquisition. Here too, there is much diversity in the universality of the application of the knowledge, and different men will attach varying degrees of importance to each, according to their several tastes and professional pursuits. There can be little doubt that the most perfect education would result from the union of them all; but the great danger lies in the extent of the field, and in the fear, lest by attempting too much, we should give a mere superficial knowledge without a thorough training in any one branch. In schools, where a uniformity of system is essential, I believe that the languages and the natural sciences will be found better adapted to the immature intellect of the boy, than either mathematical or metaphysical studies. But in the higher educational institutions, where a certain latitude of selection may be left to the students themselves, according to their several tastes and their ultimate destinations, there ought to be provision for the proper study of them all. The embryo lawyer, whose after life is to be engaged in logomachies of another kind, may find profit from being versed in the subtleties of the metaphysician, the future engineer will probably prefer mathematics, and the medical student some of the sciences, whilst all will do well to complete their training in the study of language.

I should perhaps apologize for having wandered so far from my main subject, but the importance of the question justifies the digression. To return to our own special field—if in the pursuit of most of the sciences we labour under disadvantages from want of opportunities, there are some branches where we have peculiar facilities. The Geology and Natural History of our country must be studied on the spot, and the world of science may fairly expect that we who have the opportunity, should supply some of the facts. These are exactly the kind of subjects in which such societies as ours are found to be most efficient, as they afford the means of bringing up under notice, and placing on record, detached facts which could be made public in no other way. To these subjects our Museum also ought to be mainly if not entirely devoted, and it would be quite within our means to make it complete in these departments.

The time has indeed gone by when a Museum was a mere collection of curiosities, or as it was defined by Horace Walpole, a "hospital for everything that is singular—whether the thing has acquired singularity from having escaped the rage of time, or from any natural oddness—or from being so insignificant that nobody thought it worth while to produce any more of the same." But the legitimate field of a museum, as illustrative of useful studies, is so extensive, that a general collection with our limited means would from its incompleteness be of comparatively little value. We ought therefore to limit ourselves to some special object, and the most appropriate one would be the illustration of the natural productions and of the history of Canada.

There is also another branch of inquiry, in which it is quite within our power to assist in supplying Canada's contribution towards the general stock of knowledge. The social sciences are daily becoming more important, and they, like all sciences, must be founded upon a wide basis of well established and carefully digested facts. To this foundation Canada has as yet hardly contributed anything, and yet there are some points in which the very youth of the country might make a collection of its statistics peculiarly valuable. It is not very certain that all deductions, founded upon the state of society in Europe are strictly applicable to a country where the conditions are so different as they are here, and for our own sakes it would be well if we could investigate these questions from our own point of view, instead of accepting without examination the European versions of them. Moreover, for the sake of establishing the principles of the sciences themselves, a social condition, just arranging itself into order, may bring to light tendencies, which are altogether concealed in the complicated and stereotyped relations of long established communities; just as the chemist may seize a substance in its nascent state, which in

its permanent compounds is too stubborn to yield itself to his analysis. Towards all this, or to whatever of it may be practicable, we have done nothing. There is hardly a civilized community any where which has furnished so little statistical information as Canada, and what we have done has been imperfect, and what is worse, it has often been incorrect. Now individuals may do much in this line, and Societies may press upon Government the importance of the subject, and point out the particular branches in which the collection of facts is most required. It is to the zeal of Societies in Europe that we are principally indebted for the recognition by their Governments of the utility of statistical information, and I point this out as one of the ways in which we also may do something towards furthering the objects for which we were established.

Bad and good Spelling.

To teach spelling, the habit of constantly writing passages either of prose or poetry is absolutely necessary, in order that the eye may be trained to distinguish the correct forms of words. The majority of persons find, by experience, that when they are asked to spell a word aloud, they are in doubt, and are apt to make a mistake; but if they write the word their eye at once guides them to the proper method of spelling it. The inference, from this is plain, namely, that the eye is as much concerned in the spelling of words as the ear. Children should therefore be early accustomed to *copy passages correctly from their reading-book*. This exercise, which I call "transcribing," should be confined to the junior classes in schools, and be a preparatory step to the dictation which they will practise when they get into the senior classes. Transcribing teaches spelling; while dictation (leaving, as it does, the pupil without the aid of a book to copy from) must be regarded properly as a test of spelling.

The correcting of written exercises is always a tedious part of school-work, and sufficient time should be allowed for it in the general time-table of the school. There is one method of correction which is attended with little loss of time; but whether it can always be depended upon, is a question which I must leave the reader of this letter to determine. The method is as follows: After a passage has either been transcribed from books or written from dictation (and so of course without the aid of books), a monitor or pupil-teacher, taking a book, should slowly spell aloud each word *large and small*, in the passage which has been written. While he does this, each scholar should carefully look at his own slate, and if he finds a word which he has not spelt as it is spelt in the book, and as the monitor spells it, he should put out his hand as a signal for the monitor to wait until he has put it down correctly. In fact, the scholars should correct their own errors, with the view of impressing good spelling upon their minds.

There is an interesting way of teaching spelling by the aid of the black-board, which I will describe. Let a black-board be placed on an easel before a class; then let the second boy propose a word, which the first boy should go up and write in large letters on the board. If he cannot write it correctly, let the second boy do so; and if he cannot, let the third; and so on: the boy who is right being allowed to go before those who are wrong. The teacher should stand by to see fair play, and to prevent long words, such as Constantinople and Mesopotamia, from being proposed. The scholars should confine themselves mainly to small words, especially those in which *ei* and *ie* occur, or in which letters are to be doubled, or a letter is to be omitted.—J. F. in *English National Society Monthly Paper*.

The Natural Sciences in Common Schools.

In the fast ago in which we live, when new plans in every department of life find ready advocates, we often fail to discriminate between novelty and improvement. Not many years ago the most essential qualifications of the school-room were to read, write, cipher and *make pens*. But many now, as we believe, quite in advance of the age, insist that in addition to these branches, music, painting, and the whole circle of natural science should find a place in our common schools. But this opinion is advocated chiefly by those who have had little or no practical experience, and no argument could better convince them of its utter impracticability than an attempt to reduce their system to practice. No new theory should be adopted because it is new, and yet we should, of course, accept whatever is known to be an improvement.

The great object in teaching is not to crowd the mind with as many facts as possible, but to educate, to lead forth and strengthen the mental powers, by presenting objects that will awaken thought.