

## 7. HABITS—THEIR FORCE AND INFLUENCE.

"Habit is second nature." This axiom is freely admitted in words by teachers of all classes, but, unfortunately, is not always made to bear upon their actions; and yet it is one of the most important branches of education to inculcate good habits, and eradicate bad ones. Can we give a reason for this difference between words and deeds? We think we may supply a twofold answer.

The first is, that habits cannot be taught by precept only, but must be exhibited in practice. A child has sufficient of the imitative character of the monkey about him to prefer copying what he sees, rather than what he is merely told; besides, in the dry, formally-delivered precept, the pupil is apt to consider himself "talked at," his self-pride is awakened, and the teacher has raised a most powerful barrier against the success of his own teaching; whereas, if he does himself what he enjoins on him or them, his pupils feel that he is not merely trying to form them on a certain model, because it is his duty so to do, and because he thereby earns a stipulated salary, but that he is endeavouring to lead them *with* himself in the path of duty and of right.

An anecdote of the celebrated North American Chief, Tecumseh, exemplifies our meaning. The Chief was invited to witness the embarkation of a detachment of British troops on active service. Their orderly movements, soldierly appearance, and noble bearing, as they marched past their commander-in-chief, who remained behind with the rest of the troops, delighted the wild American, and he warmly expressed his admiration of the scene to the English General; adding, however, these remarkable words—"There is but one fault; you say *go*, I say *come*." Now the teacher, like the American Chief, must also say *come*—not *go*—if he would be master of willing hearts. There is no use of talking of honesty and truth—of order and regularity—of forming good habits and correcting bad ones: we shall never hit the mark at which we aim, unless we weight the arrow (our precept) with deeds, our doings. By them, under God's blessing, we may do much.

Another reason for neglecting the judicious formation of habits is, that it requires a careful study of the various physical and mental characteristics of the children committed to our care. The same course of education which is suitable for a child of nervous temperament, would be injudicious in one of phlegmatic nature. The habits we should most carefully instil into one to strengthen the weaker portion of his character, are less requisite in another whose very strength lies perhaps in the points where the other is deficient, but who has his own infirmities of character to be fortified and defended. All these niceties and varying shades of character, noting where to repress and where to encourage, require a long period of anxious thought, not always consonant with the railway speed of some of our modern educators, who attempt to do the work of a year in a month, of a week in a few hours; who aim at forcing a child's intellect as we should cucumbers in a hot bed; and then are disappointed themselves, and blamed by others for not achieving impossibilities.

Although the habits we should thus strive to inculcate assume a certain variety according to the characters with which we have to deal, there is one that cannot be too earnestly pressed upon all—not only on the pupil, but the teacher—on the parent as the child—on the old as the young,—the habit of attention and observation, leading to a course of reasoning from effects to causes. "A man of mere capacity undeveloped," says Emerson, "is only an organised clay dream, with a skin on it." "Genius unexercised is no more genius than a bushel of acorns is a forest of oaks."

This habit of observation and attention, while it has led to some of the noblest of man's discoveries, also guards us from leaping to conclusions without due investigation, and reveals to us even in the withered blade of grass, or the sea-worn pebble, the wisdom and goodness by which we are surrounded. We may select one or two instances.

The great Harvey was led to the discovery of the circulation of the blood, by observing that there were valves in the veins. This must have been seen by many an anatomist before him; but Harvey was not content with seeing, his habits led him to reason on what he saw. He knew that man constructs valves to allow fluids to pass in one direction, but to prevent them from flowing back in the opposite direction. He felt that the valves in the human veins must likewise have their allotted part to play; that they were there to serve a purpose; and by patient thought and observation was he led to the discovery which has immortalised his name: nevertheless, with a prudence and caution peculiarly characteristic of the sound philosopher, he withheld his opinions from the world until reiterated experiment had amply confirmed his doctrine, had enabled him to demonstrate it in detail, and to adduce every proof of its truth of which the subject is capable.

Another no less striking illustration of this subject is the discovery of printing by Gutenberg, of which M. de Lamartine gives us the following interesting account:—

"Gutenberg had formed an intimacy with a man named Lawrence Koster, the verger of the cathedral at Haarlem, who one day

showed him in the sacristy a Latin Grammar, curiously wrought in engraved letters on a wooden board, for the instruction of the seminarists. Chance, that gratuitous teacher, had produced this approach to printing. The poor and youthful sacristan was in love. He used to walk in the holidays in spring outside the town, and sit under the willows, to indulge his day dream, his heart full of the image of his bride, and would amuse himself in true love's fashion by engraving with his knife the initials of his mistress and himself interlaced, as an emblem of the union of their hearts and of their interwoven destinies. But instead of cutting these cyphers on the bark, and leaving them to grow with the tree, like the mysterious cyphers so often seen on the trees in the forests and by the brooks, he engraved them on little blocks of willow, stripped of their bark, and still reeking with the moisture of their sap, and would carry them as a remembrance of his dreams and pledges of his affection to his lady-love.

"One day having thus cut some letters on the green wood, probably with more care and perfection than usual, he wrapped up his little work in a piece of parchment, and carried it to Haarlem. On opening it next day, he was astonished to see the cypher perfectly reproduced in brown on the parchment by the relieved portion of the letters, the sap having oozed out during the night, and imprinted its image on the envelope. This was a discovery. He engraved other letters on a large platter, replaced the sap by a black liquid, and thus obtained the first proof ever printed. But it would only print a single page. The moveable variety, and the endless combinations of characters infinitely multiplied, to meet the vast requirements of literature, were wanting. The invention of the poor sacristan would have covered the surface of the earth with plates engraved or sculptured in relief, but would not have been a substitute for a single case of moveable type. Nevertheless the principle of the art was developed in the sacristy of Haarlem, and we might hesitate whether to attribute the powers of it to Koster or Gutenberg, if its invention had not been with the one the mere accidental discovery of love and chance, and its application with the other the well-earned victory of patience and genius.

"At the sight of this coarse plank the lightning from heaven flashed before the eyes of Gutenberg. He worked at the plank, and in his imagination analysed it, decomposed it, put it together again, changed it, undid it, readjusted it, reversed it, smeared it with ink, placed the parchment on it, and pressed it with a screw. The sacristan, wondering at his long silence, was unwittingly present at this development of an idea, over which his visitor had brooded for the last ten years. When Gutenberg retired, he carried a new art with him."

We can add nothing to such a description as this, and will only ask what has been the result of that hour's thought and observation in the Haarlem sacristy?

One further instance may be allowed before we conclude this subject; and as our two previous illustrations show what may be accomplished by attention and observation, we will now point out the mistakes we are liable to commit, if we fail in these two particulars.

The celebrated naturalist, Buffon, when speaking of the hump on the camel's back, and the callous parts on this animal's legs, does not attempt to discover the reason of their existence, merely designating them as marks of degradation and servitude. A little patient investigation, however, suffices to show that these parts of their frame, like every other, fit these useful creatures for the purpose they serve in the regions which they inhabit. The callosities or parts on their legs permit them to lie down and repose on scorching surfaces, and their humps are supplies of superabundant nourishment provided for their long journeys, so that when deprived of other food their frames feed on this nutriment; and it has been observed, that at the close of a long journey their humps are much diminished in size.

Such facts as this must surely prove that it is our own ignorance and presumption which lead us to complain of the inconveniences of nature; and that a little more knowledge, and, better still, a little more humility and patience, would lead us to discover and acknowledge that there is admirable wisdom and benevolence even in those parts of God's works which may seem to be useless, or even injurious. This is the lesson taught; but the careful observer alone will learn to profit by it, the careless will pass it by unheeded.—*English Journal of Education*.

## 8. THE MONETARY CRISIS.

## A WARNING TO MOTHERS AND DAUGHTERS.

No thinking woman can have heard of the late monetary crisis, both in America and in our own country, without taking the subject into serious consideration, and making a personal application of it to herself and her own conduct.

Have those of us whose daughters have completed their course of home training, and entered upon the duties of married life, the satisfaction of knowing that they have been prepared to become helpmeets for their husbands in the day of adversity? We would ask whether they