

## August 1929

Better Eyesight

A MONTHLY MAGAZINE DEVOTED TO THE PREVENTION AND CURE OF IMPERFECT SIGHT WITHOUT GLASSES

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Comparisons

In practising with the Snellen test card, when the vision is imperfect, the blackness of the letters is modified and the white spaces inside the letters are also modified. By comparing the blackness of the large letters with the blackness of the smaller ones it can be demonstrated that the larger letters are imperfectly seen.

When one notes the whiteness in the center of a large letter, seen indistinctly, it is usually possible to compare the whiteness seen with the remembered whiteness of something else. By alternately comparing the whiteness in the center of a letter with the memory of a better white, as the snow on the top of a mountain, the whiteness of the letter usually improves. In the same way, comparing the shade of black of a letter with the memory of a darker shade of black of some other object may be also a benefit to the black.

Most persons with myopia are able to read fine print at a near point quite perfectly. They see the blackness and whiteness of the letters much better than they are able to see the blackness of the larger letters on the Snellen test card at 15 or 20 feet. Alternately reading the fine print and regarding the Snellen test card, comparing the black and white of the small letters with the black and white of the large letters, is often times very beneficial. Some cases of myopia have been cured very promptly by this method.

All persons with imperfect sight for reading are benefited by comparing the whiteness of the spaces between the lines with the memory of objects which are whiter. Many persons can remember white snow with the eyes closed whiter than the spaces between the lines. By alternately closing the eyes for a minute or longer, remembering white snow, white starch, white paint, a white cloud in the sky with the sun shining on it, and flashing the white spaces without trying to read, many persons have materially improved their sight and been cured.

School Children

By W. H. Bates, M.D.

IMPERFECT sight is found in the eyes of most school children of the United States, Canada, France, and other countries. In Germany a great deal has been done to lessen this evil among school children and it is well known that the statistics of imperfect sight in school children in Germany have proved that the numerous methods recommended for the prevention or cure of imperfect sight have been failures. It is estimated that in the city of New York, one tenth or more of the children are wearing glasses. All attempts to benefit the eyes of school children so that they will not need glasses have been suppressed by the Board of Education and the Board of Health. Many principals of large schools have encouraged to the best of their ability the work that can be done to cure or prevent imperfect sight in school children. It is difficult to understand why there should be so much opposition to this work.

In 1912 all school teachers were encouraged in some of the larger schools to recommend and practise any methods which promised prevention or cure. One of the opponents of the prevention of imperfect sight in school children made the statement that it is impossible to cure a negative proposition and therefore a negative proposition cannot be prevented. A positive proposition is one in which a cure can be obtained by treatment. When the methods employed do not cure imperfect sight without glasses, one cannot expect the same methods to prevent imperfect sight. A positive proposition suggests methods that cure; a negative proposition does not suggest successful treatment and does not prevent imperfect sight. Measures that cure also prevent; methods that do not cure cannot be expected to prevent.

In some cities it was believed by many that the cause of imperfect sight in school children was the use of small print in the text books. When schools were permitted to use only large print for the children, eye strain, headaches and other troubles became more numerous than when small print was employed; repeated trials of books in which large print was used always failed to prevent discomfort. Just as many children wore glasses after the use of text books with large print as when the books were printed in small print. Even the school authorities and the Board of Health were finally convinced that large print was more injurious to the eyes of school children than was the small print which had previously been used continuously. Evidently, the cause of imperfect sight in school children was not connected in any way with the size of print used in text books.

It has been generally believed also that the imperfect light of school rooms is the cause of imperfect sight in school children. In some cases there seemed to be too much light, while in other cases it was believed that there was not enough light. I have studied the connection of the amount of light to the cause of imperfect sight. After many years of observation, I became convinced that the amount of light has nothing whatever to do with the cause of myopia, hypermetropia, astigmatism, or other cases of imperfect sight in school children. Many children with high degrees of myopia and other causes of imperfect sight have been permanently cured by practising the reading of microscopic type, with changing powers of illumination. It is an error to claim that light has anything to do with the production of imperfect sight. Children with progressive myopia have been benefited or cured by eye education when a poor light or a bright light was used.

In Germany and in other parts of Europe, as well as in this country, the problem of the cause of imperfect sight in school children has received a great deal of attention. For example, in the year 1882, the minister of public education in France convoked a committee which investigated very thoroughly the light in school rooms. The committee dwelt especially upon the point that as the most essential light was that which shone directly from the sky upon the scholars, every scholar should be in a position to see a piece of the sky corresponding in size to a window space of at least 30 centimeters (about 12 inches) long, measured from the upper edge of the glass, of the upper window.

There is a large library of books describing the necessity of the proper amount of light, as measured with scientific instruments, each instrument being different in some particular from every other instrument for measuring the light. These studies and the injurious or the beneficial effects of light will now have to be modified, as I have found that the light has nothing to do with the cause of imperfect sight and that any measures adopted to change, lessen, or increase the light are usually a waste of time and effort.

A study had been made in some schools of the desks where the children do their work. Here again much time was spent uselessly in publishing rules for the measurement of the height of the desks.

Dr. Cohn has done an enormous amount of work to determine the cause, prevention, or cure of imperfect sight in school children. He recommended what was considered to be the best form of lighting in schools and also devoted a great deal of time to desks and seats. He advised that the seats and desks be so arranged so that they would give the children the most comfort. He believed that he had made a valuable discovery toward prevention of imperfect sight when he recommended an apparatus which prevented school children from leaning far forward when they were studying or writing.

The apparatus was successful up to a certain point; it prevented the children from leaning far forward; he did not claim that his methods were a cure for all cases. After his method for the prevention of imperfect sight in school children had been in use for some time, the vision of the children was tested. Much to the surprise of the parents of the children, the vision was not benefited. A friend asked Dr. Cohn for his statistics on children who were benefited; he said that no children were benefited and that the practical use was a failure. He was then asked why he continued to use the method when he knew that the children were not benefited. Cohn's answer was that he did not know what else to do. A number of prominent ophthalmologists were disappointed when he admitted that his system was of no practical use.

I have proved that any effort or strain to improve the vision always lowers the vision. Straining the eyes to see at long distances always produces near-sightedness. When efforts were made to see at the near point continuously, the eyes became far-sighted. It can be demonstrated that the normal eye with normal sight becomes imperfect by a strain to see. When the eyes are relaxed the vision always becomes normal. One of the best methods for children to practise in order to produce relaxation is that in which the body is swayed from side to side. This prevents strain, because the eyes are kept in motion and the stare is avoided, when the eyes stare, an effort has to be made to prevent the eyes from moving.

It is a rest to the eye to shift from one point to another point. When done easily, without effort, the eyes are rested, the vision improves, and the stare is prevented. Swinging was first used to rest the eyes and it was not expected that the movement of the eyes slowly, continuously, would be followed by any other benefits. It was demonstrated, however, that all children who practised the method, besides relaxing their eyes also obtained relaxation in all parts of their body.

It is a fact—a truth—that rest improve the sight and relieves or cures many diseases of the eyes. Those children who do not practise the sway correctly are not benefited. The most common mistake that is made is to turn the head to one side and turn the eyes in the opposite direction while swaying. In many cases the strain is so terrific that it is followed by much pain or discomfort, and imperfect sight.

I have found that a great many children strain while they are asleep; this I have discovered by the use of the ophthalmoscope, without necessarily awakening the child. Those children who strain during sleep are often very nervous while awake and suffer from headaches and pain in the eyes and other parts of the body. Practising the swing properly just before retiring at night fifty to one hundred times is beneficial. Some children will palm until they go to sleep. This produces relaxation which may last through the night and bring relief. This method of prevention may be practised by young children at the age of four as well as by older children.

The writer wishes to recommend a method for the cure or prevention of imperfect sight in school children which has been used successfully. A Snellen test card is placed permanently on the wall of a class room in a place where it can be read at all times by the children. All the children's eyes were tested at ten feet each day, first with both eyes together and then with each eye separately. All the teachers who practised the methods reported that every child who used the method regularly was benefited to a greater or lesser degree. Not only was the sight improved but also headaches, pains, and other nervous symptoms were relieved. One of the greatest benefits of the method was that it cured retardation. The mentality of children who had been backward in their studies was improved so that they were able to keep up with the work along with the other children.

School Children

By Emily A. Bates

THE number of school children who were successfully treated during the past year by Dr. Bates, Miss Hayes, our assistant, and myself, far exceeds that of the year before. Our records show that the Bates method is becoming better known all over the world.

Children with imperfect sight who come to us for treatment and who have never worn glasses, are very easily cured. Some need only one treatment while others need one or two weeks of daily treatment before the sight is brought back to normal. Some cases of high myopia or hypermetropia need personal supervision for even a longer time, especially when eyeglasses have been worn. During the last year I have had quite a number of school children under my care and up to date not one of them has failed me. According to my records and reports by letter, every one of them has had permanent benefit.

June and Donald are brother and sister. A former patient of Dr. Bates met their mother and told her what Dr. Bates had done for her and for her children. Then she came to us. They came on June 14, 1929, and each of them was examined by Dr. Bates. Donald is eleven years old and a manly little chap. He had mixed astigmatism with myopia. Two years ago he put on glasses for the first time, and from the time he put them on, his mother noticed that he acquired the habit of lowering his head to look at anything he wanted to see at close range. While lowering his head, his eyes were looking upward. This caused constant strain. The mother noticed that Donald did not do this when he removed his glasses at night. She also noticed that he was less nervous without his glasses than he was while wearing them. From time to time during the two years in which he wore his glasses, he was taken to different eye specialists, to find out if he was wearing the wrong glasses, which was thought to be the reason why he held his head in an unnatural position. The doctors who examined him told her that he would outgrow this habit in time and that the glasses were quite right for him.

The vision of both eyes was the same, 15/30 minus, which meant that Donald could only read some of the letters of the 30 line of the test card. Even with the largest letter of the card which is seen by the normal eye at 200 feet, he strained to see. After his eyes were tested with the test card and Dr. Bates had examined him, we proceeded in the usual way of testing his eyes with the various test cards at ten feet. He was eager to see what could really be done for him so that he could get rid of his horrid glasses. I asked him if he enjoyed football, swimming, horseback riding, and baseball. He said there was no need in going any further about what kind of sports he liked most. He said he liked them all, but that his glasses hindered him from participating in such fun for fear of having an accident, which would cause him to lose his sight. When a boy talks like that, it doesn't take very long for him to respond to the treatment and to carry out the instructions necessary to restore his sight to the normal.

I explained to Donald how mental pictures help when the eyes are closed, and that if he could remember something perfectly, while he was resting his eyes, such as a letter of the test card, a rainbow with its many colors, a beautiful sunset, or his cravat, with stripes of colors, which could be remembered while his eyes were closed, or any object which is pleasant to the eyesight, he would no doubt be able to read the test card better when he again opened his eyes.

He followed my suggestion carefully in looking at a letter of the test card then closing his eyes and drawing the outline with his finger while his eyes were closed. I asked him if he could remember the shade of the letter. The letter was black and the background was white. He said that he could remember the letter was a perfect black by first imagining that the background was as white as snow or as white as a white cloud. He said he could feel the movement of his eyes as he outlined the letter with his finger. Donald enjoyed the fun, as he called it, outlining letters while his eyes were closed and then occasionally looking at the card to read a few more letters.

His sister, who was sitting outside of the room but could hear everything that was said, was a little doubtful about what could be done for her eyes. The mother was in the room watching everything that was going on and taking notes so that she would know how to take care of Donald's treatment at home. Patiently, Donald worked with me, resting his eyes by closing them frequently when I told him to, and outlining the last letter he saw on the test card each time he rested. As the sun was not shining in the room where he was being treated, a thermo-lite was used, which seemed to like very much. The light and heat helped in the improvement of his vision and also helped him to look at the card, without lowering his head.

As his mother watched the steady improvement in his sight, she could not suppress her enthusiasm and gratitude. Occasionally, she would remark to her boy, "Think of it, Donald, you will not need glasses ever again." Gradually, I placed the test card farther and farther away and in an hour's time, he read 10/15 with each eye. I placed him comfortably in a chair, telling him not to open his eyes, but to take the light treatment until he felt uncomfortable, and then to shut off the light and still keep his eyes closed while I treated his sister, June.

June is nine years of age and had worn glasses for a year or more. She had trouble in keeping her eyes open normally without her glasses and closed them almost entirely in order to see. She preferred to do this rather than to wear her glasses. She also had myopia, about the same degree as her brother. When I placed her before the test card, ten feet away, she strained to see the letters and did not blink as I pointed to the largest letters of the test card. She could read the first three lines by squeezing her eyes together, but the letters looked blurred to her. By closing her eyes often, following the treatment I gave her brother, imagining the white background of the card whiter than it really was and imagining the black letters blacker, outlining letters with her forefinger as she mentioned them, her vision with each eye improved to 10/30. It took about an hour to improve her vision to 10/10, but gradually as she read one line after another, alternately closing her eyes to rest them and receiving the thermolite treatment frequently at short intervals, she became able to read with her eyes open in a normal way. I told her to sit with her eyes closed for a while and to remember familiar objects as I had advised Donald to do.

Then I returned to Donald to give him more help. I placed the test card thirteen feet away and by receiving a little light treatment, at intervals, with the light about ten feet away from him so that the rays was not too strong for his eyes or the heat too great, he became able to read the smallest letters of the test card without any strain or discomfort. The long swing was added to the latter part of his treatment, swaying and looking at a blank wall where there was nothing to see and then to the test card, reading one letter at a time and then swaying again to the blank wall.

Then June followed her brother in the treatment, doing just as well as he did with the reading of the test card letters at 13 feet. This was more than the normal distance.

Both children expressed their gratitude to me for the help that had been given them and then they insisted that Dr. Bates be called away from his work to come to them for his share of praise. They wanted to shake hands with the great man who could do so much good for school children.

I was very tired that morning and did not feel physically fit to look after the work that had to be done. After Donald and his sister June had spent more than two hours with me, I was relieved of all fatigue and discomfort for the rest of the day. I had a good reason to be happy and to feel that something good had been done; because I had helped two children obtain normal sight in one treatment. After the children had left, their mother promised to write to us for further help, if further help was necessary. She was not to communicate with us unnecessarily, if the children retained their normal vision. Up to date, we have not heard from the mother.

Paul was another boy who came for treatment about the same time. His father telephoned before sending his son, telling me that the school authorities had insisted very strongly that he get glasses for Paul, but the father refused to submit to such a thing, until he was sure that nothing else could be done. Paul had never worn glasses and when they were suggested to him, if Dr. Bates could not help him, he wept bitter tears and at times was disobedient, which sometimes called for punishment.

Paul came with a written statement from his mother, saying that at the age of five years, he was taken ill with measles and after that sites appeared at intervals, causing an almost constant inflammation of the eyelids. Because Paul had played with a child who was supposed to have an incurable eye trouble, Paul's mother feared that he had acquired this incurable disease also. His eyelids were itchy most of the time and at the advice of an eye doctor a solution of boric acid was used and a medicine called "mecca" was also applied. Paul found some relief from the use of these applications, but the sites appeared just the same and he noticed that the letters on the blackboard at school became less distinct at such times.

In 1928 he had scarlet fever, and pink eye began three months previous to his visit to me. Paul's vision with each eye was 10/10 but he strained to see as he read the smaller letters of the test card. The sun was shining through the windows in the room where I was treating him. I placed him in the sun with his eyes closed and used the sun glass rapidly on the edge of his eyelids as well as on the upper and lower lids. This was about midday, and the sun was rather hot so I had to use the glass very rapidly in order to avoid any discomfort or burning of the lids. His elder brother who came with him remarked how well the eyelids looked after the sun treatment. This was accomplished in less than an hour's time.

After the sun treatment, I placed the test card at ten feet. He read the smallest letters without any effort or strain. Again I placed him in the sun and taught his elder brother how to use the sun glass while I was occupied with something else. We had to keep Paul busy while he was resting this way, because he was restless and being a perfectly normal healthy boy did not like being quiet. He told me a funny tale and then in turn I told him one and in this way we passed the time away. Finally after another half hour of sun treatment, Paul read all the tests cards with different letters at fifteen feet from his eyes without any trouble whatever.

The irritation of the eyelids had disappeared and the itching had stopped, but Paul was told that this might be only a temporary relief and that he would have to take a good deal of sun treatment before he was finally rid of his trouble. He promised to take all the sun treatment he could possibly get

by placing himself in the sun, and raising his head so that the sun could shine on his closed eyelids. He was given a test card to practise with daily and to use to show his mother how far away he could read it while blinking and swaying his body from side to side to avoid the stare. Paul and his brother promised to notify Dr. Bates if he needed further help, or if he had any further discomfort with his eyes. Two weeks later, his elder brother came to report that apparently Paul was cured in one treatment because no further complaints came from the school about his having to wear glasses nor did the irritation of the eyelids reappear. I am sure that Paul himself takes time enough for the sun treatment whenever there is sun, because he promised me faithfully that he would do so without troubling any member of his family.

Case Reports—School Children  
By Katherine Hayes

SINCE it has been my privilege to assist Mrs. Bates in clinic work, I have come in contact with a number of interesting cases, especially among children of school age. I have found that children as a rule respond much more readily to treatment than adults and I believe the reason is because they have a natural aversion to the wearing of glasses and are willing to learn how to improve their vision without them. I think this is especially true of children from ten to fourteen years of age who have some definite reason for wanting to discard their glasses. About six months ago, a little girl came to the clinic for treatment. I noticed as she came into the room with her mother that she was unusually pretty, but I also noticed that she kept looking down and did not raise her eyes once. While she waited for her turn, her grown up manner was most amusing, not only to me, but to the patients in the room. Every few moments she would take out a hand mirror from her little purse, survey herself critically and then place the mirror back in her purse, quite unaware of the attention she was causing and of the embarrassment of her mother. When this girl's turn came for treatment, her mother gave me an account of her case. She was eleven years of age and had been wearing glasses off and on for squint for five years. When she was six she had an attack of whooping cough which caused her left eye to turn in. The vision in that eye was also impaired. They had been to several eye doctors, most of whom had advised an operation, but her mother was unwilling to have the child submit to this. After her mother had finished, the little girl came over to me and said in a confidential tone, without raising her eyes: "You know, people say that I would be quite a little beauty if it weren't for my cross eye. I hate glasses because they make me homely and I only wear them once in a while. Someday I want to be an actress on the stage or in the movies and I know they won't take me if I am cross-eyed. Can my eye ever be made straight again?" I told her I thought it could, if she would do what she was instructed to do at home and come regularly to the clinic. I tested her sight and found that in the right eye it was 15/10 or better than normal, while in the left eye it was 15/50. I showed her how to palm, which she did for fifteen minutes. I then told her to remove her hands from her eyes. For a moment, her eye was straight. I tested her vision again and found that by having her sway and blink as she read the card, her vision improved to 15/30. I told her to practise palming every day as many times as possible for five minutes at a time, to practise the long swing 100 times morning and night, and to remember to blink her eyes frequently. When she came again, two weeks later, her vision was still 15/30, which indicated that she had been faithful in her practise work. I also noticed that her eye was not quite as crossed as it had been. She came regularly for about four months and the last time she came her vision in the left eye had improved to normal and her eye was perfectly straight. Little Elsie was very happy. I told her that even though her vision was normal and her eye straight she should remember to rest her eyes occasionally, in order to avoid any strain which might lower her vision and cause a return of the squint. I have not seen or heard from her since, but I am sure that her vanity, if nothing else, will encourage her to take good care of her eyes. About the same time a boy of thirteen came for treatment. He was wearing glasses which he had been using for three years. His dislike of glasses was not prompted by vanity as in little Elsie's case, but was because being a real boy, he liked all sorts of sports and could not engage in any of them because of his "old glasses" as he called them. "Gee," he said, "if I didn't have to wear those things, I'd be happy." After testing his vision, I found that he had quite a high degree of myopia. His vision was 15/70 with both eyes. Palming seemed to make him restless, so I told him to just close his eyes and sit back comfortably in the chair. After twenty minutes, he was directed to stand up and look out the window, then to start swaying from side to side as he blinked his eyes. After practising this for five minutes, I again tested his vision, and found that it had improved to 15/40. I told him to leave his glasses off and gave him instructions to follow at home. When he came again, his vision was not quite 15/50. He said that he had had a bad cold and was not able to practise. I gave him light treatment for about twenty minutes, after which his vision improved to 15/30 minus. I told him to get a great deal of sun treatment at home, letting the sun shine on his closed eyelids as he moved his head slowly from side to side. When he came again, his vision had improved to 15/20 minus. He continued to improve steadily and when he came the last time, which was about a month ago, his vision was normal in both eyes. Needless to say he was a happy boy, and incidentally, as he was leaving the office he said that he thought Dr. Bates was the most wonderful man in the whole world, with the exception of his own father.

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