

energy, and productive talents will not save us so long as they are not directed to this theme. We must comprehend more, fully than we now do that, without strong and intelligent mothers, it is impossible for a nation to be strong and intelligent; and that not only the mental, but the physical education of our girls lies at the basis of the welfare of the State.

Girls must no longer be supposed to content themselves with looking on at the sports of their brothers, but it should be made honorable and praise worthy for them to excel in athletic sports of their own, and schools should confer prizes not only for mental excellence, but also for the strength, endurance, and harmonious growth which are produced by an enlightened obedience to the laws of health.

We need have no fears that she will become unfeminine by such exercise, for this quality, we may suppose; does not depend upon any feebleness of the body for its existence, but is an inherent part of her being, which will only be increased the more fully that being is developed. True womanhood cannot be a thing superinduced by our social customs, to perish, but must be something inseparable from the character and life.—A. G. Woolson.

Military Drill at Schools.—Though the Military School, which is in course of organization, seems to have met with the general approval of the public, yet it may be questioned if more real good would not have been accomplished if arrangements had been made for soldier-drill at the common schools. What is peculiarly wanted in this "free and independent" country in schools is, subordination, and nothing, as is well known, tends so much in that direction as the physical control incident to the parade ground. And this subordination to authority once inculcated would soon become a valuable element in the national character. It is that that has made Germany so strong, and it is that which will strengthen any people. It is the leading defect in the volunteer arrangements as far as they have proceeded that Jack is as good as his master, if not a little better. And this is not because the material in the force is defective, but because the principle of subordination has not been inculcated at the proper period of life. If boys were to be put through a short military drill at school—lasting three hours a week—many benefits would accrue. The boys would not only become more tractable as scholars, but they would acquire a manly bearing, a brave and soldier-like disposition, which would prove of excellent value in national affairs. Education in Canada, as we have had before occasion to remark, leans too much to book learning. The boys come out well up in useful knowledge, but they have not been educated to their coming position as men. That is left to the chance of future accident. And in a country so sparsely populated as Canada is, the necessity of drill at school is of unusual importance. Here every man should be made to be of double the value of men elsewhere, because there are, comparatively, so few men among us. To reach such a standard it is necessary to begin at school, so that prompt military habits may be acquired along with simple division and multiplication. The health of the children would also be not less improved than their temper and bearing. Take any one who has gone through drill in early life, and see how straight he holds himself. He walks erect even though carrying a weight of years, whilst most of those whose backbone has never been set up, whose chests had never been thrown out, or have been taught to hold their heads erect too frequently bend before the burden of years comes on. The good humour which well-calculated drill imparts to the boys is another feature which should commend such a system. A sulky scholar seldom excels, though he may get along tortoise fashion. But when good humour prevails, the intellect is always brighter, the task less irksome, and the result in every way more satisfactory. If drill should be introduced into the public schools, in the short space of ten years a vast change would be observable among the youth of that day. While the knowledge to be had from books would be theirs, there would be that communicated which books cannot impart, but which is as essential in the formation of manhood. That a very favourable opinion in the direction spoken of exists in the public mind there is reason to believe, and all that is necessary is or the class of instruction we advocate to be introduced in order that learning may be made easier, and the youthful population trained in such habits and bearing as would create a marked and valuable improvement in both morals and manners.—*The Daily Free Press.*

Agassiz on Education.—The idea that poor teachers can give elementary instruction, that in the beginning when children are young, the character of the instruction is less important, is a fatal mistake. The best teachers should initiate the studies, and guide the early development of children.

Not by a superficial familiarity with many things, but by a thorough knowledge of a few things, does any one grow in mental strength and vigor. De Candolle told me that he could teach all he knew with a dozen plants. Unquestionably he could have done it better perhaps with so few than with many, certainly for beginners. If a teacher does not require many specimens, so they be well selected, neither should he seek for them far and wide. Let the pupil find in his daily walks the illustrations and repeated evidence of what he has heard in the school-room. I think there should be a little museum in every school-room, some dozen specimens of radiates, a few hundred shells, a hundred insects, with some crustacea and worms, a few fishes, birds and mammalia, enough to characterize every class in the animal kingdom. Pupils should be encouraged to find their own specimens, and taught to handle them. This training is of greater value and wider application than it may seem. Delicacy of manipulation, such as the higher kinds of investigation demand, requires the whole organization to be brought into harmony with the mental action. The whole nervous system must be in subordination to the intellectual purpose. Even the pulsation of the arteries must not disturb the steadiness of attitude and gaze of the investigation.

Causes of Short Sight.—A recent paper by Dr. Liebreich throws light upon the origin of this defect. He demonstrates that the two evils of permanent short sight and curvature of the spine, both so much more frequent among the educated than the uneducated classes of society are developed by the unnatural posture usually enforced in schools. During childhood the eye possesses a great power of accommodating itself to distance, and if in reading and writing the desks are so arranged that the eye, instead of being twelve to fifteen inches distant, is kept at seven or eight inches from the book or paper, the eye adapts itself to the near object, and permanent short sight is the result. Moreover, as the predisposition to the disease is hereditary, short sight is constantly on the increase in highly civilized countries. The bad posture adopted at writing desks is also the chief cause of lateral curvature of the spine. In extreme cases, says Dr. Liebreich, the copy-book is pushed forward, so that its lower border is inclined at an angle of forty-five degrees with the edge of the table. The head is lowered and so much twisted that the left eye is only a few inches distant from the book; the left cheek almost touches the left hand, or even leans upon it; the ribs of the left side are pressed against the edge of the desk, and taller children slip backward on the forms, as that only the lower part of the thighs rests on the narrow bench. In many schools the pupils maintain this unnatural position for several hours daily until at last the muscles are over-tired, and permanent distortion of the spine is the inevitable result. To avoid these evils, desks should be so constructed that when the pupil is seated the shoulders should be even, the spine straight, the head balanced on the top of the spine, the elbows on a level with each other, and only the hands and part of the fore arm resting on the desk. In order to effect this, Dr. Liebreich recommends a desk in which the angle is twenty degrees, for writing; and which, by turning up a flap gives an angle of forty-five degrees, for supporting a book for reading. He strongly condemns the absurd, unanatomical motion that straight spines can be insured by making children sit up straight without support for the back, thus over-fatiguing the muscles, and producing the very effect desired to be avoided.

Meteorology.

Observations taken at Halifax, Nova Scotia, during the month of August, 1874; Lat: 44° 39' North; Long. 63° 36' West; height above the Sea, 125 feet, by 2nd Corporal J. T. Thompson, A. H. Corps.