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## DEFECTIVE SIGHT.

## (Harper's Magazine.)

! I have known fond and doting mothers take their children of four and five years of age to have their first teeth filled instead of having them extracted, so that the jaw might not suffer in its due development and become in later years contracted, while the eye the most intellectual, the most apprehensive, and the most discriminating of all our organs, receives not even a passing thought, much less an examination. It never seems to occur to the parents that the principal agent in a child's education is the eye; that through it it gains not only its sense of the methods and ways of existence of others, but even the means for the maintenance of its own; nor does it occur to the parents for an instant that many of the mental as well as bodily attributes of a growing child are fashioned even if they are not created, by the condition of the eye alone.

A child is put to school without the slight est enquiry on the part of the parent, and much less on the part of the teacher, whether it has the normal amount of sight; whether it sees objects sharply and well defined, or indistinctly and distorted; whether it be near-sighted or far-sighted; whether it sees with one or two eyes; or, finally, if it does see clearly and distinctly, whether it is not using a quantity of nervous force sufficient after a time not only to exhaust the energy of the visual organ, but of the nervous system at large.

The reason why a near-sighted person is apt to be sickly is not far to seek. A nearsighted boy; unless the trouble be of a very moderate degree, cannot compete successfully with his school-mates in any of the games of youth where a nicely balanced cooperation of skill and strength is required, for the simple reason that most of them he beyond the range of his vision. Ridiculed by his companions for clumsiness and inaptitude, due to a physical defect of which neither he nor they are aware, he throws up in disgust, one by one, the health-giving sports in which he never can hope to excel. and takes to books, not as most boys do as a disagreeable duty, but as a recreation, till what was at first a pastime turns into a passion, and reading for the mere sake of reading, often without understanding, and nearly always without reflection, becomes a necessity-a craving which is not only not opposed by his parents and teachers, but even fostered.

Abstraction from fresh air and exercise is, however, not the only evil engendered by this condition; the very attitude under which the use of the eyes is performed is detrimental to general health and due development of important organs. The book is brought near

## FIGURE 1.

or over the table, according as the occupation is reading or writing, till the shoulders become curved and the chest contracted, the inspiration shortened and insufficient.

But it is not alone these physical attributes: even the mental are affected. A near-sighted child cannot, even across the table, see clearly the features of his own family, let alone those of his instructors, nor catch the ever-varying expression of the eye or the subtle changes in the muscles of the face, by which an idea is emphasized or a principle enforced. As he grows to manhood his very sense of the beautiful in nature is hampered and curtailed. It is the same in art, an indifferent miniature in the hand gives him more pleasure than a Raphael on the wall, and the love of detail and intricacy is lostered in him at the expense of unity and compre-

He judges of men and their intentions rather by the sound of the voice than the expression of the face, and is apt, for that reason, to be suspicious of strangers, and

FIGURE 2.

to the eye, the head is bent upon the chest overconfident in mere acquaintances, and this is even more the case with places than with men.

> Now all this must have an effect on the general health, and reduce longevity, and I with individual exceptions, that in a great number of near-sighted people the general average of physical vigor would be less than in the same number of those who possess long sight.

> If, now, this reduction in physical vigor were counterbalanced by an increase in mental force, less objections might be raised against the defect. But I have certainly never noticed that, as a whole, near-sighted persons are any more intellectual than those who have normal eyes.

studiousness and intellectuality are not conare continually brought to me with the it was begun. assurance by their parents of their great individual or the race.

is too short, or the hypermetropio cyc, and fection.

which, though less dangerous to the argan, is

even more distressing to the subject, because short eye the result is faster to the subject, because short eye the result is faster to the what it is with those who are near signed, what it is with those who are near signed, ing an effort, see in the distance usually as People with this defect even in very early life well as a normal eye, the only difference acquire, without even knowing why, a disting that where a normal eye is using no effort to see an object clearly, that is, in the states and states again to prove the total states and states again that where a normal eye is using no effort to see an object clearly, that is, in the states again to prove the states again to prove the total states again to prove and the total states again to prove the total states again to prove a state again to prove a state again to prove again the total states again to prove again to prove again the total states again to prove again the total states again to prove again the total states again to prove again to prove again the total states again to prove again the total states again to prove again the total states again to prove again the total states again to prove again t

fect-astrain which always fatigues and sometimes exhausts the nervous energy not only of the eye, but also of the whole nervous system. All this is even worse for near objects, and the result is that a hypermetropic eye never, from the beginning to the end, sees an object distinctly without an effort. From the fact that by making this effort those affected with this trouble can see both distant and near objects clearly, the defect is rarely recognized unless of a very high degree, until the near approach of adult life; though a number of symptoms and complaints may have shown themselves in former years whose true cause was unsuspected by even the sufferer himself, such as headache, vertigo, neuralgia and general nervous exhaustion-symptoms so grave that they occasionally lead to either a temporary reduction of or to a total abstinence from all study for a shorter or longer cel confidents however difficult it may be period diffing which the attiffer is supposed to have all possible ills, especially those of a nervous character.

Toward adult life-that is from eighteen to twenty-two-however, a new symptom begins to appear. Vision which up to this time had been perfectly clear, notwithstanding the strain with which it had been performed, now begins to fail, and the page to be bluried at one moment, to become perfeetly clear in the next. These temporary vanishings of the type increase in frequency, accompanied by a tense feeling over the More studious they certainaly are, but brow, and since there is now a failing of sight, attention is called to the eye for the vertible terms, though I am aware most first time, an examination is made, and the people think they are. Thus pale, delicate evil remedied by the proper glass. But this children, with a towering if not hydrocophalic is at the end of the education, not, as it forchead, and with prominent myopic eyes should be, at the beginning, or rather before

The extra strain must have an effect upon studiousness and consequent intellectual the character of the child and its natural capacity and development. The most cursory disposition, and it must tend to render it examination proves just the contrary, incless often, when least expected, prevish and freta pert precocity about books and things, of ful desponding and wanting in self-reliance. which they really know very little, and should The mere effort to see must react on what know less, is a sign of intellectual develop- is seen, and there can be no doubt that the ment. These children read much, it is true, physical exhaustion which follows the effort but it is only because they can do nothing to adjust the eye, which is a muscular action, also. In no possible way, either mental of subtracts from the quickess of perception, physical, is a defect in vision a benefit to the and therefore of comprehension, and it must inipede that maintenance of attention which But besides the condition of near-sighted- is the surest evidence of mental vigor, just ness which consists in too great h length of as the maintenance of power, not its prothe eye there is another wherethe eye ball duction, is the surest sign of physical per-

distance, a short eye is making a physical ex sits down to study, apparently fresh, and ertion proportionate to the amount of the de with a determination to perform his task.

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