March 1926

Better Eyesight

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

March, 1926

Demonstrate

THAT central fixation improves the vision. The normal eye is always at rest and always has central fixation. Central fixation cannot be obtained through any effort. When an effort is made by the normal eye, central fixation is always lost. In central fixation, one sees best the point regarded while all other points are seen less clearly.

Look at the upper left hand corner of the back of a chair. Note that all other parts of the chair are not seen so well. Look at the top of a letter at a distance at which it can be seen clearly. Then quickly look at the bottom of the letter. Alternate. When the eyes go up, the letter ap-pears to move down. Then the eyes move down, the letter appears to move up. Coincident with this movement, you can observe that you see best the point regarded and all other points less clearly or less distinctly. When you can imagine the letter to be moving, it is possible for you to see best where you are looking.

The size of the letter or object seen, does not matter. Central fixation can be demonstrated with the smallest letters which are printed, or the smallest objects. Close the eyes and remember or imagine how the small letter would look if you imagined one part best. By shifting from one part of the letter to another, central fixation with the eyes closed may be made continuous for one-half minute or longer. Then with the eyes open, it is possible for one second or less to see, remember, or imagine the same small letter or other objects in the same way,—one part best.

Note that when the letters are read easily and clearly, they are always seen by central fixation, and relaxation is felt. Central fixation is a rest to the nerves and when practiced continuously, it relieves strain and improves the vision to normal.

Imagination

By W. H. Bates, M.D.

Imagination is good One may even see the white part of letters whiter than it really is, while the black is not altered by distance, illumination, size, nor form of the letters.

IMAGINATION is good in normal sight. When the sight is normal, the imagination is normal. The converse is also true,—when the imagination is normal, the sight is normal. A cure is obtained when the imagination is improved to the normal. One may imagine a letter of the Snellen test card very well, while regarding it, with the eyes open. When the sight is normal, the imagination may be as good and usually much better with the eyes closed than with the eyes open. When the sight is perfect, one can imagine with the eyes open, objects of all sizes and forms, familiar or strange, just as well as he can with the eyes closed. Under favorable conditions of environment, namely, light, distance, and restful surroundings, the imagination is usually good. A perfect imagination can only be obtained when the memory is perfect. When the memory is perfect, the consciousness of the movement of all things remembered or imagined can always be demonstrated. The eyes are constantly shifting when the imagination is good. After the shifting stops, the perfect imagination is modified, or lost.

It is not possible to have a perfect imagination and an imperfect one at the same time. For example, one cannot remember a black color perfectly black, and a white color imperfectly white simultaneously. When a black letter with a white center is imagined perfectly, both the white and the black are perfect. It is impossible to imagine the letter with a perfect white center and an imperfect or gray-black outline. When the imagination is perfect for one thing, it is also perfect for all things. When a patient makes his first visit, the vision of each eye is tested for the Snellen test card at about fifteen feet. If the large letter of the Snellen test card cannot be distinguished at this distance, the card is brought closer until the letter is clear enough to be recognized. Experience has demonstrated that trying to improve the vision of such patients at fifteen feet or further is disappointing, but when they practice with the card at ten feet or nearer, the vision usually improves immediately. Some near-sighted patients have good sight at six inches, but not at twelve inches. By having them read as well as they can at six inches and then look at the card at twelve inches for a moment, the vision usually improves. Some patients can see very well at five feet for a short time. They are instructed to always close their eyes when their sight becomes imperfect, and when they open them, to keep them open for just a moment or a flash. This alternate resting the eyes by closing them and looking at the letters just for a second is a benefit to a great many. There are, however, a large number of patients who are not benefited at all by this method, because as soon as they open their eyes or even before that, they stare or strain and make an effort to see.

It helps very much to suggest to the patient that he use the word "imagination" and not the word "sight." To most people, to improve the imagination seems easier than to improve the sight, and quite a number believe that when they know what the letter is, although they may not see it, they can always imagine it. It is inter-esting to observe that when the imagination of a letter is improved by resting the eyes, other letters on the card not regarded become blacker and the whiteness of the card whiter. It is frequently demonstrated that one of the best ways of improving the sight is to improve the imagination of letters that are known. Often a patient says that he can imagine a known letter and sometimes thinks that he sees it, but he and his friends are usually very suspicious of the vision obtained when regarding a familiar card whose letters are known. It is necessary to demonstrate in various ways that when the imagination is improved, the vision is improved. This statement, however, does not convince the patient. The only test that is convincing is to test the patient with an unfamiliar card. It is oftentimes quite a shock to him to find that he can quite frequently read an unfamiliar card with much better vision than he is able to imagine or see the card that was familiar.

If a patient is unable to read fine print at twelve inches from the eyes or nearer, great benefit is derived from imagining the white spaces between the lines to be whiter than the rest of the card. When the white spaces are imagined perfectly white, the black letters are imagined perfectly black. When the imagination of the white is perfect enough, the imagination of the black letters is also sufficiently perfect, so that the letters are read easily without effort or strain, and without consciously looking at the letters. It is good practice to have a patient decide to imagine the white spaces perfectly white. If the letters improve, one should not try to read them. It is exceedingly difficult for most people to do this. With the slightest improvement in the white spaces coincident with a corresponding improvement in the blackness of the letters, the temptation to forget the white

spaces and try to read the letters is very great. If one is unable to confine his attention to the white spaces, improvement in the ability to read may be very slow or impossible. To play the game, one must play it fairly and not be in a hurry to read the fine print when the imagination of the white spaces improves. In some cases it is well for the patient to close the eyes and remember the whitest white he has ever seen. This may be white snow, a white pillow, or whitewash. Then open the eyes and flash the white spaces, imagining them to be as white or whiter than the object remembered.

The imagination is not modified by the illumination. It is very interesting to find patients with good sight who can imagine things perfectly in a dim light. When this is accomplished, the clearness of all things seen, gives one the impression that the light has increased. For example, there are many people who, after the lights have been dimmed in the theatre, can read the program apparently as well as they can when the light is good. Patients with imperfect sight are troubled by the dim light more than are patients with normal vision.

Other environmental conditions affect the vision,—excitement of various kinds, unexpected noises and unusual occurrences. When some people go to a circus, they may become very near-sighted in a few minutes, although when attending a performance at the theatre, their eyes do not trouble them. Others cannot see well at the opera, because they are not accustomed to observing people's faces so far away, and yet on the street in all kinds of light they may have normal vision. When people with imperfect sight, try to find their way about in dark places, they strain their eyes to such an extent that they suffer pain, headache, and become exceedingly nervous. People with normal eyes and normal sight maintain a perfect imagination in strange as well as familiar places.

The normal eye is able to imagine the white centers of black letters whiter than they really are. Other peo-ple with imperfect sight imagine the white center of a letter "O;" for example, of the same shade of white, or less white than the rest of the card. The use of a screen helps such patients to improve their imagination. Use a card or piece of paper with an opening slightly smaller than the white center of the letter "O." Cover the black part of the letter with the card, exposing the white center. By alternately closing the eyes, resting them, the patient becomes able to see or imagine he sees the center of the "O" to be less white than it appears to be when the black part of the letter is exposed.

No patient is cured until he becomes able to imagine a letter at ten feet or further as well as he can see it at one foot or less. In this connection, it is well to emphasize the fact that the cure of imperfect sight can only be accomplished without effort. Too many patients believe that the cure of imperfect sight is very complicated, and that they have to make a great effort. It is only when they become convinced that the one way they can obtain perfect sight is by rest, or that when their sight is imperfect, a strain is necessary to keep it imperfect, that a permanent improvement, is obtained. A sufficient improvement of the imagination is a cure of imperfect sight. Patients with perfect sight have a perfect imagination of the things that they can remember. Patients with imperfect sight always have an imperfect imagination.

So many people look with contempt on the imagination, especially when it comes to treatment of the eyes. Most people do not associate imagination with perfect vision. They are of the opinion that they can imagine, they see something without actually seeing it. This is not so. Perfect imagination and perfect vision are identical.

Of all the discoveries that I have made, there is none of so much practical value as the discovery of the importance of the imagination.

Stories from the Clinic
No. 73: MARGARET MARY
By Emily C. Lierman

MARGARET MARY is not yet five years of age. Her mother told me that an eye specialist prescribed glasses for her when she was two years old to be worn constantly for the cure of squint, which she had contracted after an attack of whooping cough. The squint was alternate, sometimes the right eye turned in, at other times the left.

When I tested her sight at the first visit, October 24, 1925, the vision of each eye was one-fifth of the normal. She is an obedient child and did what I told her. At my request, she covered both eyes with her hands. I asked her to remember her dollie. She smiled and asked: "Which one?"

I answered: "Your best dollies"

I found that Mary had a good memory for colors. When I asked her what the color of her best dollie's dress was, she answered: "Pink." As she, herself, was wear-ing a blue dress, I tested her memory for colors by asking her if the dollie's dress were the same color as the dress she was wearing. She peeped between her fingers, looked at me and said: "No, my dress is blue." I asked her if the dollie had black shoes like hers. She answered: "No, she hasn't any shoes."

All these questions were necessary in order to encourage the child to imagine perfect mental pictures and obtain relaxation. After she had palmed five minutes, I told her to remove her hands from her eyes and look at the card. Her vision, when tested, had improved to one-half of the normal.

I taught the child how to sway her body from side to side, as I held her hands and moved with her. While we were doing this, Mary's mother looked on. She was amazed when the eyes became straight from the swaying. Then I told the mother how important it was to have the child practice the swaying several times every day. She has a victrola in her home, and I advised the mother to play a waltz, if possible, when the child was swaying.

When Mary returned a week later, I noticed that the squint was much better. She placed her arms about me and said she loved me, because I removed her glasses. I tested her sight and found that it had improved considerably. When she was reading the card for me, there, were times when she sighed. This was a signal that she was tired. I would then lead her to the drawer in which some candy is kept. If parents do not object, I give my little patients some good candy, while they are practicing. In my experience, nothing has relieved eye fatigue in children so much as a little candy.

During a treatment, in which her eyes were perfectly straight, two boys came into the room. I watched Mary and noticed that her left eye turned in considerably. I immediately placed the boys in another room. When I returned and spoke kindly to Mary, her left eye became perfectly straight again. Her aunt, who had brought her, was amazed at the quick relief of the squint. It was very evident that the unexpected presence of the two boys had caused a strain which produced the squint.

Before she left me that day, her vision had improved to four-fifths of the normal. On January 16, 1926, her vision had improved to the normal with the eyes straight. Up to this time, we had been using the card with the letter E of different sizes pointing in various directions. As she did sot know numbers, I taught them to her with the aid of a Snellen test card consisting of figures up to ten, while holding the card about one foot from her eyes. She was delighted with the change and her eyes remained straight all the time. Her joy was unbounded when I told her that she could take the card home with her.

One week later, she was able to tell every figure on the numeral card.

This case was interesting. The child had been wearing glasses prescribed by a competent doctor for two years without relief. The squint was not cured nor benefited by them, because it returned just as soon as the glasses were removed. Even while wearing them, the squint was usually evident, and the vision was not improved. A study of her treatment and the results, showed that the cause of the squint and the imperfect sight, was a nervous strain. Many children as well as adults can produce a temporary squint by a stare or strain.

Investigation has proved that this fact should be emphasized. For more than one hundred years, opthalmologists have declared repeatedly that the imperfect sight of a squinting eye is usually incurable. Many writers make the statement that children are born with squint. In these cases, the blindness is usually more marked at the centre of sight, and yet, with the ophthalmoscope, the centre of sight may look perfectly normal. One celebrated writer tried to explain the facts in a few words by stating that the blindness of squint was a condition in which neither the patient nor the doctor could see anything, meaning, as was stated above, that although the sight of the squinting eye may be very poor or entirely absent, the ophthalmoscope shows no evidence of disease of the retina. All cases of squint are cured by treatment which eliminates strain.

Fundamentals
By W. H. Bates, M.D.

1. Glasses must be discarded permanently because it is a truth that one cannot be cured without glasses while wearing them, even occasionally. Dark glasses and other measures to protect the eyes from the strong light are also objectionable. The eyes become more sensitive to light with a loss of vision. Magnifying glasses lessen the clearness of all colors, including black and white. The size and form of objects are modified by all kinds of glasses. Glasses for the correction of far-sightedness may, and usually do, give the wearer the impression that objects are larger than they really are; while near-sighted patients when wearing glasses are impressed with the fact that objects look smaller than they actually are. Glasses for the correction of astigmatism may cause dizziness.

In wearing any glasses, it is necessary to look directly through the center of the glass in order to obtain maximum vision. If one regards an object by looking in a slanting direction through the glasses, its form and location are changed. Many people, when they first put on glasses, feel as though they were a long distance from the ground. With other glasses, they have the sensation of being shorter, or that the distance from their eyes to the ground has become lessened.

The discomfort of glasses is very great with a large percentage of people who wear them. Frequently, when they complain to their ophthalmologists, or to the opti-cians who supplied the glasses, they are advised that by perseverance their eyes will become fitted to the glasses. This does not seem quite satisfactory, because people feel that the glasses should fit their eyes, and not that they should struggle along with all kinds of discomforts in order to make their eyes fit the glasses.

Tinted glasses, red, yellow, blue, green, or black, when worn constantly, usually feel comfortable to the patient because the amount of light is lessened. At the seashore, when the reflection of light from the water affects the eyes badly, causing pain and discomfort of all kinds, the wearing of colored glasses is, for the time at least, often a great relief. However, constant wearing of such glasses is later followed by sensitiveness to the light and the necessity for stronger glasses to obtain a sufficient amount of relief. The protection of the eyes by dark glasses, shades, and other measures has caused inflam-mations of the eyeball and of the eyelids. Pure sunlight is necessary for the health of the normal eye, and when people live in dark rooms, they usually find their eyes are weakened.

The shape of the eyeball is changing frequently. Sometimes the eyes are foccused for distant vision and other times for near vision. Glasses which correct the sight for reading, very seldom enable the patient to see at the distance as well as without them. On the other hand, near-sighted persons whose vision is poor for distance, when wearing glasses to enable them to see distant ob-jpcts, find that their ability to read with maximum vision is impossible with such glasses. When the glasses do not correct the vision for all distances, the eyes strain and try to overcome the bad effect of the glasses. Without glasses, the eyes may strain, but the wearing of glasses increases the strain. Glasses correct the eye trouble to a certain degree, but when the eye trouble varies, or the strain varies, the glasses do not relieve the wrong focus of the eye at all times. For example, the glasses that correct the imperfect sight, or the strain of imperfect sight at ten feet, may not do it when the eye strains and is focused for a nearer point, or for a more distant point. Many people complain that they do not get relief from wearing glasses at all hours of the day, because strain and inflammation of the eyeball produced by the strain, is so variable. When the eye becomes normal, or when it becomes able, as the result of treatment, to change its focus without difficulty, the patient is comfortable and can only be comfortable without glasses.

2. Central Fixation is seeing best where you are looking, and at the same time seeing worse where you are not looking. The letters of the Snellen test card, when seen clearly, are always seen by central fixation. Diamond type, when read slowly, or when one letter is seen clearly, continuously, for part of a minute, requires central fixation.

Concentration is an effort to see where you are looking and not to see at all where you are not looking. This is impossible without a strain. An effort to concentrate always fails to improve the vision. All persons with im-perfect sight try to concentrate. When the vision improves, the effort to concentrate becomes less. Persons with normal sight never try to concentrate.

3. Favorable Conditions: Light may be bright or dim. Some persons are unable to see in a bright light. Their vision is usually improved by the sun treatment. They sit in the sun with the sun shining directly on their closed eyelids as they slowly move their heads a short distance from side to side. This is practiced for half an hour or longer whenever possible. The eyes are rested and strengthened, and gradually grow accustomed to the strong light of the sun. Individuals who cannot see so well in a dim light as in a bright light are benefited by the imagination of the halos, that is, the imagination of the centers of round letters to be whiter than the rest of the card. The memory of perfect sight also helps one to see in a dim light. By the memory of perfect sight is meant the ability to remember or imagine perfectly a letter or an object which has been seen perfectly.

The distance of the print from the eyes, where seen best, also varies with individuals. In some cases, the letter or object regarded and seen clearly, may be, as in near-sighted eyes, one foot or less from the face. To be able to see further off, requires practice. When things are not seen at a greater distance, two feet or further, the vision usually is improved by remembering one letter of the Snellen test card perfectly with the eyes closed. Then when the eyes are opened for a fraction of a second, it is possible to imagine the known letter at two feet or further.

Many middle-aged people can see well at twenty feet or further, but are unable to read the newspaper at two feet or nearer. The same principle holds true in these cases, as in those of near-sightedness, except that the distance of the print from the eyes is gradually decreased until it is read without effort or strain at twelve inches.

4. Shifting. In normal sight the eyes are moving all the time. It is necessary when the eyes are at rest, that they keep moving, to avoid the stare. To stare, the eyes must be stationary. Shifting prevents the stare. When the sight is imperfect, the eyes strain or stare by regarding one point all the time. All patients with imperfect sight, when they look at a letter, see it stationary. They look at a part of the letter or the whole of the letter, and see it all alike. The vision always becomes imperfect when this is done.

There are various ways of obtaining the habit of shifting. One has to first obtain the conscious habit. Shifting a long distance is readily accomplished, but when one shifts a very short distance, it is not always easy to be conscious that the eye really moves. One can be sure that the eye is moving when objects, not directly regarded, appear to move at the same time. No matter how great the strain of the eyes may be, it is always possible to shift a long distance, usually by turning the head in the same direction as the eyes move. The long shift is always some relief. When the shifting is short-ened to one-quarter of an inch or less, when regarding small letters, the eye with imperfect sight may have difficulty in imagining

the letter to be moving so short a distance. Near-sighted people who have good vision close to the eyes, at one foot or less, and can read the finest print, are able quite readily to imagine the eyes shifting as short a distance as the width of one of the small letters. The short shift is more difficult, but when it is Successfully practiced, one obtains a greater amount of relaxation than can be obtained from the long shift. I wish I could emphasize the value of shifting. About five years ago, a patient whom I had cured of near-sightedness some years before, called to see me. His vision was normal not only for a familiar card, but he could read with normal vision, letters of an unfamiliar card.
"Did you have a relapse?" I asked him.
He replied: "I have never had any relapse." "What do you think has cured you?"
His answer was: "Shifting."
5. Swinging. When the eyes move slowly or rapidly from side to side, stationary objects appear to move in the direction opposite to the movement of the head and eyes. Some people have a very painful and disagreeable time in becoming able to imagine that stationary objects appear to move when the eyes move. If one stares directly at a stationary object, it does not move. This suggests very strongly that one should not expect stationary objects to move when he looks directly at them. When one shifts a long distance from one point to another without effort or without strain, or without trying to see, it is possible to imagine stationary objects not regarded, to be moving. Some people tell me that when they look out of a car window of a railroad train, they do not imagine the telegraph poles to be moving opposite to the movement of the train. On the contrary, they feel that they are moving and do not like to imagine the illusion of the telegraph poles to be moving. One has to treat such patients with much ingenuity. One patient could imagine things moving while she was running, but not while she was walking. I had her run around the office one morning until she obtained considerable improvement in the swing, but the exercise produced blisters on both feet. Later, she became able to obtain the swing of stationary objects when she did not run so fast or so long. At first she practiced a fast walk, and then a slower walk until she became able to imagine stationary objects to be moving, by just moving her head and eyes.

Questions and Answers

Question—When one uses electric light in place of sunlight—
(a) How strong a light is it proper to use?
(b) Because of the heat, how close to the light is it advisable to sit?
(c) How long is it advisable to sit at one time?
(d) How much time should be given to it in a day?
Answer—(a) One can use an electric light of 1000 watts with benefit.
(b) Sit five feet or further away from the light to avoid any discomfort from the heat.
(c) Practice for one-half hour or longer. The more light treatment taken, the better.
(d) Devote at least one-half hour a day to the sun or light treatment.
Question—Is the effect of the burning glass and that of sunshine falling on closed eyelids different, so that one needs both kinds each day?
Answer—The sun treatment with the burning glass is more intensive than without it. At first, patients become accustomed to strong light by sitting in the sun and allowing the sun's rays to shine directly on the closed eyelids, as they slowly move their heads a short distance from side to side. Then, with the burning glass, the strong light of the sun is focused on the closed eyelids, and when the eyes are accustomed to that, one can consider the advisability of focusing the direct rays of the sun upon the eyeball, itself. This is done by lifting the upper lid while the patient looks down. When the sun is focused upon the naked eyeball, one should keep moving the glass from side to side, and for a short time only, so as not to produce discomfort from the heat.
Question—If one practices reading fine print for a time each day, is it harmful to read print like that of the Forum (usual magazine type)?
Answer—No, the more you read, the better, even though you read with imperfect sight. Large print can be read with a strain, but fine print can only be read when the eyes are relaxed. It is all right to read print of any size if one reads it with perfect sight. When read with imperfect sight, the eyes are under a strain. Imperfect sight is always caused by a stare or strain, and one can stare or strain when regarding a large letter, blurring it to a considerable degree, and yet be able to tell what the letter is. The same amount of strain, which produces as much of a blur, when looking at a small letter, may make it impossible for one to read the small letter perfectly, although he can still distinguish the large letters. Any size type can be read without strain if blinking, shifting, and central fixation are practiced.
Question—In viewing moving pictures is it not morq beneficial to sit as far back as one may and not strain, than to sit farther forward?
Answer—Sit at a distance from the screen at which you are most comfortable, i.e., where you can see the picture with the least discomfort. One can strain the eyes when sitting at almost any distance from the screen. To avoid the stare and strain as much as possible, it is necessary to keep shifting the eyes from one part of the screen to another, or to look off into the darkened room from time to time to give the eyes a rest. Some people are benefited by palming for a few seconds or longer, and in this way prevent the strain.
Question—When palming and seeing mental pictures, I almost never think whether it is black before my eyes or not. If I turn my attention to it, it is usually dark, more or less, but not a black black. Am I right not to think at all about it?
Answer—When palming, do not try to think of anything. Just think of something pleasant, something that you remember perfectly, and let your mind drift from one pleasant thought to another.

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