

## EDUCATION'S MARTYR.

He loved peculiar plants and rare,  
For any plant he did not care,  
That he had seen before;  
Primrose by the river's brim  
Daisy-blades were to him,  
And they were nothing more.

The mighty cliffs we had him scan,  
He bann'd them for Laurentian,  
With sad, deject'd mien,  
"I hate this bleak Arctic rock,"  
He said, "I'd sooner have a block—  
Ah me!—of Pliocene!"

His eyes were bent upon the sand;  
He own'd the scenery was grand,  
In a reproachful voice.  
But if a centipede he found,  
He'd fall before it on the ground,  
And worship and rejoice.

We spoke of Poets dead and gone,  
Of the Meonian who alone  
Of Helios like a star.  
We talked about the King of Men—  
"Observe," he said, "the force of ten,  
And note the use of car!"

Yes, all that has been or may be,  
States, beauties, battles, land, and sea,  
The matin songs of larks,  
With glazier, earthquake, avalanche,  
To him are each a separate "branch,"  
And stuff for scoring marks.

Ah! happier be who does not know  
The power that makes the Planets go,  
The slave of Kepler's laws;  
Who finds not glands in joy or grief,  
Nor, in the blossoms of the leaf,  
Seeks for the secret Cause.

—M. K. in Longman's Magazine.

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## CULTURE OF THE IMAGINATION.

A function of the mind which requires special culture is Imagination. I much fear neither teachers nor scholars are sufficiently impressed with the importance of a proper training of this faculty. Some there may be who despise it altogether, as having to do with fiction rather than with fact, and of no value to the severe student who wishes to acquire exact knowledge. But this is not the case.

It is a well-known fact that the highest class of scientific men have been led to their most important discoveries by the quickening power of a suggestive imagination. Of this the poet Goethe's original observations in botany and osteology may serve as an apt witness.

Imagination, therefore, is the enemy of science only when it acts without reason, that is, whimsically; with reason, it is often the best and most indispensable of allies. Besides in history, and in the whole region of concrete facts, imagination is as necessary as in poetry; the historian cannot invent his facts, but he must mould them and dispose them with a graceful congruity, and to do this is the work of the imagination.

Fairy tales and fictions, narratives of all kinds, of course, have their value, and may be wisely used in the culture of the imagination.

But by far the most useful exercise of this faculty is when it buckles itself to realities; and this I advise the student chiefly to cultivate.

There is no need of going to romances for pictures of human character and fortune cultivated to please the fancy, and to elevate the imagination.

The life of Alexander the Great, of Gustave Adolphus, or any of those notable characters on the great stage of the world, who incarnate the history which they create, is for this purpose of more educational value than the best novel that ever was written, or even the best poetry.

Not all minds delight in poetry, but all minds are impressed and elevated by an imposing and striking fact.

To exercise the imagination on the lives of great and good men brings with it a double gain, for by this exercise we learn at a single stroke, and in the most effective way, both what was done and what ought to be done. But to train the imagination adequately, it is not enough that elevating pictures be made to float pleasantly before the fancy; from such mere passiveness of mental attitude no strength can grow.

The student should formally call upon his imaginative faculty to take a firm grasp of the lovely shadows as they pass, and not be content till seen and remembered to infer other truths, i. e. to reason.

Now we may apply the general rule,—that all habits and powers are formed by the persevering repetition of certain acts. The habit of attention is formed by successive acts of attention. No opportunity of fixing the attention should be neglected. No object seen by the eye should be looked at carelessly. The second is also acquired,—by exercise. Effort should be made to have clear perceptions of every truth to which attention is directed. To do so every word in every sentence must be understood, in almost all cases the meaning of strange words may be involved from the context, when a dictionary is not at hand. Draw a line of demarcation between what you know and what you do not know. Let nothing be counted as known that is dim or shadowy in the mind.

We have seen that attention is a necessary condition of seeing truth clearly. It is also a condition of remembering, and by cultivating the one we cultivate the other. Some persons try to commit to memory a passage by reading it over a great many times without making any effort to repeat it without the book. The true method is to try to remember the passage after a single reading. If not successful look it over again, but no oftener than is necessary.

The fourth condition rests upon the first three as a foundation. Care should be taken to make accurate inferences. In order to do so the statements from which we start must be true. Hasty inferences should be avoided. The number of facts necessary to a sound conclusion differ in relation to different subjects. In regard to the material world fewer facts are required to establish a general conclusion than in regard to the mental world. See that the analogy between the facts observed, and the facts of former experience, is a real and not merely an apparent analogy.

The idea should be dismissed and utterly discarded that education consists in knowing: it consists rather in growing, in forming the mental habits needed for the work of life. Knowledge is power so far as efforts for its acquisition develop power, and so far as it gives wise direction to human action.

MASON R. BENN.

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## GEOGRAPHICAL PUZZLE

One pleasant morning in (a cape south of New Jersey) Mr. and Mrs. (bay east of Newfoundland) proposed taking their two sons on a botanical expedition, but the two little girls exclaimed, "May we (district north of lake Huron)? Consent was obtained and the whole (lake north of Manitoba) set off. After crossing a (lake south of Nevada) flat, they reached the (lake south Manitoba) where they dispersed to search for specimens.

The two children soon gathered their flowers, and also found a large (river in Montana) which they were certain was a topaz. Mr. White now came to the place appointed for lunch and soon after (a bay south of Hudson bay) appeared, "I am in (city in Oude, India)" said he, holding up a rare plant which had (sea east of Australia) flowers, and a very (mountains in Idaho). (Lake south of Kewatin) now made his appearance with a string of (lake south-east of Kewatin) which his father said were, without (cape north-west of United States), (largest lake in North America) to any he had ever seen. Bell had brought her pet (lake in north-east of Manitoba), Jack tried to take her away, "(Island on west of France) (city at north of Seine, France)" said Bell; "I will" said her brother in (cape north of Scotland). "I know you like to (mountains in New York) said poor Bell in despair. "(River in Athabasca)" cried their father, "Jack, you must apologize. "I have (province west of India), and am sorry," he said; they began to think of dinner.

They collected a large heap of (town in Assinabola) which was soon in (town in British Honduras), as they had no (country south of Europe) they

could not (islands in south Pacific) the trout, but contented themselves with roasting a wild (country in Europe) for dinner. The only mishap of the day was in little (half a West Indian island's) losing a pair of rubbers, which was not to be wondered at, as they were (city on south coast of France) and (city on the Garonne, France).

E.

## THE DANGERS OF IGNORANCE.

One cannot judge from the brief accounts given what are the precise causes of such disasters, but there is reason to believe that ignorance is prolific; that many persons have only a vague knowledge of the qualities of nitro glycerine, cannot recognize it when they see it, and are not acquainted with the various forms in which it is compounded, or with the peculiar dangers of handling it carelessly. Nitro-glycerine itself is a dense yellowish liquid, but, in order to diminish the danger attending its use, fine earth, ground mica, sawdust, or some similar powder is saturated with it, and thus the various blasting powders known as dynamite, mica-powder, qualla, sand-rock, etc., are formed. These compounds can be transported with comparative safety. But the nitro-glycerine easily drains off from the powder and oozes from any crevice in the vessel in which the compound is kept. Drops of it thus bedewing the edges of a box may very easily be mistaken for oil escaping, and if workmen ignorantly endeavor to nail the box tighter up to open it for examination there will be a disastrous explosion. Several have occurred in past years in this way. The victims know, no doubt, that nitro-glycerine (or the compounds) may be exploded by a blow (contact with fire is not needed), but they did not suspect that the innocent looking oil was nitro-glycerine. Why should not youth be taught in the schools somewhat of the practical dangers of the substances which are coming into common use? They would pursue the study with interest, especially if there were judicious experiments. A Missouri story is that a teacher confiscated a small metal box which a pupil was playing with in school hours, and thinking it contained chewing gum tried to open it with a hammer. It was a dynamite torpedo of the kind used on the railroad track as a danger-signal, and large bits of it had to be cut out of the lady's check. Would it not have been well if she had known something of the aspect of torpedoes? Was it not more important to the journeyman plumber who threw the lighted match into the pan of camphene, mistaking it for water, by which the great printing establishment of Franklin Square was burned some twenty-eight years ago, to know camphene by sight than to have memorized many of the matters prominent in a public school course. Surely workmen, especially "raw hands" in establishments where these things are used, should be systematically instructed in advance, and the courts are now enforcing this principle.—*Popular Science Monthly.*

## EDUCATIONAL RESULTS FROM INSTRUCTION.

The term instruction is derived from the Latin word *struere, structus, to build or raise*, with the prefix *in, into, and suffix ion, the act of doing.*

The mind was made to know, to acquire knowledge. The acquisition of knowledge is not an end, but the means to an end. The right acquisition of knowledge develops and disciplines the mind, and tends to educate it. The knowledge acquired is not of so much value as the mental powers developed by the effort put forth for its acquisition. Hence how one studies is of far more importance than what he studies. By right bodily exercises the limbs are put in a condition to do what they were made to do. By right mental exercise the mind is put in a condition to do what it was designed to do.

The chief office of a teacher is to direct the mental exercises of his pupils so as to promote their highest improvement. To do this successfully he must know what habits and powers are of most import, and the best means of development.

The following may be found to be the most important: 1. The power of fixing entire attention on a subject. 2. The ability to see truths clearly. 3. The habit of remembering truths seen. 4. From truths—closing the gray record—no can make the whole stored procession pass before him in due order, with appropriate badges, attitude and expression.