

# **Better Eyesight, December 1920**

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

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# **VOLUNTARY PRODUCTION OF EYE TENSION A SAFEGUARD AGAINST GLAUCOMA**

It is a good thing to know how to increase the tension of the eyeball voluntarily, as this enables one to avoid not only the strain that produces glaucoma, but other kinds of strain also. To do this proceed as follows:

Put the fingers on the upper part of the eyeball while looking downward, and note its softness. Then do any one of the following things:

Try to see a letter, or other object, imperfectly, or (with the eyes either closed or open) to imagine it imperfectly.

Try to see a letter, or a number of letters, all alike at one time, or to imagine them in this way.

Try to imagine that a letter, or mental picture of a letter, is stationary.

Try to see a letter, or other object, double, or to imagine it double.

When successful the eyeball will become harder in proportion to the degree of the strain; but, as it is very difficult to see, imagine, or remember, things imperfectly, all may not be able at first to demonstrate the facts.

## **GLAUCOMA: ITS CAUSE AND CURE**

By W. H. Bates, M. D.

GLAUCOMA is a condition in which the eyeball becomes abnormally hard, and theories as to its cause are endless. The hardness is supposed to be due to a rise in intraocular pressure, and the other symptoms, chief among which is an excavation of the optic nerve, forming in advanced cases a deep cup with overhanging edges, are supposed to be the results of this pressure. Yet all the symptoms commonly associated with increased tension have been found in eyes in which the tension was normal.

The increased tension is supposed to be due to an excess of fluid in the eyeball, and this is commonly attributed to an impeded outflow. The aqueous humor, which is secreted very rapidly, is supposed to escape at the angle formed by the junction of the iris with the cornea, and in glaucoma it is believed that the iris adheres to the cornea so that the angle is obstructed. Yet it is a well-known fact that in many cases no such obstruction can be found.

For more than fifty years iridectomy held the field as the only treatment which gave any hope of relief in glaucoma. The operation, which means the removal of a piece of the iris, was introduced by von Graefe, and often gives relief for a longer or shorter time. If the patient lives long enough, however, the condition always returns. I have seen this happen after the tension had been normal for fifteen years. It is a fact mentioned by all the text-books, moreover, that it often fails to give even temporary relief, and sometimes the condition is made worse than it was before.

The beneficial results of the operation, when it does succeed, have never been satisfactorily explained, but the accepted opinion at the present time is that they are due to the formation of a scar which is more pervious to the fluids of the eye than the normal tissue, and the object of modern operations is to obtain such a scar. For this reason sclerotomy, usually performed by the method of Elliott has gained great vogue. A piece of the entire thickness of the sclera is removed, and thus a permanent fistula covered only by the conjunctiva is formed. Through this the fluids of the interior escape. Like iridectomy this operation sometimes succeeds temporarily, but, according to Elliott himself, it may fail to check the optic atrophy and decline of vision even when the relief of tension is complete.

Although it is the concensus of medical opinion that a glaucomatous eye must eventually be operated upon, and that the sooner this is done the better, some men have attempted to hold the process at bay by the use of myotics. These drugs, by contracting the pupil and thus stretching the iris, are believed to draw the latter away from the "filtration angle" and allow the excess of fluid to escape. They are commonly employed for the purpose of giving temporary relief, but some specialists advise their continuous use. Posey claims that such treatment gives a larger proportion of successes than iridectomy.

Until a few years ago I always treated glaucoma by the old methods, not knowing anything better to do; but I never used the Elliot operation, having early learned that it is very dangerous to allow the fluids of the eyeball to escape, and having seen glaucoma produced by fistula of the cornea. I would not have ventured to predict that the condition could be relieved by relaxation, and only learned by accident that it was amenable to such treatment.

On May 9, 1915, a patient (mentioned in Blindness Relieved by a New Method, N. Y. Med. Jour. Feb. 3, 1917) came to me with a complication of diseases which had reduced the vision of the right eye to light perception and that of the left to 20/100 (the field being also contracted). She was fifty-four years of age, and had been wearing since 1910 the following glasses: both eyes, convex 2.00 D.S. combined with convex 1.50 D.C., axis 90. As her pupils were much contracted, I prescribed atropine to dilate them, two grains to an ounce of normal salt solution, one drop three times a day.

On the afternoon of May 10, she had an attack of acute glaucoma in the left or better eye. As atropine and other mydriatics are thought sometimes to produce glaucoma, the fact that the disease attacked only one eye and that the better of the two is interesting. The condition got worse as the day advanced, and during the night the pain was so intense that the patient vomited repeatedly. The next morning she came to the office, and I noted that there was blood in the anterior chamber. The vision had been reduced to light perception, and the pain again produced vomiting. I prescribed eserine-two grains to the ounce, one drop three times a day. Afterward I visited her three or four times a day in her home, and as there had been no improvement, I increased the strength of the eserine solution to four grains to the ounce and alternated it with a three per cent solution of pilocarpine, both of these drugs being myotics. Still there was no improvement, and after a few days I decided upon an operation. It was performed on May 15, and was accompanied by considerable hemorrhage. Mild hemorrhages also occurred at different times during the following week. When the blood cleared away an opaque mass was left covering the pupil. On May 23, the tension was normal and there was no pain; but, owing to the opaque matter covering the pupil, there had been no improvement in the vision.

After the operation the patient resumed the relaxation treatment. Under its influence the vision of the right eye improved, and when a few weeks after the operation there was an increase of tension in this eye, it was at once relieved by palming. For some months the vision of the left eye remained unchanged, owing to the opacity of the pupil. Then the obstruction began to clear away, and the vision improved. In a year there was normal vision in both eyes. From time to time during this period, and up to the present time, the patient had attacks of increased tension in both eyes; but they were always relieved in a few minutes by palming.

Since then I have used the same treatment in many cases, and I have never seen one in which the pain and tension could not be relieved in a few minutes by palming, while permanent relief was obtained by more prolonged treatment.

One of the worst cases of glaucoma I ever met with came to me on Feb. 2, 1920. The patient was sixty years of age, and his vision in the right eye or better eye was only 20/100, with marked contraction of the field on the nasal side. In the left he had only light perception. The eyeballs felt as hard as the glass shell of an artificial eye, which, technically, is tension plus 3. The glaucomatous excavation of the optic nerve was so marked that it seemed as if the whole nerve had been pushed backward. The patient had been under treatment a long time, but had received no benefit.

On March 2, after swinging and palming, the vision of the right eye was 20/20- while that of the left was 20/100 in the eccentric field. On March 4, the field of the left eye had improved, and by alternating the universal swing with palming he became able, for short periods, to read diamond type with the right eye at six inches. This was twelve days after he had begun the treatment. On March 7, he flashed 20/40 with the left eye, and by the aid of the universal swing read fine print at five inches with the right, while the field of both eyes was normal. For the first time in several years he became able to see the food on his plate. Previously he had had to be fed, which was very humiliating to him. He also became able to go about without an attendant, to attend to his correspondence at the office, and to read his letters without glasses. At this point he stopped the treatment against my advice, and I have not seen him since. He was greatly helped by the universal swing, which he practiced all day. The truth about glaucoma is that it is a functional neurosis caused by strain, and as such is curable. You can produce hardness in a normal eye by having the patient strain to see (see page 2), and you can soften a glaucomatous eyeball by relief of strain. These changes are so rapid that no change in the contents of the eyeball could account for them. I therefore concluded, before I had any experimental evidence of the fact, that they were due to muscular action. Later I was able to produce glaucoma in a rabbit's eye by operations upon the muscles. I shortened the superior rectus by tucking, and thereby produced a tension of plus 1. I repeated the operation upon the superior oblique, and the tension increased to plus 2. I did the same to the inferior oblique, and the tension increased to the maximum, plus 3. All this time the tension of the other eyeball remained normal.

## **GETTING CURED OF GLAUCOMA**

By F. C. Stewart

This patient when first seen was able to read 20/50 with each eye, but the right eye was absolutely blind on the nasal side, a vertical line dividing the seeing from the blind area. The tension of the right eye was usually greater than that of the left, but at times the reverse was the case, and for short periods the tension of both eyes was normal. He had been using

myotics (drops which contract the pupil) for some time, but had obtained no benefit from them. His age was fifty-eight, and he was wearing the following glasses: distance, both eyes, convex 2.75 D.S.; reading, both eyes, convex 5.00 DS. The improvement in his field since he has been under treatment has been very remarkable, as the accepted methods of treatment, even when the results are most favorable are not expected to enlarge the field, or even to prevent a further loss.

In the summer of 1917 I had the first symptoms of glaucoma in the form of an attack of rainbow vision. I did not know what the symptoms meant, and was not alarmed; but I went to an optician and had my glasses changed, thinking the trouble was the consequence of eyestrain. The symptoms continued, however, and I went to another optician and had the glasses changed again. Still I was no better. Then I went to a succession of oculists, some six or seven, all of them being men of considerable eminence in the profession. The first two put drops in my eyes and examined my field, but did not tell me that I had glaucoma. It was only from the third, about a year and a half after the first symptoms appeared, that I learned what was the matter with me. The last began to talk operation, but I let him talk. I think I may claim to be as game as anyone about operations. When the doctors told me that they wanted to take my stomach out and put it back again, I said, "Go ahead." If they had told me that they wanted to take off my leg, I would probably have said the same thing. But when it came to letting anyone cut into my eye it was a different matter. About the first of last July the oculist in whose care I then was told me that my field was getting less. He asked me to come back in October, and said if the field continued to contract he would talk operation again.

Sometime previous to this an acquaintance who said that Dr. Bates had cured him of glaucoma gave me a copy of *Better Eyesight*. I did not become seriously interested at the time, but later I asked the man for details. He told me something about Dr. Bates' methods, and said he not only had great faith in Dr. Bates, but that he was the only eye specialist in whom he did have any faith.

Finally, on September 11, of this year, I went to Dr. Bates. He told me to stop the eye drops and take off my glasses, which I did. Having worn the latter for twenty-five years, I had considerable difficulty at first in getting on without them; but after three or four days things began to go better, and before the end of the month I read the address on the Doctor's card without artificial aid. I could not have done this when I took off my glasses if a hundred million dollars had been at stake. I can now, six weeks after the beginning of the treatment, read ordinary print at twelve inches, and under favorable conditions can read diamond type at six inches or less. There has also been a considerable improvement in my field.

My progress has been slow, but it is sure, and I see no reason why it should not continue until I get a complete cure. I have spent many hours a day palming, and this, when it is successful, softens the eyeball and improves the sight very materially. I am also able to soften the eyeball simply by a thought—that is, by the memory of some object or incident. A white cloud, the blue sky, some incident of my boyhood, or of a more recent period—anything so long as it is remembered perfectly—has this extraordinary effect. Often when I wake in the morning my eyeballs are hard, but by the aid of my memory I am always able to soften them. One morning I woke at two o'clock, and went to the bathroom. There, in accordance with a habit of mine, I washed my face in cold water. As I touched my eyeballs I was shocked to find how hard they were. They were like two rocks. Immediately I paid a mental visit to Van Cortland Park and began to examine the trees, noticing the texture of the bark, the gum oozing out of it, the outlines of the leaves, etc., and before I had reached the second tree the eyeballs were soft.

Often since then I have resorted to the same expedient, and always with the same result. Fortunately I know the different kinds of trees very well, and my visits to the park are interesting as well as profitable.

On the streets and elsewhere I try to imagine that everything is moving, and as long as I am able to do this the eyeballs remain soft. Since I have been under treatment I have been trying to learn to sleep on my back, as the Doctor says that the body is always under a strain unless the spine is straight. When I am able to do this I waken without pain or hardness in the eyeballs.

Recently I sent one of Dr. Bates' reprints to the specialist who wanted to operate on me, and he said he was much interested.

## **STORIES FROM THE CLINIC ~ 10: Absolute Glaucoma**

By EMILY C. LIERMAN

In absolute glaucoma there is no perception of light, and the condition is considered to be incurable. It may or may not be accompanied by pain, and in the latter case the only remedy is believed to be the enucleation, or removal of the eye. So far as the editor is aware there is no case of absolute glaucoma on record in which the pain has been relieved, or any measure of sight restored, by any method except the one described below.

A few months ago there came to the clinic a woman of seventy-nine. At first glance one could see that she was a lady, and I guessed that at one time she had been very well off. As she stood apart from the rest of the patients waiting to be attended to she took not the slightest notice of what was going on around her, and occasionally I heard her moan with pain.

When at last Dr. Bates was able to examine her he found that she had glaucoma in both eyes, and that the right was stone blind, possessing not even light perception. He turned her over to me, asking me to do what I could to help her and stop her pain. Fortunately I was able to find a stool for her, a rare thing at the clinic, and placing it before a table upon which she could rest her elbows, I showed her how to palm, which she did very readily. After a few minutes the pain ceased and the eyeballs became soft. I now told her to take down her hands, but she still kept her eyes shut. I thought this was because I had not told her to open them, but when I told her she might do so she asked:

"Are you sure the pain will not come back if I open them. For many days I have suffered such constant pain that I cannot sleep at night, and now I feel such a sense of relief that I would really like to keep my eyes closed."

"I don't think the pain will come back," I said, "and if it does you can palm again."

I now held a test card about two feet from her eyes, and told her to cover her better eye and look at the card with the blind one. We had several visiting doctors at the clinic that day, and Dr. Bates had told them about this case of absolute glaucoma. They were all standing by, with Dr. Bates himself, when I asked the patient to look at the card, and the excitement was intense when she said that she saw the large letter at the top.

"Oh, Doctor," I said, "she sees it!"

"Yes, I see it, I really see it," added the patient, scarcely able to credit her senses.

After a little more treatment I told her she must keep her eyes shut as much as possible when she was at home, and palm every minute she could get. I also told her never to look at any point more than a second, but to keep constantly shifting. She went away very happy and grateful, for the pain had not come back.

The next time she came Dr. Bates treated her, and was able to improve the vision of the right eye to 9/200, while that of the left eye improved to 9/40. He then turned her over to me again. She was very happy and wanted to talk, which I let her do. She said she was living in a furnished room and that I hadn't any idea how worried she had been about going blind, because she had no one to look after her.

"But now," she added, "I have all sorts of hopes for the relief of my trouble, because you and Dr. Bates have done so much for me. Palming helps me so much that I am now able to sleep at night. I like to do it for hours at a time, because it takes the terrible pain away."

I now told her to use her imagination to improve her sight and relieve the pain. Most of the clinic patients become confused when I ask them to do this, but this dear old lady did not find it a bit difficult. I told her to palm, and then imagine a florist's window filled with flowers. Next I told her to imagine that she had entered the shop and was observing the flowers, and I called to her mind the red rose and the white rose, the carnation, the violet and other blossoms. Then I asked her if she could imagine the green fields in the country where the daisies grow, and she said:

"Yes, and I can imagine that I am picking the daisies also." I now told her to remove her hands from her eyes, and Dr. Bates was thrilled when she saw the T on the thirty line at ten feet. The patient herself laughed out loud and said

"I cannot believe it."

She came to the clinic regularly, three days a week, for quite a while, and always happy because she was steadily improving. I was not prepared, therefore, to find her one day looking very much depressed. The trouble was that she had had a visitor who talked to her—or at her, I should say—for two long hours; this had upset her nerves so that the pain had returned and her vision had been lowered. I pictured to myself what it must mean to listen to a steady stream of gossip for two hours, and my sight at once became imperfect. I told her what a dangerous thing it was for her to allow herself to be tortured in this way, and said that if her friends insisted upon talking to her for such a length of time she must keep her eyes closed as much as possible. Otherwise the strain would cause her to go blind.

For a time she got along nicely. Then I left the city for a much-needed vacation, and while I was away I got word that she was getting worse. I came back to town, and, as she was not able to come to the clinic, I called upon her.

"Oh, nurse," she said, as soon as she saw me, "my right eye pains me so that I think of nothing but death."

Her thin face was lined with pain, and I could see that she was in agony. I began to talk to her about the days when she did not suffer, and how she had stopped the pain by remembering the

daisies. She began to palm without my telling her to, and became able to imagine the daisy waving in the breeze. I asked her to imagine that her body was swinging with the flower. She did this, and a few minutes her pain left her and she smiled.

"Now, isn't it strange," she remarked, "but I forgot all about using my imagination."

She said that I had worked a miracle; but I explained that when she used her imagination she had to relax enough to relieve the strain in her eyes, and that had stopped the pain.

We often hear the remark, "This person makes me sick," or "That person makes me nervous," but it remained for my glaucoma patient to make me realize that these observations are literal statements of fact. All about the walls of her little room, which was very clean and sunshiny, were photographs of her children and their families. With great pride she named each one in turn, but when she came to the picture of a man and woman hanging a little apart from the rest her tone changed.

"This is my daughter," she said of the woman, and I could see that she was very fond of her, but when she pointed to the man she said:

"I cannot bear him. He makes me nervous and sick, because he is not a good man."

She began to strain at once, and had to do some palming before I left to relieve her pain. Evidently it is important, if we want to avoid eyestrain, that we should keep away from the people we dislike, and think of them as little as possible.

I called on her a few times more, and by resting her eyes between each line of letters she became able to read 10/20 with the once blind eye and 10/10 with the other. The last time I saw her she was happy and comfortable.