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

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#### HOW TO IMPROVE THE SIGHT BY MEANS OF THE IMAGINATION

Remember the letter o in diamond type, with the eyes closed and covered. If you are able to do this, it will appear to have a short, slow swing, less than its own diameter.

Look at an unknown letter on the test card which you can see only as a gray spot, at ten feet or more, and imagine that it has a swing of not more than a quarter of an inch.

Imagine the top of the unknown letter to be straight, still maintaining the swing. If this is in accordance with the fact, the swing will be unchanged. If it is not, the swing will become uneven, or longer, or will be lost.

If the swing is altered, try another guess. If you can't tell the difference between two guesses, it is because the swing is too long. Palm and remember the o with its short swing, and you may become able to shorten the swing of the larger letter.

In this way you can ascertain, without seeing the letter, whether its four sides are straight, curved, or open. You may then be able to imagine the whole letter. This is easiest with the eyes closed and covered. If the swing is modified, you will know that you have made a mistake. In that case repeat from the beginning.

When you get the right letter, imagine it alternately with the eyes closed and open, until you are able to imagine it as well when you look at it as when your eyes are closed and covered. In that case you will actually see the letter.

## IMAGINATION ESSENTIAL TO SIGHT

By W. H. Bates, M. D.

IT is a well-known fact that vision is a process of mental interpretation. The picture which the mind sees is not the impression on the retina, but a mental interpretation of it. To the mind, objects seen appear to be in an upright position, but the picture on the retina is upside down. When the sight is normal the margins and openings of black letters on a white card appear whiter than the rest of the card; but this, of course, is not the fact, the whole background being of the same whiteness. One may seem to see a whole letter all alike at one time, but, as a matter of fact, the eye is shifting rapidly from one part to another. The letter may also seem to move although it is stationary.

When the vision is imperfect, the imagination is also imperfect. The mind, in short, adds imperfections to the imperfect retinal image. A great part of the phenomena of imperfect sight is, therefore, imaginary and not in any way to be accounted for by the derangement of the visual apparatus. The color, size, form, position and number of objects regarded are altered, and non-existent objects may be seen. Some persons with imperfect sight literally see ghosts. A person in a dark cellar is often under such a strain that he thinks he sees sheeted figures, and one of my patients in broad daylight used to see little devils dancing on the tops of high buildings.

It is a great relief to patients to learn that these appearances are imaginary, thus helping them to bring the imagination under control. And, as it is impossible to imagine perfectly without perfect relaxation, any improvement in the interpretation of the retinal images means an improvement in the conditions which have led to a distortion of those images; for relaxation, as all regular readers of this magazine know, is the cure for most eye troubles. There is no more effective method of improving the sight, therefore, than by the aid of the imagination, and wonderful results have been obtained by this means. At times, imagination almost seems to take the place of sight, as in the case of a patient who gained a high degree of central fixation in spite of the fact that the macula (center of sight) had been destroyed, or in those cases in which patients become able to correctly imagine letters which are seen only as gray spots without knowing what they are.

How patients manage to see best where they are looking without a macula is hard to explain, but the imagination of letters which are not consciously seen is probably made possible by a certain degree of unconscious vision. When one looks at a letter on the Snellen test card which can be seen distinctly and tries to imagine the top straight or open when it is curved, or curved when it is straight open, it will be found impossible to do so and the vision will be lowered by the effort to a greater or lesser degree. In one case the mere suggestion to a patient that he should imagine the top of the big C straight caused the whole card to become blank. When one looks at a letter seen indistinctly without knowing what it is and tries to imagine it to be other than it is, one is usually able to do so, but not without strain, evidenced by the fact that the letter becomes more blurred, or by the impossibility of imagining that it has a slow, easy swing of not more than a quarter of an inch. This fact makes it possible to find out what the letter is without seeing it.

The patient begins by imagining each of the four sides of the letter taken in turn to be straight, curved, or open, and observing the effect of each guess upon the swing. If the right side is straight, for instance, and she imagines it to be straight, the swing will be unchanged; but if she imagines it to be curved, the swing will be lengthened or lost, or will become less even and easy. If she is unable to tell the difference between two guesses it is because the swing is too long, and she is told to palm and remember a letter of diamond type, with its short swing, until she is able to shorten it. Having imagined each of the four sides of the letter correctly, she becomes able to imagine the whole letter, first with the eyes closed and covered, and then with the eyes open.

When one knows what the four sides of a letter are, its identification, in some cases, is a simple process of reason. A letter which is straight on top and on the left side, and open on the two other sides, cannot be anything but an F. If, on the contrary, it is straight on the bottom and on the left side, and open on the other two, it must be an "L". Such letters can be imagined with a lower degree of relaxation than the less simple ones, like a V, a Y, or a K. If the letter is not imagined correctly, the swing will be altered, and in that case the process should be repeated from the beginning.

Having imagined the letter correctly, the patient is told to imagine it first with the eyes closed and covered, and then with the eyes open and looking at the card, until he is able to imagine it as well when looking at the card as when palming. In this way it finally becomes possible for him to imagine it so vividly when looking at the card that he actually sees it.

With most patients this method of improving the sight produces results more quickly than any other. Others, for some unknown reason, do not succeed with it. Temporary improvement is often obtained in an incredibly short space of time, and by continued practice this temporary

improvement becomes permanent.

The patient who describes her case in a later article looked at the Snellen test card at ten feet one day and did not see any of the letters, even as grey spots. By the method described above she became able in half an hour to read the whole card. A schoolgirl of ten could not see anything at ten feet below the large letter at the top of the card. She was told how to make out the letters by the aid of her imagination, and then left alone for half an hour. At the end of this time she had read the whole of an unfamiliar card. A child of about the same age whose left macula had been destroyed by atrophy of the choroid (middle coat of the eye) was able with the affected eye to see only the 200 letter on the test card, and that, only when she looked to one side of the card. She was treated by means of her imagination, and after a few months, during which time she came very irregularly, she obtained normal vision in both eyes. She is still under treatment.

A school girl of sixteen with such a high degree of myopic astigmatism that she could see only the large letter at ten feet became able in four or five visits, by the aid of her imagination, to read 20/20 temporarily, and at her last visit she read 20/15 temporarily. A college student twenty-five years old, with compound hypermetropic astigmatism (four diopters in each eye), could read only 20/100 with his right eye and 14/200 with his left, and had been compelled to stop his studies because of the pain and fatigue resulting from the use of his eyes at the near point. In four visits his vision was improved by the aid of his imagination to 20/30 and he became able to read diamond type at six inches without glasses and without discomfort. These and many other cases of the same kind have demonstrated that imagination is necessary to normal sight.

#### STORIES FROM THE CLINIC

15: Imagination Relieves Pain

By Emily C. Lierman

A few weeks ago there came to the Clinic a very tired-looking mother, with her daughter, age twelve, who was suffering intense pain in her eyes and head. Both began to talk to me at once, and the mother told me that the child kept her awake at night with her moaning. She had taken her to another doctor in the hospital, and he, failing to relieve the pain, had sent her to Dr. Bates, thinking that her eyes might need attention. Dr. Bates examined the child, and without telling me what the trouble was, said:

"Here is a good case for you; cure her quick."

The poor child could scarcely open her eyes, and her forehead was a mass of wrinkles. I tested her sight, and at twelve feet she read the 50-line on the test card. While reading the card she said that her pain was not so bad. I told her to palm, and while her eyes were covered I asked her to imagine that she saw the blackboard at school and that she was writing the figure 7 upon it with white chalk. She could do this, she said, and then I asked her to remove her hands from her eyes and look at the black 7 on the test card. She saw it very distinctly, and I noticed that her eyes had opened and that the wrinkles in her forehead had disappeared. The mother noticed this too and said:

"See how wide open her eyes are!"

Evidently the pain had gone, for after a moment the little girl exclaimed in great excitement:

"Oh, that pain is coming back!"

I told her to close her eyes at once and palm again. Noticing how much she had been helped by her imagination, I told her to imagine the black figure blacker than she had seen it with her eyes open. She did this, and when she opened her eyes in a few minutes the pain had again disappeared and her vision had improved to 12/30. After telling her mother that the cause of all the child's trouble had been eyestrain, and that if she would palm and use her imagination she would be well in two weeks, I sent her home. Imagine my surprise when two days later she came to the clinic with her eyes wide open, grinning from ear to ear, and having a gay old time with a school friend whom she had brought with her. She told me that only once during the first evening after she came to the clinic had she suffered any return of the pain. Then she had closed her eyes and covered them with the palms of her hands and imagined first that she saw a figure 7 black on a white background, and then that she saw white roses, daisies with yellow centers and green fields. She went to sleep soon after and did not wake up until morning. She had had no pain at all since that night, and when I tested her sight with both eyes together and each eye separately, I found it normal. It goes without saying that I was very happy to have accomplished in two days what I expected to take two weeks. The patient was instructed to keep on practicing and to report at least once a week at the clinic, but she did not come again.

A boy named Harry, aged eleven years, now being treated at the Clinic came to us about two weeks ago with pain in both eyes. He had been sent to us from the public school for glasses. Reading made him nervous, he said, and he did not wish to read anything on the test card but the large letters. I had him stand fifteen feet from the card, and asked him to read the letters slowly and only to see one at a time. Noticing that he was extremely nervous I lowered my voice as much as possible and talked to him as I would to a child much younger. This seemed to have a soothing effect, for immediately he seemed less nervous and shy, and he was able to read the forty line with his left eye and the fifty with his right. I now showed him how to palm. This seemed to afford him much amusement, but he did it faithfully because he wanted to please me, not because he thought it would help his sight. When he opened his eyes he read the twenty line with the left eye, but the vision of the right had not improved and he complained that the pain in it was still as bad as ever.

I told him to palm again, and while his eyes were covered I asked him if he ever saw a large ship getting ready to sail. He said, yes, he had seen some of our warships on the Hudson River. I asked him how much he could imagine he saw on one of these vessels. He became intensely interested and was no longer inclined to be restless.

"Why," he said, "I can imagine a rope ladder on the side of the ship and sailors walking on the deck, and I can imagine black smoke coming out of the smoke-stack. Before I had told him to, he uncovered his right eye and read all the letters on the forty line and some of those on the thirty line. He said that the pain had gone and that the letters looked blacker to him and the card whiter than before. He has come to the clinic regularly, and now reads 15/10—better than normal—with both eyes. He still complains about a little pain in the right eye, but when he palms and imagines that he is playing baseball or doing other pleasant things, his pain stops and he always leaves the clinic smiling.

# IMAGINATION IN RETINITIS PIGMENTOSA By Mary Blake

This patient came for examination on February 9, 1921, and for treatment on March 11. Her distant vision with glasses (concave 6.00 D.S., both eyes) was 20/40 in the right eye and 20/50 in the left, and her field had been reduced to ten degrees, so that she could see nothing above, below, or to one side of her line of vision, She was treated almost entirely by means of her imagination and has thus become able, temporarily, to read the bottom line of an unfamiliar card at ten feet. By the same means her field and color perception have at times become normal. When her imagination fails, her vision fails also, Sunning and the focusing of the rays of the sun with a sun glass upon the upper part of the sclera (white of the eye)

proved very effective in overcoming her extreme sensitiveness to light.

I began to wear glasses for shortsight when I was fifteen, and from that time I wore them constantly until I came to Dr. Bates five weeks ago, For the last two or three years I never took them off, except for close work, until I got into bed at night; and before I got out of bed in the morning I put them on again.

In spite of these precautions my sight became steadily worse, and for the last ten years I have spent my time and money going from one specialist to another both in this country and in Europe. Three of the most famous specialists in Switzerland told me that I had retinitis pigmentosa, a condition in which pigment is deposited in the retina, and which, I was told, always ended in complete blindness if the patient lived long enough. Nothing could be done to prevent this outcome, they said, but they advised me to wear dark glasses when I went out of doors on bright days, because by exposing my eyes to strong light I was spending my capital. For the last three years (up to five weeks ago) I did this, and for the last year, on very sunny days, I often wore dark glasses in the house also, because my eyes had become so sensitive to the light that I could sometimes find relief only by going into a darkened room. Even with dark glasses and drawn blinds, there was a kind of razzle-dazzle before my eyes which was so maddening that I almost longed for the blindness with which I had been threatened, so that I might be free from such distresses. When I looked out of a window onto a sunny street and then back into the room again, everything became perfectly black for a minute. For the last two years and a half I have not been able to go out alone in the city.

In this state of utter hopelessness, with my sight rapidly getting worse, I heard of Dr. Bates through a patient whom he was treating and, in spite of what I felt to be the incredulity of my friends, although they were considerate enough not to express it, I lost no time in consulting him. The unusualness of his methods, while it excited the suspicion of others, was a recommendation to me. I knew what the old methods accomplished, or rather what they did not accomplish, and I wanted something different. It seemed to me that Dr. Bates was the very man I had been looking for.

My friends have now been converted, but, in spite of the fact that I am able to report substantial improvement in my vision, I still meet with much skepticism in other quarters. A doctor to whom my progress was reported by a friend wrote to her that if my trouble were imaginary Dr. Bates might help me through hypnotism or mind cure, but that if there were anything really the matter with my eyes he could do nothing by his methods. Having a relative m New York who is an eye specialist, this doctor took the trouble to write to him and ask what he knew about Dr. Bates. The reply was that Dr. Bates was the laughing stock of all the oculists in New York. This report, when it was communicated to me, disturbed me not at all. It did not matter to me how much the other eye specialists laughed at Dr. Bates so long as he was helping me, as none of them had been able to do. Other doctors were more open-minded, but were not prepared to believe that such diseases as retinitis pigmentosa could be cured by this or any other method. One who had met some of Dr. Bates' cured patients and was inclined to believe in him, said, when told that I was being treated for this condition:

"Good gracious, he surely doesn't pretend to cure retinitis pigmentosa! That is an organic disease."

I said that he not only pretended to cure it, but had made substantial progress in my case. The doctor said:

"I think he'll help you, but I don't believe you are ever going to see without limitations."

The improvement in my vision since I have been under treatment has been indisputable. After two weeks the intangible suffering caused by light (photophobia) left me, and it has never returned. I can go out in the brightest sunlight without glasses of any kind, and, although my eyes feel weak and I squint a little, there is no real distress. I can look out of a window onto a sunny street, and when I turn back again into the room there is no blindness. When I first took off my glasses I had to bend over close to my plate when I was eating in order to see what was on it. Now I sit in an almost normal position with such a slight bend that I don't think anyone would notice it. I also operate a typewriter while sitting in a normal position. For three years, it has been very difficult for me to read or sew, with or without glasses. Now I do both without glasses, and instead of the distress which these activities formerly caused me, I experience a delightful feeling of freedom. And not only can I read ordinary print, but I can read diamond type and photographic reductions. About a year ago I began to lose my color perception, and up to two weeks ago I was unable to distinguish the rug from the floor in the Doctor's office. Now I can see that the floor is red and the rug blue, tan and black. At the present writing I have just become able to observe that a couch cover in my apartment, which had always appeared blue to me, is green. I am still unable to see very much at the distance. But I am beginning to make out the features of the people around me and to read signs in the streets and street-cars, and when I look out of the windows on the Subway I see the people on the platforms. My field is still very limited, but I am conscious that it is slowly enlarging. The other day I pinned a piece of paper three inches from the test card, and was able to see it while looking at the card. After such improvement, in the brief period of five weeks, I do not feel inclined to credit the prediction of my medical friend that I am going

Along with the improvement in my sight there has come also a remarkable improvement in my physical condition, the natural result of freedom from suffering. I used to be a very restless sleeper, and when I woke in the morning I was greatly fatigued. Now the bed is as smooth in the morning as if I had never stirred all night, and I am much more refreshed than I used to be, although not so much so as I hope to be later. Formerly I had to force myself to write a letter. Now it is a pleasure to do so, and I am clearing off all my correspondence. Previously I could not attend to my accounts. Now I have them all straightened out. If I get nothing more from the treatment than this physical comfort and increased ability to do things, it will be worthwhile.

### QUESTIONS AND ANSWERS

All readers of this magazine are invited to send questions to the editor regarding any difficulties they may experience in using the various methods of treatment which it recommends. These will be answered as promptly as possible, in the magazine, if space permits, otherwise by mail. Kindly enclose a stamped, addressed envelope.

Q. I began to wear glasses for farsight when I was twenty-six. I began with convex 1.00 D. S. and now at forty-two I am wearing convex 2.50 D. S., or was until a few weeks ago when I decided to try the methods presented in this magazine. I can read and sew with ease in the daylight, but cannot read fine print even in a strong electric light for more than a few minutes without getting a dull ache at the back of my eyeballs. What I want to do is this: 1. Do you advise the use of the test card in my case, or is it only for children? 2. Would the swing help me, and if so will you explain it a little more clearly? 3. Is it best to go without the glasses as much as I can, or am I injuring my eyes by so doing? 4. Would it retard the cure to use the glasses just for evening reading? How long will it take for my eyes to become young again, if that is possible? G. H.

A. 1. The test card is for everybody. 2. Yes, the swing would help you. The normal eye is constantly shifting, and thus an apparent movement of objects regarded is produced. By consciously imitating this unconscious shifting of the normal eye and realizing the apparent movement which it produces, imperfect sight is always improved. 3. You should discard your glasses permanently. They are never a benefit and always an injury to the eyes. 4. Yes. 5. It is entirely possible for your eyes to become young again, but it is impossible to guess how long this will take because it is impossible to tell how well or intelligently you will practice central fixation.

Q. Why is it that when I look at an electric light half a mile away it looks as if there were ten or a dozen rays of light going in all directions? R. R. T. A. Because when you look at an object half a mile away you strain to see it, and under the influence of the strain you imagine rays of light going in all directions so vividly that you seem to see them. It is dor the same reason that the stars twinkle. If you could look at the light, or at the stars, without effort, there would be no twinkling.

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