Natural Eyesight Improvement

Discovered & Taught by

Ophthalmologist William H. Bates

PAGE TWO

This book contains PAGE TWO of 132 Monthly Issues of Better Eyesight Magazine by Ophthalmologist William H. Bates. Page Two consists of the best of Dr. Bates Natural Eyesight Improvement Treatments, Practices. He recorded these natural treatments that he applied to correct his patient's eyesight during 11 years of practice at his Clinic in New York City, U.S.A.

Treatments for; Unclear Close and Distant Vision, Myopia, Nearsight, Farsight, Presbyopia, Astigmatism, Crossed, Wandering eyes, Cataracts, Glaucoma, Cornea Scars, Ulcers and other conditions. Done without Eyeglasses, Surgery, Drugs. Hidden by Eye Doctors for over 100 years! Book destroyed after Dr. Bates death.

This book was created with photo copies of the Original Antique Print Pages from Dr. Bates Magazines published in the 1900's.

The entire collection of Better Eyesight Magazine in Original print, 2472+ pages & a modern text version with 500 pictures is free in printable E-Book form with this Paperback book. All of Dr. Bates Articles, Treatments, Visual System Activities. 12 Natural Eyesight Improvement E-Books included; all of author William H. Bates & Clark Night's Paperback, Kindle books in Adobe PDF.
See the 'Thank-You Page' for list of books. Download from the internet at http://www.cleareyesight.info with your book Receipt #.

"PAGE TWO"

ON page two of this magazine are printed each month specific directions for improving the sight in various ways. Too many subscribers read the magazine once and then mislay it. We feel that at least page two should be kept for reference.

When the eyes are neglected the vision may fail. It is so easy to forget how to palm successfully. The long swing always helps but it has to be done right. One may under adverse conditions suffer a tension so great that the ability to remember or imagine perfectly is modified or lost and relaxation is not obtained. The long swing is always available and always brings sufficient relief to practice the short swing, central fixation, the perfect memory and imagination with perfect relief.

Be sure and review page two frequently; not only for your special benefit but also for the benefit of individuals you desire to help!

Persons with imperfect sight often have difficulty in obtaining relaxation by the various methods described in the book and in this magazine. It should be emphasized that persons with good vision are better able to help others than people who have imperfect sight or wear glasses. If you are trying to cure yourself avoid people who wear glasses or do not see well. Those individuals are always under a strain and the strain is manifested in their face, in their voices, in their walk, the way they sit, in short in everything that they do.

Strain is contagious. Teachers in Public Schools who wear glasses are a menace to their pupils' sight. Parents who wear glasses or who have imperfect sight lower the vision of their children. It is always well when treating children or adults to keep them away from people with imperfect sight.

Dr. W. H. Bates
7-2-1924

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Natural Eyesight Improvement Discovered and Taught by

Ophthalmologist William H. Bates

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DISCLAIMER & DIRECTIONS

Contact lenses cannot be worn before, during, after practicing Natural Eyesight Improvement. Contacts will not fit the eye, cornea as it changes to normal, healthy shape and function with practice of The Bates Method. Contact lenses can scrape, injure, infect the eyes cornea, eyes, impairing the vision, eyes health. The eye can change shape often with or without practice of Natural Eyesight Improvement. Contact lenses are never a perfect fit to the eye. Avoid wearing contact lenses.

Natural Eyesight Improvement normalizes the eyes pressure, improves eye health. If the reader has any eye condition, Glaucoma... check with your Eye Doctor first before practicing The Bates Method, Natural Eyesight Improvement. Eye drops, drugs, medicine, un-natural treatments for eye pressure may need to be changed, reduced, discontinued.

Natural Eyesight Improvement changes the shape of the eye, cornea back to normal, healthy condition. If eye, retina, cornea, cataract... surgery has been done on the eyes; check with a Eye Doctor first to be sure the surgery and Natural Eyesight Improvement do not conflict, interfere with eachother; with the eye shape, condition the doctor has fit the surgery to. Natural Eyesight Improvement may help the surgery, eye to heal or it may work against the surgery because; Natural Eyesight Improvement brings the eye, cornea to normal shape-but, the surgery may have been done to place, keep the eye in a abnormal shape, the shape it was in before the surgery or a new abnormal shape. Example; Retina surgery done on a eye that is abnormally lengthened due to advanced Nearsight, many years wearing eyeglasses or a injury may act differently if the patient practices Natural Eyesight Improvement and returns the eye to normal, round shape, normal eye pressure, normal fluid, circulation flow... Same warning for eye cornea laser and other surgeries. Possibly cataract lens surgery. Read complete directions in the free PDF E-book and the Laser Cornea Eye Surgery Article at the end of this book.

People have regained clear vision after unsuccessful eye muscle, cataract and other surgery but always check with a eye doctor, preferably a Bates Method, Natural Eyesight Improvement Ophthalmologist, Teacher.

INDEX

This book does not have a numbered index. Each chapter consists of 1 page. Each page is an Original PAGE TWO of one month of Better Eyesight Magazine starting at July, 1919 and ending at June, 1930. 132 page issues.

Additional pages with pictures are from Dr. Bates Better Eyesight Magazine Year 1919, 6 Issues, followed by 10 Basic Natural Eyesight Improvement steps by Dr. Bates also derived from his magazines.

Introduction & Original Better Eyesight Magazine instructions for practicing the activities correct are placed at the beginning of the book.

Eyecharts with directions placed at the end of the book.

Better Eyesight Magazine by William H. Bates, M. D.

Ophthalmologist - Eye, Ear, Nose & Throat

Ophthalmologist
William H. Bates

Central-fixation Publishing Co.,
New York City, New York, USA

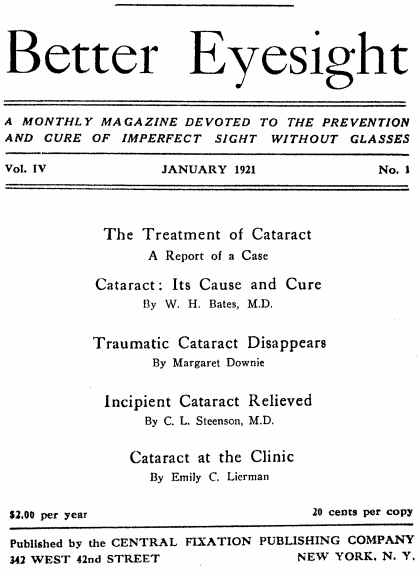
Original Antique Magazine Pages

Emily C. Lierman, Bates

This E-book contains Photo-Copies of the Original printed pages of 'Better Eyesight Magazine' written and published by Ophthalmologist William H. Bates and his assistant/wife Emily C. A. Lierman/Bates. 11 Years - All 132 Monthly Magazine Issues; July 1919 to June 1930. A History Book, Antique Collection.

Dr. Bates discovered the natural principles, true function of the eyes (Visual System) and applied relaxation, natural methods to return the eyes, eye muscles, nerves, mind/brain, body to normal function with clear vision and healthy eyes. The Bates Method.

The Stories, articles in Better Eyesight Magazine describe how Dr. Bates, Emily Lierman Bates, other Doctors, School Teachers, Bates Method Students/Teachers, Children and Parents used Natural Treatments to prevent, remove, many different eye problems without use of eyeglasses, surgery, drugs; unclear close and distant vision, astigmatism, cataracts, glaucoma, conical cornea, cornea scars, wandering and crossed eyes (Strabismus, Squint) and other conditions. Hundreds of Natural Treatments are listed. Dr. Bates used surgery only when necessary.



Cataract Number

Better Eyesight

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

Vol. IV JANUARY 1921 No. 1

The Treatment of Cataract
A Report of a Case

Cataract: Its Cause and Cure
By W. H. Bates, M.D.

Traumatic Cataract Disappears
By Margaret Downie

Incipient Cataract Relieved
By C. L. Steenson, M.D.

Cataract at the Clinic
By Emily C. Lierman

$2.00 per year 20 cents per copy

Published by the CENTRAL FIXATION PUBLISHING COMPANY
342 WEST 42nd STREET NEW YORK, N. Y.

Better Eyesight Magazine consists of articles that are interesting, positive, fun to read. 'True Life Stories' of the doctors, patients, adults and children. Vision improvement based 'Fairy Stories' and other articles for children are included.

The magazines, books are the original source of Natural Eyesight (Vision) Improvement. The Original Better Eyesight Magazine collection is proof that Ophthalmologist William H. Bates discovered the Bates Method, Natural Eyesight Improvement and is the True Author of the Magazine.

Dr. Bates discovered Natural Eyesight Improvement over 100 years ago. The Optical and Medical Industry/Association and most Eye Doctors, Opticians have hidden Dr. Bates magazines, books, articles, Natural Eyesight Improvement from the public for over 100 years because: The writings are proof that Natural Eyesight Improvement works, produces clear vision, healthy eyes, it teaches people how to obtain clear vision 'on their own' and prevents the need for purchasing eyeglasses, contact lenses, sunglasses, eye surgery and drugs.

Due to the truth about Natural Medicine becoming available to the modern public, Dr. Bates work has been recovered from individual owners and re-published. Many modern Ophthalmologists, Optometrists are now learning, teaching the Bates Method.

The 8 Correct Vision Habits, (natural, normal, relaxed eye, visual system function): Shifting, Central-fixation, Memory, Imagination, Switching Close and Far, Long Swing, Sunning, Palming and other activities described in this book are derived from Dr. Bates work, magazines.

Directions for the Original Better Eyesight Magazines

The Original Better Eyesight Magazine contains a few treatments that are no longer taught the old way to Natural Eyesight Improvement students. They have been changed, improved and new treatments, activities added. The E-Book 'Better Eyesight Magazine Illustrated with 500 Pictures' is attached free with this book. Read that modern text version of Better Eyesight Magazine to learn the new correct way a few of the old treatments in the original magazines are practiced.

Treatments, activities must be practiced correct to maintain healthy eyes, clear vision. Blue print and pictures in the text version describe the old, new, and improved treatments and the correct new way to practice them. The text version can also be used to check for correction of the old worn print in some copies of the original pages.

Fig. 8. The Usual Method of Using the Retinoscope
The observer is so near the subject that the latter is made nervous, and this changes the refraction.

Example of older methods that have been changed;

Open Eyes Sunning is no longer practiced in this way. Closed Eyes Sunning only is practiced.

Some people still practice open eyed sunning but in a specific way: Eyes, head/face continually move, eyes blinking, eyes, head/face shifting to the sky near the left, right, top, bottom of the sun and across the sun quickly. The person faces the sun for a brief time. Other directions are applied for safety.

Modern Bates Teachers teach Closed Eyes Sunning only and with eye, head/face movement. Looking at the bright sky, clouds, trees... away from the sun is allowed.

The Sunglass is used only in special cases of near or complete blindness by an experienced Bates Method Ophthalmologist if other methods fail. It can burn the eye, like a magnifying glass when used incorrect, and, because it is a glass, it blocks full spectrum light resulting in partial spectrum, unbalanced light emitting through, from the glass. The light does not go into the eyes pupil and is not directed at the cornea. It is only directed at the sclera, white area of the eye, but it still must not be overused. Partial spectrum light is unhealthy. Pure full spectrum sunlight, not passing through glass is best, healthy for the eyes, brain, body, clarity of vision. The Sunglass is only a short, temporary treatment to awaken, bring to life and action the cells in the eyes retina, lens... to reverse extreme vision impairment, blindness. Done correct, by a Bates Method Eye Doctor, it is beneficial and will not harm the eye.

Reading by 'first' looking at the white spaces between sentences - Do not try to see, read the print clear while at the same time, looking at the white spaces between sentences. Central-fixation must be used: look directly at the print to see, read it. In Better Eyesight Magazine, Dr. Bates explains in detail in his 'Questions and Answers Page' to: Use central-fixation when reading; Look directly at the object you want to see. First: Look at, move the eyes (visual attention, center of the visual field) along the white spaces between the sentences to relax the mind and eyes. (Looking at the white spaces causes relaxation because there if nothing to see, there is no effort to see anything clear, so, strain is avoided. This enables relaxation of the mind, eyes, eye muscles to occur. The relaxation produces clear vision, a 'Flash of Clarity'.) When the relaxation and clarity occur and the print flashes dark black and clear; then: look away from the spaces, look directly at the black print, place the print in the center of the visual field to read, see it clear. The relaxation and clear vision from looking at the white spaces continues when looking at the print. If it blurs, return to the spaces or Palm to regain relaxation. Then back to the print. Use the memory and imagination when looking at the white spaces: Imagine painting the spaces pure, bright white with a white paint brush and pure white paint while imagining the white space is seen pure, bright, glowing white and clear. Relax, no effort. Move the paintbrush, eyes left and right along the spaces, blink, relax. Practice with the eyes open, then in the imagination with the eyes closed, then open again. Paint with an imaginary paint brush in the hand or use a white Nosefeather.
Practice on Fine Print in the Sunlight.

Some people misunderstood Dr. Bates in early times and would try to read the print while looking at the white spaces. Dr. Bates explained to; look at the space or the print; only one at a time, not both at the same time. Looking at, trying to see, think about 2 or more objects at the same time is the opposite of central-fixation: it is diffusion, eccentric fixation and causes tension, strain in the mind, (brain) eye muscles, eyes and unclear vision.
Look at one object at a time for clear vision. This is central-fixation: looking directly at the object of visual attention: first at the white spaces, then the black print, one object at a time, in the center of the visual field.

Palming and imagining, remembering, seeing perfect black on the closed eyes produces perfect relaxation and clear vision. Dr. Bates noticed that some patients used effort to imagine, see black and this prevented relaxation. Dr. Bates states that imagining, seeing black is not necessary to obtain perfect relaxation and clear vision. Remembering, imagining any pleasant thoughts, letting the mind drift from one happy thought, object to another while palming will produce the relaxation and clear vision. Then, black may also appear in front of the closed eyes. If black does not appear, it's alright, it will not make a difference in relaxation, clarity. See the palming chapter for examples.

Square, elliptical...swings - Some of the older swings are now combined into the Infinity, Figure Eight Swing. The Long Swing, Sway (Rock) remain as Dr. Bates created them and are also combined in the Figure Eight Swing.

In later editions of Better Eyesight Magazine and books, Dr. Bates and Emily Lierman, Bates lists these changes.
Dr. Bates himself stated that the Bates Method is continually advancing, being improved. As he treated thousands of patients over the years the Bates Method was perfected. Bates Teachers state they learn much from their patients, students, each student being an individual and various treatments being successful for each condition, state of mind, body, eyes and personality.

A few original magazine pages that are old with unclear print have an additional new clear page attached, typed in present date print. A few misprints are corrected with additional print, leaving the original pages untouched.
Book printing settings for the original pages is best at: darkest black and highest quality. Not too dark or it will smear the print. The Original Antique Magazines will be in Paperback on Amazon.com in 2011-2012.

Thank-You, in Historical Order

+The University of California Library - http://www.lib.berkeley.edu/ and the Optometrist - Monroe J. Hirsch (name shown in old print, pictures in this book) and other Colleges, Libraries, Eye Doctors, Emily C. A. Lierman Bates, Bates Teachers, Individual Persons that preserved Ophthalmologist Bates Magazines, Books, hid them from the Optical Industry when these businesses, doctors were destroying Doctor Bates work. The law in Europe allowed preservation of Dr. Bates magazines, books.

+Thomas Quackenbush - http://www.naturalvisioncenter.com Bates Method, Natural Vision Improvement Teacher, Author of 'Relearning to See - Improve Your Eyesight Naturally' and 'Better Eyesight - The Complete Magazines of William H. Bates'. He is the first Natural Vision Improvement Teacher to re-publish and bring Dr. Bates work, treatments in Better Eyesight Magazine to the modern public.

The following pages provide a sample of the 1919 Better Eyesight Magazine Issue Illustrated with 500 Pictures. Free in PDF form with this book.

Straighten all these in PS with _ - - - tool .

Then check clarity.

update; these are blurry compared to PSWG bem 132 fine print. Where did I get them! Try put all in here but find the origs on cd, clear and straighten first.

Do you read imperfectly? Can you observe then that when you look at the first word, or the first letter, of a sentence you do not see best where you are looking; that you see other words, or other letters, just as well as or better than the ones you are looking at? Do you observe also that the harder you try to see the worse you see?

Now close your eyes and rest them, remembering some color, like black or white, that you can remember perfectly. Keep them closed until they feel rested, or until the feeling of strain has been completely relieved. Now open them and look at the first word or letter of a sentence for a fraction of a second. If you have been able to relax, partially or completely, you will have a flash of improved or clear vision, and the area seen best will be smaller.

After opening the eyes for this fraction of a second, close them again quickly, still remembering the color, and keep them closed until they again feel rested. Then again open them for a fraction of a second. Continue this alternate resting of the eyes and flashing of the letters for a time, and you may soon find that you can keep your eyes open longer than a fraction of a second without losing the improved vision.

If your trouble is with distant instead of near vision, use the same method with distant letters.

In this way you can demonstrate for yourself the fundamental principles of the cure of imperfect sight by treatment without glasses.

If you fail, ask someone with perfect sight to help you.

How to Use the Snellen Test Card

FOR THE

Prevention and Cure of Imperfect Sight in Children

The Snellen Test Card is placed permanently upon the wall of the classroom, and every day the children silently read the smallest letters they can see from their seats with each eye separately, the other being covered with the palm of the hand in such a way as to avoid pressure on the eyeball. This takes no appreciable amount of time, and is sufficient to improve the sight of all children in one week and to cure all errors of refraction after some months, a year, or longer.

Children with markedly defective vision should be encouraged to read the card more frequently.

Records may be kept as follows:

John Smith, 10, Sept. 15, 1918.
R. V. (vision of the right eye) 20/40.
L. V. (vision of the left eye) 20/20.

John Smith, 11, Jan. 1, 1919.
R. V. 20/30.
L. V. 20/15.

The numerator of the fraction indicates the distance of the test card from the pupil; the denominator denotes the line read, as designated by the figures printed above the middle of each line of the Snellen Test Card.

A certain amount of supervision is absolutely necessary. At least once a year some one who understands the method should visit each classroom for the purpose of answering questions, encouraging the teachers to continue the use of the method, and making a report to the proper authorities.

It is not necessary that either the inspector, the teachers, or the children, should understand anything about the physiology of the eye.

THE FLASHING CURE

Do you read imperfectly? Can you observe then that when you look at the first word, or the first letter, of a sentence you do not see best where you are looking; that you see other words, or other letters, just as well as or better than the ones you are looking at? Do you observe also that the harder you try to see the worse you see?

Now close your eyes and rest them, remembering some color, like black or white, that you can remember perfectly. Keep them closed until they feel rested, or until the feeling of strain has been completely relieved. Now open them and look at the first word or letter of a sentence for a fraction of a second. If you have been able to relax, partially or completely, you will have a flash of improved or clear vision, and the area seen best will be smaller.

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If your trouble is with distant instead of near vision, use the same method with distant letters.

In this way you can demonstrate for yourself the fundamental principles of the cure of imperfect sight by treatment without glasses.

If you fail, ask someone with perfect sight to help you.

THE SWINGING CURE

If you see a letter perfectly, you may note that it appears to pulsate, or move slightly in various directions. If your sight is imperfect, the letter will appear to be stationary. The apparent movement is caused by the unconscious shifting of the eye. The lack of movement is due to the fact that the eye stares, or looks too long at one point. This is an invariable symptom of imperfect sight, and may often be relieved by the following method:

Close your eyes and cover them with the palms of the hands so as to exclude all the light, and shift mentally from one side of a black letter to the other. As you do this, the mental picture of the letter will appear to move back and forth in a direction contrary to the imagined movement of the eye. Just so long as you imagine that the letter is moving, or swinging, you will find that you are able to remember it, and the shorter and more regular the swing, the blacker and more distinct the letter will appear. If you are able to imagine the letter stationary, which may be difficult, you will find that your memory of it will be much less perfect.

Now open your eyes and look first at one side and then at the other of the real letter. If it appears to move in a direction opposite to the movement of the eye, you will find that your vision has improved. If you can imagine the swing of the letter as well with your eyes open as with your eyes closed, as short, as regular and as continuous, your vision will be normal.

THE MEMORY CURE

When the sight is perfect, the memory is also perfect, because the mind is perfectly relaxed. Therefore the sight may be improved by any method that improves the memory. The easiest thing to remember is a small black spot of no particular size and form; but when the sight is imperfect it will be found impossible to remember it with the eyes open and looking at letters, or other objects with definite outlines. It may, however, be remembered for a few seconds or longer, when the eyes are closed and covered, or when looking at a blank surface where there is nothing particular to see. By cultivating the memory under these favorable conditions, it gradually becomes possible to retain it under unfavorable ones, that is, when the eyes are open and the mind conscious of the impressions of sight. By alternately remembering the period with the eyes closed and covered and then looking at the Snellen test card, or other letters or objects; or by remembering it when looking away from the card where there is nothing particular to see, and then looking back; the patient becomes able, in a longer or shorter time, to retain the memory when looking at the card, and thus becomes able to read the letters with normal vision. Many children have been cured very quickly by this method. Adults who have worn glasses have greater difficulty. Even under favorable conditions, the period cannot be remembered for more than a few seconds, unless one shifts from one part of it to another. One can also shift from one period, or other small black object, to another.

THE IMAGINATION CURE

When the imagination is perfect the mind is always perfectly relaxed, and as it is impossible to relax and imagine a letter perfectly, and at the same time strain and see it imperfectly, it follows that when one imagines that one sees a letter perfectly one actually does see it, as demonstrated by the retinoscope, no matter how great an error of refraction the eye may previously have had. The sight, therefore, may often be improved very quickly by the aid of the imagination. To use this method the patient may proceed as follows:

Look at a letter at the distance at which it is seen best. Close and cover the eyes so as to exclude all the light, and remember it. Do this alternately until the memory is nearly equal to the sight. Next, after remembering the letter with the eyes closed and covered, and while still holding the mental picture of it, look at a blank surface a foot or more to the side of it, at the distance at which you wish to see it. Again close and cover the eyes and remember the letter, and on opening them look a little nearer to it. Gradually reduce the distance between the point of fixation and the letter, until able to look directly at it and imagine it as well as it is remembered with the eyes closed and covered. The letter will then be seen perfectly, and other letters in its neighborhood will come out. If unable to remember the whole letter, you may be able to imagine a black period as forming part of it. If you can do this, the letter will also be seen perfectly.

THE PALMING CURE

One of the most efficacious methods of relieving eyestrain, and hence of improving the sight, is palming. By this is meant the covering of the closed eyes with the palms of the hands in such a way as to exclude all the light, while avoiding pressure upon the eyeballs. In this way most patients are able to secure some degree of relaxation in a few minutes, and when they open their eyes find their vision temporarily improved.

When relaxation is complete the patient sees, when palming, a black so deep that it is impossible to remember or imagine anything blacker, and such relaxation is always followed by a complete and permanent cure of all errors of refraction (nearsight, farsight, astigmatism and even old sight), as well as by the relief or cure of many other abnormal conditions. In rare cases patients become able to see a perfect black very quickly, even in five, ten or fifteen minutes; but usually this cannot be done without considerable practice, and some never become able to do it until they have been cured by other means. When the patient becomes able after a few trials to see an approximate black, it is worth while to continue with the method; otherwise something else should be tried.

Most patients are helped by the memory of some color, preferably black, and as it is impossible to remember an unchanging object for more than a few seconds, they usually find it necessary to shift consciously from one mental picture to another, or from one part of such a picture to another. In some cases, however, the shifting may be done unconsciously, and the black object may appear to be remembered all alike continuously.

HALOS

When the eye with normal sight looks at the large letters on the Snellen test card, at any distance from twenty feet to six inches or less, it sees, at the inner and outer edges and in the openings of the round letters, a white more intense than the margin of the card. Similarly, when such an eye reads fine print, the spaces between the lines and the letters and the openings of the letters appear whiter than the margin of the page, while streaks of an even more intense white may be seen along the edges of the lines of letters. These "halos" are sometimes seen so vividly that in order to convince people that they are illusions it is often necessary to cover the letters, when they at once disappear. Patients with imperfect sight also see the halos, though less perfectly, and when they understand that they are imagined, they often become able to imagine them where they had not been seen before, or to increase their vividness, in which case the sight always improves. This can be done by imagining the appearances first with the eyes closed, and then looking at the card, or at fine print, and imagining them there. By alternating these two acts of imagination the sight is often improved rapidly. It is best to begin the practice at the point at which the halos are seen, or can be imagined best. Nearsighted patients are usually able to see them at the near-point, sometimes very vividly. Farsighted people may also see them best at this point, although their sight for form may be best at the distance.

INFLUENZA—A QUICK CURE

When the muscles of the eyes are perfectly relaxed all errors of refraction are not only corrected, but abnormal conditions in other parts of the body are also relieved. It is impossible to relax the muscles of the eyes without relaxing every other muscle in the body. When people have colds or influenza the muscles that control the circulation in the affected parts are under a strain, the arteries are contracted, and the heart is not able to force the normal amount of blood through them. The blood consequently accumulates in the veins and produces inflammation. Hence any treatment which relaxes the muscles of the eyes sufficiently to produce central fixation and normal vision will cure colds and influenza. When one palms perfectly, shifts easily, or has a perfect universal swing, not only the muscles which control the refraction, but the muscles of the arteries which control the circulation of the eyes, nose, lungs, kidneys, etc., are relaxed, and all symptoms of influenza disappear. The nasal discharge ceases as if by magic, the cough is at once relieved, and if the nose has been closed, it opens. Pain, fatigue, fever and chilliness are also relieved. The truth of these statements has been repeatedly demonstrated.

The Editor is very proud of this discovery which is now published for the first time.

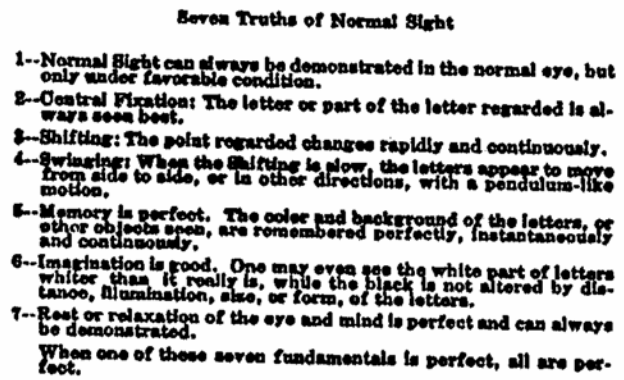
REST

All methods of curing errors of refraction are simply different ways of obtaining rest.

Different persons do this in different ways. Some patients are able to rest their eyes simply by closing them, and complete cures have been obtained by this means, the closing of the eyes for a longer or shorter period being alternated with looking at the test card for a moment. In other cases patients have strained more when their eyes were shut than when they were open. Some can rest their eyes when all light is excluded from them by covering with the palms of the hands; others cannot, and have to be helped by other means before they can palm. Some become able at once to remember or imagine that the letters they wish to see are perfectly black, and with the accompanying relaxation their vision immediately becomes normal. Others become able to do this only after a considerable time. Shifting is a very simple method of relieving strain, and most patients soon become able to shift from one letter to another, or from one side of a letter to another in such a way that these forms seem to move in a direction opposite to the movement of the eye. A few are unable to do this, but can do it with a mental picture of a letter, after which they become able to do it visually.

Patients who do not succeed with any particular method of obtaining rest for their eyes should abandon it and try something else. The cause of the failure is strain, and it does no good to go on straining.

Fine Print a Benefit to the Eye



Seven Truths of Normal Sight

1--Normal Sight can always be demonstrated in the normal eye, but only under favorable condition.

2--Central Fixation: The letter or part of the letter regarded is always seen best.

3--Shifting: The point regarded changes rapidly and continuously.

4--Swinging: When the shifting is slow, the letters appear to move from side to side, or in other directions, with a pendulum-like motion.

5--Memory is perfect. The color and background of the letters, or other objects seen, are remembered perfectly, instantaneously and continuously.

6--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, or form, of the letters.

7--Rest or relaxation of the eye and mind is perfect and can always be demonstrated.

When one of these seven fundamentals is perfect, all are perfect.

It is impossible to read fine print without relaxing. Therefore the reading of such print, contrary to what is generally believed, is a great benefit to the eyes. Persons who can read perfectly fine print, like the above specimen, are relieved of pain and fatigue while they are doing it, and this relief is often permanent. Persons who cannot read it are benefited by observing its blackness, and remembering it with the eyes open and closed alternately. By bringing the print so near to the eyes that it cannot be read pain is sometimes relieved instantly, because when the patient realizes that there is no possibility of reading it the eyes do not try to do so. In myopia, however, it is sometimes a benefit to strain to read fine print. Persons who can read fine print perfectly imagine that they see between the lines streaks of white whiter than the margin of the page, and persons who cannot read it also see these streaks, but not so well. When the patient becomes able to increase the vividness of these appearances [see *Halos,* February number] the sight always improves.

SUN-GAZING

Light is necessary to the health of the eye, and darkness is injurious to it. Eye shades, dark glasses, darkened rooms, weaken the sight and sooner or later produce inflammations. Persons with normal sight can look directly at the sun, or at the strongest artificial light, without injury or discomfort, and persons with imperfect sight are never permanently injured by such lights, though temporary ill effects, lasting from a few minutes to a few hours, days, weeks, months, or longer, may be produced. In all abnormal conditions of the eyes, light is beneficial. It is rarely sufficient to cure, but is a great help in gaining relaxation by other methods.

The quickest way to get results from the curative power of sunlight is to focus the rays with a burning glass on the white part of the eye when the patient looks far downward, moving the light from side to side to avoid heat. This may be done for part of a minute at frequent intervals.

Looking at the sun, while slower in its results, has often been sufficient to effect permanent cures, sometimes in a very short time. There is a right way and a wrong way to do this. Persons with imperfect sight should never look directly at the sun at first, because, while no permanent harm can come from it, great temporary inconvenience may result. Such persons should begin by looking to one side of the sun, and after becoming accustomed to the strong light, should look a little nearer to its source, and so on until they become able to look directly at the sun without discomfort.

SEE THINGS MOVING

When the sight is perfect the subject is able to observe that all objects regarded appear to be moving. A letter seen at the near point or at the distance appears to move slightly in various directions. The pavement comes toward one in walking, and the houses appear to move in a direction opposite to one's own. In reading the page appears to move in a direction opposite to that of the eye. If one tries to imagine things stationary, the vision is at once lowered and discomfort and pain may be produced, not only in the eyes and head, but in other parts of the body.

This movement is usually so slight that it is seldom noticed till the attention is called to it, but it may be so conspicuous as to be plainly observable even to persons with markedly imperfect sight. If such persons, for instance, hold the hand within six inches of the face and turn the head and eyes rapidly from side to side, the hand will be seen to move in a direction opposite to that of the eyes. If it does not move, it will be found that the patient is straining to see it in the eccentric field. By observing this movement it becomes possible to see or imagine a less conspicuous movement, and thus the patient may gradually become able to observe a slight movement in every object regarded. Some persons with imperfect sight have been cured simply by imagining that they see things moving all day long.

The world moves. Let it move. All objects move if you let them. Do not interfere with this movement, or try to stop it. This cannot be done without an effort which impairs the efficiency of the eye and mind.

THE CURE OF IMPERFECT SIGHT IN SCHOOL CHILDREN

While reading the Snellen test card every day will, in time, cure imperfect sight in all children under twelve who have never worn glasses, the following simple practices will insure more rapid progress:

1. Let the children rest their eyes by closing for a few minutes or longer, and then look at the test card for a few moments only, then rest again, and so on alternately. This cures many children very promptly.

2. Let them close and cover their eyes with the palms of their hands in such a way as to exclude all the light while avoiding pressure on the eyeballs (palming), and proceed as above. This is usually more effective than mere closing.

3. Let them demonstrate that all effort lowers the vision by looking fixedly at a letter on the test card, or at the near-point, and noting that it blurs or disappears in less than a minute. They thus become able, in some way, to avoid unconscious effort.

The method succeeds best when the teachers do not wear glasses.

Supervision is absolutely necessary. At least once a year some person whose sight is normal without glasses and who understands the method should visit the classrooms for the purpose of answering questions, testing the sight of the children, and making a report to the proper authorities.

The Snellen test card is a chart showing letters of graduated sizes, with numbers indicating the distance in feet at which each line should be read by the normal eye. Originally designed by Snellen for the purpose of testing the eye, it is admirably adapted for use in eye education.

MAKE YOUR SIGHT WORSE

Strange as it may seem there is no better way of improving the sight than by making it worse. To see things worse when one is already seeing them badly requires mental control of a degree greater than that required to improve the sight. The importance of these facts is very great. When patients become able to lower their vision by conscious staring, they become better able to avoid unconscious staring. When they demonstrate by increasing their eccentric fixation that trying to see objects not regarded lowers the vision, they may stop trying to do the same thing unconsciously.

What is true of the sight is also true of the imagination and memory. If one's memory and imagination are imperfect, they can be improved by consciously making them worse than they are. Persons with imperfect sight never remember or imagine the letters on the test card as perfectly black and distinct, but to imagine them as grey and cloudy is very difficult, or even impossible, and when a patient has done it, or tried to do it, he may become able to avoid the unconscious strain which has prevented him from forming mental pictures as black and distinct as the reality.

To make imperfect sight worse is always more difficult than to lower normal vision. In other words, to make a letter which already appears grey and indistinct noticeably more cloudy is harder than to blur a letter seen distinctly. To make an imperfect mental picture worse is harder than to blur a perfect one. Both practices require much effort, much hard disagreeable work; but they always, when successful, improve the memory, imagination and vision.

GO TO THE MOVIES

Cinematograph pictures are commonly supposed to be very injurious to the eyes, and it is a fact that they often cause much discomfort and lowering of vision. They can, however, be made a means of improving the sight. When they hurt the eyes it is because the subject strains to see them. If this tendency to strain can be overcome, the vision is always improved, and, if the practice of viewing the pictures is continued long enough, nearsight, astigmatism and other troubles are cured.

If your sight is imperfect, therefore, you will find it an advantage to go to the movies frequently and learn to look at the pictures without strain. If they hurt your eyes, look away to the dark for a while, then look at a corner of the picture; look away again, and then look a little nearer to the center; and so on. In this way you may soon become able to look directly at the picture without discomfort. If this does not help, try palming for five minutes or longer. Dodge the pain, in short, and prevent the eyestrain by constant shifting, or by palming.

If you become able to look at the movies without discomfort, nothing else will bother you.

MAKE YOUR SQUINT WORSE

There is no better way of curing squint than by making it worse, or by producing other kinds of squint. This can be done as follows:

To produce convergent squint, strain to see a point about three inches from the eyes, such as the end of the nose.

To produce divergent squint, fix a point at the distance to one side of any object, and strain to see it as well as when directly regarded.

To produce a vertical squint, look at a point below an object at the distance, and at the same time strain to see the latter.

To produce an oblique divergent squint, look at a point below and to one side of an object at the distance while straining to see the latter.

When successful two images will be seen arranged horizontally, vertically, or obliquely, according to the direction of the strain.

The production of convergent squint is usually easier than that of the other varieties, and most patients succeed better with a light as the object of vision than with a letter, or other non-luminous object.

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.

THE TREATMENT OF CATARACT

From "A Case of Cataract," by Victoria Coolidge, in "Better Eyesight" for June, 1920.

The treatment prescribed was as follows:

Palming six times a day, a half hour or longer at a time.

Reading the Snellen test card at five, ten, and twenty feet.

Reading fine print at six inches, five minutes at a time, especially soon after rising in the morning and just before retiring at night, and reading books and newspapers.

Besides this, he was to subject his eyes, especially the left, to the sunlight whenever an opportunity offered, to drink twelve glasses of water a day, walk five miles a day, and later, when he was in better training, to run half a mile or so every day.

The results of this treatment have been most gratifying. Not only have his eyes improved steadily, but his general health has been so much benefited that at eighty-two he looks, acts and feels better and younger than he did at eighty-one.

THE PREVENTION AND CONTROL OF PAIN BY THE MIND

Anyone who has normal vision can demonstrate in a few moments that when the memory is perfect no pain is felt, and can produce pain by an attempt to keep the attention fixed on a point. To do this proceed as follows:

Look at a black letter, close the eyes and remember it. Look at the letter again and again close the eyes and remember it. Repeat until the memory is equal to the sight. Now press the nail of one finger against the tip of another. If the letter is remembered perfectly, no pain will be felt. With practice it may become possible to remember the letter with the eyes open.

Remember the letter imperfectly, with blurred edges and clouded openings, and again press the nail of one finger against the tip of another. In this case it will be found impossible to continue the pressure for more than a moment on account of the pain.

Try to remember one point of a letter continuously. It will be found impossible to do so, and if the effort is continued long enough pain will be produced.

Try to look continuously at one point of a letter or other object. If the effort is continued long enough, pain will be produced.

HOW TO OBTAIN PERCEPTION OF LIGHT IN BLINDNESS

Two things have always brought perception of light to blind patients. One is palming, and the other is the swing. The swing may take two forms:

1. Let the patient stand with feet apart, and sway the body, including the head and eyes, from side to side, while shifting the weight from one foot to the other.

2. Let him move his hand from one side to the other in front of his face, all the time trying to imagine that he sees it moving. As soon as he becomes able to do this it can be demonstrated that he really does see the movement.

Simple as these measures are they have always, either singly or together, brought relaxation, and with it perception of light, in from fifteen minutes or less to half an hour.

In palming the patient should remember that this does not bring relief unless mental relaxation is obtained, as evidenced by the disappearance of the white, grey and other colors which most blind people see at first with their eyes closed and covered.

METHODS THAT HAVE SUCCEEDED IN PRESBYOPIA

The cure of presbyopia, as of any other error of refraction, is rest, and many presbyopic patients are able to obtain this rest simply by closing the eyes. They are kept closed until the patient feels relieved, which may be in a few minutes, half an hour, or longer. Then some fine print is regarded for a few seconds. By alternately resting the eyes and looking at fine print many patients quickly become able to read it at eighteen inches, and by continued practice they are able to reduce the distance until it can be read at six inches in a dim light. At first the letters are seen only in flashes. Then they are seen for a longer time, until finally they are seen continuously. When this method fails, palming may be tried, combined with the use of the memory, imagination and swing. Particularly good results have been obtained from the following procedure:

Close the eyes and remember the letter *o* in diamond type, with the open space as white as starch and the outline as black as possible.

When the white center is at the maximum imagine that the letter is moving, and that all objects, no matter how large or small, are moving with it.

Open the eyes and continue to imagine the universal swing,

Alternate the imagination of the swing with the eyes open with its imagination with the eyes closed.

When the imagination is just as good with the eyes open as when they are closed the cure will be complete.

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 that 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.

HOW TO DEMONSTRATE THE FUNDAMENTAL PRINCIPLE OF TREATMENT

The object of all the methods used in the treatment of imperfect sight without glasses is to secure rest or relaxation, of the mind first and then of the eyes. Rest always improves the vision. Effort always lowers it. Persons who wish to improve their vision should begin by demonstrating these facts.

Close the eyes and keep them closed for fifteen minutes. Think of nothing particular, or think of something pleasant. When the eyes are opened, it will usually be found that the vision has improved temporarily. If it has not, it will be because, while the eyes were closed, the mind was not at rest.

One symptom of strain is a twitching of the eyelids which can be seen by an observer and felt by the patient with the fingers. This can usually be corrected if the period of rest is long enough.

Many persons fail to secure a temporary improvement of vision by closing their eyes, because they do not keep them closed long enough. Children will seldom do this unless a grown person stands by and encourages them. Many adults also require supervision.

To demonstrate that strain lowers the vision, think of something disagreeable—some physical discomfort, or something seen imperfectly. When the eyes are opened, it will be found that the vision has been lowered. Also stare at one part of a letter on the test card, or try to see the whole letter all alike at one time. This invariably lowers the vision, and may cause the letters to disappear.

HOW NOT TO CONCENTRATE

To remember the letter *o* of diamond type continuously and without effort proceed as follows:

Imagine a little black spot on the right-hand side of the *o* blacker than the rest of the letter; then imagine a similar spot on the left-hand side. Shift the attention from the right-hand period to the left, and observe that every time that you think of the left period the *o* appears to move to the right, and every time you think of the right one it appears to move to the left. This motion, when the shifting is done properly, is very short, less than the width of the letter. Later you may become able to imagine the *o* without conscious shifting and swinging, but whenever the attention is directed to the matter these things will be noticed.

Now do the same with the *a* letter on the test card. If the shifting is normal, it will be noted that the letter can be regarded indefinitely, and that it appears to have a slight motion.

To demonstrate that the attempt to concentrate spoils the memory, or imagination, and the vision:

Try to think continuously of a period on one part of an imagined letter. The period and the whole letter will soon disappear. Or try to imagine two or more periods, or the whole letter, equally black and distinct at one time. This will be found to be even more difficult.

Do the same with a letter on the test card. The results will be the same.

CHILDREN MAY IMPROVE THEIR SIGHT BY CONSCIOUSLY DOING THE WRONG THING

Children often make a great effort to see the blackboard and other distant objects in school. It helps them to overcome this habit to have them demonstrate just what the strain to see does.

Tell them to fix their attention on the smallest letter they can see from their seats, to stare at it, to concentrate on it, to partly close their eyelids—in short, to make as great an effort as possible to see it.

The letter will blur, or disappear altogether, and the whole card may become blurred, while discomfort, or pain in the eyes or head, will be produced.

Now direct them to rest their eyes by palming. The pain or discomfort will cease, the letter will come out again, and other letters that they could not see before may come out also.

After a demonstration like this children are less likely to make an effort to see the blackboard, or anything else; but some children have to repeat the experiment many times before the subconscious inclination to strain is corrected.

HOW TO IMPROVE THE SIGHT BY MEANS OF THE IMAGINATION: No. 2

In a recent issue directions were given for improving the vision by the aid of the imagination. According to this method the patient ascertains what a letter is by imagining each of the four sides to be straight, curved, or open, and noting the effect of each guess upon the imagined swing of the letter. Another method which has succeeded even better with many patients is to judge the correctness of the guess by observing its effect on the appearance of the letter.

Look at a letter which can be seen only as a gray spot, and imagine the top is straight. If the guess is right, the spot will probably become blacker; if it is wrong, the spot may become fainter or disappear. If no difference is apparent, rest the eyes by looking away, closing, or palming, and try again.

In many cases, when one side has been imagined correctly, the whole letter will come out. If it does not, proceed to imagine the other sides as above directed. If, when all four sides have been imagined correctly, a letter does not come out, palm and repeat.

One can even bring out a letter that one cannot see at all in this way. Look at a line of letters which cannot be seen, and imagine the top of the first letter to be straight. If the guess is correct, the line may become apparent, and by continued practice the letter may come out clearly enough to be distinguished.

HOW TO OBTAIN MENTAL PICTURES

Look at a letter on the Snellen test card.

Remember its blackness.

Shift the attention from one part of this spot of black to another. It should appear to move in a direction contrary to the imagined movement.

If it does not, try to imagine it stationary. If you succeed in doing this it will blur, or disappear. Having demonstrated that it is impossible to imagine the spot stationary, it may become possible to imagine it moving.

Having become able to form a mental picture of a black spot with the eyes closed, try to do the same with the eyes open. Alternate till the mental vision with the eyes closed and open is the same.

Having become able to imagine a black spot try to imagine the letter o in diamond type with the center as white as snow. Do this alternately with eyes closed and open.

If you cannot hold the picture of a letter or period, commit to memory a number of letters on the test card and recite them to yourself while imagining that the card is moving.

If some other color or object is easier to imagine than a black spot it will serve the purpose equally well.

A few exceptional people may get better results with the eyes open than when they are closed.

THE SENSE OF TOUCH AN AID TO VISION

Just as Montessori has found that impressions gained through the sense of touch are very useful in teaching children to read and write, persons with defective sight have found them useful in educating their memory and imagination.

One patient whose visual memory was very imperfect found that if she traced an imaginary black letter on the ball of her thumb with her forefinger, she could follow the imaginary lines with her mind as they were being formed and retain a picture of the letter better than when she gained the impression of it through the sense of sight.

Another patient discovered that when he lost the swing he could get it again by sliding his forefinger back and forth over the ball of his thumb. When he moved his fingers it seemed as if his whole body were moving.

Both these expedients have the advantage of being inconspicuous, and can, therefore, be used anywhere.

The vision was improved in both cases.

THINK RIGHT

"As a man thinketh in his heart so is he," is a saying which is invariably true when the sight is concerned. When a person remembers or imagines an object of sight perfectly the sight is perfect; when he remembers it imperfectly the sight is imperfect. The idea that to do anything well requires effort, ruins the sight of many children and adults; for every thought of effort in the mind produces an error of refraction in the eye. The idea that large objects are easier to see than small ones results in the failure to see small objects. The fear that light will hurt the eyes actually produces sensitiveness to light. To demonstrate the truth of these statements is a great benefit.

Remember a letter or other object perfectly, and note that the sight is improved and pain and fatigue relieved; remember the object imperfectly, and note that the vision is lowered, while pain and fatigue may be produced or increased.

Rest the eyes by closing or palming, and note that the vision is improved, and pain and discomfort relieved; stare at a letter, concentrate upon it, make an effort to see it, and note that it disappears, and that a feeling of discomfort or pain is produced.

Note that a small part of a large object is seen better than the rest of it.

Accustom the eyes to strong light; learn to look at the sun; note that the vision is not lowered but improved, and that the light causes less and less discomfort.

Remember your successes (things seen perfectly); forget your failures (things seen imperfectly); patients who do this are cured quickly.

STOP STARING

It can be demonstrated by tests with the retinoscope that all persons with imperfect sight stare, strain, or try to see. To demonstrate this fact:

Look intently at one part of a large or small letter at the distance or nearpoint. In a few seconds, usually, fatigue and discomfort will be produced, and the letter will blur or disappear. If the effort is continued long enough, pain may be produced.

To break the habit of staring:

(1) Shift consciously from one part to another of all objects regarded, and imagine that these objects move in a direction contrary to the movement of the eye. Do this with letters on the test card, with letters of fine print, if they can be seen, and with other objects.

(2) Close the eyes frequently for a moment or longer. When the strain is considerable, keep the eyes closed for several minutes and open them for a fraction of a second—flashing. When the stare is sufficient to keep the vision down to 2/200 or less, palm for a longer or shorter time; then look at the card for a moment. Later mere closing of the eyes may afford sufficient rest.

(3) Imagine that the white openings and margins of letters are whiter than the rest of the background. Do this with eyes closed and open alternately. It is an interesting fact that this practice prevents staring and improves the vision rapidly.

Test Your Imagination!

WITH the eyes closed remember some letter, as, for example, a small letter o. Imagine the white center to be white as snow with the sun shining on it. Now open the eyes, look at the Snellen Test Card and imagine the white snow as well as you can for a few moments only; without noting so much the clearness of the letters on the card as your ability to imagine the snow white center, alternating as before with the Snellen Card.

Another method: With the eyes closed, remember and imagine as well as you can the first letter, which should be known, on each line of the Snellen Test Card, beginning with the larger letters. Then open your eyes and imagine the same letter for a few moments only, alternating until the known letter is imagined sufficiently well that the second letter is seen without any effort on your part.

Third method: With the eyes closed remember or imagine a small black period for part of a minute or longer. Then with the eyes open, looking at no object in particular and without trying to see, imagine in your mind the black period. Should you believe that your vision is improved, dodge it, look somewhere else. This you can practice at all times, in all places, at your work as well as when sitting quietly in your room practicing with the Snellen Test Card. When the period is imagined perfectly with the eyes open, one cannot dodge perfect sight, which comes without any effort whatsoever.

SEE THINGS MOVING

WHEN riding in a railroad train, travelling rapidly, a passenger looking out a window can imagine more or less vividly that stationary objects, trees, houses, telegraph poles, are moving past in the opposite direction. If one walks along the street, objects to either side appear to be moving. When the eyes move from side to side a long distance with or without the movement of the head or body it is possible to imagine objects not directly regarded to be moving. To see things moving avoid looking directly at them while moving the eyes.

The Long Swing: No matter how great the mental or other strain may be, one can, by moving the eyes a long distance from side to side with the movement of the head and body in the same direction, imagine things moving opposite over a wide area. The eyes or mind are benefitted.

The Short Swing: To imagine things are moving a quarter of an inch or less, gradually shorten the long swing and decrease the speed to a rate of a second or less for each swing. Another method is to remember a small letter perfectly with the eyes closed and noting the short swing. Alternate with the eyes open and closed.

The Universal Swing: Demonstrate that when one imagines or sees one letter on a card at a distance or at a near point that the card moves with the letter and that every other letter or object seen or imagined in turn also swings. This is the universal swing. Practice it all the time because the ability to see or to do other things is benefitted.

Practice the imagination of the swing constantly. If one imagines things are stationary, the vision is always imperfect, and effort is required and one does not feel comfortable. To stare and strain takes time. To let things move is easier. One should plan to practice the swing observed by the eye with normal vision: as short at least as the width of the letter at twenty feet or six inches, as slow as a second to each movement and all done easily, rhythmically, continuously.

IMPROVE YOUR SIGHT

ALL day long use your eyes right. You have just as much time to use your eyes right as you have to use them wrong. It is easier and more comfortable to have perfect sight than to have imperfect sight.

Practice the long swing. Notice that when your eyes move the great distance rapidly, objects in front of you move in the opposite direction so rapidly that you do not see them clearly. Do not try to see them because that stops the apparent movement.

Rest your eyes continually by blinking, which means to open and close them so rapidly that one appears to see things continuously. Whenever convenient close your eyes for a few minutes and rest them. Cover them with one or both hands to shut out the light and obtain a greater rest.

When the mind is awake it is thinking of many things. One can remember things perfectly or imagine things perfectly, which is a rest to the eyes, mind and the body generally. The memory of imperfect sight should be avoided because it is a strain and lowers the vision.

Read the Snellen Test Card at 20 feet with each eye, separately, twice daily or oftener. Imagine white spaces in letters whiter than the rest of the card. Do this alternately with the eyes closed and opened. Plan to imagine the white spaces in letters just as white, in looking at the Snellen test card, as can be accomplished with the eyes closed.

Remember one letter of the alphabet, or a part of one letter, or a period, continuously and perfectly.

RELAXATION FROM FINE PRINT

A BUSINESS card, 3″ x 2″ with fine print on one side is held in front of the eyes as near as possible, the upper part in contact with the eyebrows, the lower part resting lightly on the nose.

The patient looks directly at the fine print without trying to see. Being so close to the eyes most people realize that it is impossible to read the fine print and do not try, in this way they obtain a measure of relaxation which is sufficient to benefit the sight very much.

The patient moves the card from side to side a short distance slowly and sees the card moving provided the movement is not too short or too slow. The shorter the movement and the slower it is, the better.

Some patients, although the card is held very close, note that the white spaces between the lines become whiter and the black letters become blacker and clearer. In some cases one or more words of the fine print will be seen in flashes or even continuously as long as no effort is made to see or to read the fine print.

This movement of the card should be kept up to obtain the best results, for many hours every day. The hand which holds the card may soon become fatigued; one may then use the hands alternately Some patients vary this by holding the card with both hands at the same time.

The amount of light is not important.

DISCARD GLASSES

EASY to say, something else to do. But it is a fact that no one can be cured without glasses and wear glasses at the same time.

This is a fact that one should keep in mind. It may help to give one backbone sufficient to do the right thing. I know how difficult it is from personal experience. I suppose I have as much originality, if not more, than the average person. It required a year before I was convinced that my eyes could not be cured unless I stopped wearing glasses. I could not wear them even for emergencies without suffering a relapse.

Patients who are really anxious to be cured can discard glasses and obtain benefit almost from the start. Wearing of glasses becomes a fixed habit. The idea of going without them is a shock. The honest determination to do all that is possible to be done for a cure, makes it easy or easier to discard glasses at once. Patients tell me that after they have discarded their glasses for a few days they do not feel as uncomfortable as they expected.

Do not use opera glasses. Do not use a magnifying glass for any purpose.

It is very natural that one should hesitate to discard glasses after he has worn them for many years and obtained what seems considerable benefit. It may help to read what I have published about glasses. Most of the discomforts of the eyes are largely functional or nervous and not due to any real or organic trouble with the eyes. All the symptoms of discomfort are accompanied by a strain which produces a wrong focus of the eyes called myopia, hypermetropia, astigmatism or presbyopia. Glasses may correct the wrong focus produced by the strain, but they do not always, because the eyes are not always strained to fit glasses accurately. While wearing glasses in order to see, one has to strain or, by an effort, squeeze the eye ball out of shape and it is impossible therefore, to obtain relaxation and see with glasses.

If one can understand what I have just stated one can realize the necessity of discarding glasses in order to obtain a cure. I feel that the facts should be emphasized and the patient made to understand the necessity of discarding glasses. This makes it easier for the patient to do without glasses.

Do not argue with yourself about the matter. When you go to a doctor you expect to take his medicine even though you may not know what it is or how it is going to act. When patients come to me for relief I say, "Discard your glasses and you can be cured."

If they are wise they do as I say without any talk.

"PAGE TWO"

ON page two of this magazine are printed each month specific directions for improving the sight in various ways. Too many subscribers read the magazine once and then mislay it. We feel that at least page two should be kept for reference.

When the eyes are neglected the vision may fail. It is so easy to forget how to palm successfully. The long swing always helps but it has to be done right. One may under adverse conditions suffer a tension so great that the ability to remember or imagine perfectly is modified or lost and relaxation is not obtained. The long swing is always available and always brings sufficient relief to practice the short swing, central fixation, the perfect memory and imagination with perfect relief.

Be sure and review page two frequently; not only for your special benefit but also for the benefit of individuals you desire to help!

Persons with imperfect sight often have difficulty in obtaining relaxation by the various methods described in the book and in this magazine. It should be emphasized that persons with good vision are better able to help others than people who have imperfect sight or wear glasses. If you are trying to cure yourself avoid people who wear glasses or do not see well. Those individuals are always under a strain and the strain is manifested in their face, in their voices, in their walk, the way they sit, in short in everything that they do.

Strain is contagious. Teachers in Public Schools who wear glasses are a menace to their pupils' sight. Parents who wear glasses or who have imperfect sight lower the vision of their children. It is always well when treating children or adults to keep them away from people with imperfect sight.

Sight
Dr. W. H. Bates
7-28-1924

SCHOOL CHILDREN'S EYES

THE cure and prevention of imperfect sight in school children is very simple.

A Snellen Test Card should be placed in the class room where all children can see it from their seats. They should read the card at least once daily with each eye separately, covering the other eye with the palms of the hands, in such a way as to avoid pressing on the eyeball. The time required is less than a minute for both eyes. The card measures the amount of their vision. They will find from time to time that their eyesight varies. Some children are very much disturbed when they cannot see so well on account of the light being dim on a dark or rainy day and although they usually learn the letters by heart they do not always remember or see them. It is well to encourage the children to commit the letters to memory because it is a great help for them to see them. When a child can read the Snellen Test Card with each eye with perfect sight, even although they do know what the letters are, it has been found by numerous observations that their eyes are also normal and not nearsighted, far-sighted nor do they have astigmatism. Many children find that when they have difficulty in reading the writing on the blackboard that they obtain material help after glancing at the Snellen Test Card and reading it with perfect sight.

When the eye is at rest, perfect rest, it always has perfect sight. A great many teachers and others condemn the method unwisely because they say that the children learn, and because they know what the letters are, they recite them without actually seeing them. With my instrument I have observed many thousands of school children reading the Snellen Test Card apparently with perfect sight, the test card that they had committed to memory, and in all cases never did I find anything wrong with their eyes.

About ten years ago I challenged a Doctor, a member of the Board of Education, to prove that the children deceive themselves or others by saying that they see letters when they don't. To me it is very interesting that the most wicked child in school no matter how he may lie about other things with great facility and gets by with it, was never caught lying about his eyesight. I believe that every family should have a Snellen Test Card in the home and the children encouraged to practice reading it for a few minutes or longer a number of times every day. Some children are fond of contests and quite often a child who can demonstrate that his vision was the best of any pupil in the class had a feeling of pride and satisfaction which every one in sporting events can understand.

COMPARISONS

IN practicing 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. They really have more of a blur than do the smaller letters which cannot be distinguished.

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 benefitted 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, 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.

PRACTICING

A GREAT many people have asked, "How much time should one devote to practicing the methods of central fixation in order to be cured of imperfect sight without glasses?"

The answer is—ALL THE TIME.

One should secure relaxation or rest until one is perfectly comfortable and continue feeling comfortable as long as one is awake.

The feeling of relaxation or comfort can be obtained with the memory of perfect sight. Even if one cannot remember perfect sight one can imagine it. All black objects should be imagined perfectly black. All white objects observed should be imagined perfectly white. All letters observed should be imagined perfectly and everything that is seen should be imagined perfectly.

To imagine anything imperfectly requires a strain, an effort, which is difficult. Choose the easy way. Imagine things perfectly.

If you try to imagine an object as stationary you will strain and your sight become impaired. All day long the eyes are moving from one point to another. Imagine that objects are moving opposite to the movement of the eyes. If one does not notice this one is very apt to strain and imagine things stationary.

One can practice properly for ten minutes and be comfortable. That does not mean that all the rest of the day one can strain and tear one's eyes all to pieces without paying the penalty for breaking the law. If you are under treatment for imperfect sight be sure to keep in mind all day long from the time you wake up in the morning until you go to bed at night the feeling of comfort, of rest, of relaxation, incessantly. It is a great deal better to do that than to feel under a strain and be uncomfortable all day long.

THE VARIABLE SWING

RECENTLY I have been impressed very much by the value of the variable swing. By the variable swing is meant the ability to imagine a near object with a longer swing than one more distant. For example, a patient came to me with conical cornea, which is usually considered incurable. I placed a chair five feet away from her eyes, clearly on a line with the Snellen test card located 15 feet distant. When she looked at the Snellen test card and imagined the letters moving an inch or less she could imagine the chair that she was not looking at moving quite a distance. As is well known the shorter the swing the better the sight. Some persons with unusually good vision have a swing so short that they do not readily recognize it. This patient was able to imagine the chair moving an inch or less and the card on the wall moving a shorter distance. She became able to imagine the chair moving a quarter of an inch and the movement of the Snellen test card at 15 feet was so short that she could not notice it. In the beginning her vision with glasses was poor and without glasses was double, and even the larger letters on the Snellen test card were very much blurred. Now, when she imagined the chair moving a quarter of an inch and the Snellen test card moving so short a distance that she could not recognize it, the conical cornea disappeared from both eyes and her vision became normal. To me it was one of the most remarkable things I have seen in years. I know of no other treatment that has ever brought about so great a benefit in so bad a case.

The variable swing is something that most people can learn how to practise at their first visit. Some people can do it better than others. The improvement depends directly upon their skill in practising the variable swing.

THE EASY SHIFT

SOME time ago a man came to me for treatment of his eyes. Without glasses his vision was about one-half of the normal. This patient could not palm without suffering an agony of pain and depression. He had pain in different parts of his body as well as in his eyes and the pain was usually very severe. The long swing, the short swing tired him exceedingly and made his sight worse. I asked him to tell me what there was that he could remember which caused him no discomfort.

He said, "Everything that I see disturbs me if I make an effort." "I try very hard not to make an effort, but the harder I try the worse do I feel."

When he could not practise palming, swinging or memory successfully I suggested to him that he look from one side of the room to the other, paying no attention to what he saw, but to remember as well as he could a room in his home. For two hours he practised this and was able to move his eyes from one side of the room to the other without paying any attention to the things that were moving or to the things he saw. This was a rest to him, and when his vision was tested, much to my surprise, he read the Snellen Test Card with normal vision at twenty feet. I handed him some diamond type, which he read without difficulty and without his glasses.

Since that time I have had other patients who were unable to remember or imagine things without straining and they usually obtained marked benefit by practising the EASY SHIFT.

No one can obtain perfect sight without constantly shifting, easily, without effort. THE EASY SHIFT is easy because it is done without trying to remember, to imagine or to see. As soon as one makes an effort the shift becomes difficult and no benefit is obtained.

BREATHING

MANY patients with imperfect sight are benefited by breathing. One of the best methods is to separate the teeth while keeping the lips closed, breathe deeply as though one were yawning. When done properly one can feel the air cold as it passes through the nose and down the throat. This method of breathing secures a great amount of relaxation of the nose, throat, the body generally including the eyes and ears.

A man aged sixty-five, had imperfect sight for distance and was unable to read fine print without the aid of strong glasses. After practicing deep breathing in the manner described he became able at once to read diamond type quite perfectly, as close as six inches from the eyes. The benefit was temporary but by repetition the improvement became more permanent.

At one time I experimented with a number of patients, first having them hold their breath and test their vision, which was usually lower when they did not breathe. They became able to demonstrate that holding their breath was a strain and caused imperfect sight, double vision, dizziness and fatigue, while the deep breathing at once gave them relief.

There is a wrong way of breathing in which when the air is drawn into the lungs the nostrils contract. This is quite conspicuous among many cases of tuberculosis.

Some teachers of physical culture in their classes while encouraging deep breathing close their nostrils when drawing in a long breath. This is wrong because it produces a strain and imperfect sight. By consciously doing the wrong thing, breathing with a strain one becomes better able to practice the right way and obtain relaxation and better sight.

The habit of practicing frequently deep breathing one obtains a more permanent relaxation of the eyes with more constant good vision.

THE OPTIMUM SWING

THE optimum swing is the swing which gives the best results under different conditions.

Most readers of the magazine and the book know about the swing. The swing may be spontaneous, that is to say when one remembers a letter perfectly or sees a letter perfectly and continuously without any volition on the part of the patient he is able to imagine that it is a slow, short, easy swing. The speed is about as fast as one would count orally. The width of the swing is not more than the width of the letter, and it is remembered or imagined as easily as it is possible to imagine anything without any effort whatsoever. The normal swing of normal sight brings the greatest amount of relaxation and should be imagined when one is able to succeed when it becomes the optimum swing under favorable conditions. Nearsighted persons have this normal optimum swing usually at the near point when the vision is perfect. At the distance where the vision is imperfect the optimum swing is something else. It is not spontaneous but has to be produced by a conscious movement of the eyes and head from side to side and is usually wider than the width of the letter, faster than the normal swing and not so easily produced.

When one has a headache or a pain in the eyes or in any part of the body the optimum swing is always wider and more difficult to imagine than when one has less strain of the eyes. Under unfavorable conditions the long swing is the optimum swing, but under favorable conditions when the sight is good, the normal swing of the normal eye with normal sight is the optimum swing. The long swing brings a measure of relief when done right and makes it possible to shorten it down to the normal swing of the normal eye.

THE MEMORY SWING

THE memory swing relieves strain and tension as well as does the long or the short swing which has been described at various times. It is done with the eyes closed while one imagines looking over first the right shoulder then over the left shoulder when the eyeballs may be seen through the closed eyelids to move from side to side. When done properly it is just as efficient as the swing which is practiced with the eyes open whether short or long. The memory swing can be shortened by remembering the swing of a small letter, a quarter of an inch or less when the eyes are closed. The memory swing has given relief in many cases of imperfect sight from myopia, astigmatism and inflammations of the outside of the eyeball as well as inflammations of the inside of the eyeball. One advantage is the fact that it can be done without attracting the attention or making one more or less conspicuous to others. It is much easier than the swing practiced with the eyes open and secures a greater amount of relaxation or rest than any other swing. It may be done wrong just as any swing may be done wrong. When done right one does not imagine things are moving necessarily. All that is important is to move the eyes from side to side as far as possible or as far as one can move them when the eyes are open.

WATCH YOUR STEP

WHEN you know what is the matter with you it is possible for you to correct it and bring about a cure. If you do not know what is wrong with you the cure of your imperfect sight is delayed. Some persons have been cured quickly when they were able to demonstrate that to see imperfectly required a tremendous effort, an effort which was very difficult. Some persons are cured in one visit and they readily demonstrate that imperfect sight or failure to see is difficult. Others require weeks and months to demonstrate the facts. Perfect sight is quick, comes easy and without any effort whatever. Imperfect sight is slow, difficult. One cannot consciously make the sight worse as readily as it can be done unconsciously. There is no danger in demonstrating the facts.

Look at a small letter on the Snellen test card which can be seen clearly at ten or twenty feet, a letter O for example. When the letter is seen quite perfectly it is usually seen without any apparent effort. However, by looking intently, staring at it and making an effort to improve it the letter blurs. It can always be demonstrated that the effort to see very soon blurs the letter. Now close the eyes and rest them for a part of a minute or longer and then glance at the letter again. It will usually be as clear as it was before. Again by straining, making an effort, the letter becomes blurred. One can readily demonstrate that to make the sight worse requires an effort, a strain.

Many obstinate cases have obtained a permanent cure only after learning how to make the sight worse consciously. In my book are published Seven Truths of Normal Sight. Prove the facts by demonstrating that the sight becomes imperfect when one or all of them is made imperfect by a strain.

Teach Others

MANY teachers have told me that when they taught Arithmetic the one who learned the most was always the teacher. Some ministers have made the remark that the one who profited mostly by the sermon was the man who delivered it.

For many years my patients who have been benefited by treatment without glasses have to a greater or less extent enjoyed the pleasure of helping others. When you think that you understand how to practice the swing with benefit try to teach somebody else how to do it. If you find palming is beneficial find how many of your friends who are also benefited by palming. But when you meet someone who is not benefited by what you tell them to do, you have at this time an opportunity of helping not only your friend but your own eyes as well. It seems a simple matter for you to close your eyes, rest them for a half hour or so and find that your sight is improved by the rest. However, there are some people who are not benefited appreciably by closing their eyes and resting them. One cause of failure is the memory of imperfect sight. Many patients failed to improve because with their eyes closed they think too much of their failure to see. Patients who have improved materially usually can demonstrate that the memory of perfect sight is restful, while the memory of imperfect sight is a strain. If you have a near-sighted friend who can read ordinary print without difficulty at the near point and without glasses, you can spend an hour or two of activity in showing your friend how to demonstrate while regarding fine print that it is impossible to try to concentrate on a point without sooner or later making the sight worse, that it is impossible to remember, imagine or see stationary letters, that it is impossible to maintain normal vision with the eyes kept continuously open without blinking.

Try Dancing

THERE has been repeatedly published in this magazine and in my book that the imagination of stationary objects to be moving is a rest and relaxation and a benefit to the sight. Young children, when one or both eyes turn in or out, are benefited by having them swing from side to side with a regular rhythmical motion. This motion prevents the stare and the strain and improves the appearance of the eyes. It helps the sight of most children to play puss-in-the-corner or to play hide-and-seek. Children become very much excited and laugh and carry on and have a good time and it certainly is a benefit to their sight. It seems to me that these children would be benefited by going to dancing school. Many of my patients practice the long swing in the office and give strangers the impression that they are practicing steps of a dance. One patient with imperfect sight from detachment of the retina recently told me over the telephone that he went to a dance the night before and although he lost considerable sleep his sight was very much improved on the following morning.

Dancing is certainly a great help to keep things moving or to imagine stationary objects are moving, and is always recommended. Some people have told me that the *memory* of the music, the constant rhythmic motion and the relaxation have improved the vision.

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The Short Swing

MANY people with normal sight can demonstrate the short swing readily. They can demonstrate that with normal vision each small letter regarded moves from side to side about a quarter of an inch or less. By an effort they can stop this short swing, and when they are able to demonstrate that, the vision becomes imperfect almost immediately. Practicing the long swing brings a measure of relaxation and makes it possible for those with imperfect sight to see things moving with a shorter swing. It is a good thing to have the help of someone who can practice the short swing successfully. Ask some friend who has perfect sight without glasses, in each eye to practice the variable swing as just described, which is a help to those with imperfect sight who have difficulty in demonstrating the short swing.

Nearsighted patients usually can demonstrate that when the vision is perfect, the diamond type at the reading distance, one letter regarded is seen continuously with a slow, short, easy swing not wider than the diameter of the letter. By staring the swing stops and the vision becomes imperfect. It is more difficult for a nearsighted person to stop the swing of the fine print, letter O, than it is to let it swing. When the sight is very imperfect, it is impossible to obtain the short swing. Many people have difficulty in maintaining mental pictures of any letter or any object. They cannot demonstrate the short swing with their eyes closed until they become able to imagine mental pictures.

The Snellen Test Card

THE Snellen Test Card is used for testing the eyesight. It is usually placed about 20 feet away from the patient. He covers each eye alternately, and reads the card as well as he can. Each line of letters is numbered with a figure which indicates the distance that it should be read with the normal eye. When the vision is recorded it is written in the form of a fraction. The numerator being the distance of the patient from the card, and the denominator denoting the line read. For example:—If a patient at 10 feet can only read the line marked 100 the vision is written 10/100 or 1/10. If the patient at 20 feet can read the line marked 10 the vision is recorded as 20/10 which means that the sight is double that of the average eye. Reading the Snellen Test Card daily helps the sight. Children in a public school with normal eyes under 12 years of age, who have never worn glasses were improved immediately by practicing with the Snellen Test Card. Children with imperfect sight also improved, and with the help of someone with perfect sight in time the vision becomes normal without glasses. School children oftentimes are very much interested in their eyesight and what can be accomplished with the help of the Snellen Test Card. They have contests among themselves to see who can read the card best in a bright light, or on a rainy day when the light is dim. Many of them find out for themselves that straining, makes the sight worse, while palming and swinging improve their vision. Many of them become able to use the Snellen Test Card in such a way as to relieve or prevent nervousness and headaches. Many boards of education hesitate to be responsible for any benefit that may be derived from the Snellen cards in the schools.

Aids to Swinging

IT IS possible for most people to do a very simple thing—to move the finger nail of the thumb from side to side against the finger nail of one finger. This may be done when the patient is in bed or when up and walking around, in the house, in the street or in the presence of other people, and all without attracting attention. With the aid of the movement of the thumb nail which can be felt and its speed regulated one can at the same time regulate the speed of the short swing. The length of the swing can also be regulated because it can be demonstrated that when the body moves a quarter of an inch from side to side that one can move the thumb from side to side. If the long swing is too rapid it can be slowed down with the aid of the thumb nail; when it is too long it can be shortened. At times the short swing may become irregular and then it can be controlled by the movement of the thumb nail. It is very interesting to demonstrate how the short swing is always similar to the movements of the fingernail. One great advantage connected with the short swing is that after a period of time of longer or shorter duration, the swing may stop or it may lengthen. It has been found that the movement of the thumb maintains the short swing of the body, the short swing of the letters or the short swing of any objects which may be seen, remembered or imagined. A letter O with a white center can only be remembered continuously with the eyes closed when it has a slow, short, continuous, regular swing and all without any effort or strain. The imagination may fail at times but the movement of the thumb can be maintained for an indefinite period after a little practice. One can more readily control the movement of the thumb instead of the eye.

Multiple Vision

PERSONS with imperfect sight when they regard one letter of the Snellen Test Card or one letter of fine print instead of seeing just one letter they may see two, three, six or more letters. Sometimes these letters are arranged side by side, sometimes in a vertical line one above the other and in other cases they may be arranged oblique by any angle. Multiple vision can be produced at will by an effort. It can always be corrected by relaxation. One of the best methods is to close the eyes and cover them in such a way as to exclude the light. Do this for five minutes or a half hour or long enough to obtain normal sight. The double vision is then corrected. Practice of the long swing is a great help. When the long swing is done properly the multiple images are always lessened. Do not forget that you can do the long swing in the wrong way and increase the multiple images. One great advantage of the long swing is that it helps you to obtain a slow, short, continuous swing of normal sight. When the vision is normal the letters appear to move from side to side or in some other direction a distance of about a quarter of an inch. The speed is about equal to the time of the moving feet of soldiers on the march. The most important part of the short swing is that it should be maintained easily. Any effort or strain modifies or stops the short swing. Then the eyes begin to stare and the multiple images return. It is a great benefit to learn how to produce multiple images at will because this requires much effort or strain, and is decidedly more difficult than normal single vision which can only be obtained easily without effort.

The Book
Perfect Sight Without Glasses

A GREAT many people have testified that they were cured by the help that they obtained from the book. A large number I believe have failed to be cured with its help although most people have been able to get some benefit from it.

On the first page is described the Fundamental Principle. This should interest most people because if you can follow the directions recommended you will most certainly be cured of imperfect sight from various causes. If you have a serious injury to the eye which destroys some of its essential parts you will find it impossible to carry out the directions. At the bottom of the page is printed: "If you fail ask some one with perfect sight to help you."

It is an interesting fact that only people with perfect sight without glasses can demonstrate the Fundamental Principle. You will read that with your eyes closed you should rest them, which is not possible if you remember things imperfectly. The book recommends that you remember some color that you can remember perfectly because it has been demonstrated that the normal eye is always at rest when it has normal sight. A perfect memory means perfect rest. Should you have perfect rest you have perfect sight. Most people can demonstrate that they can remember some letter or other object or some color better with their eyes closed than with their eyes open. By practice some people become able to remember, imagine and see mental pictures as well with their eyes open as they can with their eyes closed. Then they are cured.

One Thing

BY CENTRAL FIXATION is meant the ability to see one letter or one object regarded in such a way that all other letters or objects are seen worse. Some people have been cured by practicing Central Fixation only, devoting little time to other methods of cure.

SWINGING

When the normal eye has normal sight the small letters of the Snellen Test Card are imagined to be moving from side to side, slow, continuously, not more than the width of the letter. Persons with imperfect sight have become able to imagine this illusion by alternately remembering or imagining the small letter moving from side to side continuously. With their eyes open they may be able to do it for a moment or flash it, at first occasionally, and later more continuously, until they are cured.

IMAGINATION is very efficient in improving the vision. Some persons have told me that when they knew what a letter was they could imagine they saw it. By closing their eyes they usually became able to imagine a known letter better than with their eyes open. By alternately imagining a known letter with the eyes open and with the eyes closed, the imagination of the letter often improves to normal when the letter was regarded. The patient who is able to do this is also able to demonstrate that when the imagination is improved for one known letter the vision for unknown letters is also improved. By imagining the first letter of a line perfectly the patient can tell the second letter and other letters which are not known. The imagination cure is curative when other methods of treatment have failed.

Questions

ASKING questions is all too common with patients who have imperfect sight. There are important or necessary questions which the patient should know in order to bring about a cure. The cause of the imperfect sight should be emphasized. In all cases of imperfect sight a strain, an effort, a stare or concentration can be demonstrated. To see imperfectly requires a great deal of trouble. Even the imperfect memory or the memory or imagination of an imperfect letter is an effort. It is so great a strain that the memory or imagination fail if you keep it in mind for any length of time. Perfect sight can only be obtained without an effort, without a strain. It is impossible to remember or imagine things perfectly by an effort.

One may divide questions into (1)—Proper questions; (2)—Improper or useless questions.

It is a waste of time, an injury to the patient, for him to describe the infinite manifestations of imperfect sight. To know its history minutely and its variations require an effort on the part of the patient to describe these things. And this effort increases the imperfect sight. It is absolutely of no help whatever in formulating methods for its cure. Avoid asking questions about the symptoms of imperfect sight or anything connected with imperfect sight. Any question connected with perfect sight may be a good thing for the patient to know. One may ask questions as follows:

How long must one practice a perfect memory, a perfect imagination or study the latest manifestation of perfect sight?

The answer to this question is a benefit to the patient.

The Trinity

THERE are three things which the normal eye practices more or less continuously, which are necessary in order to maintain normal vision.

1—The long swing.

2—The short swing.

3—Blinking or palming.

The long swing has been described repeatedly and most people are able to practice it successfully, especially people whose sight is good. If you have very imperfect sight you may have difficulty in demonstrating the benefit of the long swing. Some patients are indeed difficult to manage. They may be able to practice the long swing when looking out of a window with its light background. By moving the whole body, head and eyes together, a long distance from side to side one becomes able to imagine a cord of the window shade moving in the opposite direction. This makes it possible to imagine the long swing when you turn your back to the window, and look at objects in the room which have a dark background. When the long swing is properly maintained the letters of the Snellen Test Card become darker as long as one does not look directly at the card. Looking above the card or below it is a help in maintaining the long swing of the card when the maximum vision is obtained by the long swing. Never look directly at the card or try to read the letters when practicing the long swing.

By gradually lessening the movement of the body from side to side, the swing of the card becomes shorter and one may soon become able to flash the large letters. The swing of the card can be reduced to an inch or less.

Mental Pictures

MANY patients with imperfect sight complain that when they close their eyes to remember a white card with black letters, they usually fail and remember instead a black card with white letters. The vision of these patients is very much improved when they become able to remember a white card white, with the black letters remembered perfectly black. Imperfect memory, imperfect imagination, imperfect sight are all caused by strain.

One patient could not remember a white pillow, but by first regarding the pillow and seeing one corner best and all the other corners worse and shifting from one corner to another he became able, when closing his eyes, to remember one corner in turn best, and obtained a good mental picture of the whole pillow. One cannot see a pillow perfectly without Central Fixation. To have Central Fixation requires relaxation or rest. One patient who could not remember a large letter C of the Snellen Test Card, with the eyes closed, was able to remember the colors of some flowers, and then he was able to remember a letter C. In order to remember a desired mental picture one should remember perfectly some other things. This is a relaxation which helps to remember the mental picture desired. It is well to keep in mind that one cannot remember one thing perfectly and something else imperfectly at the same time.

In my book is described the case of a woman with imperfect sight who could remember a yellow buttercup with the eyes closed, perfectly, but with her eyes open and regarding the Snellen Card with imperfect sight, she had no memory of the yellow buttercup.

Distance of the Snellen Test Card

THE distance of the Snellen Test Card from the patient is a matter of considerable importance. Some patients improve more rapidly when the card is placed fifteen or twenty feet away while others fail to get any benefit with the card at this distance.

In some cases the best results are obtained when the card is as close as one foot. I recall a patient with very poor sight who made no progress whatever, when the card was placed at ten feet or further, but became able to improve the vision very materially with the card at about six inches. After the vision was improved at six inches the patient became able to improve the card at a greater distance until normal sight was obtained at twenty feet. Some cases with poor vision may not improve when the card is placed at ten feet or further, or at one foot or less but do much better when the card is placed at a middle distance, at about eight or ten feet. Other individuals may not improve their vision at all at ten feet, but are able to improve their sight at twenty feet or at one foot. I recall one patient with 20 diopters of myopia whose vision at ten feet was peculiar. The letters at twenty feet and at one foot were apparently all the same normal size, but at ten feet they appeared to be one-fifth of the normal size. Practicing with the card at twenty feet or at one foot helped him greatly, more than practicing with the card at about ten feet. While some patients are benefited by practicing with the card daily always at the same distance, there are others who seem to be benefited when the distance of the card from the patient is changed daily.

Time to Practice

MANY busy people complain that they have not time to practice my methods. They say that wearing glasses is quicker and much easier. Persons with normal vision or perfect sight without glasses are practicing consciously or unconsciously all the time when they are awake. When one sees a letter or an object perfectly the eyes are at rest. Any effort to improve the sight always makes it worse. The only time the eyes are perfectly at rest is when the vision is perfect. Persons with imperfect sight have to strain in order to see imperfectly. Persons with headaches, pain and other symptoms of discomfort in the eyes or in other parts of the body are under a constant strain to see, which is usually unconscious.

When a patient says he has no time to practice he is mistaken. He has all the time there is to use his eyes in the right way or he can use them in the wrong way. He has just as much time to use his eyes properly as he has to use them improperly. He has the choice and when patients learn the facts, to complain that they have no time to practice is an error.

Some patients object to removing their glasses on the ground that their vision is not sufficiently good for them to attend to their work, and feel that they have to put off the treatment until they have a vacation. Some of my patients have very poor vision and yet find time to practice without their glasses. Some school teachers with 15 diopters of myopia with a vision of less than 10/200 have found time to practice without interfering with their work. In fact practicing without their glasses soon enabled them to do their work much better than before.

Blinking

THE normal eye when it has normal sight rests very frequently by closing the eyes for longer or shorter periods, and when practiced quickly it is called BLINKING. When the normal eye has normal sight and refrains from blinking for some seconds or part of a minute, the vision always becomes imperfect. You can demonstrate that normal vision at the near point or at the distance is impossible without frequent blinking. Most people blink so easily and for such a short period of time that things are seen continuously while the blinking is done unconsciously. In some cases one may blink five times or more in one second. The *frequency* of blinking depends on a number of factors.

The normal eye blinks more frequently or more continuously under adverse conditions as when the illumination is diminished, the distance is increased or the print read is too pale or otherwise imperfect. The distraction of conversation, noise, reflections of light, objects so arranged as to be difficult to see, all increase the frequency of blinking of the normal eye with normal sight. If the frequency of blinking is diminished under adverse conditions or from any cause the vision soon becomes imperfect.

The imperfect eye or the eye with imperfect sight blinks less frequently than the normal eye. Staring stops the blinking. The universal optical swing, the long or short swing when modified or stopped are always accompanied by less frequent blinking.

Blink in the early morning,
Blink when the sun sets at night;
Blink when the sun is dawning,
But be sure you do it right.

Curable Cases

PATIENTS wearing glasses for the relief of imperfect sight may expect better vision after they are cured than they ever had before with glasses. Adults who have good distant vision but require glasses after middle life, for reading, are also curable without glasses. Such patients, although they may read very well with glasses, complain that, as a rule, they must hold the page at one distance in order to read with the best vision. This reading distance is usually about twelve inches. Some cases require one pair of glasses for reading books or newspapers, but cannot see clearly at a greater distance without another pair of glasses. Musicians especially find that glasses that give them good vision for reading books are useless to them for reading music or for playing the piano. To see closer than twelve inches may require still another pair of glasses. To see more distant objects may require still another pair. Some of my patients have shown me numerous pairs of glasses, each one adapted for certain specific distances. It is a great relief to such cases to be cured, because then they are able, not only to see perfectly at the distance without glasses, but they can read the fine print as well at six inches as they can further off. The eye with normal sight is able to change its focus at will for all distances without any discomfort whatever.

Patients with cataract, glaucoma and other diseases of the eyes may not be able to see even with glasses. When they are cured by my methods they become able to see normally in all kinds of light, in a bright light or in a dim light. Pain, fatigue and other discomforts of the eyes are all relieved.

The Prevention of Myopia

THE August number of Better Eyesight is a school number devoted almost exclusively to the problem of the cure or prevention of nearsightedness in school children. The great value of the method as a preventive is emphasized by the fact that the vision of all school children has always improved, and when the vision is improved of course imperfect sight is prevented. It is well to remember that my method for the prevention of myopia in school children is the only one that is a success. It has been in continuous use for more than twenty years in the public schools of New York and other cities. Once daily or oftener the children read the card, first with one eye and then with the other, covering each eye alternately with the palm of the hand in such a way as to shut out all the light without any pressure on the eyeball. Teachers who have studied my book or have been patients find it an advantage to have the children palm five minutes three or four times a day. They claim that palming quiets the children and gives them an improved mental efficiency, which is a great help to their memory and imagination as well as their sight. I believe other children should be taught how to palm, swing, blink and improve their vision of the Snellen Test Card. The method is of great value to young children in the kindergarten, children in the high schools, and should be practiced by students and teachers in colleges and universities. In the military school and naval academy the method should be employed for the prevention of imperfect sight.

PERMANENT IMPROVEMENT

MANY patients find that while it is easy for them to obtain a temporary improvement in their sight by palming a sufficient length of time or by other methods, they do not seem to hold it permanently. In this connection it is well to remember that the normal eye with normal sight can only maintain normal sight permanently by consciously or unconsciously practicing the slow, short, easy swing. When the normal eye has imperfect sight it can always be demonstrated that the swing stops from an effort. When the normal eye has normal sight, the eyes are at rest and all the nerves of the body feel comfortable. When the swing stops, one always feels more or less uncomfortable. To have perfect sight can only be obtained easily, without effort. To have imperfect sight always requires a strain or an effort which stops the swing. Near-sighted patients who have normal vision for reading at the near point become able, when their attention is called to it, to demonstrate that they are more comfortable when reading the fine print than they are when they fail to see distant objects perfectly.

One of the great benefits of the drifting swing is the comfortable relaxed feeling it brings. The retinoscope always shows that the eye is not near-sighted when no effort is made. Persons with imperfect sight should imitate the eye with normal sight by practicing a perfect memory, a perfect imagination, a perfect swing, without effort, with perfect comfort all the time that they are awake. As I have said before many times, it is a good thing to know what is the matter with you because it makes it possible to correct it.

The Rabbit's Throat

DURING the past ten years a method of breathing has been practiced which has improved the vision of many patients after other methods had failed. It consists of depressing the lower jaw with the lips closed and lowering the tongue and muscles below the chin. At the same time one breathes in through the nose and throat in a manner somewhat similar to snoring and when done properly one can feel a coolness of the air while it passes down into the lungs. This method of breathing is accompanied with the eyelids being more widely open in a natural way without staring. The ear passages, nose, and throat dilate. The tube which goes from the throat to the middle ear becomes more widely open, with improved hearing in chronic deafness which does not respond to any other treatment. If one rests the chin with the thumb below it and the forefinger just below the lower lip, one can feel with the thumb the hardening of the muscles below the jaw accompanied with a decided swelling. By practice, the swelling and hardness increase. This suggested the title of the Rabbit's Throat because of a similar swelling below the rabbit's chin. The tension of the other muscles of the body becomes relaxed. There is a wonderful increase of muscular control.

Music teachers have told me that the singing voice becomes much better because of the relaxation of the muscles of the throat. The involuntary muscles of the digestive tract become relaxed in a striking manner with the relief of many symptoms of discomfort. Redness and inflammation of the mucous membranes of the eye, ear, nose and throat and the rest of the body are relieved in a few minutes with the aid of the Rabbit's Throat.

Eye-Strain During Sleep

MANY people complain that when they first wake up in the morning, they are tired, that they have headaches, and that their sight is very imperfect. Later on in the day their eyes feel better, and the vision may become normal.

I have examined with the Ophthalmoscope the eyes of many people during sleep and found much to my surprise, that most people strain much more in their sleep than they ever do when they are awake. Of course, people when unconscious of their acts during sleep, are not aware of this eye-strain.

The prevention of eye-strain during sleep is usually a very difficult matter. Some cases are benefited just before retiring by palming for one-half hour or longer, or until they go to sleep while palming. Others by practicing the long swing for fifteen minutes, have found that the eye-strain becomes less. In some serious cases with imperfect sight, when the eye-strain is not prevented by palming or the swing, they are often materially benefited by shortening their hours of sleep with the help of an alarm clock. One patient had the alarm set for 3 a.m. He would then get out of bed and practice the long swing, alternating with palming for an hour or longer with the result that he slept the rest of the night very comfortably, and awoke the next morning with little or no evidence of eye-strain during sleep.

Some people have told me that they have lessened their eye-strain during sleep materially, by moderate muscular exercises for one-half hour or longer. They find that they obtain the best results when the exercise is continued sufficiently long to produce muscular fatigue.

Suggestions

1. ***Imagine things are moving all the time.***

When riding in a railroad train, when one looks out of the car window, telegraph poles and other objects, although they are stationary, appear to be moving. To stop the movement is impossible, and the effort to do so may be very uncomfortable. The greater the effort, the greater the discomfort, and is the cause of heart sickness, headaches and nausea. It can be demonstrated that any movement of the head and eyes produces an apparent movement of stationary objects.

2. ***Blink often.***

By blinking is meant, closing and opening both eyes rapidly. When done properly, things are seen continuously and they always move with a quick jump in various directions. Regarding stationary objects without blinking is an effort, a strain which always lowers the vision.

3. ***Read the Snellen Test Card at fifteen feet as well as you can, every night and morning.***

School children and others are often cured of imperfect sight by reading a familiar card, first with both eyes and then with each eye separately. It is the only method practiced which prevents Myopia in school children.

4. ***Fine Print.***

Read fine print at six inches when possible every night and morning. If not possible, do the best you can. Just regarding the white spaces between the lines of fine print without reading the letters is a benefit.

5. ***Palming.***

Palm for five minutes, ten times daily when convenient.

Sun-Gazing

By W. H. BATES, M.D.

IT is a well-known fact that the constant protection of the eyes from the sunlight, or from other kinds of light, is followed by weakness or inflammation of the eyes or eyelids. Children living in dark rooms, where the sun seldom enters, acquire an intolerance for the light. Some of them keep their eyes covered with their hands, or bury their faces in a pillow and do all they possibly can to avoid exposure of their eyes to ordinary light. I have seen many hundreds of cases of young children brought to the clinic with ulceration of the cornea, which may become sufficient to cause blindness. Putting these children in a dark room is a blunder. My best results in the cure of these cases were obtained by encouraging the patients to spend a good deal of the time out of doors, with their faces exposed to the direct rays of the sun. In a short time these children became able to play and enjoy themselves a great deal more out of doors, exposed to the sunlight, than when they protected their eyes from the light. Not only is the sun beneficial to children with inflammation of the cornea, but it is also beneficial to adults.

When the patient looks down sufficiently, the white part of the eye can be exposed by gently lifting the upper lid, while the sun's rays strike directly upon this part of the eyeball. In most cases it is possible to focus the strong light of the sun on the white part of the eyeball with the aid of a strong convex glass, being careful to move the light from side to side quite rapidly to avoid the heat. After such a treatment, the patient almost immediately becomes able to open his eyes widely in the light.

The Baby Swing

YOUNG babies suffer very much from eye-strain. The tension of the eye muscles is always associated with the tension of all the other muscles of the body. Their restlessness can be explained by this tension. I was talking with an Italian mother in the clinic one day about restless children, and asked her why it was that her baby was always so quiet and comfortable when she came to the clinic, while many other babies at the same time were very restless and unhappy.

"Oh," she said, "I love my baby. I like to hold her in my arms and rock her until she smiles."

"Yes, I know," I said, "but that mother over there is rocking her baby in her arms, and the child is screaming its head off."

"Yes," exclaimed the Italian mother, "but see how she rocks it."

Then I noticed that the other mother threw the child from side to side in a horizontal direction with a rapid, jerky, irregular motion, and the more she jerked the child from side to side, the more restless did it become.

"Now, doctor," said the Italian mother, "you watch me."

I did watch her. Instead of throwing the child rapidly, irregularly, intermittently from side to side, she handled her baby as though it had much value in her eyes, and moved her not in straight lines from side to side, but continuously in slow, short, easy curves. The Italian mother picked up the other mother's child, and soon quieted it by the same swing.

I learned something that day.

The Elliptical Swing

THE normal eye when it has normal sight is always able to imagine stationary objects to be moving from side to side about one quarter of an inch, slowly and without effort. This is called the swing. In order that the swing may be continuous, the movement of the head and eyes should be in the orbit of an ellipse, or in an elongated circular direction.

A patient, aged seventy-seven, with beginning cataract in both eyes had a vision of 3/200 when she looked to one side of the card. When she looked directly at the card or the letters, she complained that she could not see them so well, or at all. She was recommended to practice swaying the body from side to side. Every time she moved to the right or to the left, she stopped at the end of the movement and stared, and that prevented relaxation. With the help of the Elliptical Swing, she obtained at once very marked benefit. Her vision was improved almost immediately when she looked directly at the letters, and her vision became worse when she looked to one side of the card.

A young man, aged sixteen, was treated for progressive myopia for a year or longer. His vision improved for a time, then improvement stopped. Some months later his vision had not become permanently improved. Palming and swinging no longer helped him. I noticed that when he would move his head from side to side, he stopped at the end of the swing and stared. When he practiced the Elliptical Swing, his head and eyes moved continuously, and the staring was prevented. At once there was a decided improvement in his vision, and this improvement continued without any relapse.

Floating Specks

WHEN a patient stares or strains to see by looking at a light-colored surface he may see, or imagine he sees, floating black specks, strings of black thread or small light-colored globules resembling tears. The floating specks may be apparently a quarter of an inch or more in size and they may be of any shape.

The ability to see or imagine floating specks may occur in children or in adults of any age. Some children have been known to lie on their backs on the ground, look up at light colored clouds and amuse themselves for hours by watching what appeared to be floating specks.

Many nervous people have been made very unhappy, consciously or unconsciously imagining that they see these floating specks.

The cause of floating specks is an imperfect memory of perfect sight. Persons with normal vision who have never been conscious of floating specks can be taught how to imagine them by straining—to imagine letters, colors or other objects imperfectly.

Conversely, patients who are conscious of floating specks are unable to imagine them and perfect sight at the same time.

In the treatment of floating specks it is important to convince the patients thoroughly that they are only imagined and not seen. It helps very much to impress on the patient's mind that to see these floating specks requires a sufficient strain to lose a perfect imagination of all objects seen, remembered or imagined at all times and in all places.

Note.—Floating specks, October, 1919, "Better Eyesight."

Muscae volitantes (floating specks), pages 176 and 236, "Perfect Sight Without Glasses."

Fundamentals

1. Glasses discarded permanently.
2. Favorable conditions: Light may be bright or dim. The distance of the print from the eyes, where seen best, also varies with people.
3. Central Fixation is seeing best where you are looking.
4. Shifting: With normal sight the eyes are moving all the time. This should be practiced continuously and consciously.
5. Swinging: When the eyes move slowly or rapidly from side to side, stationary objects appear to move in the opposite direction.
6. Long Swing: Stand with the feet about one foot apart, turn the body to the right—at the same time lifting the heel of the left foot. Do not move the head or eyes or pay any attention to the apparent movement of stationary objects. Now place the left heel on the floor, turn the body to the left, raising the heel of the right foot. Alternate. This exercise can be practiced just before retiring at night fifty times or more. When done properly, it is a great rest and relieves pain, fatigue, and other symptoms of imperfect sight.
7. Stationary Objects Moving: By moving the head and eyes a short distance from side to side, one can imagine stationary objects to be moving. Since the normal eye is moving all the time, one should imagine all stationary objects to be moving. Never imagine that you see a stationary object stationary.
8. Palming: The closed eyes may be covered with the palm of one or both hands. The patient should rest the eyes and think of something else that is pleasant.
9. Blinking: The normal eye blinks, or closes and opens very frequently. If one does not blink, the vision always becomes worse.

Alternate

IT has always been demonstrated that the continuous memory, imagination, or vision of one thing for any length of time is impossible. To see one letter of the Snellen test card continuously, it is necessary to shift from one part of the letter to another. By alternately moving the eyes from one side of the letter to the other, it is possible to imagine the letter to be moving in the opposite direction to the movement of the eyes. This movement of the letter is called a swing. When it is slow, easy, short, about one-quarter of an inch or less, maximum vision is obtained which continues as long as the swing continues.

As long as we are awake, we are thinking, remembering, or imagining mental pictures, and are comfortable. To go around blind requires a distinct effort which is a strain on all the nerves and is always uncomfortable. The normal mind alternates its attention from one mental picture to another, which is a relaxation or rest. The memory, or imagination, is best when one thing is imagined better than all other things, Central Fixation, but constant shifting is necessary to maintain Central Fixation.

One of the best methods to improve the vision is to regard a letter of the Snellen test card with the eyes open, then close the eyes and remember or imagine the letter better for about ten seconds, open the eyes and regard the letter while testing the imagination of the letter for a moment. By alternately regarding the letter with the eyes open and closed, the imagination of the letter improves in flashes. By continuing to alternate the flashes improve and last longer until the vision becomes continuously improved.

Swaying

IT is a great help in the improving of vision to have the patient demonstrate that staring at one part of a letter at ten feet or further is a difficult thing to do for any length of time without lowering the vision and producing pain, discomfort, or fatigue. With the eyes closed it is impossible to concentrate on the memory or the imagination of a small part of one letter continuously without a temporary or more complete loss of the memory or the imagination.

When an effort is made to think of one part of a letter continuously with the eyes closed, the letter is imagined to be stationary. When the imagination shifts to the right of the letter a short distance and then to the left alternately, every time the attention is directed to the right, the letter is always to the left, and when the attention is directed to the left of the letter, the letter is always to the right. By alternating, the patient becomes able to imagine the letter is moving from side to side, and as long as the movement is maintained the patient is able to remember or imagine the letter. It can be demonstrated that to remember a letter or other object to be stationary always interferes with the perfect memory of the letter. One cannot remember, imagine, or see an object continuously unless it is moving. The movement must be slow, short, and easy.

When patients stare habitually, the eyes become more or less fixed, and are moved with great difficulty. When the patient stands and sways the whole body from side to side, it becomes easier to move the eyes in the same direction as the body moves. No matter how long the staring has been practiced, the sway at once lessens it.

Fear

NEAR-SIGHTED people have frequently been told that it is necessary for them to wear glasses constantly, to prevent their eyes from becoming worse. They are afraid that this statement may be true, and one cannot blame them for hesitating to leave their glasses off permanently.

One of my patients stated that she suffered very much from headaches. They were so severe that they made her ill, and confined her to her bed at least once a week. While wearing her glasses, she still was in pain, but was afraid, if she left them off, the headaches would become worse. By discarding her glasses, practicing palming, swinging, and the memory of perfect sight, her eyes and head improved immediately. When she resumed her glasses again, she at once became uncomfortable, and the pain returned. She decided to leave them off permanently, and her headaches disappeared.

Some years ago an optician consulted me about his headaches. When I examined his glasses, I found that they were plane window glass. He said that when he wore them his headaches were better, but his wife confided to me that this was not true. He was troubled more when he wore them. He was suffering from fear.

I saw him again a year later and learned that he had permanently discarded his glasses, at my suggestion, during all that time, and was free of headaches.

It has been a habit with me, when patients who suffer from fear of the consequences that might happen if they did not wear their glasses, to have them demonstrate the facts. When the truth is known, fear is abolished. It is very easy in most cases to teach patients some of the causes of headaches.

Optimism

OPTIMISM is a great help in obtaining a cure of imperfect sight. About ten years ago a patient was treated for cataract, complicated with glaucoma. After two weeks of daily treatment the vision improved very much and the patient became able to travel about the streets without a companion to guide her. Her vision at this time had improved from perception of light to 10/200. After palming, swinging, and the memory of perfect sight, her vision was still further improved. She was very much encouraged and returned home full of enthusiasm to carry out the treatment to the very best of her ability.

Soon afterwards things did not go well at home. The patient became very much depressed and stopped her daily practice. Her daughter was very enthusiastic, and realized that her mother had been very materially improved and that further treatment would bring about a complete cure. She talked to her mother for half an hour or more and encouraged her to continue with her practice. The patient responded favorably, got busy, and was able to bring back much of the sight which had been lost. She made further improvement every day.

At times the mother was very pessimistic. She was continually complaining that she knew very well that she would never get her sight back. Then the daughter would start in with her optimism.

One bright, sunshiny morning the mother got up, took a card with diamond type printed on one side, and was greatly surprised to read it without any trouble. In three months her distant vision was normal.

Read Fine Print

MANY near-sighted patients can read fine print or diamond type at less than ten inches from their eyes easily, perfectly and quickly, by alternately regarding the Snellen test card at different distances, from three feet up to fifteen feet or further. The vision may be improved, at first temporarily, and later, by repetition, a permanent gain usually follows.

It is a valuable fact to know, that when fine print is read perfectly, the near-sightedness or myopia disappears during this period. It can only be maintained at first for a fraction of a second, and later more continuously.

Near-sighted patients and others, with the help of the fine print can usually demonstrate that staring at a small letter always lowers the vision, and that the same fact is true when regarding distant letters or objects.

With the help of the fine print, the near-sighted patient can also demonstrate that one can remember perfectly only what has been seen perfectly; that one imagines perfectly only what is remembered perfectly, and that perfect sight is only a perfect imagination.

A great many people are very suspicious of the imagination, and feel or believe that things imagined are never true. The more ignorant the patient, the less respect do they have for their imagination, or the imagination of other people. It comes to them as a great shock, with a feeling of discomfort, to discover that the perfect imagination of a known letter improves the sight for unknown letters of the Snellen test card, or for other objects.

It is a fact, that one can read fine print perfectly, with perfect relaxation, with great relief to eyestrain, pain fatigue and discomfort, not only of the eyes, but of all other nerves of the body.

Moving

THE world moves. Let it move. People are moving all day long. It is normal, right, proper that they should move. Just try to keep your head, or one finger, one toe, stationary, or keep your eyes open continuously. If you try to stare at a small letter or a part of it without blinking, note what happens. Most people who have tried it discover that the mind wanders, the vision becomes less, pain and fatigue are produced.

Stand facing a window and note the relative position of a curtain cord to the background. Take a long step to the right. Observe that the background has become different. Now take a long step to the left. The background has changed again. Avoid regarding the curtain cord. While moving from side to side, it is possible to imagine the cord moving in the opposite direction. By practice one becomes able to imagine stationary objects not seen to be moving as continuously, as easily, as objects in the field of vision.

Universal Swing: When one becomes able to imagine all objects seen, remembered, or imagined, to be moving with a slow, short, easy swing, this is called the Universal Swing. It is a very desirable thing to have, because when it is imagined with the eyes closed or open, one cannot simultaneously imagine pain, fatigue, or imperfect sight.

The Universal Swing can be obtained without one being conspicuous. With the hand covered, move the thumb from side to side about one-quarter of an inch, and move the eyes with the thumb. Stationary objects can be imagined to be moving.

When walking rapidly forward, the floor or the sidewalk appears to move backward. It is well to be conscious of this imagined movement.

Never imagine stationary objects to be stationary. To do this, is a strain, a strain which lowers the vision.

Dizziness

DIZZINESS is caused by eyestrain. Some people when standing on the roof of a house looking down, strain their eyes and become dizzy. Usually the dizziness is produced unconsciously. It can be produced consciously, however, by staring or straining to see some distant or near object.

Some persons when riding in an elevator are always dizzy and may suffer from attacks of imperfect sight with headache, nausea, and other nervous discomforts. An old lady, aged sixty, told me that riding in an elevator always made her dizzy, and produced headaches with pain in her eyes and head. I tested her vision and found it to be normal both for distance and for reading without glasses. To obtain some facts, I rode in an elevator with her from the top to the bottom of the building and back again. I watched her eyes closely and found that she was staring at the floors which appeared to be moving opposite to the movement of the elevator. I asked her the question: "Why do you stare at the floors which appear to be moving by?"

She answered: "I do not like to see them move, and I am trying to correct the illusion by making an effort to keep them stationary. The harder I try, the worse I feel."

I suggested to her that she look at one part of the elevator and avoid looking at the floors. Her discomfort was at once relieved, and she was soon cured.

In all cases of dizziness, the stare or strain is always evident. When the stare or strain is relieved or prevented, dizziness does not occur.

With advancing years attacks of dizziness and blindness occur more frequently than in younger individuals. All attacks of dizziness with blindness are quite readily cured by practicing the imagination of the swing, the memory of perfect sight, or by palming.

The Period

THE perfect memory or imagination of a period is a cure for imperfect sight. Only the color needs to be remembered. The size is immaterial, but a small period is remembered with more relaxation than a large one. It it true, however, that with perfect sight, one has the ability to remember all things perfectly.

One cannot remember a period perfectly by any kind of an effort. It usually happens that one may remember a period for a time, and then lose it by an effort. To remember a period stationary, is impossible. One has to shift more or less frequently in order to remember one period perfectly all the time, or one has to imagine the period to be moving, or one has to remember the period by central fixation,—one part best. By shifting, is meant to look away from the period and then back, but to do it so quickly that it is possible to remember the period continuously, although you are not looking at it all the time,—this with the eyes closed. Every time you blink, you shift your eyes. You can blink so rapidly that it is not noticeable. When you close your eyes and remember a period, you cannot remember it unless you are, with your eyes closed, going through the process as though you were blinking, looking away from it and back again, but so quickly that it seems as though you were looking at the period continuously. You cannot remember the whole of the period at once. No matter how small the period is, you cannot see or remember it perfectly, all parts equally well at the same time. You cannot remember the period perfectly by any kind of an effort. When the memory of the period is perfect, the mental and physical efficiency is increased. A perfect memory of the period does not necessarily mean that one should think only of the period.

Demonstrate

1. That an effort to see always lowers the vision. Look at the Snellen test card at a distance of twenty feet. It may be possible for you to see the large letters and read them without any apparent effort, while the smaller letters produce a strain which you can feel. If you consciously increase the effort to see the smaller letters, your vision becomes more imperfect. It is not easy for you to realize that effort is always present when the vision is lowered. Knowing the cause of your imperfect sight is a great help in selecting the remedy.

2. That a stare always lowers the vision. It is a truth that the normal eye blinks very frequently. In order to have normal sight, the eyes must blink. One can demonstrate that, when the patient looks at one letter at the distance with normal sight, or looks at one letter at a near point where it is seen clearly, keeping the eyes continuously open without blinking for a minute or longer, always lowers the vision for the distance or for the near point. This should convince the patient that blinking is absolutely necessary in order to obtain good vision.

3. That palming, when done correctly, improves the vision. When the closed eyes are covered with one or both hands, and all light is excluded, the patient should see nothing at all, or a perfect black. This is a rest to the eyes and always improves the sight at least temporarily. Palming can be done wrong. When it is practiced incorrectly, the field imagined by the patient contains streaks of red, white, blue, or other colors. The eyes are under a strain, and the vision is not materially improved by the wrong method of palming. It can be demonstrated that palming for half an hour or longer is a greater benefit than palming for only a few minutes.

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 appears 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.

Demonstrate

THAT the optical swing always improves the vision.

Stand before an open window with the feet about one foot apart. Sway the whole body, including the head and eyes, from side to side. When the body moves to the right, the head and eyes also move to the right, while, at the same time, the window and other stationary objects are to the left of where you are looking. When the body sways to the left, the window and other stationary objects are to the right. Be sure that the head and eyes are moving from side to side with the whole body, slowly, without an effort to see. When the swaying is done rapidly, it is possible to imagine stationary objects are moving rapidly in the opposite direction. While the swinging is being practiced, notice that the window and other stationary objects which are nearer, appear to move in the opposite direction to the movement of the body, head and eyes. Objects beyond the window may appear to move in the same direction as the body, head, and eyes move.

Note that when the body is swaying rapidly, the window and other objects are not seen very clearly; but when the swaying is slowed down and shortened, so that parts of the window move one-quarter of an inch or less, the vision is improved for those parts of the window regarded. More distant objects, which move in the same direction as the movement of the body, head, and eyes, are also improved with the slow, short, easy swing.

After you have become able to imagine the window to be moving, practice on other objects. All day long, the head and eyes are moving. Notice that stationary objects are moving in the opposite direction to the movement of the head and eyes. To see stationary objects apparently stationary, is a strain which lowers the vision and may cause pain, fatigue, and other discomforts.

Demonstrate

THAT the long swing not only improves the vision, but also relieves or cures pain, discomfort and fatigue.

Stand with the feet about one foot apart, facing squarely one side of the room. Lift the left heel a short distance from the floor while turning the shoulders, head, and eyes to the right, until the line of the shoulders is parallel with the wall. Now turn the body to the left after placing the left heel upon the floor and raising the right heel. Alternate looking from the right wall to the left wall, being careful to move the head and eyes with the movement of the shouders. When practiced easily, continuously, without effort and without paying any attention to moving objects, one soon becomes conscious that the long swing relaxes the tension of the muscles and nerves.

Stationary objects move with varying degrees of rapidity. Objects located almost directly in front of you appear to move with express train speed and should be very much blurred. It is very important to make no attempt to see clearly objects which seem to be moving very rapidly.

The long swing seems to help patients who suffer from eyestrain during sleep. By practicing the long swing fifty times or more just before retiring and just after rising in the morning, eyestrain during sleep has been prevented or relieved. It is remarkable how quickly the long swing relieves or prevents pain. I know of no other procedure which can compare with it. The long swing has relieved the pain of facial neuralgia after operative measures had failed. Some patients who have suffered from continuous pain in various parts of the body have been relieved by the long swing, at first temporarily, but by repetition the relief has become more permanent. Hay fever, asthma, sea-sickness, palpitation of the heart, coughs, acute and chronic colds are all promptly cured by the long swing.

Demonstrate

1. Demonstrate that when the eyes are stationary, they are under a tremendous strain. Stand before the Snellen test card at a distance of fifteen or twenty feet. Look directly at one small area of a large letter, which can be seen clearly. Stare at that part of the letter without closing the eyes and without shifting the eyes to some other point. The vision becomes worse and the letter blurs. Stare continuously, and note that the longer you stare, the more difficult it is to keep the eyes focused on that one point or part of the letter. Not only does the stare become more difficult, but the eyes become tired; and by making a greater effort, the eyes pain, or a headache is produced. The stare can cause fatigue of the whole body when the effort is sufficiently strong and prolonged.

2. Demonstrate that when the eyes are moving from one point to another, frequently, easily and continuously, the stare, the strain, or the effort to see is prevented and the eyes feel rested. In fact, the eyes are not at rest except when they are moving. Note that when you look at a letter on the Snellen test card and alternately shift from the top to the bottom of it, the vision remains good or is improved. When the letter is seen perfectly, the eyes are shifting; and when seen imperfectly, the shifting stops.

3. Close your eyes and remember your signature. This can usually be done quite perfectly. Try to remember the first and the last letter of your name simultaneously. This is an impossible thing to do and requires a strain. If you shift from one letter to another, you can remember your signature, one letter at a time; but if you make an effort to remember it, the memory and the imagination of your signature disappears.

Demonstrate

I. That the smaller the object regarded, the easier it is to remember. One can, with time and trouble, become able to remember all the words of one page of a book. It is easier to remember one word than all the words of a page. It is still easier to remember one letter of a word better than all the letters. Regard a capital letter. Demonstrate that it is easier to see or remember the top of the letter best, and the bottom of it less clearly than to remember the top and bottom perfectly and simultaneously. Now look directly at the upper right hand corner and imagine one-fourth of the letter best. Then cover the remaining three-quarters of the letter with a piece of paper. It is possible to look directly at the exposed part of the letter and imagine half of it best. Cover the part that is not seen distinctly, and demonstrate that half of the exposed part of the letter can be seen or imagined best, while the rest of it is not seen so clearly. With the aid of the screen, an area as small as an ordinary period, may finally be imagined. Demonstrate that the imagination of a perfectly black small period, forming part of a small letter at fifteen feet, enables one to distinguish that letter.

II. That, with the eyes closed, a small black period can be imagined blacker than one three inches in diameter. If this fact cannot be readily demonstrated with the eyes closed:

1. Stand close to a wall of a room, three feet or less, and regard a small black spot on the wall six feet from the floor. Note that you cannot see a small black spot near the bottom of the wall at the same time.

2. Place your hand on the wall six feet from the floor, and note that you cannot see your hand clearly when you look at the bottom of the wall.

Demonstrate

That vision is always imagination, either perfect or imperfect. What we see is only what we think or imagine we see. The white center of the letter "O", when seen perfectly, appears to be whiter than it really is, or whiter than the rest of the card. That part of the center of the "O" which is in contact with the black appears to be the whitest part of the white center. By covering the black part of the "O" with a screen, which has an opening in the center, the whiteness of the center of the "O" appears to be the same shade of white as the rest of the card. Now, remove the screen, and at the first glance, the center of the "O" appears for a short time to be much whiter than it really is. In other words, one sees something which is not really seen, but only imagined. When some people enter a room which is totally dark, they often imagine that they see a white ghost. They don't really see it; they only imagine it, but their imagination may be so vivid that no amount of argument will convince them that they did not see the ghost.

When one looks at the upper right hand corner of a large letter of the Snellen test card, it is possible to see that point best, and all the rest of the letter not so black. The part seen best appears blacker than it really is. The part seen worse appears less black than it really is. Things seen more perfectly than they really are, are not seen, but imagined. Things seen less perfectly than they really are, are not seen imperfectly, but are imagined imperfectly.

Demonstrate

1. That the sway improves the vision because it prevents the stare.

Stand with the feet about one foot apart, facing a Snellen test card about fifteen feet away. Sway the body from side to side, at first with a rapid, wide swing. When the body, head and eyes sway to the right, observe that the Snellen test card is to the left of where you are looking. Then sway the body, head and eyes to the left. The test card is now to the right of where you are looking. Practice this sway for a few minutes and, without looking at the Snellen test card directly, observe that the whiteness of the card becomes whiter and the black spots on the card become a darker shade of black. The test card appears to move in the direction opposite to the movement of the eyes, while objects beyond the card may move in the same direction as the eyes move.

2. That when the forefinger of one hand is held about six inches in front and to one side of the face, the finger appears to move from side to side in the direction opposite to the movement of the head and eyes. Close the eyes and let the hand rest in the lap and remember the swing of the finger. Imagine that the hand, which is fastened to the finger, moves with it. Realize that when the hand moves, the wrist, the arm, the elbow and other parts of the body, being joined together, all move with the finger. Now try to imagine the elbow is stationary, while the finger is moving. It is impossible to do this. When the finger moves, you can imagine not only your body, but also the chair on which you are sitting, the floor on which the chair rests, the walls of the room, the whole building with its foundation, in fact, the universe to be moving with the finger. This is called the universal swing and is possible only when the memory, imagination, or the sight is good.

Demonstrate

1. That a strain to see at the distance produces near-sightedness. Look at a Snellen test card at twenty feet and read it as well as you can. Now strain or make an effort to see it better, and note that instead of becoming better, it becomes worse.

2. That a strain to see at the near point does not increase near-sightedness, but always lessens it.

Look at a card of fine print at six inches from your eyes and read it as well as you can. Now make an effort to see it better, and note that your vision for the near point is lowered, while the ability to read the fine print at a greater distance is improved.

3. That when a mental picture is perfect with the eyes closed for part of a minute or longer, a perfect mental picture can be remembered, imagined, or seen for a second or less with the eyes open.

Remember a black kitten. If your mental picture is gray or an imperfect black with the eyes closed, imagine that you are pouring black ink or black dye over it. Note that the clearness of the mental picture improves.

Look at a page of fine print. Then close your eyes and imagine the white spaces between the lines to be perfectly white. If they appear to be a grayish white, imagine that you are painting the white spaces between the letters, inside the letters, and between the lines, with white paint or whitewash. Then open your eyes for a fraction of a second and note that the white spaces between the lines will appear whiter, if you do not make an effort to see either the black letters or the white spaces.

Demonstrate

That by practicing you can imagine a letter at ten feet as well as you can see it at one foot.

Regard a letter of the Snellen test card at a distance where it cannot be readily distinguished, and appears blurred. Now look at the same letter on a card at the near point, one foot or less, where it can be seen perfectly. Then close your eyes and with your finger draw the same letter in the air as well as you can remember it. Open your eyes and continue to draw the imaginary letter with your finger while looking for only a few seconds at the blurred letter on the card at ten feet. Then close your eyes again and remember the letter well enough to draw the letter perfectly in your imagination with your finger. Alternate drawing the letter at ten feet in your imagination with your eyes open and drawing it with your eyes closed as well as you see it at one foot or nearer. When you can draw the letter as perfectly as you remember it, you see the letter on the distant card in flashes.

By repetition you will become able not only to always imagine the known letter correctly, but to actually see it for a few seconds at a time. You cannot see a letter perfectly unless you see one part best, central fixation. Note that you obtain central fixation while practicing this method, i.e., you see one part best. Drawing the letter with your finger in your imagination enables you to follow the finger in forming the letter, and with the help of your memory, you can imagine each side of the letter best, in turn, as it is formed. By this method the memory and the imagination are improved, and when the imagination becomes perfect, the sight is perfect. You can cure the highest degrees of myopia, hypermetropia, astigmatism, atrophy of the optic nerve, cataract, glaucoma, detachment of the retina and other diseases by this method.

Demonstrate

THAT it requires an effort or a strain to produce imperfect sight.

Look at the notch at the top of the big "C" of the Snellen test card at fifteen feet. Keep your eyes fixed on the notch. Make an effort to see it and increase that effort as much as you possibly can. Notice that it is difficult to keep your eyes and mind fixed on that one point. Notice also that it is tiresome and makes your eyes pain. If you keep it up long enough, your head begins to ache and all the nerves of your body are strained.

If you look at some of the letters on the lower lines which are much smaller than the big "C", they may appear so blurred that you are not able to distinguish them. Trying to see these small letters blurs them still more.

Now hold the test card in your hand about one foot from your eyes. The big "C" is seen plainly and without any effort. Try to see the top and the bottom of the big "C" perfectly black at the same time. Notice that the "C" becomes blurred and the strain which blurs it also gives much discomfort.

From this evidence, we can conclude that perfect sight comes easily, without any effort or strain, while imperfect sight is always produced by a strain or an effort to see.

Demonstrate

1. That perfect sight is not possible unless one imagines a letter to be moving, and that an effort to imagine a letter stationary always fails. Close your eyes and remember a small letter of the Snellen test card. Imagine that some one is moving the test card a short distance from side to side so that all the letters on the card appear to be moving with the movement of the card. Remember the small letter moving. You can remember it provided you imagine it is moving. Now try to stop this movement by staring at one part of the small letter and imagining that it is stationary. The letter soon becomes blurred.

2. That the circular swing prevents the stare and relieves pain and fatigue.

Hold the forefinger of one hand about six inches in front of one eye and a few inches to the outer side of the face. By moving the head and eyes in a circular or an elliptical orbit, notice that the finger appears to move in the direction opposite to the movement of the head and eyes. Now realize that the hand must move with the finger because the hand and finger are fastened together. When one moves, the other moves in the same direction, up, down, to the right or left. The same fact is true of the arm fastened to the wrist. When the finger moves, the hand, wrist and arm in turn, all move and in the same direction. Likewise when the finger moves, the shoulder moves with it and other parts of the body fastened directly or indirectly to the finger. You may soon become able to imagine the chair on which you are sitting to be fastened indirectly to the finger. When one moves, the other always moves in the same direction. When you become able to imagine all things, one at a time to be moving with the finger, i.e., the universal swing, the stare is prevented and pain and fatigue disappear. The memory, imagination and vision are also improved.

Dizziness

DIZZINESS is caused by eyestrain. Some people when standing on the roof of a house looking down, strain their eyes and become dizzy. Usually the dizziness is produced unconsciously. It can be produced consciously, however, by staring or straining to see some distant or near object.

Other people, when riding in an elevator, become dizzy and may suffer from attacks of imperfect sight with headache, nausea, and other nervous discomforts.

An old lady, aged sixty, told me that riding in an elevator always made her dizzy, and produced headaches with pain in her eyes and head. I tested her vision and found it to be normal both for distance and for reading without glasses. To obtain some facts, I rode in an elevator with her from the top to the bottom of the building and back again. I watched her eyes closely and found that she was staring at the floors which appeared to be moving opposite to the movement of the elevator.

I asked her why she stared at the floors which appeared to be moving by. She answered that she did not like to see them move, and was trying to correct the illusion by making an effort to keep them stationary. She said the harder she tried, the worse she felt. I suggested that she look at one part of the elevator and avoid looking at the floors. Her discomfort was at once relieved, and she was soon cured.

In all cases of dizziness, the stare or strain is always evident. When the stare or strain is relieved or prevented, dizziness does not occur. With advancing years attacks of dizziness and blindness occur more frequently than in younger individuals All attacks of dizziness with blindness are quite readily cured by practicing the imagination of the swing, the memory of perfect sight, or by palming.

Demonstrate

That memory and imagination improve the vision.

Look at the large letter at the top of the card and note that it may be more or less blurred. Close the eyes and remember or imagine the same letter perfectly. Then open both eyes and imagine it as well as you can. In a second or less, close your eyes and remember the letter perfectly. When this is accomplished open the eyes and imagine it as well as you can. Close them quickly after a second or less. Practice the slow, short, easy swing and alternately remember the large letter with the eyes closed for part of a minute or longer, and then open the eyes and imagine it as well as you can.

When done properly, you will be able to improve your vision of the large letter until it becomes quite perfect. Then practice in the same way with the first letter of the second line. Improve your imagination of the first letter of the second line in flashes, until it improves sufficiently for you to recognize the next letter without looking at it.

Improve the sight of the first letter of each line by alternately remembering it with the eyes closed for part of a minute and then flashing it for just a moment, a second or less. You should be told what the first letter of each line is. With your eyes closed remember it as perfectly as you can. Then open your eyes and test your imagination for the letter for a very short time, one second or even less. Keep your eyes closed for at least a part of a minute, while remembering the known letter. The flashes of the known letter with the eyes open become more frequent and last longer, until you become able to see, not only the known letter, but other unknown letters on the same line.

Demonstrate

1. That palming improves the sight.

When both eyes are closed and covered with one or both hands in such a way as to exclude all light, one does not see red, blue, green or any other color. In short, when the palming is successful one does not see anything but black, and when the eyes are opened, the vision is always improved.

2. That an imperfect memory prevents perfect palming and the vision is lowered.

Remember a letter "O" imperfectly, a letter "O" which has no white center and is covered by a gray cloud. It takes time; the effort is considerable and in spite of all that is done, the memory of the imperfect "O" is lost or forgotten for a time. The whole field is a shade of gray or of some other color, and when the hands are removed from the eyes, the vision is lowered.

3. That when a perfect letter "O" is remembered, palming is practiced properly, continuously and easily and the sight is always benefited.

4. That to fail to improve the sight by palming, or to palm imperfectly is difficult. To fail, requires a stare or a strain and is not easy. When an effort is made the eyes and mind are staring, straining, trying to see. When no effort is made, the palming becomes successful and the vision is benefited. Successful palming is not accomplished by doing things. Palming becomes successful by the things that are not done.

5. That the longer you palm, the greater the benefit to your vision. Palm first for two minutes, then four minutes, six, etc., until you have palmed for fifteen. Notice the improvement gained in 15 minutes has been greater than that in four minutes.

Demonstrate

1. That a short, swaying movement improves the vision more than a long sway.

Place the test card at a distance where only the large letter at the top of the card can be distinguished. This may be ten feet, further or nearer. Stand with the feet about one foot apart and sway the body from side to side. When the body sways to the right, look to the right of the card. When the body sways to the left, look to the left of the card. Do not look at the Snellen test card. Sway the body from side to side and look to the right of the Snellen test card, and alternately to the left of it. Note that the test card appears to be moving. Increase the length of the sway and notice that the test card seems to move a longer distance from side to side. Observe the whiteness of the card and the blackness of the letters. Now shorten the sway, which, of course, shortens the movement of the card. The card appears whiter and the letters blacker when the movement of the card is short, than when the movement of the card is long.

2. Demonstrate that when the eyes are stationary, they are under a tremendous strain. Stand before the Snellen test card at a distance of fifteen or twenty feet. Look directly at one small area of a large letter, which can be seen clearly. Stare at that part of the letter without closing the eyes and without shifting the eyes to some other point. The vision becomes worse and the letter blurs. Stare continuously, and note that the longer you stare, the more difficult it is to keep the eyes focused on that one point or part of the letter. Not only does the stare become more difficult, but the eyes become tired; and by making a greater effort, the eyes pain, or a headache is produced. The stare can cause fatigue of the whole body when the effort is sufficiently strong and prolonged.

Demonstrate

That the eyes can be used correctly or incorrectly when walking.

Many people have complained that after walking a short distance slowly, easily and without any special effort, they become nervous, tired and their eyes feel the symptoms and consequences of strain. When they were taught the correct way to use their eyes while walking, the symptoms of fatigue or strain disappeared.

The facts can be demonstrated with the aid of a straight line on the floor or the seam in the carpet.

Stand with the right foot to the right of the line and the left foot to the left of the line. Now put your right foot forward and look to the left of the line. Then put your left foot forward and look to the right of the line. When you walk forward, look to the left of the line, when your right foot moves forward. Look to the right of the line when your left foot moves forward. Note that it is difficult to do this longer than a few seconds without uncertainty, discomfort, pain, headache, dizziness or nausea.

Now practice the right method of walking and using the eyes. When the right foot moves forward, look to the right; and when the left foot moves forward, look to the left. Note that the straight line seems to sway in the direction opposite to the movement of the eyes and foot, i.e., when the eyes and foot move to the right, the line seems to move to the left. When the eyes and foot move to the left, the line seems to move to the right. Note that this is done easily, without any hesitation or discomfort.

When you walk, you can imagine that you are looking at the right foot as you step forward with that foot. When you step forward with the left foot, you can imagine that you are looking at your left foot. This can be done in a slow walk or quite rapidly while running straight ahead or in a circle.

Demonstrate

Demonstrate that perfect sight is accomplished when the imagination is good, and that you see only what you imagine you see.

Take a Snellen test card and hold it at a distance from your eyes at which your sight is fairly good. Look at the white center of the large "O" and compare the whiteness of the center of the "O" with the whiteness of the rest of the card. You may do it readily; but if not, use a screen, that is, a card with a small hole in it. With that card, cover over the black part of the letter "O" and note the white center of the letter which is exposed by the opening in the screen. Remove the screen and observe that there is a change in the appearance of the white, which appears to be a whiter white, when the black part of the letter is exposed. When the black part of the letter is covered with a screen, the center of the "O" is of the same whiteness as the rest of the card. It is, therefore, possible to demonstrate that you do not see the white center of the "O" whiter than the rest of the card, because you are seeing something that is not there. When you see something that is not there, you do not really see it, you only imagine it. The whiter you can imagine the center of the "O," the better becomes the vision for the letter "O," and when the vision of the letter "O" improves, the vision of all the letters on the card improves. The perfect imagination of the white center of the "O" means perfect imagination of the black, because you cannot imagine the white perfectly, without imagining the black perfectly. By practice you may become able to imagine the letter "O" much better than it really is, and when this is accomplished, you become able to actually see unknown letters.

Demonstrate

That glasses lower the vision.

Stand fifteen feet from the Snellen test card and test the vision of each eye without glasses. Then test the vision of each eye with glasses on, after having worn them for half an hour or longer. Remove the glasses; test the vision again and compare the results. Note that the vision without glasses becomes better, the longer the glasses are left off.

Test the eyes of a person who is very near-sighted. Remove the glasses and test the sight of each eye at five feet, nearer or farther, until the distance is found at which the vision is best without glasses. Now test the vision for five minutes at this distance, which is the optimum distance, or the distance at which the vision is best. For example, near-sighted people see best when the print is held a foot or nearer to the eyes. If the eyes see best at six inches, the optimum distance is six inches; but if the distance at which the eyes see best is thirty to forty inches, the optimum distance is then thirty or forty inches.

In near-sightedness, glasses always lower the vision at the optimum distance. The same is true in far-sightedness or astigmatism. For example, a near-sighted person may have an optimum distance of six inches. If glasses are worn, the vision is never as good at six inches as it is without them. This demonstrates that glasses lower the vision at six inches, or the optimum distance in this case. In far-sightedness without glasses, the optimum distance, at which objects are seen best, may be ten feet or further. If glasses are worn and the sight is improved at a nearer point, the vision without glasses at the optimum distance becomes worse.

Demonstrate

1. That sun treatment is an immediate benefit to many diseases of the eye.

Before the treatment, take a record of your best vision of the Snellen test card with both eyes together and each eye separately without glasses. Then sit in the sun with your eyes closed, slowly moving your head a short distance from side to side, and allowing the sun to shine directly on your closed eyelids. Forget about your eyes; just think of something pleasant and let your mind drift from one pleasant thought to another. Before opening your eyes, palm for a few minutes. Then test your vision of the test card and note the improvement. Get as much sun treatment as you possibly can, one, two, three or more hours daily.

When the sun is not shining, substitute a strong electric light. A 1,000 watt electric light is preferable, but requires special wiring. However, a 250 watt or 300 watt light can be used with benefit, and does not require special wiring. Sit about six inches from the light, or as near as you can without discomfort from the heat, allowing it to shine on your closed eyelids as in the sun treatment.

2. That the strong light of the sun focussed on the sclera, or white part of the eyeball, with the sun glass, also improves the vision.

After the eyes have become accustomed to the sunlight with the eyes closed, focus the light of the sun on the closed eyelids with the sun glass. Move the glass rapidly from side to side while doing this for a few minutes. Then have the patient open his eyes and look as far down as possible, and in this way, the pupil is protected by the lower lid. Gently lift the upper lid, so that only the white part of the eye is exposed, as the sun's rays fall directly upon this part of the eyeball. The sun glass may now be used on the white part of the eye for a few seconds, moving it quickly from side to side and in various directions. Notice that after the use of the sun glass, the vision is improved.

Demonstrate

1. That the drifting swing improves the sight.

Take a record of your best vision of the Snellen test card with both eyes together and each eye separately without glasses. Now close your eyes and imagine that you are occupying a canoe which is floating down some creek, river or stream. Imagine that the trees, houses and other stationary objects on either side are moving in the direction opposite to the way in which you are moving.

Another way in which to practice the drifting swing is as follows: With the eyes closed, recall a number of familiar objects which can be remembered easily. Sometimes in the course of a few minutes, fifty or one hundred objects may be remembered quickly and then forgotten. Remember each mental picture by central fixation; that is, think of only one part at a time of the object that you are remembering. Just let your mind drift easily from one object to another, without making any effort. Do not try to hold each object as remembered; forget it quickly. Notice that after practicing the above methods for a few minutes the vision for the test card is improved.

2. That the long swing improves the sight, relieves pain, fatigue and many other nervous symptoms.

Take a record of your best vision of the Snellen test card with both eyes together and each eye separately without glasses. Stand, with the feet about one foot apart, facing a blank wall. Turn the body to the left, at the same time raising the heel of the right foot. Now place the heel of the right foot on the floor in its usual position; then turn the body to the right, lifting the heel of the left foot.

The head and eyes move with the body; do not make any effort to see more distinctly stationary objects which are apparently moving. Practice this fifty to one hundred times, easily, without making any effort. Notice that after practicing, the vision for the test card improves.

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.

[*The above article, which appeared in the December, 1920, issue of "Better Eyesight," is reprinted at the request of the editor, in connection with the other articles in this month's issue on "tension."*]

Favorable Conditions

The vision of the human eye is modified in many ways when the conditions are unfavorable to good sight. Unfavorable conditions may prevail when the light is not agreeable to the patient. Some patients require a very bright light and others get along much better in a poor light. Many cases are hypersensitive to the light and suffer from an intolerance for light which has been called photophobia.

While intolerance of light may be manifest in most cases from some diseases of the eyes, there are many cases in which the eye is apparently healthy and in which the photophobia may be extreme. (The cure for this condition is to have the patient sit in the sun with his eyes closed, allowing the sun to shine on his closed eyelids as he moves his head from side to side.)

There are patients with good sight whose vision is materially improved when used in a bright light, as well as those with good sight whose vision improves when the eyes are used in a dim light. The patient should practice with the test card in a bright as well as a dim light to accustom his eyes to all conditions.

The ability to perceive halos, or an increased whiteness, around letters is a favorable condition. By using a screen or a fenestrated card, it is possible for many patients to see an increased whiteness around a letter, which improves their vision for the letter. When a screen is not used, one may be able to imagine a white halo around the inner or outer edge of the black part of the "O." When a screen covers the black part of the letter "O," for instance, the white center becomes of the same whiteness as the rest of the white page, which proves that it is the contrast between the black and the white which enables one to imagine the white halos. The presence of the black improves the white; the presence of the white improves the black.

Eyestrain During Sleep

Many people complain that when they awaken in the morning, they are suffering from pain in their eyes or head. They often feel as weary as though they had been working hard all night long. Many of them do not recover from the pain and fatigue until after they have been up for an hour or longer. Their vision also may be found to be reduced to a very considerable degree. Some complain that they see illusions which are occasionally very slow in disappearing. One patient complained that the tiled floor of a bath room had a very strange appearance; although the tiles were white, to him they appeared blue and red alternately. A feeling of strain was always present and did not subside until the illusion had disappeared. It seemed as though the eyes were under a strain during sleep, because when the eyes were examined with the ophthalmoscope while the patient was asleep, a strain could readily be observed.

Sometimes, as in the case of many children, other parts of the body may be under a strain during sleep. By an unconscious effort, the muscles of the face, arms and limbs may be distorted as may be muscles of different parts of the eyeball. In some cases, the strain produces accommodation or myopia, while in other cases, hypermetropia or astigmatism are produced by this unconscious effort. These eyes frequently were found to be normal during the day.

The treatment to prevent eyestrain during sleep is not always successful. Some patients obtain most relief by practicing the long swing one hundred times or more just before retiring and the same number of times in the morning immediately after awakening. Other patients find that palming for twenty minutes before retiring is a help, and frequently the palms are left in place with benefit after the patients have lost consciousness.

The Thumb Movement

Rest the hand against an immovable surface. Place the ball of the thumb lightly in contact with the forefinger. Now move the end of the thumb in a circle of about one-quarter of an inch in diameter. When the thumb moves in one direction, the forefinger should appear to move in the opposite direction, although in reality it is stationary. In the practice of the universal swing, everything is imagined to be moving in the same direction, except the eyes. With the aid of the thumb movement, however, one can imagine the spine and the head moving opposite to the direction of motion of the thumb, while the eyes, being fastened to the head, also move with the head and hand.

While watching the movement of the thumb, remember imperfect sight. At once, the thumb movement becomes irregular or may stop altogether. Demonstrate that any effort, no matter how slight, to see, remember or imagine, interferes with the movement of the thumb. The thumb is so sensitive to an effort or strain that the slightest effort is at once recorded by the motion.

While watching the movement of the thumb, remember perfect sight. Notice that the movement of the thumb is slow, short, continuous, and restful—with relaxation of all parts of the body.

Many patients have been successfully treated for pain, fatigue, and dizziness with the help of the thumb movement, after other treatment had failed. Some patients with severe pain complain that when they forget to practice the movement of the thumb, the pain comes back.

Not only have patients suffering from pain and symptoms of fatigue been relieved, but an equal number have been relieved of imperfect sight by the correct practice of the thumb movement.

First Visit Cures

The word "cures" is used advisedly. It is a fact that some people have been cured of myopia in one visit, after relaxation of the nerves of the eyes and other parts of the body was obtained.

Suppose the patient is near-sighted and can only see the big letter "C" at fifteen feet, a vision of 15/200. Let the patient walk up close to the card until he can read the bottom line. The distance may be three feet, five feet or farther. The first letter on the bottom line may be the letter "F." With the eyes open, it is possible for the patient to imagine the letter "F" quite perfectly, but with the eyes closed, he is more easily able to remember and imagine he sees the letter "F" much better.

Palming is a great help when remembering or imagining the letter "F" with the eyes closed. By alternately imagining the letter "F" with the eyes open, and remembering or imagining it better with the eyes closed, the memory, the imagination and finally the vision for the letter "F" is very much improved.

If the patient becomes able to see the letter "F" at three feet, or to imagine he sees it quite perfectly, he should be encouraged to walk back and increase the distance between the eyes and the letter "F" about one foot. When the patient becomes able to imagine the letter "F" at four feet, he should go back another foot, alternately imagining it with his eyes open and remembering it much better with his eyes closed. By gradually increasing the distance of the eyes from the letter "F," all patients who practiced this method obtained normal vision temporarily at the first visit.

The length of time required to obtain a permanent cure is variable. Some patients with not more than one or two diopters of myopia may require many weeks or months of daily treatment before they are permanently cured, while others with a higher degree of myopia sometimes obtain a cure in a much shorter time.

Brain Tension

The brain has many nerves. Part of these nerves are called ganglion cells and originate in some particular part of the brain. Each has a function of its own. They are connected with other ganglion cells and with the aid of nerve fibres are connected with others located in various parts of the brain as well as in the spinal cord, the eye, the ear, the nerves of smell, taste, and the nerves of touch. The function of each ganglion cell of the brain is different from that of all others. When the ganglion cells are healthy, they function in a normal manner.

The retina of the eye contains numerous ganglion cells which regulate special things such as normal vision, normal memory, normal imagination and they do this with a control more or less accurate of other ganglion cells of the whole body. The retina has a similar structure to parts of the brain. It is connected to the brain by the optic nerve.

Many nerves from the ganglion cells of the retina carry conscious and unconscious control of other ganglion cells which are connected to other parts of the body.

When the ganglion cells are diseased or at fault, the functions of all parts of the body are not normally maintained. In all cases of imperfect sight, it has been repeatedly demonstrated that the ganglion cells and nerves of the brain are under a strain. When this strain is corrected by treatment, the functions of the ganglion and other cells become normal. The importance of the mental treatment cannot be over-estimated.

A study of the facts has demonstrated that a disease of some ganglion in any part of the body occurs in a similar ganglion in the brain.

Brain tension of one or more nerves always means disease of the nerve ganglia. Treatment of the mind with the aid of the sight, memory and imagination has cured many cases of imperfect sight without other treatment.

Color Blindness

Some people are unable to distinguish red from blue or other colors. Many doctors explain color blindness to be due to something wrong with the retina, optic nerve or brain. They believe that organic changes in the retina are the principal cause. But this is not always true because, in some cases, cures occur without any apparent change in the retina.

I have found that color blindness occurs in a great many cases in an eye apparently normal. There are, however, a number of individuals who can be demonstrated to have color blindness as a result of a disease of the retina caused by mental strain. These cases cannot be cured, however, until the disease of the retina is cured.

Some patients with color blindness are sensitive to a bright light. On the other hand, there are patients with color blindness who are more comfortable in a bright light. These patients are usually relieved by the practice of sun treatment, central fixation, palming, the long swing, or any other method which brings about relaxation.

One patient had a normal perception for colors at three feet and at ten feet. But at a nearer point than three feet she was color blind, the blindness being most marked at three inches. At a distance greater than ten feet the color blindness was evident. After her eyestrain was relieved by relaxation her color blindness disappeared.

People who have been born color blind as well as those who have acquired color blindness have all been cured by the practice of relaxation methods.

Subjective Conjunctivitis

By subjective conjunctivitis is meant that the conjunctiva is inflamed without the evidence of disease. Many people with subjective conjunctivitis will complain of a foreign body in the eye and yet careful search with the use of a good light and a strong magnifying glass will reveal no foreign body present. Some people with subjective conjunctivitis complain that they have granulated lids and that they suffer from time to time from the presence of little pimples on the inside of the eyelids and the pain that they suffer is out of proportion to the cause that they give to it. Among the many symptoms of subjective conjunctivitis may be a flow of tears from very slight irritants. However, the tear ducts, with the aid of which the tears are drained from the eye, are usually open in these cases and they are sufficiently open to receive a solution of boracic acid which may be injected through the tear duct into the nose. This shows that the tear duct is open normally, and therefore can drain the tears from the eyes.

Dr. C. R. Agnew, at one time professor of ophthalmology at Columbia University, gave many lectures on subjective conjunctivitis in 1885 and 1886. The treatment which he advocated was dry massage of the whole body and I can testify that it was an excellent remedy. However, the treatment which I found was the greatest benefit was the aqueous extract of the suprarenal capsule, or adrenalin, the properties of which I discovered, using one drop in each eye three times a day.

Many cases were benefited by the sun treatment, by central fixation and by the practice of the universal swing.

Dark Glasses Are Injurious

He was a very intelligent chauffeur, and very polite and popular with most people. I enjoyed listening to his experiences in driving various types of cars. Nothing seemed to give him so much pleasure as to get into a "jam" and get out without suffering any injury to his own car or without tearing the "enemy" apart. The "enemy," as he explained, were the numerous other cars which were driven by chauffeurs who did not understand their business very well and who enjoyed teasing the inexperienced drivers.

One day we were driving to the seashore. The sun was very bright and the reflection of the light from the sun on the water was very strong and made most of the occupants of the car very uncomfortable. Personally I enjoyed the strong light of the sun. The chauffeur did not wear glasses for the protection of his eyes from the sun or dust and I asked him if he had ever worn them. He very promptly answered me by saying that he had worn them at one time, but discontinued wearing them because he found that after wearing them for a few days, his eyes became more sensitive to the light than they were before. He said he could not understand why it was that when he wore glasses to protect his eyes from the dust he accumulated more foreign bodies in his eyes than ever before. This seemed strange to the people in the car and they asked him to explain. It was decided that when the dust got into the eyes, the glasses prevented the dust from going out.

The eyes need the light of the sun. When the sun's rays are excluded from the eyes by dark glasses, the eyes become very sensitive to the sun when the glasses are removed.

Suggestions

It is recommended by the editor of this magazine that every family should obtain a Snellen test card and place it on the wall of some room where it can be seen and read every day by all the members of the family. Not only does the daily reading of the card help the sight of children, but it is a benefit to the eyes of adults as well.

It is a well known fact that when most people arrive at the age of forty or fifty years, they find that their vision for reading or sewing is lowered. These people believe that they must put on glasses to prevent eyestrain, cataract, glaucoma, et cetera. Daily practice with the Snellen test card, together with the reading of fine print close to the eyes will overcome their difficulty. Reading fine print close to the eyes, contrary to the belief of many ophthalmologists, is a benefit to the eyes of both children and adults.

It has been repeatedly demonstrated, however, that fine print cannot be read clearly or easily when an effort is made. When the eyes look directly at the letters, an effort is required, while looking at the white spaces between the lines is a rest, and by practice in this way, one can become able to see the letters clearly, without looking directly at them. When a patient looks at the white spaces between the lines of ordinary book type, he can read for hours and no fatigue, pain or discomfort is felt. When discomfort and pain in the eyes is felt while reading, it is because the patient is looking directly at the letters.

Eyestrain

The eyes of all people with imperfect sight are under a strain. This is a truth. Most people believe that during sleep the eyes are at rest and that it is impossible to strain the eyes while sound asleep. This, however, is not true. Persons who have good sight in the daytime under favorable conditions may strain their eyes during sleep. Many people awake in the morning suffering pain in the eyes or head. Often the eyes are very much fatigued and have a feeling of discomfort. There may be also a feeling of nervous tension from the eyestrain, or there may be a feeling as of sand in the eyes. At times all parts of the eye may be suffering from inflammation. The vision is sometimes lowered for several hours whereupon it begins to improve until it becomes as good as it was before the person retired the night before. Many people become alarmed and seek the services of some eye doctor. Usually the doctor or doctors consulted prescribe glasses which very rarely give more than imperfect or temporary relief.

There are various methods of correcting eyestrain occurring during sleep. Palming is very helpful even when practiced for a short time. A half an hour is often sufficient to relieve most if not all of the symptoms. In some cases the long swing, practiced before retiring, is sufficient to bring about temporary or permanent benefit. Blinking and shifting are also helpful. Good results have been obtained by practicing a perfect memory or imagination of one small letter of the Snellen test card alternately with the eyes open and closed. A number of patients were benefited and usually cured by remembering pleasant things perfectly.

No Glasses for Quick Results

The first and best thing that all patients should do after their first treatment, or before, is to discard their glasses. It is not always an easy thing to do but it is best for the patient and for the teacher. It is true that at one time I did not encourage patients to learn the treatment unless they discarded their glasses permanently. But since I have studied more about my method and have encouraged some of my clinic patients to wear their glasses at times while under treatment, I find that some of them obtained a cure but it required double the amount of time that was required to cure those who discarded their glasses permanently. During the treatment when the glasses are worn temporarily, even for a short time, the vision sometimes becomes worse and in most cases a relapse is produced. It is much more difficult to regain the lost ground than ever before, and sometimes causes much discomfort.

Glasses for the correction of myopia do not fit the eyes all the time. To obtain good vision with glasses an effort is required to make the eyes change their focus to have the same error of refraction as the glasses correct. When the vision is benefited most perfectly by glasses it is necessary for the eyes to change frequently. To learn the amount of myopia in the eyes by trying different glasses to find the glass which continuously improves the vision best is usually difficult because the amount of the myopia changes so frequently. To change the amount of myopia requires an effort. Some people complain that no glasses fit their eyes permanently. These cases are benefited by discarding their glasses for a longer or a shorter period while being treated. Patients who require good sight to earn a living and find it difficult to discard their glasses while under treatment, have been able to make slow or rapid progress in the cure of their imperfect sight by wearing their glasses only when it was absolutely necessary.

Practice Time

A large number of people have bought the book "Perfect Sight Without Glasses" but do not derive as much benefit from it as they should because they do not know how long they should practice.

Rest: The eyes are rested in various ways. One of the best methods is to close the eyes for half an hour after testing the sight. This usually improves the vision.

Palming: With the eyes closed and covered with the palms of both hands the vision is usually benefited. The patient should do this five minutes hourly.

Shifting: The patient looks from one side of the room to the other, alternately resting the eyes. This may be done three times daily for half an hour at a time. The head should move with the eyes and the patient should blink.

Swinging: When the shifting is slow, stationary objects appear to move from side to side. This should be observed whenever the head and eyes move.

Long Swing: Nearly all persons should practice the long swing one hundred times daily.

Memory: When the vision is perfect, it is impossible for the memory to be imperfect. One can improve the memory by alternately remembering a letter with the eyes open and closed. This should be practiced for half an hour twice daily.

Imagination: It has been frequently demonstrated and published in this magazine that the vision is only what we imagine it to be. Imagination should be practiced whenever the vision is tested. Imagine a known letter with the eyes open and with the eyes closed. This should be practiced for ten minutes twice daily.

Repetition: When one method is found which improves the vision more than any other method, it should be practiced until the vision is continuously improved.

Practice Methods

Many people have asked for help in choosing the best method of treatment for their particular eye trouble. A woman aged sixty complained that she had never been free of pain; pain was very decided in her eyes and head. She also had continuous pain in nearly all the nerves of the body. The long swing when practiced 100 times gave her great relief from pain. The relief was continuous without any relapse. At the same time a second woman of about the same age complained of a similar pain which, like the first patient, she had had almost continuously. She was also relieved by practicing the long swing. The long swing was practiced by other people with a satisfactory result.

It seemed that the swing was indicated for pain; it seemed to bring about better results than any other treatment. Later on, however, some patients applied for relief from pain which was not benefited by the long swing. Evidently one kind of treatment was not beneficial in every case. A man suffering from tri-facial neuralgia which caused great agony in all parts of the head was not relieved at all by the long swing. Palming seemed to be more successful in bringing about relief. Furthermore, there were patients who did not obtain benefit after half an hour of palming who did obtain complete relief after palming for several hours.

Patients with cataract recovered quite promptly when some special method was tried.

The experience obtained by the use of relaxation methods in the cure of obstinate eye troubles has proved that what was good for one patient was not necessarily a benefit to other patients suffering from the same trouble, and that various methods must be tried in each case in order to determine which is the most beneficial for each particular case.

Time For Practice

So many people with imperfect sight say that they have not the time to practice relaxation methods, as their time is taken up at business or in the performance of other duties. I always tell such people, however, that they have just as much time to use their eyes correctly as incorrectly.

They can imagine stationary objects to be moving opposite whenever they move their head and eyes. When the head and eyes move to the left, stationary objects should appear to move to the right, and vice versa.

They can remember to blink their eyes in the same way that the normal eye blinks unconsciously, which is frequently, rapidly, continuously, without any effort or strain, until by conscious practice, it will eventually become an unconscious habit, and one that will be of benefit to the patient.

They can remember to shift or look from one point to another continuously. When practicing shifting, it is well to move the head in the same direction as the eyes move. If the head moves to the right, the eyes should move to the right. If the head moves to the left, the eyes should move to the left. By practicing in this way, relaxation is often obtained very quickly, but if the eyes are moved to the right and at the same time the head is moved to the left, a strain on the nerves of the eyes and the nerves of the body in general is produced.

Correspondence Treatment

Many letters are received from people in various parts of the world who find it impossible to come to New York and who believe that something might be done for them by correspondence treatment. I do not advocate correspondence treatment as a general rule, as the results are uncertain. There is always the possibility that the patient will not practice correctly the things which he is told to do.

If a patient has had one treatment at my office or at the office of one of my representatives, it is possible to treat that patient more intelligently through correspondence.

Some years ago a gentleman living a thousand miles from New York called and asked if anything could be done through correspondence for his wife who was bedridden and suffering with an agony of pain in her eyes. He described all her symptoms to me and gave me her last prescription for glasses. He was told that if he would take the treatment in my office, and so learn how to treat his wife, it would be possible for him to aid her intelligently when he went home. He did this and after taking several treatments, returned. He wrote me later saying that his wife was almost cured.

When my book, "Perfect Sight Without Glasses," is read carefully, those things which are not understood may be cleared up by intelligent questions, which I am always pleased to answer. I do not consider this as regular correspondence treatment.

The Period

Many people have difficulty in obtaining a mental picture of a small black period. They may try to see it by an effort which always fails. They may persist in their efforts to see or remember it, paying little or no attention to their failures or the cause of their failures. As long as they continue to strain by trying to see, they will always fail; the period becomes more indistinct.

A small black period is very readily seen. There is no letter, no figure, no object of any kind which can be obtained more easily. Demonstrate that an effort to see a small black period by staring, concentrating, trying to see, always makes it worse. Rest, relaxation, the swing, shifting, are all a great help. Practice with a large black letter. Imagine that the upper right corner has a small black period. Do the same with other parts of the large letter. This practice will enable you to understand central fixation, seeing best where you are looking. Central fixation can always be demonstrated when the sight is good. When the sight is poor or imperfect, central fixation is absent.

The benefits which can be obtained from the use of the period are very numerous. A perfect memory can only be obtained when the sight is perfect. A perfect imagination can only be obtained when the sight and the memory are perfect. The period is the smallest letter or other object which is perfect or becomes perfect by perfect memory or perfect imagination.

Blinking

Blinking is one of the best methods that may be employed to obtain relaxation or rest. When rest is obtained by blinking, the vision is improved, not only for one letter or part of one letter, but for all the letters of a page, which may be seen some parts best, other parts not so well. This is called central fixation and one cannot see anything clearly without it. In order to maintain central fixation, there should be continuous opening and closing of the eyes by blinking which makes it easier for the vision to improve. When the eye discontinues to blink, it usually stares, strains, and tries to see. Blinking is beneficial only when practiced in the right way.

What is the right way? The question may be answered almost as briefly as it is asked. Blinking when done properly is slow, short, and easy. One may open and close the eyes an innumerable number of times in one second, and do so unconsciously.

Lord Macauley was able to read a page of print in one second, and blinked for every letter. In order to read perfectly, he had to see each side of every letter by central fixation. We know that he acquired or had a perfect memory, because it was only with a perfect memory that he could recite the pages of any book which he had read many years before.

A casual observer would not be able to determine the number of times Lord Macaulay blinked, as it was done so quickly and easily, without any effort on his part. While most of us will not be able to blink without effort as frequently as Lord Macauley did, it is well to practice his methods as well as we can. Those with imperfect sight who do not blink sufficiently should watch someone with normal eyes blink unconsciously and then imitate him.

Shifting

When the normal eye has normal sight it is at rest and when it is at rest it is always moving or shifting. Shifting may be done consciously with improvement in the vision, or it may be done unconsciously with impaired vision.

Shifting can be practiced correctly and incorrectly. A wrong way to shift is to turn the head to the right while the eyes are turned to the left, or to turn the head to the left while the eyes are turned to the right.

To improve imperfect sight by shifting, it is well to move the head and eyes so far away that the first letter or object imagined is too far away to be seen at all clearly. Shifting from small letters to large letters alternately may be a greater benefit than shifting from one small letter to another small letter. Quite frequently the vision is decidedly improved by shifting continuously from one side of a small letter to the other side, while the letter is imagined to be moving in the opposite direction. When the shifting is slow, short, and easy, the best results in the improvement in the vision are obtained. Any attempt to stop the shifting always lowers the vision. The letter or other object which appeared to move is usually shifting a short distance—one half or one quarter of an inch. It is not possible to imagine any particular letter or other object stationary for a longer time than one minute.

While the patient is seated, benefit can be obtained from shifting, but even more benefit can be obtained when the shifting is practiced while the patient is standing and moving the head and shoulders, in fact the whole body, a very short distance from side to side. Shifting the whole body makes it easier to shift a short distance and may explain why this method is best.

Go to the Movies

(Editor's Note.—Recently a great many letters have come from patients and others asking if the movies were injurious to the eyes. For the benefit of these inquirers we are reprinting an article which appeared in this magazine in October, 1920.)

Cinematograph pictures are commonly supposed to be very injurious to the eyes, and it is a fact that they often cause much discomfort and lowering of vision. They can, however, be made a means of improving the sight. When they hurt the eyes it is because the subject strains to see them. If this tendency to strain can be overcome, the vision is always improved, and if the practice of viewing the pictures is continued long enough, nearsight, astigmatism and other troubles are cured.

If your sight is imperfect, therefore, you will find it an advantage to go to the movies frequently and learn to look at the pictures without strain. If they hurt your eyes look away to the dark for a while, then look at a corner of the picture; look away again, and then look a little nearer to the center; and so on. In this way you may soon become able to look directly at the picture without discomfort. If this does not help, try palming for five minutes or longer. Dodge the pain, in short, and prevent the eyestrain by constant shifting, or by palming.

Mental Pictures

With imperfect sight, a mental picture of one known letter of the Snellen test card is seldom or never remembered, imagined, or seen perfectly when regarded with the eyes open. By closing the eyes, the same mental picture may be imagined more perfectly. By alternately imagining the known letter as well as possible with the eyes open and then remembering it better with the eyes closed, the imagination improves the vision and unknown letters are seen with the eyes open.

The improvement of the vision is due to a lessening of the organic changes in the eye. When the imperfect sight is caused by opacities of the cornea, a mental picture imagined clearly lessens or cures the disease of the cornea. A large number of cases of cataract in which the lens is more or less opaque have been benefited or cured by the imagination of mental pictures. Nearly all organic changes in the eyeball which lower the vision have been improved to some extent in a few minutes; by devoting a sufficient amount of time, all organic changes in the eyeball, no matter what the cause may be, are benefited or cured by a perfect imagination of a letter, a tree, a flower, or anything which is remembered perfectly.

I do not know of any method of obtaining relaxation or perfect sight which is as efficient and certain as the imagination of mental pictures. It should be emphasized that a good or perfect imagination of mental pictures has in all cases brought about a measure of improvement which is convincing that the imagination is capable of relieving organic changes in the eye more quickly, more thoroughly, more permanently, than any other method.

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.

The Colon

While the colon is a valuable punctuation mark, it has a very unusual and better use in helping the memory, imagination, and sight. Medium sized or small letters at the distance are improved promptly by the proper use of the colon. While the eyes are closed or open, the top period should be imagined best while the lower period is more or less blurred and not seen so well. In a few moments it is well to shift and imagine the lower period best while the upper period is imagined not so well. Common sense makes it evident that one period cannot be imagined best unless there is some other period or other object which is seen worse. The smallest colon that can be imagined is usually the one that is imagined more readily than a larger colon.

When palming, swinging, et cetera, cannot be practiced sufficiently well to obtain improvement in the eyesight, the memory or imagination of the small colon, one part best, can usually be practiced with benefit. To remember or imagine a colon perfectly requires constant shifting. When the colon is remembered or imagined perfectly, and this cannot be done by any effort or strain, the sight is always improved and the memory and imagination are also improved. It is interesting to note that the smaller the colon, the blacker and better can one remember, imagine, or see one period of it, with benefit to the sight. One may feel that the memory of a very small colon should be more difficult than the memory of a large one, but strange to say it can be demonstrated in most cases that the very small colon is remembered best. If the movement of the colon is absent, the sight is always imperfect. In other words, it requires a stare, strain, and effort to make the colon stop its apparent motion.

The Memory Swing

The memory swing relieves strain and tension as do the long or the short swings which have been described at various times. It is done with the eyes closed while one imagines himself to be looking first over the right shoulder and then over the left shoulder, while the head is moved from side to side. The eyeballs may be seen through the closed eyelids to move from side to side in the same direction as the head is moved. When done properly, the memory swing is just as efficient as the swing which is practiced with the eyes open, whether it be short or long.

The memory swing can be shortened by remembering the swing of a small letter, a quarter of an inch or less, when the eyes are closed.

The memory swing has given relief in many cases of imperfect sight from myopia, astigmatism, and inflammations of the outside of the eyeball as well as inflammations of the inside of the eyeball. It is much easier than the swing practiced with the eyes open and secures a greater amount of relaxation or rest than any other swing. It may be practiced incorrectly, just as any swing may be done wrong, and then no benefit will be obtained.

Improve Your Sight

When convenient, practice the long swing. Stand with the feet about one foot apart, turn the body to the right, at the same time lifting the heel of the left foot. The head and eyes move with the body. Now place the left heel on the floor, turn the body to the left, raising the heel of the right foot. Alternate.

Rest your eyes continually by blinking. The normal eye blinks irregularly but continuously. When convenient, practice blinking in the following way: Count irregularly and blink for each count. By consciously blinking correctly, it will in time become an unconscious habit.

When the mind is awake it is thinking of many things. One can remember things perfectly or imagine things perfectly, which is a rest to the eyes, mind, and the body generally. The memory of imperfect sight should be avoided because it is a strain and lowers the vision.

Read the Snellen test card at 20 feet with each eye, separately, twice daily or oftener when convenient. Imagine the white spaces in letters to be whiter than the rest of the card. Do this alternately with the eyes closed and opened. Plan to imagine the white spaces in letters just as white, in looking at the Snellen test card, as can be accomplished with the eyes closed.

Whenever convenient, close your eyes for a few minutes and rest them.

The Flashing Cure

Do you read imperfectly? Can you observe then that when you look at the first word, or the first letter, of a sentence, you do not see best where you are looking; that you see other words, or other letters, just as well as or better than the ones you are looking at? Do you observe also that the harder you try to see the worse you see?

Now close your eyes and rest them, remembering some color, like black or white, that you can remember perfectly. Keep them closed until they feel rested, or until the feeling of strain has been completely relieved. Now open them and look at the first word or letter of a sentence for a fraction of a second. If you have been able to relax, partially or completely, you will have a flash of improved or clear vision, and the area seen best will be smaller.

After opening the eyes for this fraction of a second, close them again quickly, still remembering the color, and keep them closed until they again feel rested. Then again open them for a fraction of a second. Continue this alternate resting of the eyes and flashing of the letters for a time, and you may soon find that you can keep your eyes open longer than a fraction of a second without losing the improved vision.

If your trouble is with distant instead of near vision, use the same method with distant letters.

In this way you can demonstrate for yourself the fundamental principles of the cure of imperfect sight by treatment without glasses.

If you fail, ask someone with perfect sight to help you.

The Imagination Cure

When the imagination is perfect the mind is always perfectly relaxed, and as it is impossible to relax and imagine a letter perfectly, and at the same time strain and see it imperfectly, it follows that when one imagines that one sees a letter perfectly one actually does see it, as demonstrated by the retinoscope, no matter how great an error of refraction the eye may previously have had. The sight, therefore, may often be improved very quickly by the aid of the imagination. To use this method the patient may proceed as follows:

Look at a letter at the distance at which it is seen best. Close and cover the eyes so as to exclude all the light, and remember it. Do this alternately until the memory is nearly equal to the sight. Next, after remembering the letter with the eyes closed and covered, and while still holding the mental picture of it, look at a blank surface a foot or more to the side of it, at the distance at which you wish to see it. Again close and cover the eyes and remember the letter, and on opening them look a little nearer to it. Gradually reduce the distance between the point of fixation and the letter, until able to look directly at it and imagine it as well as it is remembered with the eyes closed and covered. The letter will then be seen perfectly, and other letters in its neighborhood will come out. If unable to remember the whole letter, you may be able to imagine a black period as forming part of it. If you can do this, the letter will also be seen perfectly.

See Things Moving

When the sight is perfect the subject is able to observe that all objects regarded appear to be moving. A letter seen at the near point or at the distance appears to move slightly in various directions. The pavement comes toward one in walking, and the houses appear to move in a direction opposite to one's own. In reading, the page appears to move in a direction opposite to that of the eye. If one tries to imagine things stationary, the vision is at once lowered and discomfort and pain may be produced, not only in the eyes and head, but in other parts of the body.

This movement is usually so slight that it is seldom noticed till the attention is called to it, but it may be so conspicuous as to be plainly observable even to persons with markedly imperfect sight. If such persons, for instance, hold the hand within six inches of the face and turn the head and eyes rapidly from side to side, the hand will be seen to move in a direction opposite to that of the eyes. If it does not move, it will be found that the patient is straining to see it in the eccentric field. By observing this movement it becomes possible to see or imagine a less conspicuous movement, and thus the patient may gradually become able to observe a slight movement in every object regarded. Some persons with imperfect sight have been cured simply by imagining that they always see things moving.

The world moves. Let it move. All objects move if you let them. Do not interfere with this movement, or try to stop it. This cannot be done without an effort which impairs the efficiency of the eye and mind.

How Not to Concentrate

To remember the letter *O* of diamond type continuously and within effort proceed as follows:

Imagine a little black spot on the right-hand side of the *O* blacker than the rest of the letter; then imagine a similar spot on the left-hand side. Shift the attention from the right-hand spot to the left, and observe that every time you think of the left spot the *O* appears to move to the right, and every time you think of the right one it appears to move to the left. This motion, when the shifting is done properly, is very short, less than the width of the letter. Later you may become able to imagine the *O* without conscious shifting and swinging, but whenever the attention is directed to the matter these things will be noticed.

Now do the same with a letter on the test card. If the shifting is normal, it will be noted that the letter can be regarded indefinitely, and that it appears to have a slight motion.

To demonstrate that the attempt to concentrate spoils the memory, or imagination, and the vision:

Try to think continuously of a spot on one part of an imagined letter. The spot and the whole letter will soon disappear. Or try to imagine two or more spots, or the whole letter, equally black and distinct at one time. This will be found to be even more difficult.

Do the same with a letter on the test card. The results will be the same.

The Optimum Swing

The optimum swing is the swing which gives the best results under different conditions.

Most readers of this magazine and of "Perfect Sight Without Glasses" know about the swing. The swing may be spontaneous; that is to say, when one remembers a letter perfectly or sees a letter perfectly and continuously without any volition on his part he is able to imagine that it ~~is~~ a slow, short, easy swing. The speed is about as fast as one would count orally. The width of the swing is not more than the width of the letter, and it is remembered or imagined as easily as it is possible to imagine anything without any effort whatsoever. The normal swing of normal sight brings the greatest amount of relaxation and should be imagined. When one is able to succeed then it becomes the optimum swing under favorable conditions. Nearsighted persons have this normal optimum swing usually at the near point when the vision is perfect. At the distance where the vision is imperfect the optimum swing is something else. It is not spontaneous but has to be produced by a conscious movement of the eyes and head from side to side and is usually wider than the width of the letter, faster than the normal swing, and not so easily produced.

When one has a headache or a pain in the eyes or in any part of the body the optimum swing is always wider and more difficult to imagine than when one has less strain of the eyes. Under unfavorable conditions the long swing is the optimum swing, but under favorable conditions when the sight is good, the normal swing of the normal eye with normal sight is the optimum swing. The long swing brings a measure of relief when done right and makes it possible to shorten it down to the normal swing of the normal eye.

MISPRINT=IS Should be has"

Methods that Have Succeeded in Presbyopia

The cure of presbyopia, as of any other error of refraction, is rest, and many presbyopic patients are able to obtain this rest simply by closing the eyes. They are kept closed until the patient feels relieved, which may be in a few minutes, half an hour, or longer. Then some fine print is regarded for a few seconds. By alternately resting the eyes and looking at fine print many patients quickly become able to read it at eighteen inches, and by continued practice they are able to reduce the distance until it can be read at six inches in a dim light. At first the letters are seen only in flashes. Then they are seen for a longer time, until finally they are seen continuously. When this method fails, palming may be tried, combined with the use of the memory, imagination and swing. Particularly good results have been obtained from the following procedure:

Close the eyes and remember the letter *o* in diamond type, with the open space as white as starch and the outline as black as possible.

When the white center is at the maximum imagine that the letter is moving, and that all objects, no matter how large or small, are moving with it.

Open the eyes and continue to imagine the universal swing.

Alternate the imagination of the swing with the eyes open with its imagination with the eyes closed.

When the imagination is just as good with the eyes open as when they are closed the cure will be complete.

Stop Staring

It can be demonstrated by tests with the retinoscope that all persons with imperfect sight stare, strain, or try to see. To demonstrate this fact:

Look intently at one part of a large or small letter at the distance or nearpoint. In a few seconds, usually, fatigue and discomfort will be produced, and the letter will blur or disappear. If the effort is continued long enough, pain may be produced.

To break the habit of staring:

(1) Shift consciously from one part to another of all objects regarded, and imagine that these objects move in a direction contrary to the movement of the eye. Do this with letters on the test card, with letters of fine print, if they can be seen, and with other objects.

(2) Close the eyes frequently for a moment or longer. When the strain is considerable, keep the eyes closed for several minutes and open them for a fraction of a second—flashing. When the stare is sufficient to keep the vision down to 2/200 or less, palm for a longer or shorter time; then look at the card for a moment. Later mere closing of the eyes may afford sufficient rest.

(3) Imagine that the white openings and margins of letters are whiter than the rest of the background. Do this with eyes closed and open alternately. It is an interesting fact that this practice prevents staring and improves the vision rapidly.

THE USE OF THE SUN GLASS

In using the sun glass, it is well to accustom the eyes of the patient to the strong light by having him sit in the sun with his eyes closed, and at the same time he should slowly move his head from side to side, in order to avoid discomfort from the heat. Enough light shines through the eyelid to cause some people a great deal of discomfort at first, but after a few hours' exposure in this way, they become able to gradually open their eyes to some extent without squeezing the lids. When this stage is reached, one can focus, with the aid of the sun glass, the light on the closed eyelids, which at first is very disagreeable. When the patient becomes able to open the eyes, he is directed to look as far down as possible, and in this way the pupil is protected by the lower lid. Then by gently lifting the upper lid, only the white part of the eye is exposed, while the sun's rays strike directly upon this part of the eyeball. The sun glass may then be used on the white part of the eye. Care should be taken to move the glass from side to side quickly. The length of time devoted to focusing the light on the white part of the eye is never longer than a few seconds. After such a treatment the patient almost immediately becomes able to open his eyes widely in the light.

SUGGESTIONS

1. If the vision of the patient is improved under the care of the doctor, and the patient neglects to practice, when he leaves the office, what he is told to do at home, the treatment has been of no benefit whatever. The improved vision was only temporary. Faithful practice permanently improves the sight to normal.
2. If the patient conscientiously practices the methods, as advised by the doctor, his vision always improves. This applies to patients with errors of retraction, as well as organic diseases.
3. For cases of squint we find that the long swing is beneficial to adults and to children.
4. When a patient suffers with cataract, palming is usually the best method of treatment, and should be practiced many times every day.
5. All patients with imperfect sight unconsciously stare, and should be reminded by those who are near to them to blink often. To stare is to strain. Strain is the cause of imperfect sight.

The following rules will be found helpful if faithfully observed:—

6. While sitting, do not look up without raising your chin. Always turn your head in the direction in which you look. Blink often.
7. Do not make an effort to see things more clearly. If you let your eyes alone, things will clear up by themselves.

8. Do not look at anything longer than a fraction of a second without shifting.
9. While reading, do not think about your eyes, but let your mind and imagination rule.
10. When you are conscious of your eyes while looking at objects at any time, it causes discomfort and lessens your vision.
11. It is very important that you learn how to imagine stationary objects to be moving, without moving your head or your body.
12. Palming is a help, and I suggest that you palm for a few minutes many times during the day, at least ten times. At night just before retiring, it is well to palm for half an hour or longer.

TEST CARD PRACTICE

1. Every home should have a test card.
2. It is best to place the card permanently on the wall in a good light.
3. Each member of the family or household should read the card every day.
4. It takes only a minute to test the sight with the card. If you spend five minutes in the morning practicing, it will be a great help during the day.
5. Place yourself ten feet from the card and read as far as you can without effort or strain. Over each line of letters are small figures indicating the distance at which the normal eye can read them. Over the big C at the top of the card is the figure 200. The big C, therefore, should be read by the normal eye at a distance of two hundred feet. If you can read this line at ten feet, your vision would be 10/200. The numerator of the fraction is always the distance of the card from the eyes. The denominator always denotes the number of the line read. If you can only read the line marked 40 at ten feet, the vision is 10/40.
6. If you can only see to the fifth line, for example, notice that the last letter on that line is an R. Now close your eyes, cover them with the palms of the hands and remember the R. If you will remember that the left side is straight, the right side partly curved, and the bottom open, you will get a good mental picture of the R with your eyes closed.

This mental picture will help you to see the letter directly underneath the R, which is a T.

7. Shifting is good to stop the stare. If you stare at the letter T, you will notice that all the letters on that line begin to blur. It is beneficial to close your eyes quickly after you see the T, open them, and shift to the first figure on that line, which is a 3. Then close your eyes and remember the 3. You will become able to read all the letters on that line by closing your eyes for each letter.
8. Keep a record of each test in order to note your progress from day to day.
9. When you become able to read the bottom line with each eye at ten feet, your vision is normal for the distance, 10/10.
10. The distance of the Snellen test card from the patient is a matter of considerable importance. However, some patients improve more rapidly when the card is placed fifteen or twenty feet away, while others fail to get any benefit with the card at this distance. In some cases the best results are obtained when the card is as close as one foot. Others with poor vision may not improve when the card is placed at ten feet or further, or at one foot or less, but do much better when the card is placed at a middle distance, at about eight feet. Some patients may not improve their vision at all at ten feet, but are able to improve their sight at twenty feet, or at one foot. While some patients are benefited by practicing with the card daily, always at the same distance, there are others who seem to be benefited when the distance of the card from the patient is changed daily.

Fundamentals

By

W. H. Bates, M. D.

1. Glasses discarded permanently.

2. Central Fixation is seeing best where you are looking.

3. Favorable conditions: Light may be bright or dim. The distance of the print from the eyes, where seen best, also varies with people.

4. Shifting: With normal sight the eyes are moving all the time.

5. Swinging: When the eyes move slowly or rapidly from side to side, stationary objects appear to move in the opposite direction.

6. Long Swing: Stand with the feet about one foot apart, turn the body to the right—at the same time lifting the heel of the left foot. Do not move the head or eyes or pay any attention to the apparent movement of stationary objects. Now place the left heel on the floor, turn the body to the left, raising the heel of the right foot. Alternate.

7. Drifting Swing: When practicing this swing, one pays no attention to the clearness of stationary objects, which appear to be moving. The eyes wander from point to point slowly, easily, or lazily, so that the stare or strain may be avoided.

8. Variable Swing: Hold the forefinger of one hand six inches from the right eye and about the same distance to the right, look straight ahead and move the head a short distance from side to side. The finger appears to move.

9. Stationary Objects Moving: By moving the head and eyes a short distance from side to side, being sure to blink, one can imagine stationary objects to be moving.

10. Memory: Improving the memory of letters and other objects improves the vision for everything.

11. Imagination: We see only what we think we see, or what we imagine. We can only imagine what we remember.

12. Rest: All cases of imperfect sight are improved by closing the eyes and resting them.

13. Palming: The closed eyes may be covered with the palm of one or both hands.

14. Blinking: The normal eye blinks, or closes and opens very frequently.

15. Mental Pictures: As long as one is awake one has all kinds of memories of mental pictures. If these pictures are remembered easily, perfectly, the vision is benefited.

SUN TREATMENT

Most ophthalmologists prescribe dark glasses to nearly all of their patients who suffer from the brightness of light. This practice, in my opinion, has been overdone. I remember one patient who was in the hospital for two years in a dark room, with both eyes bandaged with a dark binding day and night continuously. When she left the hospital she was in a very pitiable condition. She was practically blind in the bright sunlight. She went to a great many clinics and eye doctors and all they did for her was to give her stronger dark glasses. In time these dark glasses did not give her any relief. Instead of being helpful to her weak eyes, the glasses had the effect of making them more sensitive to the light than they had ever been before. It has been my experience that all persons who wear dark glasses sooner or later develop very serious inflammation of their eyes. The human eye needs the light in order to maintain its efficiency. The use of eye-shades and protections of all kinds from the light is very injurious to the eyes.

Sunlight is as necessary to normal eye as is rest and relaxation. If it is possible, start the day by exposing the eyes to the sun—just a few minutes at a time will help. Get accustomed to the strong light of the sun by letting it shine on your closed eyelids. Later, when you can look down sufficiently, by gently lifting the upper lid the white part of the eye can be exposed, while the sun's rays strike directly on it. It is good to move the head slightly from side to side while doing this, in order to prevent straining. One cannot get too much sun treatment.

AIDS TO PERFECT SIGHT BY TREATMENT WITHOUT GLASSES

Psalm 23
A Psalm of David

S. Matthew 4
Beatitudes

Psalm 119

INSTRUCTIONS

Dr. W. H. Bates has made many remarkable discoveries relative to the prevention and cure of imperfect sight without the aid of glasses during his thirty-eight years of research and experimental work. Among the most important of these discoveries, and one that he has proved again and again, is the following:

FINE PRINT IS A BENEFIT TO THE EYE—LARGE PRINT IS A MENACE.

It is impossible to read microscopic or very fine print by **making an effort to see it.** It can only be read when the mind and eyes are relaxed.

The above chapters are written in diamond and microscopic type. At first it may seem difficult to become accustomed to the fine print, but by looking at it without trying to read it, the print will become discernible.

Some people find it beneficial to imagine the white spaces between the lines, whiter than the margin. When one imagines the white spaces perfectly white, the print becomes very black and legible, apparently of its own volition.

Large print is detrimental to perfect sight because the eye tries to see the whole letter at once. When one is looking at an object, for instance, a chair, the object blurs if the whole is seen at once. You cannot possibly see the arms, legs, back and body of a chair all at once. You either see the back first or the seat. This is Central Fixation. Seeing best where you are looking.

We know that if these instructions are carefully followed, the above articles will prove extremely beneficial.

The Original Method for Practicing Natural Eyesight Improvement Described by Ophthalmologist William H. Bates

BETTER EYESIGHT

September 1927

Perfect Sight

By William H. Bates

If you learn the fundamental principles of perfect sight and will consciously keep them in mind your defective vision will disappear. The following discoveries were made by W. H. Bates, M. D., and his method is based on them. With it he has cured so-called incurable cases:

I. Many blind people are curable.

II. All errors of refraction are functional, therefore curable.

III. All defective vision is due to strain in some form.

You can demonstrate to your own satisfaction that strain lowers the vision. When you stare, you strain. Look fixedly at one object for five seconds or longer. What happens? The object blurs and finally disappears. Also, your eyes are made uncomfortable by this experiment. When you rest your eyes for a few moments the vision is improved and the discomfort relieved.

IV. Strain is relieved by relaxation.

To use your eyes correctly all day long, it is necessary that you:

1. Blink frequently. Staring is a strain and always lowers the vision.

2. Shift your glance constantly from one point to another, seeing the part regarded best and other parts not so clearly.
That is, when you look at a chair, do not try to see the whole object at once; look first at the back of it, seeing that part best and other parts worse. Remember to blink as you quickly shift your glance from the back to the seat and legs, seeing each part best, in turn. This is central-fixation. (with shifting.)

3. Your head and eyes are moving all day long. Imagine that stationary objects are moving in the direction opposite to the movement of your head and eyes. When you walk about the room or on the street, notice that the floor or pavement seems to come toward you, while objects on either side appear to move in the direction opposite to the movement of your body.

BETTER EYESIGHT

December 1927

INSTRUCTIONS FOR HOME TREATMENT

By William H. Bates

The most important fact is to impress upon the patient the necessity of discarding his glasses. He is told that when glasses are used temporarily a relapse always follows and the patient loses for a short time, at least, everything that has been gained. If it is impossible or unnecessary for the patient to return at regular intervals for further treatment and supervision, he is given instructions for home practice to suit his individual case, and is asked to report his progress or difficulties at frequent intervals.

The importance of practicing certain parts of the routine treatment at all times, such as blinking, central-fixation, shifting and imagining stationary objects to be moving opposite to the movement of his head and eyes, is stressed. The normal eye does these things unconsciously, and the imperfect eye must at first practice them consciously until it becomes an unconscious habit.

The Natural Vision Improvement student practices, imitates these normal, natural eye functions (relaxed, natural, Correct Vision Habits) to gently coax the brain, eyes, eye muscles, body (visual system) back to normal, relaxed function and clear vision. Then, the eyes, brain… function correct, automatically 'on their own' maintaining clear vision. All of Dr. Bates 132 Better Eyesight Magazine Issues are in the Free E-Book.

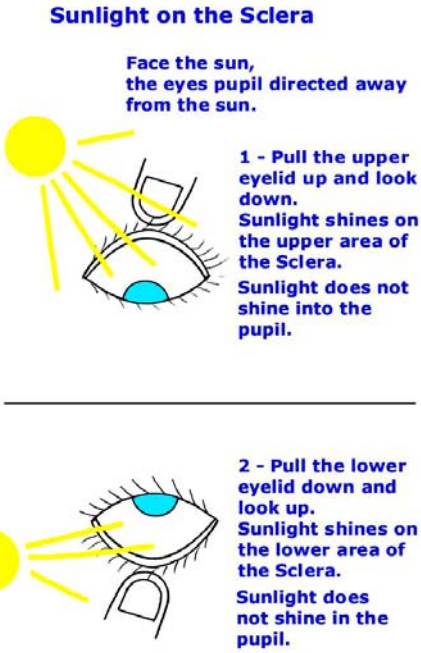
DR. BATES SUNLIGHT TREATMENTS
(As described in Better Eyesight Magazine)

Shining direct sunlight on the sclera, the outer white part of the eye is a old treatment Dr. Bates applied to bring life, health, activity to the retina and its cells, cones, rods, nerves, blood vessels. Dr. Bates cured unclear vision and other eye problems, diseases with this treatment. People that were blind or almost blind would begin to see light and obtain clear vision as result of this treatment and other Bates activities.

Directions

1 - Face the sun with the eyes pupil directed away from the sun. Allow full spectrum sunlight to shine directly on the sclera, (white part of the eye) by pulling the upper eyelids up while looking down. The sun shines on the upper white area of the eye. The eyes pupil is down, under the lower eyelid to prevent direct sunlight from shining into the pupil.

Move the eyes and head/face side to side to move the sunlight over the entire sclera and retina, lens through the sclera. Keep the sunlight moving on the sclera for a few seconds. Then stop, rest. Repeat if comfortable. Do not overdo it. Movement of the eyes, light places sunlight on all areas of the eye, retina, improves absorption, use of the light, activation of the retinas cells, light receptors... and prevents overexposure, concentration of the light, sunburn on the eye.



When pulling the eyelid; do not touch the eye or eyelid. Pull on the skin above the eyelid. Keep fingernails very short. Wash your hands first. Avoid chemical based soap.
Do both eyes at the same time; left thumb pulls left lid, right thumb pulls right lid. Pull gently.
This treatment also helps the eye build normal tolerance to sunlight, improves health and color of the sclera, perception of light, color, clarity of vision.

2 - Now, direct the sunlight onto the bottom of the sclera; Pull the lower eyelids down, move the eye/pupil up in the opposite direction so the sun shines on the lower area of the sclera and not directly into the pupil.
Move the eyes, head/face side to side. Keep the sunlight moving on the sclera for a few seconds. Then stop, rest. The head/body may need to be tilted back a bit to keep sunlight on the lower sclera and away from the pupil. Practicing this treatment repeatedly can tense the eye muscles and the pull of the fingers irritate the eyelids, skin. Use it occasionally.

Sun-Glass Treatment

Dr. Bates cured advanced eye problems, blindness by the sunlight methods and, also applying the use of the Sunglass to increase the strength of the sunlight on the eyes sclera and retina through the sclera. He moves the sunlight through the Sunglass quickly over the sclera for only a second, few seconds. He also moves the sunlight through the Sunglass on/over closed eyelids. Light is not directed into the pupil.
The light is kept in movement and moved quickly on the sclera and not for too long; only a few seconds in order to prevent over concentrating sunlight on any one or more areas of the eye, to prevent overexposure, sunburn on/in the eye. Distance of the glass must be correct or the eye can be burned.

The patient is exposed to plain sunlight first, without the glass to get the eyes adjusted to the light before using the sun-glass.
Do not do this at home without an eye doctor's direction. Done incorrect, it can burn the eye.

THE USE OF THE SUN GLASS

In using the sun glass, it is well to accustom the eyes of the patient to the strong light by having him sit in the sun with his eyes closed, and at the same time he should slowly move his head from side to side, in order to avoid discomfort from the heat. Enough light shines through the eyelid to cause some people a great deal of discomfort at first, but after a few hours' exposure in this way, they become able to gradually open their eyes to some extent without squeezing the lids. When this stage is reached, one can focus, with the aid of the sun glass, the light on the closed eyelids, which at first is very disagreeable. When the patient becomes able to open the eyes, he is directed to look as far down as possible, and in this way the pupil is protected by the lower lid. Then by gently lifting the upper lid, only the white part of the eye is exposed, while the sun's rays strike directly upon this part of the eyeball. The sun glass may then be used on the white part of the eye. Care should be taken to move the glass from side to side quickly. The length of time devoted to focusing the light on the white part of the eye is never longer than a few seconds. After such a treatment the patient almost immediately becomes able to open his eyes widely in the light.

Most Modern Natural Eyesight Improvement Teachers do not apply the Sunglass Treatment -(Mainly due to fear of the AMA.) Ophthalmologist Bates cured many vision problems, eye diseases, various types of blindness with the Sunglass and Sunlight, Sunning Treatments. Try plain Sunning, Sunlight first.

The Sunglass treatment is be done by a Bates Method Experienced Ophthalmologist and only if necessary in cases of blindness, extreme vision impairment and only after closed eyes sunning, daily sunlight exposure; eyes open (not staring into the sun), yes; looking at, shifting on the bright sunny sky, clouds, trees and other Bates Method Treatments have been tried first.

If these have not brought vision improvement, the Sunglass Treatment may.

Be aware that certain types of glass act as a magnifying glass. The Sunglass is a magnifier and sunlight passing through the Sunglass can burn the eye.

Only a professional should apply this method;

The glass is never still; the glass is moved continually side to side causing the light to move quickly on the white area of the eye. A short time; only a few seconds of light is placed on the eye. Do one eye at a time.

(Patch the eye not being worked upon with a white eyepatch to prevent the eye, pupil from moving into the light of the Sunglass. Keep the patch open on the outer side away from the glass to allow plain daylight into that eye to keep both brain hemispheres, eyes active. Do not wear any type of eyeglasses, contact lenses, sunglasses, tinted, UV blocking lenses when using the Sunglass, Sun-gazing, Sunning.)

Distance of the glass from the eye must be exact, a specific distance and the time the light is on the eye (white area, sclera only, through or under eyelids) must be brief, few seconds or the eye can be burned. It is a certain type of magnifying glass;

Type, size, thickness, curvature... of the glass, distance, angle from the eye, strength of the sun affects the strength, intensity, concentration of the light ray beam, heat of the sunlight through the glass. The heat increases with the amount of time the light is on the eye. The correct amount is relaxing, healthy for the eye. The light must never shine on/into the eyes pupil. Keep the light away from the pupil, iris. Keep the eye, pupil far down, under the lower lid to prevent the light beam from shining into the pupil. Do not move the eyes when the Sunglass light is on the eyes.

Start with eyes closed, look far down. Bring the glass, light beam close, but a safe distance from the eye. Move the light beam on the white area of the eye through the eyelids. The movement helps to prevent too much heat. Test the intensity of the light, heat, distance of the glass... on the closed eyelids first. See the size of the light spot on the eye and the blood vessels... in the eyes sclera, retina. Keep the light moving, move it quickly on the sclera for a few seconds.

Then, repeat with the eyes open; still looking far down, eyes pupil under the lower eyelid, protected from the light; lift the upper eyelid, open the eyes and move the light quickly side to side, a few seconds on the white area, sclera of the eye. Then repeat the steps with the other eye.

The Sunglass is a glass. As described in other chapters; All glass, plastic..; eyeglasses, windows, sunglasses block out part of the sun's light spectrum causing unhealthy partial spectrum, unbalanced light to exit the glass and shine into the eyes, travel to the brain, body. This impairs health, function of the brain, body, eyes and clarity of vision. For this reason the sunglass is only used to get the cells, light receptors, capillaries... in the eye, retina, lens back to full life, activity, bring the vision back. Then the glass is not used. Plain sunlight not passing through glass is used by practicing Sunning, Sun-gazing... as described in this chapter.

Read more directions for Sunning, Sun-Gazing, Sunglass Treatments in the PDF Natural Eyesight Improvement E-book; Ophthalmologist Bates 'Better Eyesight Magazine' describes this treatment.
See; Better Eyesight Magazine; April, May, June, August, October, December, 1926 and November, 1924 and

other 'Use of the Sunglass, Burning Glass' articles. Better Eyesight Magazine article June, 1926 in original form is shown on this page.
I place the instructions here due to the many cures Dr. Bates, Emily Lierman, Bates, other doctors obtained with the Sunglass and to enable persons to know if their Eye doctor is doing the treatment correct, safe.

Sun-Gazing; Looking into the sun with the eyes open, while moving the eyes, head/face side to side, keeping the eyes, head/face in movement 'shifting' is still done by some people in various countries, cultures.
For sun-gazers that do look at the sun with the eyes open; Practice only for 5-10 seconds occasionally, always moving the head/face, eyes; shifting side to side, top and bottom... across the sun. Blink often.
Never stare into the sun. Application time may vary with certain cultures, countries, treatments by experts.
Avoid areas where the sunlight is concentrated or the ozone layer is depleted.
Looking at the sun at sunrise, sunset in safe areas of the planet is allowed as long as staring, over-exposure is avoided. People have been looking at the sky, sunrise, sunset for millions of years.

Due to the depletion of the ozone layer, Modern Bates Teachers do not advise looking into the sun with the eyes open. Closed Eyes Sunning only is practiced.
Looking at the bright areas of the sky, clouds, tree tops with the eyes open on a sunny day is allowed.
Never look at or near the sun during a solar eclipse of the sun.

Good nutrition is necessary to maintain the eyes natural protection and tolerance to sunlight.
Sunlight through the eyes and on the skin is also necessary for the body to absorb, create, function with nutrients, vitamins, vitamin D, calcium.., minerals, to help protect the eyes, skin from sunburn, overexposure to sunlight, to produce, balance, control hormones, chemicals in the brain, body, body organs, systems, including melatonin for a normal sleep cycle and serotonin, tryptophan... for a positive state of mind, good mood, positive thoughts, emotions. The eyes need sunlight to remain healthy, keep the vision clear.
Most drugs and some herbs impair the vision, eye health, natural tolerance, protection from over-exposure to sunlight.

Sunlight contains all colors, frequencies, energy of the light spectrum.

5. SUN TREATMENT. The eyes need sunlight. People who work in mines, where there is no sun, sooner or later develop inflammations of the interior of the eyes. The cloudiness of the lens from cataract is lessened by exposing the eye to the direct rays of the sun. When using the sun treatment, it is best to let the eyes become accustomed to the sun by mild treatment at first. Have the patient sit in a chair with his eyes closed and his face turned toward the sun. He should slowly move his head a short distance from side to side. The movement of the head prevents concentration of the sun's rays on one part of the eye. After some days of treatment, or when the patient becomes more accustomed to the light, one may use the sun-glass with added benefit. Direct the patient to look far down and while he does this, lift the upper lid gently, exposing to view the sclera or white part of the eye. Now, with the aid of the sun-glass focus the sunlight on the forehead or on the cheek, and then rapidly pass the concentrated light over various parts of the sclera. This requires less than a minute of time. It is

not well to be in a hurry. One should wait until the patient becomes sufficiently accustomed to the sun to permit the upper eyelid to be raised while he looks far down, exposing the sclera only. It is important that the patient be cautioned not to look directly at the sun.

Prognosis

The cure of cataract is usually accomplished more quickly than the cure of some other diseases of the eye. My assistant, Emily C. Lierman, has had unusual success in treating cataract cases, as she adapts my methods to each individual case. In her book, "Stories from the Clinic," the treatment is described in detail.

Ophthalmologist
William H. Bates

BETTER EYESIGHT

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

July, 1919 - June, 1930 - 132 Magazine Issues

Central Fixation Publishing Co.

New York, N.Y. USA

July, 1919

Emily C. Lierman, Bates

Do you read imperfectly? Can you observe then that when you look at the first word, or the first letter, of a sentence you do not see best where you are looking; that you see other words, or other letters, just as well as or better than the ones you are looking at? Do you observe also that the harder you try to see the worse you see? Now close your eyes and rest them, remembering some color, like black or white, that you can remember perfectly. Keep them closed until they feel rested, or until the feeling of strain has been completely relieved. Now open them and look at the first word or letter of a sentence for a fraction of a second. If you have been able to relax, partially or completely, you will have a flash of improved or clear vision, and the area seen best will be smaller.

After opening the eyes for this fraction of a second, close them again quickly, still remembering the color, and keep them closed until they again feel rested. Then again open them for a fraction of a second. Continue this alternate resting of the eyes and flashing of the letters for a time, and you may soon find that you can keep your eyes open longer than a fraction of a second without losing the improved vision.

If your trouble is with distant instead of near vision, use the same method with distant letters.
In this way you can demonstrate for yourself the fundamental principles of the cure of imperfect sight by treatment without glasses.

If you fail, ask someone with perfect sight to help you.

Do You Read Imperfectly? - This first article and others are placed on page 2 on the inside cover of each monthly Better Eyesight Magazine issue. The articles consist of a variety of the Best of Dr. Bates Original Natural Vision Improvement Treatments, Activities. The student can copy, paste these into a small fine print booklet to carry in a pocket and practice in your spare time.

FOREWORD

WHEN the United States entered the European war recruits for general military service were required to have a visual acuity of 20/40 in one eye and 20/100 in the other.[1] This very low standard, although it is a matter of common knowledge that it was interpreted with great liberality, proved to be the greatest physical obstacle to the raising of an army. Under it 21.68 per cent of the registrants were rejected, 13 per cent more than for any other single cause.[2]

Later the standard was lowered[3] so that men might be "unconditionally accepted for general military service" with a vision of 20/100 in each eye without glasses, provided one eye was correctible to 20/40. For special or limited service they might be accepted with only 20/200 in each eye without glasses, provided one was correctible to 20/40. At the same time a great many defects other than errors of refraction were admitted in both classes, such as squint not interfering with vision, slight nystagmus, and color blindness. Even total blindness in one eye was not a cause for rejection to the limited service class, provided it was not due to progressive or organic change, and the vision of the other eye was normal. Under this incredible standard eye defects still remained one of three leading causes of rejection.

Over ten per cent, (10.65) of the registrants were disqualified by them, while defects of the bones and joints and of the heart and blood-vessels ran respectively one and one and a half percent higher.[4]

Most of the revelations about the physical condition of the American people which resulted from the operation of the draft law had been anticipated by persons who had been giving their attention to such matters - and whose warnings had long fallen upon deaf ears - but it is doubtful if anyone had formed an adequate conception of the truth regarding the condition of the nation's eyesight. That it should be impossible to raise an army with even half normal vision in one eye, and that one man in every ten rejected for military service should have been unable, even by the aid of glasses, to attain this standard, is a situation so appalling that words fail to characterize it, so incredible that only the most unimpeachable evidence could compel belief in it. Under these circumstances it seems to me the plain duty of anyone who has found any means of controlling the evil in question to give the facts the widest possible publicity.

Most writers on ophthalmology today appear to believe that defective eyesight is part of the price we must pay for civilization. The human eye, they say, was not designed for the uses to which it is now put. Eons before there were any schools, or printing presses, electric lights, or moving pictures, its evolution was complete. In those days it served the needs of the human animal perfectly, but it is not to be expected, we are told, that it should respond without injury to the new demands. By care it is thought that this injury may be minimized, but to eliminate it wholly is considered to be too much to hope for. Such is the depressing conclusion to which the monumental labors of a hundred years and more have led us.

I have no hesitation in stating that this conclusion is unqualifiedly wrong. Nature did not blunder when she made the human eye, but has given us in this intricate and wonderful mechanism, upon which so much of the usefulness as well as the pleasure of life depends, an organ as fully equal to the needs of civilization as to those of the Stone Age. After thirty-three years of clinical and experimental work, I have demonstrated to my own satisfaction and that of others that the eye is capable of meeting the utmost demands of civilization; that the errors of refraction which have so long dogged the footsteps of progress, and which have made

the raising of an army during the recent war so difficult, are both preventable and curable; and that many other forms of imperfect sight, long held to be incurable, may be either improved or completely relieved.

All these discoveries have been published in the medical press, but while their reliability has never been publicly disputed, the medical profession has so far failed to make use of them. Meantime the sight of our children is being destroyed daily in the schools, and our young men and women are entering life with a defect which, if uncorrected, must be a source of continual misery and expense to them, sometimes ending in blindness or economic ruin. Admitting for the sake of argument that I may be wrong in my conclusion that these things are unnecessary, it is time I was proven to be wrong. I should not be allowed to play on the forlorn hope of a suffering world. If I am right, as I know I am, a suffering world should no longer be deprived of the benefit of my discoveries.

To give publicity to these discoveries and arouse discussion regarding them is one of the objects for which this magazine has been started. At the same time its pages are open to everyone who has any light to throw upon the problem. It has too long been the custom of ophthalmologists to disregard every fact at variance with the accepted theories. Such facts, when observed, have usually not been published, and when published they have either been ignored or explained away in some more or less plausible manner.

The management of this magazine wishes to make it a medium for the publication of such facts, which, it may safely be asserted, are known to every ophthalmologist of any experience, and which, if they had received proper consideration, would long ago have led us out of the blind alley in which we are now languishing.

While I think it may be truthfully said that many of my methods are new and original, other physicians, both in this country and in Europe, have cured themselves and others by treatment without glasses. Lay persons have done the same.

Fine Print – For Clear Close Vision

In *The Autocrat of the Breakfast Table*, Oliver Wendell Holmes published a very remarkable case of the cure of presbyopia.

"There is now living in New York State," he says, "an old gentleman who, perceiving his sight to fail, immediately took to exercising it on the finest print, and in this way fairly bullied Nature out of her foolish habit of taking liberties at five-and-forty, or thereabouts. And now this old gentleman performs the most extraordinary feats with his pen, showing that his eyes must be a pair of microscopes. I should be afraid to say how much he writes in the compass of a half-dime, whether the Psalms or the Gospels, or the Psalms and the Gospels, I won't be positive."[5]

An officer in the American Expeditionary Forces, whose letter is published elsewhere, wrote to me about a year ago that he has cured himself of presbyopia, and after half a lifetime of misery was entirely free from eye discomfort.

There must be many more of these cases, and we want to hear of them.

(Five and forty=fifties, forties… year of age.) Reading fine print maintains clear close and distant vision at all ages and keeps the eyes healthy, prevents development of eye diseases, cataracts. Along with good nutrition, avoiding eyeglasses.

FUNDAMENTAL FACTS

For about seventy years it has been believed that the eye accommodates for vision at different distances by changing the curvature of the lens, and this theory has given birth to another, namely, that errors of refraction are due to a permanent organic change in the shape of the eyeball. On these two ideas the whole system of treating errors of refraction is based at the present time.

My experiments and clinical observations have demonstrated that both these theories are wrong.[6] They have shown:

(1) That the lens is not a factor in accommodation;
(2) That the change of focus necessary for vision at different distances is brought about by the action of the superior and inferior obliques, which, by their contraction and relaxation, change the length of the eyeball as the length of the camera is changed by the shortening and lengthening of the bellows;
(3) That errors of refraction are due to the abnormal action of these muscles and of the recti, the obliques being responsible for myopia and the recti for hypermetropia, while both may combine in the production of astigmatism;
(4) That this abnormal action of the muscles on the outside of the eyeball is always due to mental strain of some kind.

This being the case it follows that all errors of refraction can be cured by relaxation. All methods of treatment, therefore, are simply different ways of obtaining relaxation. And because it is impossible to relax the eye muscles without relaxing the mind-and the relaxation of the mind means the relaxation of the whole body - it also follows that improvement in the eyesight is always accompanied by an improvement in health and mental efficiency.

The fact that all errors of refraction are functional can often be demonstrated within five minutes. When a person with myopia, hypermetropia, or astigmatism, looks at a blank wall without trying to see, the retinoscope, with a plane mirror, at six feet, indicates, in flashes or more continuously no error of refraction. The conditions should be favorable for relaxation and the doctor should be as much at his ease as the patient.

It can also be demonstrated with the retinoscope that persons with normal sight do not have it all the time.[7] When the vision of such persons becomes imperfect at the distance it will be found that myopic refraction has been produced;[8] when it becomes imperfect at the near point it will be found that hypermetropia has been produced.

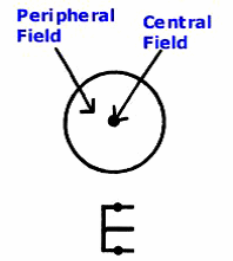
CENTRAL-FIXATION

An invariable symptom of all abnormal conditions of the eyes, whether functional or organic, is the loss of central-fixation. When a person with perfect vision looks at a letter on the Snellen test card he can always observe that all the other letters in his field of vision are seen less distinctly. He can also observe that when he looks at the bottom of even the smallest letter on the card, the top appears less black and less distinct than the part directly regarded, while the same is true of a letter of diamond type, or of the smallest letters that are printed. When a person with imperfect sight looks at the card he can usually observe that when he can read a line of letters he is able to look at one letter of a line and see it better than the others, but the letters of a line he cannot read may look all alike, or those not directly regarded may even be seen better than the one fixed.

These conditions are due to the fact that when the sight is normal the sensitiveness of the fovea is normal, but when the sight is imperfect, from whatever cause, the sensitiveness of the fovea is lowered, so that the eye sees equally well, or even better, with other parts of the retina. Contrary to what is generally believed, the part seen best when the sight is normal is extremely small. **The text-books say that at twenty feet an area having a diameter of a quarter of an inch can be seen with maximum vision, but anyone who tries at this distance to see every part of one of the small letters of the Snellen test card - the diameter of which is about a quarter of an inch - equally well at one time will immediately become myopic. The fact is that the nearer the point of maximum vision approaches a mathematical point, which has no area, the better the sight.**

The cause of this loss of function in the center of sight is mental strain; and as all abnormal conditions of the eyes, organic as well as functional, are accompanied by mental strain, all such conditions must necessarily be accompanied by loss of central-fixation.

When the mind is under a strain the eye usually goes more or less blind. The center of sight goes blind first, partially or completely, according to the degree of the strain, and if the strain is great enough the whole or the greater part of the retina may be involved. When the vision of the center of sight has been suppressed, partially or completely, the patient can no longer see the point which he is looking at best, but sees objects not regarded directly as well, or better, because the sensitiveness of the retina has now become approximately equal in every part, or is even better in the outer part than in the center. Therefore in all cases of defective vision the patient is unable to see best where he is looking. When the person with imperfect vision sees the peripheral field clearest, it is not as clear as the central field is when the vision is normal.



**Look at the dot on the top of the E.
The dot is in the center of the visual field and is clearest. The dot on the bottom is in the peripheral field and is less clear.
Shift dot to dot seeing one dot clearest at a time.**

This condition is sometimes so extreme that the patient may look as far away from an object as it is possible to see it and yet see it just as well as when looking directly at it. In one case it had gone so far that the patient could see only with the edge of the retina on the nasal side. In other words, she could not see her fingers in front of her face, but could see them if she held them at the outer side of her eye. She had no error of refraction, showing that while every error of refraction is accompanied by eccentric fixation, the strain which causes the one condition is different from that which produces the other. The patient had been examined by specialists in this country and Europe, who attributed her blindness to disease of the optic nerve, or brain; but the fact that vision was restored by relaxation demonstrated that the condition had been due simply to mental strain.

Eccentric fixation, even in its lesser degrees, is so unnatural that great discomfort, or even pain, can be produced in a few seconds by trying to see every part of an area three or four inches in extent at twenty feet, or even less, or an area of an inch or less at the near point, equally well at one time, while at the same time the retinoscope will demonstrate that an error of refraction has been produced. This strain, when it is habitual, leads to all sorts of abnormal conditions and is, in fact, at the bottom of most eye troubles, both functional and organic. The discomfort and pain may be absent, however, in the chronic condition, and it is an encouraging symptom when the patient begins to experience them.

Natural health improvement doctors state; When health or vision is impaired, pain and other symptoms occur. When health/vision impairment increases, sometimes the pain, other uncomfortable symptoms vanish, are not felt. New symptoms may take their place. When healing occurs and the health/vision is reversing back to normal, is being corrected/cured; the old pains, symptoms may temporarily re-appear as the health/vision is passing backwards through previous beginning stages of the health or vision problem. Then, as the health/vision improves to perfect health, clear vision; the pain, symptoms are completely removed. Complete recovery without passing through pain, uncomfortable symptoms can also occur.

The center of the retina, macula and fovea centralis with its many cones produce the clearest vision and brightest color in the center of the visual field. Areas nearest the central field are also very clear-clarity descreasing outward into the peripheral field. The peripheral field of the retina produces less clear vision and less color in the peripheral field of vision. When the vision is normal, clear; the center of the visual field is clearest and the peripheral field less clear. The exact center of the visual field is produced by the fovea centralis and is the size of the pointed end of a pin and produces very clear vision, much clearer than 20/20 and brightest color, fine detailed vision, ability to see very small parts of objects at close and far distances.

Central-fixation – To look at/see one small part of a object clearest at a time in the center of the visual field. Shifting is combined with central-fixation- the eyes, center of the visual field moves, shifts continually from part to part (point to point) on a object to see the object clear. The center of the visual field also moves with the eyes from object to object seeing one object at as time clearest.

Natural Vision Improvement returns perfect clear central vision and brings the peripheral to its maximum clarity.

When the eye possesses central-fixation it not only possesses perfect sight, but it is perfectly at rest and can be used indefinitely without fatigue. It is open and quiet; no nervous movements are observable; and when it regards a point at the distance the visual axes are parallel. In other words, there are no muscular insufficiencies. This fact is not generally known. The text-books state that muscular insufficiencies occur in eyes having normal sight, but I have never seen such a case. The muscles of the face and of the whole body are also at rest, and when the condition is habitual there are no wrinkles or dark circles around the eyes.

In most cases of eccentric fixation, on the contrary, the eye quickly tires, and its appearance, with that of the face, is expressive of effort or strain. The ophthalmoscope reveals that the eyeball moves at irregular intervals, from side to side, vertically or in other directions. These movements are often so extensive as to be manifest by ordinary inspection, and are sometimes sufficiently marked to resemble nystagmus. Nervous movements of the eyelids may also be noted, either by ordinary inspection, or by lightly touching the lid of one eye while the other regards an object either at the near point or the distance. The visual axes are never parallel, and the deviation from the normal may become so marked as to constitute the condition of **squint**. Strain, eccentric fixation, diffusion causes squint, crossed, wandering eyes, imperfect convergence, divergence. Redness of the conjuctiva and of the margins of the lids, wrinkles around the eyes, dark circles beneath them and tearing are other symptoms of eccentric fixation.

Eccentric fixation is a symptom of strain, and is relieved by any method that relieves strain; but in some cases the patient is cured just as soon as he is able to demonstrate the facts of central-fixation. When he comes to realize, through actual demonstration of the fact, that (when experiencing blur, eccentric fixation, diffusion, not seeing with the center of the visual field) he does not see best where he is looking, and that when he looks a sufficient distance away from a point (when the eyes are working correct, relaxed, with central-fixation) he can see it worse than when he looks directly at it, he becomes able, in some way, to reduce the distance to which he has to look in order to see worse, until he can look directly at the top of a small letter and see the bottom worse, or look at the bottom and see the top worse. The smaller the letter regarded in this way, or the shorter the distance the patient has to look away from a letter in order to see the opposite part indistinctly, the greater the relaxation and the better the sight. When it becomes possible to look at the bottom of a letter and see the top worse, or to look at the top and see the bottom worse, it becomes possible to see the letter perfectly black and distinct. At first such vision may come only in flashes. The letter will come out distinctly for a moment and then disappear. But gradually, if the practice is continued, central-fixation will become habitual. Seeing objects or a part of a object worse when not looking directly at it=it is less clear because it is in the less clear peripheral field. When looking directly at the object, or part, it is in the central field and is clearest.

Most patients can readily look at the bottom of the big C and see the top worse; but in some cases it is not only impossible for them to do this, but impossible for them to let go of the large letters at any distance at which they can be seen. In these extreme cases it sometimes requires considerable ingenuity, first to demonstrate to the patient that he does not see best where he is looking, and then to help him to see an object worse when be looks away from it than when he looks directly at it. The use of a strong light as one of the points of fixation, or of two lights five or ten feet apart, has been found helpful, the patient when he looks away from the light being able to see it less bright more readily than he can see a black letter worse when he looks away from it. It then becomes easier for him to see the letter worse when he looks away from it. This method was successful in the following case:

Look at/see clearest - one part (dot) of the C at a time, in the center of the visual field. The part (dot) in the peripheral field is less clear.

A patient with vision of 3/200, when she looked at a point a few feet away from the big C, said she saw the letter better than when she looked directly at it. Her attention was called to the fact that her eyes soon became tired and that her vision soon failed when she saw things in this way. Then she was directed to look at a bright object about three feet away from the card, and this attracted her attention to such an extent that she became able to see the large letter on the test card worse, after which she was able to look back at it and see it better. It was demonstrated to her that she could do one of two things: look away and see the letter better than she did before, or look away and see it worse. She then became able to see it worse all the time when she looked three feet away from it. Next she became able to shorten the distance successively to two feet, one foot and six inches, with a constant improvement in vision; and finally she became able to look at the bottom of the letter and see the top worse, or look finally she became able to read the ten line at twenty feet. By the same method also she became able to read diamond type, first at twelve inches and then at three inches. By these simple measures alone she became able, in short, to see best where she was looking, and her cure was complete.

The highest degrees of eccentric fixation occur in the high degrees of myopia, and in these cases, since the sight is best at the near point, the patient is benefited by practicing seeing worse at this point. The distance can then be gradually extended until it becomes possible to do the same thing at twenty feet. One patient with a high degree of myopia said that the farther she looked away from an electric light the better she saw it, but by alternately looking at the light at the near point and looking away from it she became able, in a short time, to see it brighter when she looked directly at it than when she looked away from it. Later she became able to do the same thing at twenty feet, and then she experienced a wonderful feeling of relief. No words, she said, could adequately describe it. Every nerve seemed to be relaxed, and a feeling of comfort and rest permeated her whole body. Afterward her progress was rapid. She soon became able to look at one part of the smallest letters on the card and see the rest worse, and then she became able to read the letters at twenty feet.

On the principle that a burnt child dreads the fire, some patients are benefited by consciously making their sight worse. When they learn, by actual demonstration of the facts, just how their visual defects are produced, they unconsciously avoid the unconscious strain which causes them. When the degree of eccentric fixation is not too extreme to be increased, therefore, it is a benefit to patients to teach them how to increase it. **When a patient has consciously lowered his vision and produced discomfort and even pain by trying to see the big C, or a whole line of letters, equally well at one time, he becomes better able to correct the unconscious effort of the eye to see all parts of a smaller area equally well at one time.** (Experience strain=learn to avoid it.)

In learning to see best where he is looking it is usually best for the patient to think of the point not directly regarded as being seen less distinctly than the point he is looking at, instead of thinking of the point fixed as being seen best, as the latter practice has a tendency, in most cases, to intensify the strain under which the eye is already laboring. One part of an object is seen best only when the mind is content to see the greater part of it indistinctly, and as the degree of relaxation increases the area of the part seen worse increases until that seen best becomes merely a point. (Exact center of visual field, fovea centralis, much clearer than 20/20.)

The limits of vision depend upon the degree of central-fixation. A person may be able to read a sign half a mile away when he sees the letters all alike, but when taught to see one letter best he will be able to read smaller letters that he didn't know were there. **The remarkable vision of savages, who can see with the naked eye objects for which most civilized persons require a telescope, is a matter of central-fixation.** Some people can see the rings of Saturn, or the moons of Jupiter, with

the naked eye. It is not because of any superiority in the structure of their eyes, but because they have attained a higher degree of central-fixation than most civilized persons do.

Not only do all errors of refraction and all functional disturbances of the eye disappear when it sees by central-fixation, but many organic conditions are relieved or cured. I am unable to set any limits to its possibilities. I would not have ventured to predict that glaucoma, incipient cataract and syphilitic iritis could be cured by central-fixation; but it is a fact that these conditions have disappeared when central-fixation was attained. Relief was often obtained in a few minutes, and sometimes this relief was permanent. Usually, however, a permanent cure required more prolonged treatment. Inflammatory conditions of all kinds, including inflammation of the cornea, iris, conjunctiva, the various coats of the eyeball and even the optic nerve itself, have been benefited by central-fixation after other methods had failed. Infections, as well as diseases caused by protein poisoning and the poisons of typhoid fever, influenza, syphilis and gonorrhea, have also been benefited by it. Even with a foreign body in the eye there is no redness and no pain so long as central-fixation is retained.

Since central-fixation is impossible without mental control, central-fixation of the eye means central-fixation of the mind. It means, therefore, health in all parts of the body, for all the operations of the physical mechanism depend upon the mind. Not only the sight, but all the other senses - touch, taste, hearing and smell - are benefited by central-fixation. All the vital processes - digestion, assimilation, elimination, etc. - are improved by it. The symptoms of functional and organic diseases are relieved. The efficiency of the mind is enormously increased. The benefits of central-fixation already observed are, in short, so great that the subject merits further investigation.

Central-Fixation Example:
Look at the top part of the letter C. Place it in the center of the visual field. Shift on it to avoid staring. While looking at that part, in the center of the visual field; that part is clearest. Other parts of the C away from the part the eyes are looking directly at are in the peripheral field are seen worse, less clear.
When the eyes move, shift to a new part, example; a part on the bottom of the C; this part is now in the center of the visual field, is clearest and the top of the C and other parts are in the peripheral field, away from the central field and are seen less clear.
Shift from part to part on the C and see one small part at a time clearest in the center of the visual field – Central-fixation.
Practice on large, then smaller letters, any objects, then on small objects, a fine print letter.
When the eyes can shift: small point to small point on a small object, small part of a object, fine print letter and use central-fixation, vision is very clear.
Central-fixation must be combined with shifting; shifting from point to point.
Central-fixation does not mean to fix the eyes immobile on a point.
Eccentric fixation is; Diffusion – trying to see two or more objects or more than one part of a object at the same time, objects in the central and peripheral field equally clear at the same time, not shifting from part to part, object to object, to space the visual attention out to cover the entire field without moving the eyes. Using the peripheral area of the retina and field of vision to see with, placing the object of visual attention in the peripheral field.

A TEACHER'S EXPERIENCES

A teacher forty years of age was first treated on March 28, 1919. She was wearing the following glasses: O. D. convex 0.75 D. S. with convex 4.00 D. C., 105 deg.; O. S. convex 0.75 D. S. with convex 3.50 D. C., 105 deg. On June 9, 1919, she wrote:

I will tell you about my eyes, but first let me tell you other things. You were the first to unfold your theories to me, and I found them good immediately - that is, I was favorably impressed from the start. I did not take up the cure because other people recommended it, but because I was convinced: first, that you believed in your discovery yourself; second, that your theory of the cause of eye trouble was true. I don't know how I knew these two things, but I did. After a little conversation with you, you and your discovery both seemed to me to bear the earmarks of the genuine article. As to the success of the method with myself I had a little doubt. You might cure others, but you might not be able to cure me, However, I took the plunge, and it has made a great change in me and my life.

To begin with, I enjoy my sight. I love to look at things, to examine them in a leisurely, thorough way, much as a child examines things. I never realized it at the time, but it was irksome for me to look at things when I was wearing glasses, and I did as little of it as possible. The other day, going down on the Sandy Hook boat, I enjoyed a most wonderful sky without that hateful barrier, of misted glasses, and I am positive I distinguished delicate shades of color that I never would have been able to see, even with clear glasses. Things seem to me now to have more form, more reality than when I wore glasses. Looking into the mirror you see a solid representation on a flat surface, and the flat glass can't show you anything really solid. My eye-glasses, of course, never gave me this impression, but one curiously like it. I can see so clearly without them that it is like looking around corners without changing the position. I feel that I can almost do it.

I very seldom have occasion to **palm**.[9] Once in a great while I feel the necessity of it. The same with **remembering a period**.[10] Nothing else is ever necessary. I seldom think of my eyes, but at times it is borne in upon me how much I do use and enjoy using them.

My nerves are much better. I am more equable, have more poise, am less shy. I never used to show that I was shy, or lacked confidence.

I used to go ahead and do what was required, if not without hesitation, but it was hard. Now I find it easy. Glasses, or poor sight rather, made me self-conscious. It certainly is a great defect and one people are sensitive to without realizing it. I mean the poor sight and the necessity for wearing glasses. I put on a pair of glasses the other day just for an experiment, and I found that they magnified things. My skin looked as if under a magnifying glass. Things seemed too near. The articles on my chiffonier looked so

close I felt like pushing them away from me. The glasses I especially wanted to push away. They brought irritation at once. I took them off and felt peaceful. Things looked normal.

I see better in the street than I ever did with glasses. I can see what people look like across the street, can distinguish their features, etc., a thing I could not do with glasses, or before I wore them. I can see better across the river and further into people's houses across the street.

Not that I indulge, but I noticed an increase of power while looking out of the window in school.

Speaking of school, I corrected an immense pile of examination papers the other day, five hours at a stretch, with an occasional look off the paper and an occasional turn about the room. I felt absolutely no discomfort after it. Two weeks previous to this feat I handled two hundred designs over and over again, looking at each one dozens and dozens of times to note changes and improvement in line and color.

Occasionally, while this work was going on. I had to palm in the mornings on rising.

I use my eyes with as much success writing, though once in a while after a lot of steady writing they are a little bit tired. I can read at night without having to get close to a light. I mention this because last summer I had to sit immediately under the light, or I could not see.

From the beginning of the treatment I could use my eyes pretty well, but they used to tire. I remember making a large Liberty Loan poster two weeks after I took off my glasses, and I was amazed to find I could make the whole layout almost perfectly without a ruler, just as well as with my glasses. When I came to true it up with the ruler I found only the last row of letters a bit out of line at the very end. I couldn't have done better with glasses. However this wasn't fine work. About the same time I sewed a hem at night in a black dress, using a fine needle. I suffered a little for this, but not much. I used to practice my exercises at that time and palm faithfully. Now I don't have to practice, or palm; I feel no discomfort, and I am absolutely unsparing in my use of my eyes. I do everything I want to with them. I shirk nothing, pass up no opportunity of using them. From the first I did all my school work, read every notice, wrote all that was necessary, neglected nothing.

Everything I was called upon to do I attempted. For instance, I had to read President Wilson's "Fourteen Points" in the assembly room without notice in a poor light-unusual wording, too,-and I read it unhesitatingly. I have yet to fail to make good.

Now to sum up the school end of it, I used to get headaches at the end of the month from adding columns of figures necessary to reports, etc. Now I do not get them. I used to get flustered when people came into my room. Now I do not; I welcome them. It is a peasant change to feel this way. And-I suppose this is most important really, though I think of it last-I teach better. I know how to get at the mind and how to make the children see things in perspective. I gave a lesson on the horizontal cylinder recently, which, you know, is not a thrillingly interesting subject, and it was a remarkable lesson in its results and in the grip it got on every girl in the room, stupid and bright. What you

have taught me makes me use the memory and imagination more, especially the latter, in teaching.

Now, to sum up the effect of being cured upon my own mind. I am more direct, more definite, less diffused, less vague. In short, I am conscious of being better centered. It is central-fixation of the mind. I saw this in your latest paper, but I realized it long ago and knew what to call it.

ARMY OFFICER CURES HIMSELF

An engineer, fifty-one years of age, had worn glasses since 1896, first for astigmatism, getting stronger ones every couple of years, and then for astigmatism and presbyopia. At one time he asked his oculist and several opticians if the eyes could not be strengthened by exercises, so as to make glasses unnecessary, but they said: "No. Once started on glasses you must keep to them."

When the war broke out he was very nearly disqualified for service in the Expeditionary Forces by his eyes, but managed to pass the required tests, after which he was ordered abroad as an officer in the Gas Service. While there he saw in the Literary Digest of May 2, 1918, a reference to my method of curing defective eyesight without glasses, and on May 11 he wrote to me in part as follows:

At the front I found glasses a horrible nuisance, and they could not be worn with gas masks. After I had been about six months abroad I asked an officer of the Medical Corps about going without glasses. He said I was right in my ideas and told me to try it. The first week was awful, but I persisted and only wore glasses for reading and writing. I stopped smoking at the same time to make it easier on my nerves.

I brought to France two pairs of bow spectacles and two extra lenses for repairs. I have just removed the extra piece for near vision from these extra lenses and had them mounted as pince-nez, with shur-on mounts, to use for reading and writing, so that the only glasses I now use are for astigmatism, the age lens being off. Three months ago I could not read ordinary head-line type in newspapers without glasses.

Today, with a good light, I can read ordinary book type (18 point), held at a distance of eighteen inches from my eyes. Since the first week in February, when I discarded my glasses, I have had no headaches, stomach trouble, or dizziness, and am in good health generally. My eyes are coming back, and I believe it is due to sticking it out. I ride considerably in automobiles and trams, and somehow the idea has crept into my mind that after every trip my eyes are stronger. This, I think, is due to the rapid changing of focus in viewing scenery going by so fast.

Other men have tried this plan on my advice, but gave it up after two or three days. Yet, from what they say, I believe they were not so uncomfortable as I was for a week or ten days.

I believe most people wear glasses because they "coddle" their eyes.

July, 1919 footnotes

1 - Harvard: Manual of Military Hygiene for the Military services of United States, third revised edition 1917, p.195.
2 - Report of the Provost Marshal General to the Secretary of War on the First Draft under the Selective Service Act, 1917.
3 - Standards of Physical Examination for the Use of Local Boards, District Boards and Medical Advisory Boards under the Selective Service Act, Form 75, issued through office of the Provost Marshal General.
4 - Second Report of the Provost Marshal General to the Secretary of War on the Operations of the Selective Service System to December 20, 1918.
5 - Everyman's Library, 1908, pp. 166 and 167.
6 - Bates: The Cure of Defective Eyesight by Treatment Without Glasses. N. Y. Med. Jour., May 8, 1915. A Study of Images Reflected from the Cornea, Iris, Lens and Sclera. N. Y. Med. Jour., May 18, 1918.
7 - Bates: The Imperfect Sight of the Normal Eye. N. Y. Med. Jour., Sept 8, 1917.
8 – Bates: The Cause of Myopia. N. Y. Med. Jour., March 16, 1912.
9 - By palming is meant the covering of the closed eyes with the palms of the hands in such a way as to exclude all the light, while remembering some color, usually black.
10 - Bates: *Memory as an Aid to Vision.* N. Y. Med. Jour., May 24, 1919.

SCHOOL NUMBER

BETTER EYESIGHT

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

August, 1919

How to Use the Snellen Test Card
FOR THE
Prevention and Cure of Imperfect Sight in Children

The Snellen Test Card is placed permanently upon the wall of the classroom, and every day the children silently read the smallest letters they can see from their seats with each eye separately, the other being covered with the palm of the hand in such a way as to avoid pressure on the eyeball. This takes no appreciable amount of time, and is sufficient to improve the sight of all children in one week and to cure all errors of refraction after some months, a year, or longer.

Children with markedly defective vision should be encouraged to read the card more frequently.

Records may be kept as follows:

John Smith, 10, Sept. 15, 1918.
R. V. (vision of the right eye) 20/40.
L. V. (vision of the left eye) 20/20.
John Smith, 11, Jan. 1, 1919.
R. V. 20/30.
L. V. 20/15.

20/20

The numerator (top number) of the fraction indicates the distance of the test card from the pupil;
The denominator (bottom number) denotes the line read, as designated by the figures printed above the middle of each line of the Snellen Test Card.

A certain amount of supervision is absolutely necessary. At least once a year some one who understands the method should visit each classroom for the purpose of answering questions, encouraging the teachers to continue the use of the method, and making a report to the proper authorities.

It is not necessary that either the inspector, the teachers, or the children, should understand anything about the physiology of the eye.

Glasses are often prescribed unnecessarily or 'too strong' (over-corrected) due to temporary nervousness, pressure to hurry, limited eye, head, neck, body movement, looking into test equipment during an eye exam. Eye doctors also prefer to prescribe an 'extra strength' to the eyeglass lenses. All eyeglasses, especially strong eyeglass lenses cause fast, increased vision/eye impairment and prescriptions for stronger and stronger lenses.

A HOUSE BUILT ON SAND

That the results of the present method of treating defects of vision are far from satisfactory is something which no one would attempt to deny. It is well known that many patients wander from one specialist to another, seeking vainly for relief, while others give up in despair and either bear their visual ills as best they may without assistance, or else resort to Christian Science, mental science, osteopathy, physical culture, or some of the other healing cults to which the incompetence of orthodox medicine has given birth. The specialists themselves, having daily to handle each other's failures, are scarcely better satisfied. Privately they criticize each other with great asperity and freedom, and publicly they indulge in much speculation as to the underlying causes of this deplorable state of affairs.

At the recent meeting of the Ophthalmological Section of the American Medical Association, Dr. E. J. Gardiner, of Chicago, in a paper on *The Present Status of Refraction Work*,1 finds that ignorance is responsible for the largest quota of failure to get satisfactory results from what he calls the "rich heritage" of ophthalmic science, but that a considerable percentage must be

attributed to other causes. Among these causes he enumerates a too great dependence on measuring devices, the delegation of refraction work to assistants, and the tendency to eliminate cycloplegics, in deference to the prejudices of patients who have a natural objection to being incapacitated by "drops."

On the same occasion, Dr. Samuel Theobald, of Johns Hopkins University, noted a tendency to "minimize the importance of muscular anomalies" as an important cause of many failures to give relief to eye patients. Among cases that have come into his hands after glasses had been prescribed by other ophthalmologists he has often found that "though great pains had been taken to correct even minor faults of refraction, grave muscular errors had been entirely overlooked." From this fact and from the small number of latent muscular defects noted in the hospital reports which he has examined, the conclusion seems to him inevitable that such faults are in large measure ignored.

Dr. Walter Pyle, of Philadelphia, laid stress on "necessary but often neglected refinements in examination of ocular refraction." "Long practice, infinite care and attention to finer details," he said, "are imperative requisites, since a slight fault in the correction of a refractive error aggravates rather than relieves the accompanying asthenopic symptoms." This care, he says, must be exercised not only by the oculist but by the optician, and to the end that the latter may be inspired to do his part, he suggests that the oculist provide himself with the means for keeping tabs on him in the form of a mechanical lens measure, axis finder and centering machine.

Dr. Charles Emerson, of the Indiana University School of Medicine, suggested a closer co-operation between the ophthalmologist and the physician, as there were many patients who could not be helped by the ophthalmologist alone.

The fitting of glasses by opticians is usually condemned without qualification, but in the discussion which followed these papers, Dr. Dunbar Roy, of Atlanta, said that the optician, just because he does not use cycloplegics, frequently fits patients with comfortable glasses where the ophthalmologist has failed. When a patient needs glasses, said Dr. Roy, he needs them when his eyes are in their natural or normal condition and not when the muscle of accommodation is partially paralyzed. Even the heavy frames used in the adjustment of trial lenses were not forgotten in the search for possible causes of failure, Dr. Roy believing that the patient is often so annoyed by these contrivances that he does not know which is causing him the most discomfort, the frames or the glasses.

Nowhere in the whole discussion was there any suggestion that this great mass of acknowledged failure could possibly be due to any defect in fundamental principles. These are a "rich heritage," the usefulness of which is not to be questioned. If they do not produce satisfactory results, it must be due to their faulty application, and it is taken for granted that there are a select few who understand and are willing to take the trouble to use them properly.

The simple fact, however, is that the fitting of glasses can never be satisfactory. The refraction of the eye is continually changing.2 Myopia, hypermetropia and astigmatism come and go, diminish and increase, and the same adjustment of glasses cannot suit the affected eyes at all times. One may be able, in many cases, to make the patient comfortable, to improve his sight, or to relieve nervous symptoms; but there will always be a considerable number of persons who get little or no help from glasses, while practically everyone who wears them is more or less dissatisfied. The optician may succeed in making what is considered to be a satisfactory adjustment, and the most eminent ophthalmologist may fail. I personally know of one specialist, a man of international reputation, who fitted a patient sixty times with glasses without affording him the slightest relief.

And even when the glasses do what is expected of them they do very little. Considering the nature of the superstructure built on the foundation of Donders, and the excellent work being done by leading men, Dr. Gardiner thinks the present status of refraction work might be deemed eminently satisfactory if it were not for the great amount of bad and careless work being done; but I do not consider it satisfactory when all we can do for people with imperfect sight is to give them eye crutches that do not even check the progress of the trouble, when the only help we can offer to the millions of myopic and hypermetropic and astigmatic and squinting children in our schools is to put spectacles on them. If this is the best that ophthalmology can do after building for three-quarters of a century upon the foundation of Donders, is it not time that we began to examine that foundation of which Dr. Gardiner boasts that "not one stone has been removed"? Instead of seeking the cause of our failure to accomplish even the little we claim to be able to do in the ignorance and carelessness of the average practitioner, great as that ignorance and carelessness often are; in the neglect of cycloplegics and the refinements of lens adjustment: in the failure to detect latent muscular anomalies; in the absence of co-operation between specialist and general practitioner: would it not be wiser to examine the foundation of our superstructure and see whether it is of stone or of sand?

THE PREVENTION OF MYOPIA

Methods That Failed

The publication in 1867 by Professor Hermann Cohn of Breslau of a study of the eyes of ten thousand school children first called general attention to the fact that while myopia is seldom found in the pre-school age, the defect increases steadily both in percentage of cases and in degree during the educational period. Professor Cohn's investigations were repeated in all the advanced countries, and his observations, with some difference in percentages, were everywhere confirmed. The conditions were unanimously attributed to the excessive use of the eyes for near work, and as it was impossible to abandon the educational system, attempts were made to minimize the supposed evil effects of the reading, writing and other near work which it demanded. Careful and detailed rules were laid down by various authorities as to the size of type to be used in school books, the length of the lines, their distance apart, the distance at which the book should be held, the amount and arrangement of the light, the construction of the desks, the length of time the eyes might be used without a change of focus, etc. Face rests were even devised to hold the eyes at the prescribed distance from the desk and to prevent stooping, which was supposed to cause congestion of the eyeball and thus to encourage elongation. The Germans, with characteristic thoroughness, actually used these instruments of torture, Cohn never allowing his children to write without one, "even at the best possible desk."3

The results of these preventive measures were disappointing. Some observers reported a slight decrease in the percentage of myopia in schools in which the prescribed reforms had been made; but on the whole, as Risley has observed in his discussion of the subject in Norris and Oliver's *System of Diseases of the Eye*, "the injurious effects of the educational process were not noticeably arrested."

"It is a significant, though discouraging fact," he continues, "that the increase, as found by Cohn, both in the percentage and in the degree of myopia, had taken place in those schools where he had especially exerted himself to secure the introduction of hygienic forms, and the same is true of the observations of Just, who had examined the eyes of twelve hundred and twenty-nine of the pupils of the two High Schools of Zittau, in both of which the hygienic conditions were all that could be desired. He found, nevertheless, that the excellent arrangements had not in any degree lessened the percentage of increase in myopia. It became necessary, therefore, to look beyond faulty hygienic environments for the cause of the pathological states represented by Myopia."4

With the passage of time further evidence to the same effect has steadily accumulated. In an investigation in London, for instance, in which the schools were carefully selected to reveal any difference that might arise from the various influences, hygienic, social and racial, to which the children were subjected, the proportion of myopia in the best lighted and ventilated school of the group was actually found to be higher than in the one where these conditions were worst.5 It has also been found that there is just as much myopia in schools where little near work is done as in those in which the demands upon the accommodative power of the eye are greater, while in any case it is only a minority of the children in any school who become myopic, although all may be exposed to practically the same eye conditions. Dr. Adolf Steiger, in his recent book on *Spherical Refraction*, bears witness, after a comprehensive survey of the whole question, to the "absolutely negative results of school hygiene," and Dr. Sidler-Huguenin reports7 that in the thousands of cases that have come under his care he has observed no appreciable benefit from any method of treatment at his command.

Facts of this sort have led to a modification of the myopia theory, but have produced no change in methods of myopia prevention. An hereditary tendency toward the development of the defect is now assumed by most authorities; but although no one has ever been able to offer even a plausible explanation for its supposed injuriousness, and though its restriction has been proven over and over again to be useless, near work is still generally held to be a contributing cause and ophthalmologists still go on in the same old way, trying to limit the use of the eyes at the near-point and encourage vision at the distance. It is incomprehensible that men calling themselves scientific, and having had at least a scientific training, can be so foolish. One might excuse a layman for such irrational conduct, but how men of scientific repute who are supposed to write authoritative textbooks can go on year after year copying each other's mistakes and ignoring all facts which are in conflict with them is a thing which reasonable people can hardly be expected to understand.

In 1912,8 and a good many times since, I published the observation that myopia is always lessened when the subject strains to see at the near point, and always produced in the normal eye when the subject strains to see at the distance. These observations are of the greatest practical importance, for if they are correct, they prove our present methods of preventing myopia to be a monumental blunder. Yet no one, so far as I have heard, has taken the trouble to test their accuracy. I challenged the medical profession to produce a single exception to the statements I made in the 1912 publication, and that challenge has stood for seven years, although every member of the Ophthalmological Section of the American Medical Association must have had an opportunity to see it, and anyone who knows how to use a retinoscope could have made the necessary tests in a few minutes. If any did this, they failed to publish the results of their observations, and are, therefore, responsible for the effects of their silence. If they found that I was right and neglected to say so, they are responsible for the fact that the benefits that must ultimately result from this discovery have been delayed. If they found that I was wrong, they are responsible for any harm that may have resulted from their indifference.

THE PREVENTION AND CURE OF MYOPIA AND OTHER ERRORS OF REFRACTION

A Method That Succeeded

You cannot see anything with perfect sight unless you have seen it before. When the eye looks at an unfamiliar object it always strains more or less to see that object, and an error of refraction is always produced. When children look at unfamiliar writing, or figures, on the blackboard, distant maps, diagrams, or pictures, the retinoscope always shows that they are myopic, though their vision may be under other circumstances absolutely normal. The same thing happens when adults look at unfamiliar distant objects. When the eye regards a familiar object, however, the affect is quite otherwise. Not only can it be regarded without strain, but the strain of looking later at unfamiliar objects is lessened.

This fact furnishes us with a means of overcoming the mental strain to which children are subjected by the modern educational system. It is impossible to see anything perfectly when the mind is under a strain, and if children become able to relax when looking at familiar objects, they become able, sometimes in an incredibly brief space of time, to maintain their relaxation when looking at unfamiliar objects.

I discovered this fact while examining the eyes of 1,500 school children at Grand Forks, N. D., in 1903.9 In many cases children who could not read all of the letters on the Snellen test card at the first test read them at the second or third test. After a class had been examined the children who had failed would sometimes ask for a second test, and then it often happened that they would read the whole card with perfect vision. So frequent were these occurrences that there was no escaping the conclusion that in some way the vision was improved by reading the Snellen test card. In one class I found a boy who at first appeared to be very myopic, but who, after a little encouragement, read all the letters on the test card. The teacher asked me about this boy's vision, because she had found him to be very "near-sighted." When I said that his vision was normal she was incredulous, and suggested that he might have learned the letters by heart, or been prompted by another pupil. He was unable to read the writing or figures on the blackboard, she said, or to see the maps, charts, and diagrams on the walls, and did not recognize people across the street. She asked me to test his sight again, which I did, very carefully, under her supervision, the sources of error which she had suggested being eliminated. Again the boy read all the letters on the card. Then the teacher tested his sight. She wrote some words and figures on the blackboard and asked him to read them. He did so correctly. Then she wrote additional words and figures, which he read equally well. Finally she asked him to tell the hour by the clock twenty-five feet distant, which he did correctly. It was a dramatic situation, both the teacher and the children being intensely interested. Three other cases in the class were similar, their vision, which had previously been very defective for distant objects, becoming normal in the few moments devoted to testing their eyes. It is not surprising that after such a demonstration the teacher asked to have a Snellen test card placed permanently in the room.

The children were directed to read the smallest letters they could see from their seats at least once every day, with both eyes together and with each eye separately, the other being covered with the palm of the hand in such a way as to avoid pressure on the eyeball. (Use of eye patch is best so the hand does not need to be held up – holding the hand up to eye causes the muscles in the hand, arm, shoulder, neck, then eyes to become tense.)
Those whose vision was defective were encouraged to read it more frequently, and in fact needed no encouragement to do so after they found that the practice helped them to see the blackboard, and stopped the headaches, or other discomfort, previously resulting from the use of their eyes.

In another class of forty children, between six and eight, thirty of the pupils gained normal vision while their eyes were being tested. The remainder were cured later under the supervision of the teacher by exercises in distant vision with the Snellen card. This teacher had noted every year for fifteen years that at the opening of the school in the fall all the children could see the writing on the blackboard from their seats, but before school closed the following spring all of them without exception complained that they could not see it at a distance of more than ten feet. After learning of the benefits to be derived from the daily practice of distant vision with familiar objects as the points of fixation, this teacher kept a Snellen test card continually in her classroom and directed the children to read it every day. The result was that for eight years no more of the children under her care acquired defective eyesight.

This teacher had attributed the invariable deterioration in the eyesight of her charges during the school year to the fact that her classroom was in the basement and the light poor. But teachers with well-lighted classrooms had the same experience, and after the Snellen test card was introduced into both the well-lighted and the poorly lighted rooms, and the children read it every day, the deterioration of their eyesight not only ceased, but the vision of all improved. Vision which had been below normal improved, in most cases, to normal, while children who already had normal sight, usually reckoned at 20/20, became able to read 20/15 or 20/10. And not only was myopia cured, but the vision for near objects was improved.

At the request of the superintendent of the schools of Grand Forks, Mr. J. Nelson Kelly, the system was introduced into all the schools of the city and was used continuously for eight years, during which time it reduced myopia among the children, which I found at the beginning to be about six per cent, to less than one per cent.

In 1911 and 1912 the same system was introduced into some of the schools of New York City10 with an attendance of about ten thousand children. Many of the teachers neglected to use the cards, being unable to believe that such a simple method, and one so entirely at variance with previous teaching on the subject, could accomplish the desired results. Others kept the cards in a closet except when they were needed for the daily eye drill, lest the children should memorize them. Thus they not only put an unnecessary burden upon themselves, but did what they could to defeat the purpose of the system, which is to give the children **daily exercise in distant vision with a familiar object as the point of fixation**. A considerable number, however, used the system intelligently and persistently, and in less than a year were able to present reports showing that of three thousand children with imperfect sight over one thousand had obtained normal vision by its means. Some of these children, as in the case of the children of Grand Forks, were cured in a few minutes. Many of the teachers were also cured, some of them very quickly. In some cases the results of the system were so astonishing as to be scarcely credible.

In a class of mental defectives, where the teacher had kept records of the eyesight of the children for several years, it had been invariably found that their vision grew steadily worse as the term advanced. As soon as the Snellen test card had been introduced, however, they began to improve. Then came a doctor from the Board of Health who tested the eyes of the children and put glasses on all of them, even those whose sight was fairly good. The use of the card was then discontinued, as the teacher did not consider it proper to interfere while the children were wearing glasses prescribed by a physician. Very soon, however, the children began to lose, break, or discard, their glasses. Some said that the spectacles gave them headaches, or that they felt better without them. In the course of a month or so most of the aids to vision which the Board of Health had supplied had disappeared. The teacher then felt herself at liberty to resume the use of the Snellen test card. Its benefits were immediate. The eyesight and the mentality of the children improved simultaneously, and soon they were all drafted into the regular classes, because it was found that they were making the same progress in their studies as the other children were.

Another teacher reported an equally interesting experience. She had a class of children who did not fit into the other grades. Many of them were backward in their studies. Some were persistent truants. All of them had defective eyesight. A Snellen test card was hung in the classroom where all the children could see it, and the teacher carried out my instructions literally. At the end of six months all but two had been cured and these had improved very much, while the worst incorrigible and the worst truant had become good students. The incorrigible, who had previously refused to study, because, he said, it gave him a headache to look at a book, or at the blackboard, found out that the test card, in some way, did him a lot of good; and although the teacher had asked him to read it but once a day, he read it whenever he felt uncomfortable. The result was that in a few weeks his vision had become normal and his objection to study had disappeared. The truant had been in the habit of remaining away from school two or three days every week, and neither his parents nor the truant officer had been able to do anything about it. To the great surprise of his teacher he never missed a day after having begun to read the Snellen test card. When she asked for an explanation he told her that what had driven him away from school was the pain that came in his eyes whenever he tried to study, or to read the writing on the blackboard. After reading the Snellen test card, he said, his eyes and head were rested and he was able to read without any discomfort.

To remove any doubts that might arise as to the cause of the improvement noted in the eyesight of the children comparative tests were made with and without cards. In one case six pupils with defective sight were examined daily for one week without the use of the test card. No improvement took place. The card was then restored to its place and the group was instructed to read it every day. At the end of a week all had improved and five were cured. In the case of another group of defectives the results were similar. During the week that the card was not used no improvement was noted, but after a week of exercises in distant vision with the card all showed marked improvement, and at the end of a month all were cured. In order that there might be no question as to the reliability of the records of the teachers some of the principals asked the Board of Health to send an inspector to test the vision of the pupils, and whenever this was done the records were found to be correct. Dr. Bates has the children read the eyechart with both eyes together, then one eye at a time, then both eyes together again. He also has the children look close and distant, shifting on exact letters on two identical eyecharts placed at close and far distances. Also done with both eyes together, then one eye at a

time, then both eyes together again. If vision needs more improvement in one eye, extra time is spent practicing with that eye to bring the vision equally clear, perfect in both left and right eyes. Basic Behavioral Optometry.

One day I visited the city of Rochester, and while there I called on the Superintendent of Public Schools and told him about my method of preventing myopia. He was very much interested and invited me to introduce it in one of his schools. I did so, and at the end of three months a report was sent to me showing that the vision of all the children had improved, while quite a number of them had obtained perfect sight in both eyes.

The method has been used in a number of other cities and always with the same result. The vision of all the children improved, and many of them obtained perfect sight in the course of a few minutes, days, weeks or months.

It is difficult to prove a negative proposition, but since this system improved the vision of all the children who used it, it follows that none could have grown worse. It is therefore obvious that it must have prevented myopia. This cannot be said of any method of preventing myopia in schools which had previously been tried. All other methods are based on the idea that it is the excessive use of the eyes for near work that causes myopia, and all of them have admittedly failed.

It is also obvious that the method must have prevented other errors of refraction, a problem which previously had not even been seriously considered, because hypermetropia is supposed to be congenital, and astigmatism was until recently supposed also to be congenital in the great majority of cases. Anyone who knows how to use a retinoscope may, however, demonstrate in a few minutes that both of these conditions are acquired; for no matter how astigmatic or hypermetropic an eye may be, its vision always becomes normal when it looks at a blank surface without trying to see. It may also be demonstrated that when children are learning to read, write, draw, sew, or to do anything else that necessitates their looking at unfamiliar objects at the near-point, hypermetropia, or hypermetropic astigmatism, is always produced. The same is true of adults. These facts have not been reported before, so far as I am aware, and they strongly suggest that children need, first of all, eye education. They must be able to look at strange letters or objects at the near-point without strain before they can make much progress in their studies, and in every case in which the method has been tried it has proven that this end is attained by daily exercise in distant vision with the Snellen test card. When their distant vision has been improved by this means children invariably become able to use their eyes without strain at the near-point.

The method succeeded best when the teacher did not wear glasses. In fact, the effect upon the children of a teacher who wears glasses is so detrimental that no such person should be allowed to be a teacher, and since errors of refraction are curable, such a ruling would work no hardship on anyone. Not only do children imitate the visual habits of a teacher who wears glasses, but the nervous strain of which the defective sight is an expression produces in them a similar condition. In classes of the same grade, with the same lighting, the sight of children whose teachers did not wear glasses has always been found to be better than the sight of children whose teachers did wear them. In one case I tested the sight of children whose teacher wore glasses and found it very imperfect. The teacher went out of the room on an errand, and after she had gone I tested them again. The results were very much better. When the teacher returned she asked about the sight of a particular boy, a very nervous child, and as I was proceeding to test him she stood before him and said, "Now, when the doctor tells you to read the card, do it." The boy couldn't see anything. Then she went behind him, and the effect was the same as if she had left the room. The boy read the whole card.

Still better results would be obtained if we could reorganize the educational system on a rational basis. Then we might expect a general return of that **primitive acuity of vision** which we marvel at so greatly when we read about it in the memoirs of travelers. But even under existing conditions it has been proven beyond the shadow of a doubt that errors of refraction are no necessary part of the price we must pay for education.

There are at least ten million children in the schools of the United States who have defective sight. This condition prevents them from taking full advantage of the educational opportunities which the State provides. It undermines their health and wastes the taxpayers' money. If allowed to continue, it will be an expense and a handicap to them throughout their lives. In many cases it will be a source of continual misery and suffering. And yet practically all of these cases could be cured and the development of new ones prevented by the daily reading of the Snellen test card.

Why should our children be compelled to suffer and wear glasses for want of this simple measure of relief? It costs practically nothing. In fact, it would not be necessary, in some cases, as in the schools of New York City, even to purchase the Snellen test cards, as they are already being used to test the eyes of the children. Not only does it place practically no additional burden upon the teachers, but, by improving the eyesight, health, disposition and mentality of their pupils, it greatly lightens their labors. No one would venture to suggest, further, that it could possibly do any harm. Why, then, should there be any delay about introducing it into the schools? If there is still thought to be need for further investigation and discussion, we can investigate and discuss just as well after the children get the cards as before, and by adopting that course we will not run the risk of needlessly condemning another generation to that curse which heretofore has always dogged the footsteps of civilization, namely, defective eyesight. I appeal to all who read these lines to use whatever influence they possess toward the attainment of this end.

Native American Indians had perfect eyesight and health before they were forced into the white mans culture, schools, religion diet.
Modern Indians are now reclaiming their heritage. An American Indian would be a great U.S. President.
This book is free for Native American Indians to read, distribute, sell.

THE STORY OF EMILY

**Children cured of defective eyesight by Dr. Bates, teach the Bates Method,
cure defective sight; blur, astigmatism, cataract, crossed eyes in other children.**

The efficacy of the method of treating imperfect sight without glasses has been demonstrated in thousands of cases, not only in my own practice but in that of many persons of whom I may not even have heard; for almost all patients when they are cured proceed to cure others. At a social gathering one evening a lady told me that she had met a number of my patients; but when she mentioned their names, I found that I did not remember any of them, and said so.

"That is because you cured them by proxy," she said. "You didn't directly cure Mrs. Jones or Mrs. Brown, but you cured Mrs. Smith and Mrs. Smith cured the other ladies. You didn't treat Mr. and Mrs. Simpkins or Mr. Simpkins' mother and brother, but you

may remember that you cured Mr. Simpkins' boy of a squint, and he cured the rest of the family."

In schools where the Snellen test card was used to prevent and cure imperfect sight, the children, after they were cured themselves, often took to the practice of ophthalmology with the greatest enthusiasm and success, curing their fellow students, their parents and their friends. They made a kind of game of the treatment, and the progress of each school case was watched with the most intense interest by all the children. On a bright day, when the patients saw well, there was great rejoicing, and on a dark day there was corresponding depression. One girl cured twenty-six children in six months; another cured twelve in three months; a third developed quite a varied ophthalmological practice and did things of which older and more experienced practitioners might well have been proud. Going to the school which she attended one day, I asked this girl about her sight, which had been very imperfect. She replied that it was now very good, and that her headaches were quite gone. I tested her sight and found it normal. Then another child whose sight had also been very poor spoke up,

"I can see all right too," she said. "Emily"—indicating girl No. 1—"cured me."

"Indeed"" I replied. "How did she do that?"

The second girl explained that Emily had had her read the card, which she could not see at all from the back of the room, at a distance of a few feet. The next day she had moved it a little further way, and so on, until the patient was able to read it from the back of the room, just as the other children did. Emily now told her to cover the right eye and read the card with her left, and both girls were considerably upset to find that the **uncovered eye was apparently blind.** The school doctor was consulted and said that nothing could be done. The eye had been blind from birth and no treatment would do any good.

Nothing daunted, however, Emily undertook the treatment. She told the patient to cover her good eye and go up close to the card, and at a distance of a foot or less it was found that she could read even the small letters. The little practitioner then proceeded confidently as with the other eye, and after many months of practice the patient became the happy possessor of normal vision in both eyes. The case had, in fact, been simply one of high myopia, and the school doctor, not being a specialist, had not detected the difference between this condition and blindness.

In the same classroom, there had been a little girl with congenital **cataract**, but on the occasion of my visit the defect had disappeared. This, too, it appeared, was Emily's doing. The school doctor had said that there was no help for this eye except through operation, and as the sight of the other eye was pretty good, he fortunately did not think it necessary to urge such a course. Emily accordingly took the matter in hand. She had the patient stand close to the card, and at that distance it was found that she could not see even the big C. Emily now held the card between the patient and the light and moved it back and forth. At a distance of three or four feet this movement could be observed indistinctly by the patient. The card was then moved farther away, until the patient became able to see it move at ten feet and to see some of the larger letters indistinctly at a less distance. Finally, after six months, she became able to read the card with the bad eye as well as with the good one. After testing her sight and finding it normal in both eyes, I said to Emily

"You are a splendid doctor. You beat them all. Have you done anything else?"

The child blushed, and turning to another of her classmates, said:

"Mamie, come here."

Mamie stepped forward and I looked at her eyes. There appeared to be nothing wrong with them.

"I cured her," said Emily.

"What of?" I inquired.

"**Cross eyes**," replied Emily.

"How," I asked, with growing astonishment.

Emily described a procedure very similar to that adopted in the other cases. Finding that the sight of the **crossed eye** was very poor, so much so, indeed, that poor Mamie could see practically nothing with it, the obvious course of action seemed to her to be the restoration of its sight; and, never having read any medical literature she did not know that this was impossible. So she went to it. She had Mamie cover her good eye and practice with the bad one at home and at school, until at last the sight became normal and the eye straight. The school doctor had wanted to have the eye operated upon, I was told, but fortunately Mamie was "scared" and would not consent. And here she was with two perfectly good, straight eyes.

"Anything else?" I inquired, when Mamie's case had been disposed of. Emily blushed again, and said:

"Here's Rose. Her eyes used to hurt her all the time, and she couldn't see anything on the blackboard. Her **headaches** used to be so bad that she had to stay away from school every once in a while. The doctor gave her glasses; but they didn't help her, and she wouldn't wear them. When you told us the card would help our eyes I got busy with her. I had her read the card close up, and then I moved it farther away, and now she can see all right, and her head doesn't ache any more. She comes to school every day, and we all thank you very much."

This was a case of **compound hypermetropic astigmatism**. Such stories might be multiplied indefinitely. Emily's astonishing record cannot, it is true, be duplicated, but lesser cures by cured patients have been very numerous and serve to show that the benefits of the method of preventing and curing defects of vision in the schools which is presented in this number of BETTER EYESIGHT would be far-reaching. Not only errors of refraction would be cured, but many more serious defects; and not only the children would be helped, but their families and friends also.

August, 1919 -

1 - For reports of all the papers quoted, see Jour. Am. Med. Assoc. June 21, 1919.
2 - Bates: The Imperfect Sight of the Normal Eye, N. Y. Med. Jour., Sept. 8, 1917.
3 - The Hygiene of the Eye in Schools, English translation, edited by Turnbull, p. 127.
4 - System of Diseases of the Eye, 1897. Vol. II, p. 361.
5 - Brit. Med. Jour., June 18, 1898.
6 - Die Entstehung der sphärischen Refraktionen des menschlichen Auges, Berlin, 1913, p. 540.
7 - Archiv f. Augenhlk., Vol. LXXIX, 1915, translated in Archives of Ophthalmology, Vol. XLV, No. 6, November 1916.
8 - Bates: The Cause of Myopia, N. Y. Med. Jour., March 16, 1912.
9 - Bates: The Prevention of Myopia in School Children, N. Y. Med. Jour., July 29, 1911.
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BETTER EYESIGHT

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

September, 1919

THE FLASHING CURE

Do you read imperfectly? Can you observe then that when you look at the first word, or the first letter, of a sentence you do not see best where you are looking; that you see other words, or other letters, just as well as or better than the ones you are looking at? Do you observe also that the harder you try to see the worse you see?

Now close your eyes and rest them, remembering some color, like black or white, that you can remember perfectly. Keep them closed until they feel rested, or until the feeling of strain has been completely relieved. Now open them and **look at the first word or letter of a sentence for a fraction of a second**. If you have been able to relax, partially or completely, you will have a **flash of improved or clear vision**, and the area seen best will be smaller.

After opening the eyes for this fraction of a second, close them again quickly, still remembering the color, and keep them closed until they again feel rested. Then again open them for a fraction of a second. Continue this alternate resting of the eyes and flashing of the letters for a time, and you may soon find that you can keep your eyes open longer than a fraction of a second without losing the improved vision.

If your trouble is with distant instead of near vision, use the same method with distant letters.

In this way you can demonstrate for yourself the fundamental principles of the cure of imperfect sight by treatment without glasses.

If you fail, ask someone with perfect sight to help you.

When looking at a letter: shift on it part to part. Blink. The letter remains clear.
Shift dot to dot (part to part) on the E.

VISION AND EDUCATION

Poor sight is admitted to be one of the most fruitful causes of retardation in the schools. It is estimated1 that it may reasonably be held responsible for a quarter of the habitually "left-backs," and it is commonly assumed that all this might be prevented by suitable glasses.

There is much more involved in defective vision, however, than mere inability to see the blackboard, or to use the eyes without pain or discomfort. Defective vision is the result of an abnormal condition of the mind, and when the mind is in an abnormal condition it is obvious that none of the processes of education can be conducted with advantage. By putting glasses upon a child we may, in some cases, neutralize the effect of this condition upon the eyes and by making the patient more comfortable may improve his mental faculties to some extent, but we do not alter fundamentally the condition of the mind and by confirming it in a bad habit we may make it worse.

It can easily be demonstrated that among the faculties of the mind which are impaired when the vision is impaired is the memory; and as a large part of the educational process consists of storing the mind with facts, and all the other mental processes depend upon one's knowledge of facts, it is easy to see how little is accomplished by merely putting glasses on a child that has "trouble with its eyes." The **extraordinary memory of primitive people** has been attributed to the fact that owing to the absence of any convenient means of making written records they had to depend upon their memories, which were strengthened accordingly; but in view of the known facts about the relation of memory to eyesight it is more reasonable to suppose that the retentive memory of primitive man was due to the same cause as his **keen vision**, namely, **a mind at rest**.

The primitive memory as well as primitive keenness of vision have been found among civilized people, and if the necessary tests had been made it would doubtless have been found that they always occur together, as they did in a case which recently came under my observation. The subject was a child of ten with such marvelous eyesight that
she could see the moons of Jupiter with the naked eye, a fact which was demonstrated by her drawing a diagram of these satellites which exactly corresponded to the diagrams made by persons who had used a telescope. **Her memory was equally remarkable**. She could recite the whole content of a book after reading it, as Lord Macauley is said to have done, and she learned more Latin in a few days without a teacher than her sister who had six diopters of myopia had been able to do in several years. She remembered five years afterward what she ate at a restaurant, she recalled the name of the waiter, the number of the building and the street in which it stood. She also remembered what she wore on this occasion and what every one else in the party wore. The same was true of every other event which had awakened her interest in any way, and it was a favorite amusement in her family to ask her what the menu had been and what people had worn on particular occasions.

When the sight of two persons is different it has been found that their memories differ in exactly the same degree. Two sisters, one of whom had only ordinary good vision, indicated by the formula 20/20, while the other had 20/10, found that the time it took them to learn eight verses of a poem varied in almost exactly the same ratio as their sight. The one whose vision was 20/10 learned eight verses of the poem in fifteen minutes, while the one whose vision was only 20/20 required thirty-one minutes to do the same thing. After palming the one with ordinary vision learned eight more verses in twenty-one minutes, while the one with 20/10 was only able to reduce her time by two minutes, a variation clearly within the limits of error. In other words, the mind of the latter being already in a normal or nearly normal condition, she could not improve it appreciably by palming, while the former whose mind was under a strain was able to gain relaxation, and hence improve her memory, by this means.

When the two eyes of the same person are different a corresponding difference in the memory has been noted according to whether both eyes were open, or the better eye closed. A patient with normal vision in the right eye and half-normal vision in the left when looking at the Snellen test card with both eyes open could remember a period for twenty seconds continuously, but could remember it only ten seconds when the better eye was closed. A patient with half-normal vision in the right eye and one-quarter normal in the left could remember a period for twelve seconds with both eyes open and only six seconds with

better eye closed. A third patient with normal sight in the right eye and vision of one-tenth in the left could remember a period twelve seconds with both eyes open and only two seconds when the better eye was closed. In other words if the right eye is better than the left the memory is better when the right eye is open than when only the left eye is open.

Under the present educational system there is a constant effort to compel the children to remember. These efforts always fail. They spoil both the memory and the sight. The memory cannot be forced any more than the vision can be forced. **We remember without effort, just as we see without effort, and the harder we try to remember or see the less we are able to do so.**

The sort of things we remember are the things that interest us, and the reason children have difficulty in learning their lessons is because they are bored by them. For the same reason, among others, their eyesight becomes impaired, boredom being a condition of mental strain in which it is impossible for the eye to function normally.

Some of the various kinds of compulsion now employed in the educational process may have the effect of awakening interest. Betty Smith's interest in winning a prize, for instance, or in merely getting ahead of Johnny Jones, may have the effect of rousing her interest in lessons that have hitherto bored her, and this interest may develop into a genuine interest in the acquisition of knowledge; but this cannot be said of the various fear incentives still so largely employed by teachers. These, on the contrary, have the effect, usually, of completely paralyzing minds already benumbed by lack of interest, and the effect upon the vision is equally disastrous.

The fundamental reason, both for poor memory and poor eyesight in school children, in short, is our irrational and unnatural educational system. **Montessori has taught us that it is only when children are interested that they can learn. It is equally true that it is only when they are interested that they can see.** This fact was strikingly illustrated in the case of one of the two pairs of sisters mentioned above. Phebe, of the keen eyes, who could recite whole books if she happened to be interested in them, disliked mathematics and anatomy extremely, and not only could not learn them but became myopic when they were presented to her mind. She could read letters a quarter of an inch high at twenty feet in a poor light, but when asked to read figures one to two inches high in a good light at ten feet she miscalled half of them. When asked to tell how much 2 and 3 made, she said "4," before finally deciding on "5"; and all the time she was occupied with this disagreeable subject the retinoscope showed that she was myopic. When I asked her to look into my eye with the ophthalmoscope she could see nothing, although a much lower degree of visual acuity is required to note the details of the interior of the eye than to see the moons of Jupiter.

Short-sighted Isabel, on the contrary, had a passion for mathematics and anatomy, and excelled in those subjects. She learned to use the ophthalmoscope as easily as Phebe had learned Latin. Almost immediately she saw the optic nerve, and noted that the center was whiter than the periphery. She saw the light-colored lines, the arteries; and the darker ones, the veins; and she saw the light streaks on the blood-vessels. Some specialists never become able to do this, and no one could do it without normal vision. Isabel's vision, therefore, must have been temporarily normal when she did it. Her vision for figures, although not normal, was better than for letters.

In both these cases the ability to learn and the ability to see went hand in hand with interest. Phebe could read a photographic reduction of the Bible and recite what she had read verbatim, she could see the moons of Jupiter and draw a diagram of them afterwards, because she was interested in these things; but she could not see the interior of the eye, nor see figures even half as well as she saw letters, because these things bored her. When, however, it was suggested to her that it would be a good joke to surprise her teachers, who were always reproaching her for her backwardness in mathematics, by taking a high mark in a coming examination, her interest in the subject awakened and she contrived to learn enough to get seventy-eight per cent. In Isabel's case letters were antagonistic. She was not interested in most of the subjects with which they dealt and, therefore, she was backward in those subjects and had become habitually myopic. But when asked to look at objects which aroused an intense interest her vision became normal.

When one is not interested, in short, one's mind is not under control, and without mental control one can neither learn nor see. Not only the memory but all other mental faculties are improved when the eyesight becomes normal. It is a common experience with patients cured of defective sight to find that their ability to do their work has improved.

The teacher whose letter was quoted in the first issue of BETTER EYESIGHT testified that after gaining perfect eyesight she "knew better how to get at the minds of the pupils, was "more direct, more definite, less diffused, less vague," possessed, in fact, "central fixation of the mind." In another letter she said, "The better my eyesight becomes the greater is my ambition. On the days when my sight is best I have the greatest anxiety to do things."

Another teacher reports that one of her pupils used to sit doing nothing all day long and apparently was not interested in anything. After the test card was introduced into the classroom and his sight improved, he became anxious to learn, and speedily developed into one of the best students in the class. In other words his eyes and his mind became normal together.

A bookkeeper nearly **seventy years of age** who had **worn glasses for forty years** found after he had **gained perfect sight without glasses** that he could work more rapidly and accurately and with less fatigue than ever in his life before. During busy seasons, or when short of help, he has worked for some weeks at a time from 7 a. m, until 11 p. m., and he reports that he felt less tired at night after he was through than he did in the morning when he started. Previously, although he had done more work than any other man in the office, it always tired him very much. He also noticed an improvement in his temper. Having been so long in the office and knowing so much more about the business than his fellow employees, he was frequently appealed to for advice. These interruptions, before his sight became normal, were very annoying to him and often caused him to lose his temper. Afterward, however, they caused him no irritation whatever. In the case of another patient whose story is given elsewhere symptoms of insanity were relieved when the vision became normal.

From all these facts it will be seen that the problems of vision are far more intimately associated with the problems of education than we had supposed, and that they can by no means be solved by putting concave, or convex, or astigmatic lenses before the eyes of the children.

THE DOCTOR'S STORY

One of the most striking cases of the relation of mind to vision that ever came to my attention was that of a physician whose mental troubles, at one time so serious that they suggested to him the idea that he might be going insane, were completely relieved when his sight became normal. He had been seen by many eye and nerve specialists before he came to me and consulted me at last, not because he had any faith in my methods, but because nothing else seemed to be left for him to do. He brought with him quite a collection of glasses prescribed by different men, no two of them being alike. He had worn glasses, he told me, for many months at a time without benefit and then he had left them off and had been apparently no worse. Outdoor life had also failed to help him. On the advice of some prominent neurologists he had even given up his practice for a couple of years to spend the time upon a ranch, but the vacation had done him no good.

I examined his eyes and found no organic defects and no error of refraction. Yet his vision with each eye was only three-fourths of the normal, and he suffered from **double vision and all sorts of unpleasant symptoms**. He used to see people standing on their heads, and little devils dancing on the tops of the high buildings. He also had other **illusions** too numerous to mention in a short paper. At night his sight was so bad that he had difficulty in finding his way about, and when walking along a country road he believed that he saw better when he turned his eyes far to one side and viewed the road with the side of the retina instead of with the center. At variable intervals, without warning and without loss of consciousness, **he had attacks of blindness**. These caused him great uneasiness, for he, was a surgeon with a large and lucrative practice, and he feared that he might have an attack while operating.

His memory was very poor. He could not remember the color of the eyes of any member of his family, although he had seen them all daily for years. Neither could he recall the color of his house, the number of rooms on the different floors, or other details. The faces and names of patients and friends he recalled with difficulty, or not at all.

His treatment proved to be very difficult, chiefly because he had an infinite number of erroneous ideas about physiological optics in general and his own case in particular and insisted that all these should be discussed; while these discussions were going on he received no benefit. Every day for hours at a time over a long period he talked and argued. Never have I met a person whose logic was so wonderful, so apparently unanswerable, and yet so utterly wrong.

His eccentric fixation was of such high degree that when he looked at a point forty-five degrees to one side of the big C on the Snellen test card, he saw the letter just as black as when he looked directly at it. The strain to do this was terrific, and produced much astigmatism; but the patient was unconscious of it, and could not be convinced that there was anything abnormal in the symptom. If he saw the letter at all, he argued, he must see it as black as it really was, because he was not color-blind. Finally he became able to look away from one of the smaller letters on the card and see it worse than when he looked directly at it. It took eight or nine months to accomplish this, but when it had been done the patient said that it seemed as if a great burden had been lifted from his mind. He experienced a wonderful feeling of rest and relaxation throughout his whole body.

When asked to remember black with his eyes closed and covered he said he could not do so, and he saw every color but the black which one ought normally to see when the optic nerve is not subject to the stimulus of light. He had, however, been an enthusiastic football player at college, and he found at last that he could remember a black football. I asked him to imagine that this football had been thrown into the sea and that it was being carried outward by the tide, becoming constantly smaller but no less black. This he was able to do, and the strain floated with the football, until, by the time the latter had been reduced to the size of a period in a newspaper, it was entirely gone. The relief continued as long as he remembered the black spot, but as he could not remember it all the time, I suggested another method of gaining permanent relief. This was to make his sight voluntarily worse, a plan against which he protested with considerable emphasis.

"Good heavens!" he said, "Is not my sight bad enough without making it worse."

After a week of argument, however, he consented to try the method, and the result was extremely satisfactory. After he had learned to see two or more lights where there was only one, by straining to see a point above the light while still trying to see the light as well as when looking directly at it, he became able to avoid the unconscious strain that had produced his double and multiple vision and was not troubled by these superfluous images any more. In a similar manner other illusions were prevented.

One of the last illusions to disappear was his belief that an effort was required to remember black. His logic on this point was overwhelming, but after many demonstrations he was convinced that no effort was required to let go, and when he realized this, both his vision and his mental condition immediately improved.

He finally became able to read 20/10 or more, and although more than fifty-five years of age, he also read diamond type at from six to twenty-four inches. His night blindness was relieved, his attacks of day blindness ceased, and he told me the color of the eyes of his wife and children. One day he said to me:

"Doctor, I thank you for what you have done for my sight; but no words can express the gratitude I feel for what you have done for my mind."

Some years later he called with his heart full of gratitude, because there had been no relapse.

LYING A CAUSE OF MYOPIA

I may claim to have discovered the fact that telling lies is bad for the eyes. Whatever bearing this circumstance may have upon the universality of defects of vision, it can easily be demonstrated that it is impossible to say what is not true, even with no intent to deceive, or even to imagine a falsehood, without producing an error of refraction.

If a patient can read all the small letters on the bottom line of the test card, and either deliberately or carelessly miscalls any of them, the retinoscope will indicate an error of refraction. In numerous cases patients have been asked to state their ages incorrectly, or to try to imagine that they were a year older, or a year younger, than they actually were, and in every case when they did this the retinoscope indicated an error of refraction. A patient twenty-five years old had no error of refraction when he looked at a blank wall without trying to see; but if he said he was twenty-six, or if someone else said he was twenty-six, or if he tried to imagine that he was twenty-six, he became myopic. The same thing happened when he stated or tried to imagine that he

was twenty-four. When he stated or remembered the truth his vision was normal, but when he stated or imagined an error he had an error of refraction.

Two little girl patients arrived one after the other one day, and the first accused the second of having stopped at Huyler's for an ice-cream soda, which she had been instructed not to do, being somewhat too much addicted to sweets. The second denied the charge, and the first, who had used the retinoscope and knew what it did to people who told lies, said:

"Do take the retinoscope and find out."

"I followed the suggestion, and having thrown the light into the second child's eyes, I asked:

"Did you go to Huyler's?"

"Yes," was the response, and the retinoscope indicated no error of refraction.

"Did you have an ice-cream soda?"

"No," Said the child; but the tell-tale shadow moved in a direction opposite to that of the mirror, showing that she had become myopic and was not telling the truth.

The child blushed when I told her this and acknowledged that the retinoscope was right, for she had heard of the ways of the uncanny instrument before and did not know what else it might do to her if she said anything more that was not true.

The fact is that it requires an effort to state what is not true, and this effort always results in a deviation from the normal in the refraction of the eye. So sensitive is the test that if the subject, whether his vision is ordinarily normal, or not, pronounces the initials of his name correctly while looking at a blank surface without trying to see, there will be no error of refraction; but if he miscalls one initial, even without any consciousness of effort, and with full knowledge that he is deceiving no one, myopia will be produced.

CURED IN FIFTEEN MINUTES

Patients often ask how long it takes to be cured. The answer is that it takes only as long as it takes to relax. If this can be done in five minutes, the patient is cured in five minutes, no matter how great the degree of his error of refraction, or how long its duration. All persons with errors of refraction are able to relax in a few seconds under certain conditions, but to gain permanent relaxation usually requires considerable time. Some persons, however, are able to get it very quickly. These quick cures are very rare, except in the case of children under twelve; but they do occur, and I believe the time is coming when it will be possible to cure everyone quickly. It is only a question of accumulating more facts and presenting them in such a way that the patient can grasp them quickly.

A very remarkable case of a quick cure was that of a man of fifty-five who had worn glasses for thirty years for distant vision and ten years for reading, and whose distant vision at the time he consulted me was 20/200.

When he looked at the Snellen test card the letters appeared grey to him instead of black. He was told that they were black, and the fact was demonstrated by bringing the card close to him. His attention was also called to the fact that the small letters were just as black as the large ones. He was then directed to close and cover his eyes with the palms of his hands, shutting out all the light. When he did this he saw a perfect black, indicating that he had secured perfect relaxation and that the optic nerve and visual centers of the brain were not disturbed. While his eyes were still closed he was asked:

"Do you think that you can remember with your eyes open the perfect black that you now see?"

"Yes," he answered, "I know I can,"

When he opened his eyes, however, his memory of the black was imperfect, and though able to read the large letters, he could not read the small ones. A second time he was told to close and cover his eyes, and again he saw a perfect black. When he opened them he was able to retain complete control of his memory, and so was able to read the whole card. This was ten minutes after he entered the office.

Diamond type was now given him to read, but the letters looked grey to him, and he could not distinguish them. Neither could he remember black when he was looking at them, because in order to see them grey he had to strain, and in order to remember black he would have had to relax, and he could not do both at the same time. He was told that the letters were perfectly black, and when he looked away from them he was able to remember them black. When he looked back he still remembered them black, and was able to read them with normal vision at twelve inches. This took five minutes, making the whole time in the office fifteen minutes. The cure was permanent, the patient not only retaining what he had gained, but continuing to improve his sight, by daily reading of fine print and the Snellen test card, till it became almost **telescopic.**

September, 1919

1 -School Health News, published by the Department of Health of New York City, February, 1919.

BETTER EYESIGHT

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

October, 1919

THE SWINGING CURE

If you see a letter perfectly, you may note that it appears to pulsate, or move slightly in various directions. If your sight is imperfect, the letter will appear to be stationary. The apparent movement is caused by the unconscious shifting of the eye. The lack of movement is due to the fact that the eye stares, or looks too long at one point. This is an invariable symptom of imperfect sight, and may often be relieved by the following method:

Close your eyes and cover them with the palms of the hands so as to exclude all the light, and shift mentally from one side of a black letter to the other. As you do this, the mental picture of the letter will appear to move back and forth in a direction contrary to the imagined movement of the eye. Just so long as you imagine that the letter is moving, or swinging, you will find that you are able to remember it, and the **shorter and more regular the swing, the blacker and more distinct the letter will appear**. If

you are able to imagine the letter stationary, which may be difficult, you will find that your memory of it will be much less perfect.

Now open your eyes and look first at one side and then at the other of the real letter. If it appears to move in a direction opposite to the movement of the eye, you will find that your vision has improved. If you can imagine the swing of the letter as well with your eyes open as with your eyes closed, as **short**, as **regular** and as **continuous**, your vision will be normal.

SIMULTANEOUS RETINOSCOPY

Much of my information about the eye has been obtained by means of simultaneous retinoscopy.
The retinoscope is an instrument used to measure the refraction of the eye. It throws a beam of light into the pupil by reflection from a mirror, the light being either outside the instrument—above and behind the subject—or arranged within it by means of an electric battery. On looking through the sight-hole one sees a larger or smaller part of the pupil filled with light, which in normal human eyes is a reddish yellow, because this is the color of the retina, but which is green in a cat's eye, and might be white if the retina were diseased. Unless the eye is exactly focused at the point from which it is being observed one sees also a dark shadow at the edge of the pupil, and it is the behavior of this shadow when the mirror is moved in various directions which reveals the refractive condition of the eye. If the instrument is used at a distance of six feet or more, and the shadow moves in a direction opposite to the movement of the mirror, the eye is myopic. If it moves in the same direction as the mirror, the eye is either hypermetropic or normal; but in the case of hypermetropia the movement is more pronounced than in that of normality, and an expert can usually tell the difference between the two states merely by the nature of the movement. In astigmatism the movement is different in different meridians. To determine the degree of the error, or to distinguish accurately between hypermetropia and normality, or between the different kinds of astigmatism, it is usually necessary to place a glass before the eye of the subject.

This exceedingly useful instrument has possibilities which have not been generally realized by the medical profession. It is commonly employed only under certain artificial conditions in a dark room; but it is possible to use it under all sorts of normal and abnormal conditions on the eyes both of human beings and of the lower animals. I have used it in the daytime and at night; when the subjects were comfortable and when they were excited; when they were trying to see and when they were not; when they were lying and when they were telling the truth. I have also used it, under varying conditions, on the eyes of many cats, dogs, rabbits, birds, turtles, reptiles and fish.

Most ophthalmologists depend upon the Snellen test card, supplemented by trial lenses, to determine whether the vision is normal or not, and to determine the degree of any abnormality that may exist. This is a slow, awkward and unreliable method of testing the vision, and absolutely unavailable for the study of the refraction of the lower animals and that of human beings under the conditions of life. The test card can be used only under certain favorable conditions, but the retinoscope can be used anywhere. It is a little easier to use it in a dim light than in a bright one, but it may be used in any light, even with the strong light of the sun shining directly into the eye. It is available whether the subject is at rest or in motion, asleep or awake, or even under ether or chloroform. It is also available when the observer is in motion. It has been used successfully when the eyelids were partly closed, shutting off part of the area of the pupil; when the pupil was dilated; also when it was contracted to a pin-point; when the subject was reading fine print at six inches, or at a greater distance; and when the eye was oscillating from side to side, from above downward, or in other directions.

It takes a considerable time, varying from minutes to hours, to measure the refraction with the Snellen test card and trial lenses. With the retinoscope, however, the refraction can be determined in a fraction of a second. With the Snellen test card and trial lenses it would be impossible to get any information about the refraction of a baseball player at the moment he swings for the ball, at the moment he strikes it, and at the moment after he strikes it. With the retinoscope, however, it is quite easy to determine whether his vision is normal, or whether he is myopic, hypermetropic, or astigmatic, when he does these things; and if any errors of refraction are noted, one can guess their degree pretty accurately by the rapidity of the movement of the shadow.

With the Snellen test card and trial lenses conclusions must be drawn from the patient's statements as to what he sees; but the patient often becomes so worried and confused during the examination that he does not know what he sees, or whether different glasses make his sight better, or worse; and, moreover, visual acuity is not reliable evidence of the state of the refraction. One patient with two diopters of myopia may see twice as much as another with the same error of refraction. The evidence of the test card is, in fact, entirely subjective; that of the retinoscope is entirely objective, depending in no way upon the statements of the patient.

By means of simultaneous retinoscopy it has been demonstrated that the refraction of the eye is never constant; that all persons with errors of refraction have, at frequent intervals during the day and night, moments of normal vision when their myopia, hypermetropia, or astigmatism, disappears completely; and that all persons, no matter how good their sight may ordinarily be, have moments of imperfect sight when they become myopic, hypermetropic, or astigmatic. It has also been demonstrated that when the eye makes an effort to see, an error of refraction is always produced, and that when it looks at objects without effort, all errors of refraction disappear, no matter how great their degree, or how long their duration. It has been further demonstrated that when the eye strains to see distant objects myopia is always produced in one or all meridians, and when it strains to see near objects hypermetropia is always produced in one or all meridians.

The examination of the eyes of persons while asleep, or under the influence of ether or chloroform, has shown that the eye is rarely at rest during sleep, or while the subject is unconscious from any cause. Persons whose sight was normal while awake were found to have myopia, hypermetropia and astigmatism when asleep, and if these errors were present when they were awake, they were increased during sleep. This explains why so many people are unable to see as well in the morning as at other times, and why people waken with headaches and pain in the eyes. Under ether or chloroform, errors of refraction are also produced or increased, and when people are sleepy they have invariably been found to have errors of refraction.

Under conditions of mental or physical discomfort, such as pain, cough, fever, discomfort from heat or cold, depression, anger, or anxiety, errors of refraction are always produced in the normal eye, or increased in the eye in which they already exist. In a dim light, in a fog, or in the rain, the retinoscope may indicate no error of refraction in eyes which ordinarily have normal sight; but a pilot on a ship on a rainy night usually has an error of refraction, because he is straining to see, and it is rare to find persons in

positions of responsibility under unfavorable conditions with normal vision.

In order to obtain reliable results with the retinoscope it must be used at a distance of six feet or more from the subject. When used at a distance of three feet or less, as it commonly is, the subject becomes nervous and unconsciously strains, thus altering his refraction.

FLOATING SPECKS

A very common phenomenon of imperfect sight is the one known to medical science as *muscae volitantes*, or *flying flies*. These floating specks are usually dark, or black; but sometimes appear like white bubbles, and in rare cases may assume all the colors of the rainbow. They move somewhat rapidly, usually in curving lines, before the eyes, and always appear to be just beyond the point of fixation. If one tries to look at them directly, they seem to move a little farther away. Hence their name of *flying flies*.

The literature of the subject is full of speculations as to the origin of these appearances. Some have attributed them to the presence of floating specks—dead cells or the debris of cells—in the vitreous humor, the transparent substance that fills four-fifths of the eyeball behind the crystalline lens. Similar specks on the surface of the cornea have also been held responsible for them. It has even been surmised that they might be caused by the passage of tears over the cornea. They are so common in myopia that they have been supposed to be one of the symptoms of this condition, although they occur also with other errors of refraction, as well as in eyes otherwise normal. They have been attributed to disturbances of the circulation, the digestion and the kidneys, and because so many insane people have them, have been thought to be an evidence of incipient insanity. The patent-medicine business has thrived upon them, and it would be difficult to estimate the amount of mental torture they have caused, as the following cases illustrate.

A clergyman who was much annoyed by the continual appearance of floating specks before his eyes was told by his eye specialist that they were a symptom of kidney disease, and that in many cases of kidney trouble, disease of the retina might be an early symptom. So at regular intervals he went to the specialist to have his eyes examined, and when at length the latter died, he looked around immediately for some one else to make the periodical examination. His family physician directed him to me. I was by no means so well known as his previous ophthalmological adviser, but it happened that I had taught the family physician how to use the ophthalmoscope after others had failed to do so. He thought, therefore, that I must know a lot about the use of the instrument, and what the clergyman particularly wanted was some one capable of making a thorough examination of the interior of his eyes, and detecting at once any signs of kidney disease that might make their appearance. So he came to me, and at least four times a year for ten years he continued to come.

Each time I made a very careful examination of his eyes, taking as much time over it as possible, so that he would believe that it was careful; and each time he went away happy because I could find nothing wrong. Once when I was out of town he got a cinder in his eye and went to another oculist to get it out. When I came back late at night I found him sitting on my doorstep, on the chance that I might return. His story was a pitiable one. The strange doctor had examined his eyes with the ophthalmoscope, and had suggested the possibility of glaucoma, describing the disease as a very treacherous one which might cause him to go suddenly blind and would be agonizingly painful. He emphasized what the patient had previously been told about the danger of kidney disease, suggested that the liver and heart might also be involved, and advised him to have all of these organs carefully examined. I made another examination of his eyes in general and their tension in particular; I had him feel his eyeballs and compare them with my own, so that he might see for himself that they were not becoming hard as a stone; and finally I succeeded in reassuring him. I have no doubt, however, that he went at once to his family physician for an examination of his internal organs.

A man returning from Europe was looking at some white clouds one day when floating specks appeared before his eyes. He consulted the ship's doctor, who told him that the symptom was very serious, and might be the forerunner of blindness. It might also indicate incipient insanity, as well as other nervous or organic diseases. He advised him to consult his family physician and an eye specialist as soon as he landed, which he did. This was twenty-five years ago, but I shall never forget the terrible state of nervousness and terror into which the patient had worked himself by the time he came to me. It was even worse than that of the clergyman, who was always ready to admit that his fears were unreasonable. I examined his eyes very carefully, and found them absolutely normal. The vision was perfect both for the near-point and the distance. The color perception, the fields and the tension were normal; and under a strong magnifying glass I could find no opacities in the vitreous. In short, there were absolutely no symptoms of any disease. I told the patient there was nothing wrong with his eyes, and I also showed him an advertisement of a quack medicine in a newspaper which gave a great deal of space to describing the dreadful things likely to follow the appearance of floating specks before the eyes, unless you began betimes (in good time, early) to take the medicine in question at one dollar a bottle. I pointed out that the advertisement, which was appearing in all the big newspapers of the city every day, and probably in other cities, must have cost a lot of money, and must, therefore, be bringing in a lot of money. Evidently there must be a great many people suffering from this symptom, and if it were as serious as was generally believed, there would be a great many more blind and insane people in the community than there were. The patient went away somewhat comforted, but at eleven o'clock—his first visit had been at nine—he was back again. He still saw the floating specks, and was still worried about them. I examined his eyes again as carefully as before, and again was able to assure him that there was nothing wrong with them. In the afternoon I was not in my office, but I was told that he was there at three and at five. At seven he came again, bringing with him his family physician, an old friend of mine. I said to the latter:

"Please make this patient stay at home. I have to charge him for his visits, because he is taking up so much of my time; but it is a shame to take his money when there is nothing wrong with him."

What my friend said to him I don't know, but he did not come back again.

I did not know as much about **muscae volitantes** then as I know now, or I might have saved both of these patients a great deal of uneasiness. I could tell them that their eyes were normal, but I did not know how to relieve them of the symptom, which is simply **an illusion resulting from mental strain**. The specks are associated to a considerable extent with markedly **imperfect eyesight**, because persons whose eyesight is imperfect always strain to see; but persons whose eyesight is ordinarily normal may see them at times, because no eye has normal sight all the time. Most people can see muscae volitantes when they look at the sun, or any uniformly bright surface, like a sheet of white paper upon which the sun is shining. This is because most people strain when

they look at surfaces of this kind. The specks are never seen, in short, except when the eyes and mind are under a strain, and they always disappear when the strain is relieved. **If one can remember a small letter on the Snellen test card by central fixation, the specks will immediately disappear, or cease to move; but if one tries to remember two or more letters equally well at one time, they will reappear and move.**

Usually the strain that causes muscae volitantes is very easily relieved. See; April, 1925

Floating specks may be debris in the eyeball. A cleansing diet, improved circulation of blood, fluid to/in the eye can break down floaters and enable them to flow out of the eye. Eyestrain, mental strain, staring, poor diet, sugar, can cause floaters. Shifting, central fixation, relaxation can stop the appearance of floaters.

CORRESPONDENCE TREATMENT

Correspondence treatment is usually regarded as quackery, and it would be manifestly impossible to treat many diseases in this way. Pneumonia and typhoid, for instance, could not possibly be treated by correspondence, even if the physician had a sure cure for these conditions and the mails were not too slow for the purpose. In the case of most diseases, in fact, there are serious objections to correspondence treatment.

But myopia, hypermetropia and astigmatism are functional conditions, not organic, as the text-books teach, and as I believed myself until I learned better. Their treatment by correspondence, therefore, has not the drawbacks that exist in the case of most physical derangements. One cannot, it is true, fit glasses by correspondence as well as when the patient is in the office, but even this can be done, as the following case illustrates.

An old colored woman in the wilds of Honduras, far removed from any physician or optician, was unable to read her Bible, and her son, a waiter in New York, asked me if I could not do something for her. The suggestion gave me a distinct shock which I will remember as long as I live. I had never dreamed of the possibility of prescribing glasses for anyone I had not seen, and I had, besides, some very disquieting recollections of colored women whom I had tried to fit with glasses at my clinic. If I had so much difficulty in prescribing the proper glasses under favorable conditions, how could I be expected to fit a patient whom I could not even see? The waiter was deferentially persistent, however. He had more faith in my genius than I had, and as his mother was nearing the end of her life, he was very anxious to gratify her last wishes. So, like the unjust judge of the parable, I yielded at last to his importunity, and wrote a prescription for convex 3.00 D. S. The young man ordered the glasses and mailed them to his mother, and by return mail came a very grateful letter stating that they were perfectly satisfactory.

A little later the patient wrote that she couldn't see objects at the distance that were perfectly plain to other people, and asked if some glasses couldn't be sent that would make her see at the distance as well as she did at the near-point. This seemed a more difficult proposition than the first one; but again the son was persistent, and I myself could not get the old lady out of my mind. So again I decided to do what I could. The waiter had told me that his mother had read her Bible long after the age of forty. Therefore I knew she could not have much hypermetropia, and was probably slightly myopic. I knew also that she could not have much astigmatism, for in that case her sight would always have been noticeably imperfect. Accordingly I told her son to ask her to measure very accurately the distance between her eyes and the point at which she could read her Bible best with her glasses, and to send me the figures. In due time I received, not figures, but a piece of string about a quarter of an inch in diameter and exactly ten inches long. If the patient's vision had been normal for the distance, I knew that she would have been able to read her Bible best with her glasses at thirteen inches. The string showed that at ten inches she had a refraction of four diopters. Subtracting from this the three diopters of her reading glasses, I got one diopter of myopia. I accordingly wrote a prescription for concave 1.00 D. S., and the glasses were ordered and mailed to Honduras. The acknowledgment was even more grateful than in the case of the first pair. The patient said that for the first time in her life she was able to read signs and see other objects at a distance as well as other people did, and that the whole world looked entirely different to her.

Would anyone venture to say that it was unethical for me to try to help this patient? Would it have been better to leave her in her isolation without even the consolation of Bible reading? I do not think so. What I did for her required only an ordinary knowledge of physiological optics, and if I had failed, I could not have done her much harm.

In the case of the treatment of imperfect sight without glasses there can be even less objection to the correspondence method. It is true that in most cases progress is more rapid and the results more certain when the patient can be seen personally; but often this is impossible, and I see no reason why patients who can not have the benefit of personal treatment should be denied such aid as can be given them by correspondence. I have been treating patients in this way for years, and often with extraordinary success.

Some years ago an English gentleman wrote to me that his glasses were very unsatisfactory. They not only did not give him good sight, but they increased instead of lessening his discomfort. He asked if I could help him, and since relaxation always relieves discomfort and improves the vision, I did not believe that I was doing him an injury in telling him how to rest his eyes. He followed my directions with such good results that in a short time he obtained perfect sight for both the distance and the near-point without glasses, and was completely relieved of his pain. Five years later he wrote me that he had qualified as a sharpshooter in the army. Did I do wrong in treating him by correspondence? I do not think so.

After the United States entered the European war, an officer wrote to me from the deserts of Arizona that the use of his eyes at the near-point caused him great discomfort, which glasses did not relieve, and that the strain had produced granulation of the lids. As it was impossible for him to come to New York, I undertook to treat him by correspondence. He improved very rapidly. The inflammation of the lids was relieved almost immediately, and in about four months he wrote me that he had read one of my own reprints-by no means a short one-in a dim light, with no bad after effects; that the glare of the Arizona sun, with the Government thermometer registering 114, did not annoy him, and that he could read the ten line on the test card at fifteen feet almost perfectly, while even at twenty feet he was able to make out most of the letters.

A third case was that of a forester in the employ of the U. S. Government. He had myopic astigmatism, and suffered extreme discomfort, which was not relieved either by glasses or by long summers in the mountains, where he used his eyes but little for close work. He was unable to come to New York for treatment, and although I told him that correspondence treatment was somewhat uncertain, he said he was willing to risk it. It took three days for his letters to reach me and another three for my reply

to reach him, and as letters were not always written promptly on either side, he often did not hear from me more than once in three weeks. Progress under these conditions was necessarily slow; but his discomfort was relieved very quickly, and in about ten months his sight had improved from 20/50 to 20/20.

In almost every case the treatment of cases coming from a distance is continued by correspondence after they return to their homes; and although the patients do not get on so well as when they are coming to the office, they usually continue to make progress till they are cured.

At the same time it is often very difficult to make patients understand what they should do when one has to communicate with them entirely by writing, and probably all would get on better if they could have some personal treatment. At the present time the number of doctors in different parts of the United States who understand the treatment of imperfect sight without glasses is altogether too few, and my efforts to interest them in the matter have not been very successful. I would consider it a privilege to treat medical men without a fee, and when cured they will be able to assist me in the treatment of patients in their various localities.

BETTER EYESIGHT

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

November, 1919

THE MEMORY CURE

When the sight is perfect, the memory is also perfect, because the mind is perfectly relaxed. Therefore the sight may be improved by any method that improves the memory. The easiest thing to remember is a small black spot of no particular size and form; but when the sight is imperfect it will be found impossible to remember it with the eyes open and looking at letters, or other objects with definite outlines. It may, however, be remembered for a few seconds or longer, when the eyes are closed and covered, or when looking at a blank surface where there is nothing particular to see. By cultivating the memory under these favorable conditions, it gradually becomes possible to retain it under unfavorable ones, that is, when the eyes are open and the mind conscious of the impressions of sight. By alternately remembering the period with the eyes closed and covered and then looking at the Snellen test card, or other letters or objects; or by remembering it when looking away from the card where there is nothing particular to see, and then looking back; the patient becomes able, in a longer or shorter time, to retain the memory when looking at the card, and thus becomes able to read the letters with normal vision. Many children have been cured very quickly by this method. Adults who have worn glasses have greater difficulty. Even under favorable conditions, the period cannot be remembered for more than a few seconds, unless one shifts from one part of it to another. One can also shift from one period, or other small black object, to another.

REASON AND AUTHORITY

This article describes how eye doctors fought against Dr. Bates, tried to hide the Bates Method from the public so they could continue selling eyeglasses, surgery, drugs.

Some one—perhaps it was Bacon—has said: "You cannot by reasoning correct a man of ill opinion which by reasoning, he never acquired." He might have gone a step farther and stated that neither by reasoning, nor by actual demonstration of the facts, can you convince some people that an opinion which they have accepted on authority is wrong. A man whose name I do not care to mention, a professor of ophthalmology, and a writer of books well known in this country and in Europe, saw me perform an experiment upon the eye of a rabbit which, according to others who had witnessed it, demonstrated beyond any possibility of error that the lens is not a factor in accommodation. At each step of the operation he testified to the facts; yet at the conclusion he preferred to discredit the evidence of his senses rather than accept the only conclusion that these facts admitted.

First he examined the eye of the animal to be experimented upon with the retinoscope and found it normal, and the fact was written down. Then the eye was stimulated with electricity, and he testified that it accommodated. This was also written down. I now divided the superior oblique muscle, and the eye was again stimulated with electricity. The doctor observed the eye with the retinoscope when this was being done and said, "You failed to produce accommodation." This fact, too, was written down. The doctor now used the electrode himself, but again failed to observe accommodation, and these facts were written down. I now sewed the cut ends of the muscle together, and once more stimulated the eye with electricity. The doctor said, "Now you have succeeded in producing accommodation," and this was written down. I now asked:

"Do you think that superior oblique had anything to do with producing accommodation?"

"Certainly not," he replied.

"Why?" I asked.

"Well," he said, "I have only the testimony of the retinoscope. I am getting on in years, and I don't feel that confidence in my ability to use the retinoscope that I once had. I would rather you wouldn't quote me on this."

While the operation was in progress, however, he gave no indication whatever of doubting his ability to use the retinoscope. He was very positive, in fact, that I had failed to produce accommodation after the cutting of the oblique muscle and his tone suggested that he considered the failure ignominious. It was only after he found himself in a logical trap, with no way out except by discrediting his own observations, that he appeared to have any doubts as to their value.

Patients whom I have cured of various errors of refraction have frequently returned to specialists who had prescribed glasses for them, and, by reading fine print and the Snellen test card with normal vision, have demonstrated the fact that they were cured, without in any way shaking the faith of these practitioners in the doctrine that such cures are impossible. A girl of sixteen who had progressive myopia of such high degree that she was not allowed to read, and was unable to go about on the streets without a guide, was assured by the specialist whom her family consulted that her condition was quite hopeless, and that it was likely to

progress until it ended in blindness. She was cured in a very short time by means of the methods advocated in this magazine, becoming able to discard her glasses and resume all the ordinary activities of life. She then returned to the specialist who had condemned her to blindness to tell him the good news; but, while he was unable to deny the fact that her vision was normal without glasses, he said it was impossible that she would have been cured of myopia, because myopia was incurable. How he reconciled this statement with his former patient's condition he was unable to make clear to her.

A lady with compound myopic astigmatism1 suffered from almost constant headaches which were very much worse when she took her glasses off. Every week, no matter what she did, she was so prostrated by eyestrain that she had to spend a few days in bed; and if she went to a theatre, or to a social function, she had to stay there longer. She was told to take off her glasses and go to the movies: to look first at the corner of the screen, then off to the dark, then back to the screen a little nearer to the center, and so forth. She did so, and soon became able to look directly at the pictures without discomfort. After that nothing troubled her. One day she called on her former ophthalmological adviser, in the company of a friend who wanted to have her glasses changed, and told him of her cure. The facts seemed to make no impression on him whatever. He only laughed and said, "I guess Dr. Bates is more popular with you than I am."

In some cases patients themselves, after they are cured, allow themselves to be convinced that it was impossible that such a thing could have happened, and go back to their glasses. A clergyman and writer, aged forty-seven, who had worn glasses for years for distance and reading, had what I should have considered the good fortune to be very quickly cured. By the aid of his imagination he was able to relax in less than five minutes, and to stay relaxed. When he looked at fine print it appeared grey to him, and he could not read it. I asked him if he had ever seen printer's ink. He replied, of course, that he had. I then told him that the paragraph of printed matter which he held in his hand was printed in printer's ink, and that it was black and not grey. I asked him if he did not know and believe that it was black, or if he could not at least imagine that it was black. "Yes," he said, "I can do that"; and immediately he read the print. It took him only about a minute to do this, and he was not more than five minutes in the office. The cure was permanent, and he was very grateful-for a time. Then he began to talk to eye specialists whom he knew, and thereupon grew skeptical as to the value of what I had done for him. One day I met him at the home of a mutual friend, and in the presence of a number of other people he accused me of having hypnotized him, adding that to hypnotize a patient without his knowledge or consent was to do him a grievous wrong. Some of the listeners protested that whether I had hypnotized him or not, I had not only done him no harm, but had greatly benefited him, and he ought to forgive me. He was unable, however, to take this view of the matter. Later he called on a prominent eye specialist who told him that the presbyopia (old sight) and astigmatism from which he had suffered were incurable, and that if he persisted in going without his glasses he might do himself great harm. The fact that his sight was perfect for the distance and the near-point had no effect upon the specialist and the patient allowed himself to be frightened into disregarding it also. He went back to his glasses, and so far as I know has been wearing them ever since. The story obtained wide publicity, for the man had a large circle of friends and acquaintances; and if I had destroyed his sight I could scarcely have suffered more than I did for curing him.

Other Doctors try to hide Dr. Bates discoveries from the public. Doctors expel Dr. Bates from the Hospital he worked at after Dr. Bates cures patients without glasses, surgery, drugs and proves the facts of Natural Vision Improvement.

Fifteen or twenty years ago the specialist mentioned in the foregoing story read a paper on cataract at a meeting of the ophthalmological section of the American Medical Association in Atlantic City, and asserted that anyone who said that cataract could be cured without the knife was a quack. At that time I was assistant surgeon at the New York Eye and Ear Infirmary, and it happened that I had been collecting statistics of the spontaneous cure of cataract at the request of the executive surgeon of this institution, Dr. Henry G. Noyes, Professor of Ophthalmology at the Bellevue Hospital Medical School. As a result of my inquiry I had secured records of a large number of cases which had recovered, not only without the knife, but without any treatment at all. I also had records of cases which I had sent to Dr. James E. Kelly of New York and which he had cured, largely by hygienic methods. Dr. Kelly is not a quack, and at that time was Professor of Anatomy in the New York Post Graduate Medical School and Hospital and attending surgeon to a large city hospital. In the five minutes allotted to those who wished to discuss the paper, I was able to tell the audience enough about these cases to make them want to hear more. My time was, therefore, extended, first to half an hour and then to an hour. Later both Dr. Kelly and myself received many letters from men in different parts of the country who had tried his treatment with success. The man who wrote the paper had blundered, but he did not lose any prestige because of my attack with facts upon his theories. He is still a prominent and honored ophthalmologist and in his latest book he gives no hint of having ever heard of any successful method of treating cataract other than by operation. He was not convinced by my record of spontaneous cures, nor by Dr. Kelly's record of cures by treatment; and while a few men were sufficiently impressed to try the treatment recommended, and while they obtained satisfactory results, the facts made no impression upon the profession as a whole, and did not modify the teaching of the schools. That spontaneous cures of cataract do sometimes occur cannot be denied; but they are supposed to be very rare, and any one who suggests that the condition can be cured by treatment still exposes himself to the suspicion of being a quack.

Between 1886 and 1891 I was a lecturer at the Post Graduate Hospital and Medical School. The head of the institution was Dr. D. B. St. John Roosa. He was the author of many books, and was honored and respected by the whole medical profession. At the school they had got the habit of putting glasses on the nearsighted doctors, and I had got the habit of curing them without glasses. It was naturally annoying to a man who had put glasses on a student to have him appear at a lecture without them and say that Dr. Bates had cured him. Dr. Roosa found it particularly annoying, and the trouble reached a climax one evening at the annual banquet of the faculty when, in the presence of one hundred and fifty doctors, he suddenly poured out the vials of his wrath upon my head. He said that I was injuring the reputation of the Post Graduate by claiming to cure myopia. Every one knew that Donders said it was incurable, and I had no right to claim that I knew more than Donders. I reminded him that some of the men I had cured had been fitted with glasses by himself. He replied that if he had said they had myopia he had made a mistake. I suggested further investigation. "Fit some more doctors with glasses for myopia," I said, "and I will cure them. It is easy for you to examine them afterwards and see if the cure is genuine." This method did not appeal to him, however. He repeated that it was impossible to cure myopia, and to prove that it was impossible **he expelled me from the Post Graduate, even the privilege of resignation being denied to me.** The fact is that, except in rare cases, man is not a reasoning being. He is dominated by authority, and when the facts are not in accord with the view imposed by authority, so much the worse for the facts. They may and indeed must win in

the long run; but in the meantime the world gropes needlessly in darkness and endures much suffering that might have been avoided.

THE EFFECT OF LIGHT UPON THE EYES

Although the eyes were made to react to the light, a very general fear of the effect of this element upon the organs of vision is entertained both by the medical profession and by the laity. Extraordinary precautions are taken in our homes, offices and schools to temper the light, whether natural or artificial, and to insure that it shall not shine directly into the eyes; smoked and amber glasses, eye-shades, broad-brimmed hats and parasols are commonly used to protect the organs of vision from what is considered an excess of light; and when actual disease is present, it is no uncommon thing for patients to be kept for weeks, months and years in dark rooms, or with bandages over their eyes.

The evidence on which this universal fear of the light has been based is of the slightest. In the voluminous literature of the subject one finds such a lack of information that, in 1910, Dr. J. Herbert Parsons of the Royal Ophthalmic Hospital of London, addressing a meeting of the Ophthalmological Section of the American Medical Association, felt justified in saying that ophthalmologists, if they were honest with themselves, "must confess to a lamentable ignorance of the conditions which render bright light injurious to the eyes."2 Since then, Verhoeff and Bell have reported3 an exhaustive series of experiments carried on at the Pathological Laboratory of the Massachusetts Charitable Eye and Ear Infirmary, which indicate that the danger of injury to the eye from light radiation as such has been "very greatly exaggerated." That brilliant sources of light sometimes produce unpleasant temporary symptoms cannot, of course, be denied; but as regards definite pathological effects, or permanent impairment of vision from exposure to light alone, Drs. Verhoeff and Bell were unable to find, either clinically or experimentally, anything of a positive nature.

The results of these experiments are in complete accord with my own observations as to the effect of strong light upon the eyes. In my experience such light has never been permanently injurious. Persons with normal sight have been able to look at the sun for an indefinite length of time, even an hour or longer, without any discomfort or loss of vision. Immediately afterward they were able to read the Snellen test card with improved vision, their sight having become better than what is ordinarily considered normal. Some persons with normal sight do suffer discomfort and loss of vision when they look at the sun; but in such cases the retinoscope always indicates an error of refraction, showing that this condition is due, not to the light, but to strain. In exceptional cases persons with defective sight have been able to look at the sun, or have thought that they have looked at it, without discomfort and without loss of vision; but, as a rule, the strain in such eyes is enormously increased and the vision decidedly lowered by sun-gazing, as manifested by inability to read the Snellen test card. **Blind areas (scotomata)** may develop in various parts of the field—two or three or more. The sun, instead of appearing perfectly white, may appear to be slate-colored, yellow, red, blue, or even totally black. After looking away from the sun, patches of color of various kinds and sizes may be seen, continuing a variable length of time, from a few seconds to a few minutes, hours, or even months. In fact, one patient was troubled in this way for a year or more after looking at the sun for a few seconds. Even total blindness lasting a few hours has been produced. Organic changes may also be produced. Inflammation, redness of the conjunctiva, cloudiness of the lens and of the aqueous and viterous humours, congestion and cloudiness of the retina, optic nerve and choroid, have all resulted from **sun-gazing**. These effects, however, are **always temporary**. The scotomata, the strange colors, even the total blindness, as explained in the preceding chapter, are only mental illusions. No matter how much the sight may have been impaired by **sun-gazing**, or how long the impairment may have lasted, a return to normal has always occurred; while prompt relief of all the symptoms mentioned has always followed the relief of eyestrain, showing that the conditions are the result, not of the light, but of the strain. **Some persons who have believed their eyes to have been permanently injured by the sun have been promptly cured by central fixation, indicating that their blindness had been simply functional.**

By persistence in looking at the sun, a person with normal sight soon becomes able to do so without any loss of vision; but persons with imperfect sight usually find it impossible to accustom themselves to such a strong light until their vision has been improved by other means. **One has to be very careful in recommending sun-gazing to persons with imperfect sight; because, although no permanent harm can result from it, great temporary discomfort may be produced, with no permanent benefit. In some rare cases, however, complete cures have been effected by this means alone.**

In one of these cases the sensitiveness of the patient, even to ordinary daylight, was so great that an eminent specialist had felt justified in putting a black bandage over one eye and covering the other with a smoked glass so dark as to be nearly opaque. She was kept in this condition of almost total blindness for two years without any improvement. Other treatment extending over some months also failed to produce satisfactory results. She was then advised to look directly at the sun. The immediate result was total blindness, which lasted several hours; but next day the vision was not only restored to its former condition, but was improved. The sun-gazing was repeated, and each time the blindness lasted for a shorter period. At the end of a week the patient was able to look directly at the sun without discomfort, and her vision, which had been 20/200 without glasses and 20/70 with them, had improved to 20/10, twice the accepted standard for normal vision.

Like the sun, a strong electric light may also lower the vision temporarily, but never does any permanent harm. In those exceptional cases in which the patient can become accustomed to the light, it is beneficial. After looking at a strong electric light some patients have been able to read the Snellen test card better.

It is not light but darkness that is dangerous to the eye. Prolonged exclusion from the light always lowers the vision, and may produce serious inflammatory conditions. Among young children living in tenements this is a somewhat frequent cause of ulcers upon the cornea, which ultimately destroy the sight. The children, finding their eyes sensitive to light, bury them in the pillows and thus shut out the light entirely. **The universal fear of reading or doing fine work in a dim light is, however, unfounded. So long as the light is sufficient so that one can see without discomfort, this practice is not only harmless, but may be beneficial.**

Sudden contrasts of light are supposed to be particularly harmful to the eye. The theory on which this idea is based is summed

up as follows by Fletcher B. Dresslar, specialist in school-hygiene and sanitation of the United States Bureau of Education:

"The muscles of the iris are automatic in their movements, but rather slow. Sudden strong light and weak illumination are painful and likewise harmful to the retina. For example, if the eye adjusted to a dim light is suddenly turned toward a brilliantly lighted object, the retina will receive too much light, and will be shocked before the muscles controlling the iris can react to shut out the superabundance of light. If contrasts are not strong, but are frequently made, that is, if the eye is called upon to function where frequent adjustments in this way are necessary, the muscles controlling the iris become fatigued, respond more slowly and less perfectly. As a result, eyestrain in the ciliary muscles is produced and the retina is over stimulated. This is one cause of headaches and tired eyes."4 There is no evidence whatever to support these statements. Sudden fluctuations of light undoubtedly cause discomfort to many persons, but far from being injurious, I have found them, in all cases observed, to be actually beneficial. The pupil of the normal eye, when it has normal sight, does not change appreciably under the influence of changes of illumination; and persons with normal vision are not inconvenienced by such changes. I have seen a patient look directly at the sun after coming from an imperfectly lighted room, and then, returning to the room, immediately pick up a newspaper and read it. When the eye has imperfect sight, the pupil usually contracts in the light and expands in the dark, but it has been observed to contract to the size of a pinhole in the dark. Whether the contraction takes place under the influence of light or of darkness, the cause is the same, namely, strain. Persons with imperfect sight suffer great inconvenience, resulting in lowered vision, from changes in the intensity of the light; but the lowered vision is always temporary, and if the eye is persistently exposed to these conditions, the sight is benefited. Such practices as reading alternately in a bright and a dim light, or going from a dark room to a well-lighted one, and vice versa, are to be recommended. Even such rapid and violent fluctuations of light as those involved in the production of the moving picture are, in the long run, beneficial to all eyes. I always advise patients under treatment for the cure of defective vision to go to the movies frequently and practice central fixation. They soon become accustomed to the flickering light, and afterward other lights and reflections cause less annoyance.

In later years Dr. Bates advises closed eyes sunning.

TWO POINTS OF VIEW

Being anxious to know what my colleagues think of BETTER EYESIGHT, I lately sent notes to a number of them asking for their opinion. The following replies were so interesting that I think the readers of the magazine have a right to see them.

Dear Doctor:

As long as you ask for my opinion of your new magazine entitled BETTER EYESIGHT, permit me to give it to you in all frankness. It is what we call in the vernacular, "PUNK."

Meaning no personal offense, I am,

Your colleague.

Dear Doctor

Your little note received this morning and am glad to have the opportunity to tell you what I think of BETTER EYESIGHT.

It is all that you claim for it, and I am always glad to receive it, as I know that I am going to get something beneficial for myself as well as something for the good of my patients.

If the medical bigots had BETTER EYESIGHT on their desks, and would put into practice what you give in each number, it would be a great blessing to the people who are putting eye crutches on their eyes. I first tried central fixation on myself and had marvelous results. I threw away my glasses and can now see better than I have ever done. I read very fine type (smaller than newspaper type) at a distance of six inches from the eyes, and can run it out at full arm's length and still read it without blurring the type.

I have instructed some of my patients in your methods, and all are getting results. One case who has a partial cataract of the left eye could not see anything on the Snellen test card at twenty feet, and could see the letters only faintly at ten feet. Now she can read 20/10 with both eyes together and also with each eye separately, but the left eye seems, as she says, to be looking through a little fog. I could cite many other cases that have been benefited by central fixation, but this one is the most interesting to me. Kindly send me more of the subscription slips, as I want to hand them out to my patients.

Yours very truly,

November, 1919

1 - A condition in which the eye is shortsighted in all meridians, but more so in one than in the others.
2 - Jour. Am. Med. Assn., Dec. 10, 1910, p. 2028.
3 - Proc. Am. Acad. Arts and Sciences, July, 1916, vol. 51, No. 13.
4 - School Hygiene, Brief Course Series in Education, edited by Paul Monroe, Ph.D., 1916, pp. 235-236.

BETTER EYESIGHT

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

December, 1919

THE IMAGINATION CURE

When the imagination is perfect the mind is always perfectly relaxed, and as it is impossible to relax and imagine a letter perfectly, and at the same time strain and see it imperfectly, it follows that when one imagines that one sees a letter perfectly one actually does see it, as demonstrated by the retinoscope, no matter how great an error of refraction the eye may previously have had. The sight, therefore, may often be improved very quickly by the aid of the imagination. To use this method the patient may proceed as follows:

Look at a letter at the distance at which it is seen best. Close and cover the eyes so as to exclude all the light, and remember it. Do this alternately until the memory is nearly equal to the sight. Next, after remembering the letter with the eyes closed and covered, and while still holding the mental picture of it, look at a blank surface a foot or more to the side of it, at the distance at which you wish to see it. Again close and cover the eyes and remember the letter, and on opening them look a little nearer to it. Gradually reduce the distance between the point of fixation and the letter, until able to look directly at it and imagine it as well as it is remembered with the eyes closed and covered. The letter will then be seen perfectly, and other letters in its neighborhood will come out. **If unable to remember the whole letter, you may be able to imagine a black period as forming part of it. If you can do this, the letter will also be seen perfectly.**
Imagine the letter is composed of many black periods and shift from period to period (part to part) on the letter.

THE MENACE OF LARGE PRINT

If you look at the big "C" on the Snellen test card (or any other large letter of the same size) at ten, fifteen, or twenty feet, and try to see it all alike, you may note a feeling of strain and the letter may not appear perfectly black and distinct. If you now look at only one part of the letter, and see the rest of it worse, you will note that the part seen best appears blacker than the whole letter when seen all alike, and you may also note a relief of strain. If you look at the small "c" on the bottom line of the test card, you may be able to note that it seems blacker than the big "C." If not, imagine it as forming part of the area of the big "C." If you are able to see this part blacker than the rest of the letter, the imagined letter will, of course, appear blacker also. If your sight is normal, you may now go a step further and note that when you look at one part of the small "c" this part looks blacker than the whole letter, and that it is easier to see the letter in this way than to see it all alike.

If you look at a line of the smaller letters that you can read readily, and try to see them all alike-all equally black and equally distinct in outline-you will probably find it to be impossible, and the effort will produce discomfort and, perhaps, pain. You may, however, succeed in seeing two or more of them alike. This, too, may cause much discomfort, and if continued long enough, will produce pain. If you now look at only the first letter of the line, seeing the adjoining ones worse, the strain will at once be relieved, and the letter will appear blacker and more distinct than when it was seen equally well with the others.

If your sight is normal at the near-point, you can repeat these experiments with a letter seen at this point, with the same results. A number of letters seen equally well at one time will appear less black and less distinct than a single letter seen best, and a large letter will seem less black and distinct than a small one; while in the case of both the large letter and the several letters seen all alike, a feeling of strain may be produced in the eye. You may also be able to note that the reading of very fine print, when it can be done perfectly, is markedly restful to the eye.

The smaller the point of maximum vision, in short, the better the sight, and the less the strain upon the eye. This fact can usually be demonstrated in a few minutes by any one whose sight is not markedly imperfect; and in view of some of our educational methods, is very interesting and instructive.

Probably every man who has written a book upon the eye for the last hundred years has issued a warning against fine print in school books, and recommended particularly large print for small children. This advice has been followed so assiduously that one could probably not find a lesson book for small children anywhere printed in ordinary reading type, while alphabets are often printed in characters one and two inches high. The British Association for the Advancement of Science does not wish to see children read books at all before they are seven years old, and would conduct their education previous to that age by means of large printed wall-sheets, blackboards, pictures, and oral teaching. If they must read, however, it wants them to have 24- and 30-point type, with capitals about a quarter of an inch in height. This is carefully graded down, a size smaller each year, until at the age of twelve the children are permitted to have the same kind of type as their elders. Bijou editions of Bible, prayer-book and hymnals are forbidden, however, to children of all ages.1

In the London myope classes, which have become the model for many others of the same kind, books are eliminated entirely, and only the older children are allowed to print their lessons in one- and two-inch types.2

Yet it has just been shown that large print is a strain upon the eyes, while the retinoscope demonstrates that a strain to see at the near-point always produces hypermetropia3 (commonly but erroneously called "farsight"). We should naturally expect, therefore, to find hypermetropia very common among small children, and it is. Of children eight and a half years old in the public schools of Philadelphia, Risley4 found that more than eighty-eight per cent were hypermetropic, and similar figures may be found in all statistics of the subject. The percentage declines as the children become older, but hypermetropia, or hypermetropic astigmatism, remains at all ages the most common of all errors of refraction. Hypermetropia is, in fact, a much more serious problem than myopia, or nearsight. Yet we have heard very little about it, for the specialists have concluded, from its prevalence and its tendency to pass away or become less pronounced with the growth of the body, that it is the normal state of the immature human eye and therefore beyond the reach of preventive measures. It is true that many young children are not hypermetropic, but

this fact is easily disposed of by the theory that the ciliary muscle alters the shape of the lens in such cases sufficiently to compensate for the shortness of the eyeball.

The baselessness of this theory, as well as the relation of large print to the production of hypermetropia, may be demonstrated by the fact that the condition can be relieved, and has been relieved in numerous cases, by the reading of fine print, combined with rest of the eyes. A child of eight was cured in a few visits by this means. Yet according to the British Association she should not, at this age, have been allowed to read any type larger than 12-point, with capitals more than an eighth of an inch in height. Many grown people have been cured of hypermetropia in the same way, and in all forms of functional imperfect sight the reading of fine print, when it can be done with comfort, has been found to be a benefit to the eyes. Even straining to see fine print is sometimes a benefit in myopia. Large letters are not a strain if central fixation, shifting are applied. Avoid diffusion, eccentric fixation.

SHIFTING AND SWINGING

Correct Appearance of Oppositional Movement

When the eye with normal vision regards a letter either at the near-point or at the distance, the letter may appear to pulsate, or move in various directions, from side to side, up and down, or obliquely. When it looks from one letter to another on the Snellen test card, or from one side of a letter to another, not only the letters, but the whole line of letters and the whole card, may appear to move from side to side. This apparent movement is due to the shifting of the eye, and is always in a direction contrary to its movement. If one looks at the top of a letter, the letter is below the line of vision, and therefore appears to move downward. If one looks at the bottom, the letter is above the line of vision and appears to move upward. If one looks to the left of the letter, it is to the right of the line of vision and appears to move to the right. If one looks to the right, it is to the left of the line of vision and appears to move to the left.

Persons with normal vision are rarely conscious of this illusion, and may have difficulty in demonstrating it; but in every case that has come under my observation they have always become able, in a longer or shorter time, to do so. When the sight is imperfect the letters may remain stationary, or even move in the same direction as the eye.

It is impossible for the eye to fix a point longer than a fraction of a second. If it tries to do so, it begins to strain and the vision is lowered. This can readily be demonstrated by trying to hold one part of a letter for an appreciable length of time. No matter how good the sight, it will begin to blur, or even disappear, very quickly, and sometimes the effort to hold it will produce pain. In the case of a few exceptional people a point may appear to be held for a considerable length of time; the subjects themselves may think that they are holding it; but this is only because the eye shifts unconsciously, the movements being so rapid that objects seem to be seen all alike simultaneously.

The shifting of the eye with normal vision is usually not conspicuous, but by direct examination with the opthalmoscope5 it can always be demonstrated. If one eye is examined with this instrument while the other is regarding a small area straight ahead, the eye being examined, which follows the movements of the other, is seen to move in various directions, from side to side, up and down, in an orbit which is usually variable. If the vision is normal, these movements are extremely rapid and unaccompanied by any appearance of effort. The shifting of the eye with imperfect sight, on the contrary, is slower, its excursions are wider, and -the movements are jerky and made with apparent effort.

It can also be demonstrated that the **eye is capable of shifting with a rapidity which the ophthalmoscope cannot measure**. (Saccadic movements) The normal eye can read fourteen letters on the bottom line of a Snellen test card, at a distance of ten or fifteen feet, in a dim light, so rapidly that they seem to be seen all at once. Yet it can be demonstrated that in order to recognize the letters under these conditions it is necessary to make about four shifts to each letter. At the near-point, even though one part of the letter is seen best, the rest may be seen well enough to be recognized; but at the distance it is impossible to recognize the letters unless one shifts from the top to the bottom and from side to side. One must also shift from one letter to another, making about **seventy shifts in a fraction of a second**.

A line of small letters on the Snellen test card may be less than a foot long by a quarter of an inch in height; and if it requires seventy shifts to a fraction of a second to see it apparently all at once, it must require many thousands to see an area of the size of the screen of a moving picture with all its detail of people, animals, houses, or trees, while to see sixteen such areas to a second, as is done in viewing moving pictures, must require a rapidity of shifting that can scarcely be realized. Yet it is admitted that the present rate of taking and projecting moving pictures is too slow. The results would be more satisfactory, authorities say, if the rate were raised to twenty, twenty-two or twenty-four a second. The human eye and mind are not only capable of this rapidity of action, and that without effort or strain, but it is only when the eye is able to shift thus rapidly that eye and mind are at rest, and the efficiency of both at their maximum. It is true that every motion of the eye produces an error of refraction; but when the movement is short, this is very slight, and usually the shifts are so rapid that the error does not last long enough to be detected by the retinoscope, its existence being demonstrable only by reducing the rapidity of the movements to less than four or five a second. The period during which the eye is at rest is much longer than that during which an error of refraction is produced. Hence, when the eye shifts normally no error of refraction is manifest. The more rapid the unconscious shifting of the eye, the better the vision; but if one tries to be conscious of a too rapid shift, a strain will be produced.

Perfect sight is impossible without continual shifting, and such shifting is a striking illustration of the mental control necessary for normal vision. It requires perfect mental control to think of thousands of things in a fraction of a second; and each point of fixation has to be thought of separately, because it is impossible to think of two things, or of two parts of one thing, perfectly at the same time. The eye with imperfect sight tries to accomplish the impossible by looking fixedly at one point for an appreciable length of time; that is, by staring. When it looks at a strange letter and does not see it, it keeps on looking at it in an effort to see it better. Such efforts always fail, and are an important factor in the production of imperfect sight.

+ One of the best methods of improving the sight, therefore, is to imitate consciously the unconscious shifting of normal vision, and to realize the apparent motion produced by such shifting. Whether one has imperfect or normal

sight, conscious shifting and swinging are a great help and advantage to the eye; for not only may imperfect sight be improved in this way, but normal sight may be improved also.

Detailed instructions for improving the sight by this method will be given in my forthcoming book, *The Cure of Imperfect Sight by Treatment without Glasses*.

Rapid and tiny shifts, the eyes ability to shift many times per fraction of a second are called Saccadic eye movements, vibrations. The eye produces many different movements, high frequency…

OPTIMUMS AND PESSIMUMS

In nearly all cases of imperfect sight due to errors of refraction there is some object, or objects, which can be regarded with normal vision. Such objects I have called *optimums*. On the other hand, there are some objects which persons with normal eyes and ordinarily normal sight always see imperfectly, an error of refraction being produced when they are regarded, as demonstrated by the retinoscope. Such objects I have called *pessimums*. An object becomes an optimum, or a pessimum, according to the effect it produces upon the mind, and in some cases this effect is easily accounted for.

For many children their mother's face is an optimum, and the face of a stranger a pessimum. A dressmaker was always able to thread a No. 10 needle with a fine thread of silk without glasses, although she had to put on glasses to sew on buttons, because she could not see the holes. She was a teacher of dressmaking, and thought the children stupid because they could not tell the difference between two different shades of black. She could match colors without comparing the samples. Yet she could not see a black line in a photographic copy of the Bible which was no finer than a thread of silk, and she could not remember a black period. An employee in a cooperage factory, who had been engaged for years in picking out defective barrels as they went rapidly past him on an inclined plane, was able to continue his work after his sight for most other objects had become very defective, while persons with much better sight for the Snellen test card were unable to detect the defective barrels. The familiarity of these various objects made it possible for the subjects to look at them without strain—that is, without trying to seem them. Therefore the barrels were to the cooper optimums; while the needle's eye and the colors of silk and fabrics were optimums to the dressmaker. Unfamiliar objects, on the contrary, are always pessimums.

In other cases there is no accounting for the idiosyncracy of the mind which makes one object a pessimum and another an optimum. It is also impossible to account for the fact that an object may be an optimum for one eye and not for the other, or an optimum at one time and at one distance and not at others. Among these unaccountable optimums one often finds a particular letter on the Snellen test card. One patient, for instance, was able to see the letter K on the forty, fifteen and ten lines, but could see none of the other letters on these lines, although most patients would see some of them, on account of the simplicity of their outlines, better than they would such a letter as K.

Pessimums may be as curious and unaccountable as optimums. The letter V is so simple in its outlines that many people can see it when they cannot see others on the same line. Yet some people are unable to distinguish it at any distance, although able to read other letters in the same word, or on the same line of the Snellen test card. Some people again will not only be unable to recognize the letter V in a word, but also to read any word that contains it, the pessimum lowering their sight not only for itself but for other objects. Some letters, or objects, become pessimums only in particular situations. A letter, for instance, may be a pessimum when located at the end, or at the beginning of a line, or sentence, and not in other places. When the attention of the patient is called to the fact that a letter seen in one location ought logically to be seen equally well in others, the letter often ceases to be a pessimum in any situation.

A pessimum, like an optimum, may be lost and later become manifest. It may vary according to the light and distance. An object which is a pessimum in a moderate light may not be so when the light is increased or diminished. A pessimum at twenty feet may not be one at two feet, or thirty feet, and an object which is a pessimum when directly regarded may be seen with normal vision in the eccentric field—that is, when not directly regarded.

For most people the Snellen test card is a pessimum. If you can see the Snellen test card with normal vision, you can see almost anything else in the world. Patients who cannot see the letters on the Snellen test card can often see other objects of the same size and at the same distance with normal sight. When letters which are seen imperfectly, or even letters which cannot be seen at all, or which the patient is not conscious of seeing, are regarded, the error of refraction is increased. The patient may regard a blank white card without any error of refraction; but if he regards the lower part of a Snellen test card, which appears to him to be just as blank as the blank card, an error of refraction can always be demonstrated, and if the visible letters of the card are covered the result is the same. The pessimum may, in short, be letters or objects which the patient is not conscious of seeing. This phenomenon is very common. When the card is seen in the eccentric field it may have the effect of lowering the vision for the point directly regarded. For instance, a patient may regard an area of green wall-paper at the distance, and see the color as well as at the near-point; but if a Snellen test card on which the letters are either seen imperfectly, or not seen at all, is placed in the neighborhood of the area being regarded, the retinoscope may indicate an error of refraction. When the vision improves, the number of letters on the card which are pessimums diminishes and the number of optimums increases, until the whole card becomes an optimum.

A pessimum, like an optimum, is a manifestation of the mind. It is something associated with a strain to see, just as an optimum is something which has no such association. It is not caused by the error of refraction, but always produces an error of refraction; and when the strain has been relieved it ceases to be a pessimum and becomes an optimum.

HOME TREATMENT

It is not always possible for patients to go to a competent physician for relief. As the method of treating eye defects presented in this magazine is new, it may be impossible to find a physician in the neighborhood who understands it; and the patient may not be able to afford the expense of a long journey, or to take the time for treatment away from home. To such persons I wish to say that it is possible for a large number of people to be cured of defective eyesight without the aid either of a physician or of anyone else.

They can cure themselves, and for this purpose it is not necessary that they should understand all that has been written in this magazine, or anywhere else. All that is necessary is to follow a few simple directions.

Place a Snellen test card on the wall at a distance of ten, fourteen, or twenty feet, and devote half a minute a day, or longer, to reading the smallest letters you can see, with each eye separately, covering the other with the palm of the hand in such a way as to avoid touching the eyeball.

Keep a record of the progress made, with the dates. The simplest way to do this is by the method used by oculists, who record the vision in the form of a fraction, with the distance at which the letter is read as the numerator and the distance at which it ought to be read as the denominator. As already explained, the figures above the lines of letters on the test card indicate the distance at which these letters should be read by persons with normal eyesight. Thus a vision of 10/200 would mean that the big C, which ought to be read at 200 feet, cannot be seen at a greater distance than ten feet. A vision of 20/10 would mean that the ten line, which the normal eye is not ordinarily expected to read at a greater distance than ten feet, is seen at double that distance. This is a standard commonly attained by persons who have practiced my methods.

Children under twelve years who have not worn glasses are usually cured of defective eyesight by the above method in three months, six months, or a year. Adults who have never worn glasses are benefited in a very short time—a week or two—and if the trouble is not very bad, may be cured in the course of from three to six months. Children or adults who have worn glasses, however, are more difficult to relieve, and will usually have to practice the various methods of gaining relaxation which have been presented from month to month in this magazine and will be described in more detail in my forthcoming book, *The Cure of Imperfect Sight by Treatment without Glasses*.

It is absolutely necessary that the glasses be discarded. No half-way measures can be tolerated, if a cure is desired. Do not attempt to wear weaker glasses, and do not wear glasses for emergencies. Persons who are unable to do without glasses are not likely to be able to cure themselves.

Modern Natural Vision Improvement teachers state that reduced, weaker eyeglass lenses can be worn, but only when necessary. In later years Dr. Bates stated glasses can be worn if absolutely essential but, glasses will slow vision improvement.

Children and adults who have worn glasses will have to devote an hour or longer every day to practice with the test card and the balance of their time to practice on other objects. It will be well for such patients to have **two test cards, one to be used at the near-point, where it can be seen best, and the other at ten or twenty feet. The patient will find it a great help to shift from the near card to the distant one, as the unconscious memory of the letters seen at the near-point helps to bring out those seen at the distance.** (Switching close and far. Shift on the E on the close card. Switch to the distant card. Shift on the E on that card. Then back to the close card. Repeat. Remember, imagine the E clear.)

If the patient can secure the aid of some person with normal sight, it will be a great advantage. In fact, persons whose cases are obstinate will find it very difficult, if not impossible, to cure themselves without the aid of a teacher. The teacher, if he is to benefit the patient, must himself be able to derive benefit from the various methods recommended. If his vision is 10/10, he must be able to improve it to 20/10, or more. If he can read fine print at twelve inches, he must become able to read it at six, or at three inches. He must also have sufficient control over his visual memory to relieve and prevent pain.

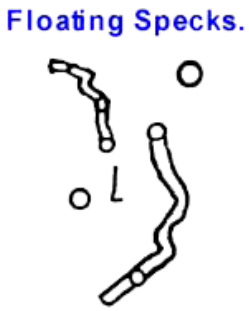
Parents who wish to preserve and improve the eyesight of their children should encourage them to read the Snellen test card every day. There should, in fact, be a Snellen test card in every family; for when properly used it always prevents myopia and other errors of refraction, always improves the vision, even when this is already normal, and always benefits functional nervous troubles. Parents should improve their own eyesight to normal, so that their children may not imitate wrong methods of using the eyes and will not be subject to the influence of an atmosphere of strain.

December, 1919

1 - Report on the Influence of School Books upon Eyesight, second revised edition, 1913.
2 – Pollock: The Education of the Semi-Blind, Glasgow med. Jour., Dec, 1915.
3 – Bates: The cause of myopia, N.Y. Med. Jour., March 10, 1912.
4 – School hygiene, in System of Diseases of the Eye, edited by Norris and Oliver, vol. II, P. 353.
5 - An instrument for viewing the interior of the eye. When the optic nerve is observed with the ophthalmoscope, movements can be noted that are not apparent when only the exterior of the eye is regarded.

Floating Specks caused by Eyeglasses, Contacts, Laser Surgery, Sunglasses.

Eyeglasses, Contact lenses, Cornea Laser Surgery, Sunglasses, Staring cause Floating Specks by impairing natural eye movement, shifting, central-fixation, creating strain, tension in the eyes, eye muscles, neck, visual system, brain. Diet also affects the eyes health, function and can cause floaters.



Floaters, Floating Specks – Moving spots, lines, bubbles… in the visual field can appear in many forms, colors. They move when the eye moves and move away from the central field of vision. They are usually harmless.
Scientists state that floaters *Muscae Volitantes*, or *Flying Flies* are debris left in the eye from its development, injury or toxins in the body which can be removed by fasting, cleansing diet, improved liver, kidney health, avoiding: sugar, ingestion of chemicals, or chemicals in the air, on the skin, artery clogging food.
Ophthalmologist Bates states that tension in the mind, staring, squinting, limited eye movement, lack of central-fixation, eye muscle tension causes the appearance of floaters. Worrying about them, looking for the floaters, trying to prevent them from appearing and moving causes staring, eye muscle tension: the floaters then appear/stay in the visual field.
Dr Bates states that floating specks disappear when the mind, visual system, eye muscles, eyes relax causing the eyes to move, 'shift' correct – Relaxed mind, eye muscles, eyes produce all sizes, types of eye movements and it's the tiny, small shifts (saccadic eye movements, vibrations) and central-fixation that occur with relaxation, normal eye function that produce very clear vision, causes the floaters to disappear, stop moving around and the brain shuts them off.
Shift point to point on a fine print letter or small part on a distant or close object: left and right, top and bottom, diagonally… and notice the vision improves and floaters disappear. Clear vision removes floaters.

Practice shifting point to point on a fine print letter or tiny period with the eyes open. Then; imagine shifting on the letter or period with the eyes open without looking at it, see it in the mind only. Blink, relax. Then: do this with the eyes closed using the memory and imagination, then with eyes open again. Notice the eyes do tiny movements even when shifting on the imaginary tiny object with the eyes open or closed. The floaters disappear.
Relaxed eye muscles, neck muscles, exercise, deep breathing improve blood/oxygen, nutrient, lymph flow, circulation to the brain, eyes, allows the eyes to remove waste, return eye fluid, lymph flow to normal. This removes floaters.

All Correct Vision Habits: Shifting, Central-fixation, Blinking, Switching Practice… and other Bates Method Activities; Long Swing, Rock, Sunlight, Deep Abdominal Breathing, good diet, avoiding processed sugar, aspartame, chemical exposure removes floaters. Food that improves the circulation in body, eyes helps cleanse the eyes, improves eye health.

Many floaters, suddenly appearing, flashing lights are a different type of floater and a sign of detached retina or other eye condition. See an Eye Doctor Immediately.
Migraine headaches can cause temporary flashing moving lights, patterns, blind spots in the visual field with or without the headache. Sinus headache, pressure can cause floaters and disrupt eye movement, cause blurry vision.

See Better Eyesight Magazine for a variety of Articles on Floaters

BETTER EYESIGHT

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

October, 1919

FLOATING SPECKS

Girl lying in the grass on a hill looking at the blue sky, white clouds and seeing floaters, imaging they are angels or outer space aliens, secret friends with magic powers that protect her.

A man returning from Europe was looking at some white clouds one day when floating specks appeared before his eyes. He consulted the ship's doctor, who told him that the symptom was very serious, and might be the forerunner of blindness. It might also indicate incipient insanity, as well as other nervous or organic diseases. He advised him to consult his family physician and an eye specialist as soon as he landed, which he did. This was twenty-five years ago, but I shall never forget the terrible state of nervousness and terror into which the patient had worked himself by the time he came to me. It was even worse than that of the clergyman, who was always ready to admit that his fears were unreasonable. I examined his eyes very carefully, and found them absolutely normal. The vision was perfect both for the near-point and the distance. The color perception, the fields and the tension were normal; and under a strong magnifying glass I could find no opacities in the vitreous. In short, there were absolutely no symptoms of any disease. I told the patient there was nothing wrong with his eyes, and I also showed him an advertisement of a quack medicine in a newspaper which gave a great deal of space to describing the dreadful things likely to follow the appearance of floating specks before the eyes, unless you began betimes (in good time, early) to take the medicine in

question at one dollar a bottle. I pointed out that the advertisement, which was appearing in all the big newspapers of the city every day, and probably in other cities, must have cost a lot of money, and must, therefore, be bringing in a lot of money. Evidently there must be a great many people suffering from this symptom, and if it were as serious as was generally believed, there would be a great many more blind and insane people in the community than there were. The patient went away somewhat comforted, but at eleven o'clock—his first visit had been at nine—he was back again. He still saw the floating specks, and was still worried about them. I examined his eyes again as carefully as before, and again was able to assure him that there was nothing wrong with them. In the afternoon I was not in my office, but I was told that he was there at three and at five. At seven he came again, bringing with him his family physician, an old friend of mine. I said to the latter:

"Please make this patient stay at home. I have to charge him for his visits, because he is taking up so much of my time; but it is a shame to take his money when there is nothing wrong with him."

What my friend said to him I don't know, but he did not come back again.

I did not know as much about muscae volitantes then as I know now, or I might have saved both of these patients a great deal of uneasiness. I could tell them that their eyes were normal, but I did not know how to relieve them of the symptom, which is simply an illusion resulting from mental strain. The specks are associated to a considerable extent with markedly imperfect eyesight, because persons whose eyesight is imperfect always strain to see; but persons whose eyesight is ordinarily normal may see them at times, because no eye has normal sight all the time. Most people can see muscae volitantes when they look at the sun, or any uniformly bright surface, like a sheet of white paper upon which the sun is shining. This is because most people strain when they look at surfaces of this kind. The specks are never seen, in short, except when the eyes and mind are under a strain, and they always disappear when the strain is relieved. If one can remember a small letter on the Snellen test card by central-fixation, the specks will immediately disappear, or cease to move; but if one tries to remember two or more letters equally well at one time, they will reappear and move. Usually the strain that causes muscae volitantes is very easily relieved. See; April, 1925 and other issues;

Stories from the Clinic

NO. 76: CATARACT

By **EMILY C. LIERMAN**

MANY patients, after being cured of imperfect sight, go their way and we never see them again. However, many come back, even after a period of five years or more, to report, or to show their gratitude. If a patient is cured quickly, he is very apt to forget that he ever had eyestrain. Normal vision helps him to forget, and he is able to go on with things that interest him without tension or strain.

There is nothing that affects the whole nervous system more than eye strain.

I have deep sympathy for patients suffering from cataract. Some of these have told me that, when they first discovered, or were told that they had acquired cataract, the shock was so great it sometimes made them very ill. I have often wished that I could broadcast to every human being troubled with cataract, that they need not worry about an operation, nor fear blindness.

While treating patients at the Harlem Hospital Clinic, Dr. Bates placed under my care many patients with cataract. Some of them were children who were born with it, while others acquired it from an injury of some sort. If they faithfully practiced the daily treatment for their particular case, they always improved. There were no exceptions, although in all cases where the patient did not practice enough, it took much longer for a cure. Adults were also cured quickly when the directions for home treatment were faithfully carried out. Age made no difference.

A colored mammy, who was a faithful servant of one of our private patients, came regularly, three days a week for many months, and was treated for cataract. I have described her case in my book, "Stories from the Clinic." In the beginning of her treatment, she could not see the letters of the test card at five feet. As she explained it in her dialect: "Do you know, ma'am, ah can see nothin', no ma'am, nothin' at all at dis distance!"

Long periods of palming, early in the morning and late in the afternoon, when her work was done, helped her sight. In the clinic she was taught to sway her body slightly from side to side and to blink all the time. The swaying helped her to see things about the room moving opposite to the movement of her body. **The blinking prevented the stare, which is usually the cause of cataract.** The quickest way to obtain a cure is by palming, and I advise my private patients to practice it for several hours or many times each day. It would be impractical, however, to advise a clinic patient to use the same method, because they cannot spare the time from their work, nor can the employer spare them. If such advice were given them, their answer would surely be: "This treatment is only for those who can afford the time." Dr. Bates often tells them that it takes less time to use their eyes correctly than it does to use them incorrectly.

Clinic patients, as well as private ones, are advised to relax all day long. Mammy was to see things moving all day by watching her broom as she swept the floors; the washboard as she washed the clothes; the clothes-wringer as she turned the handle; and the dishes as she dried them and put them in the cupboard. We treated her many times, but occasionally she had a relapse. These were sad times for mammy, when she had tears in her eyes and a heavy heart. Frequently she would say: "Ma'am ah knows der is no hope for me. Ah has displeased de good Lord." A kind word or two always helped her, and I made sure that she received many of them.

As time went on, she obtained normal vision with the use of the test card, and became able to read very fine print and to thread a needle. We left the Harlem Hospital Clinic, never thinking that we would hear from her again. Six years had passed, and new patients were coming and going from our own clinic, when one day about three months ago, we received a letter from mammy. All

through the letter were words of gratitude and praise for what we had done for her. **She is now seventy-eight years old, and can still read her newspaper and thread a needle**. She asked for permission to come to see us. She wanted the Doctor to look at her eyes to prove that her cataract had entirely disappeared. We, of course, were anxious to see her. When she came both of her eyes were examined and no sign of cataract was found in either eye. Her vision with various test cards was 10/10, and she read fine print without any difficulty, because she did as she was told. She was cured. It was not always easy for her as her work at times required good eyes. Her madam had patience with her for she, also, was under treatment. During mammy's last visit, she said: "Ah jest knowed dat ah was cured 'cause ah could see de crumbs on de carpet to brush up, an' ah could see de dust all ober de furniture an' ah cleans better. De sun is clear now an' not in de mist no mo'."

About a month ago, another patient came with a report of good vision. She is **over eighty years old**, and has a disposition just as cheery as she had when I first knew her, about eight or nine years ago. Perhaps our readers will remember an article I wrote about her. She is the patient who was employed in an orphanage. Her duties there were to see that all the buttons were sewed on the clothes of little ones at the Home. She said she was the only daisy in the country while she was there. From the very beginning she had infinite faith that Dr. Bates could cure her without an operation. During one of her early treatments, when she noticed a decided improvement in her sight while palming, she could not resist the temptation to peep through her fingers at me and say: "I'll fool them yet." I asked her what she meant and she answered: "Oh! The other doctors who want to operate on my eyes." Well, she kept her word. She fooled them and was entirely cured. She has never worn glasses since her first treatment and the only reason for her being cured is, that she practiced faithfully the methods of treatment that helped her most. When she looks at you, her young, blue eyes twinkle and she wears a smile that won't come off.

Better Eyesight Magazine - November, 1927 – Alexander Technique

The question that comes up more prominently than any other is: What can the patient do to bring about relaxation of any group of muscles? A man, by the name of F.M. Alexander, of London, England has accomplished a great deal in the cure of all kinds of diseases. He says that all diseases of the body are caused by tension. They can all be cured by the relaxation of the tension. He has offered many methods of bringing about relaxation in the most interesting, although seemingly incredible way and the most successful is to bring about relaxation by having the patient state that it is desired.

For example, a patient sitting in a chair or lying down on the floor, whichever is easier, says: **"I desire relaxation of the muscles of my neck, so that my head can be lifted forwards and upwards." This is sometimes repeated one hundred to a thousand times.** Mr. Alexander has always succeeded in having the patient bring about **relaxation of the muscles of the neck** by this method.

Mr. Alexander goes further and brings about relaxation of the muscles of the chest, both outside and inside, by having the patient say: "I wish my shoulder to relax and to move downwards and backwards. I wish my chest to relax and to move backwards. I wish my whole body to relax and move backwards. I wish my foot to move backwards without effort, without strain of any muscles of the body."

It has been a great shock to many orthodox physicians to observe the cures that Alexander has made. Epilepsy, considered by the medical profession to be incurable, has been cured by relaxation, without the use of any other form of treatment. Of course, rheumatism responds perhaps more quickly to relaxation than a great many other diseases, but there are cases of so-called rheumatism affecting the shoulder in which all parts of the joint become immovable.

One patient was afflicted with Parkinson's disease; all the joints of the body became so fastened together, so immovable, that the patient was unable to produce any voluntary movement of the hand or the arm. As time passed, the voluntary and the involuntary muscles gradually became useless from tension. Mr. Alexander had the patient relax those muscles which she could relax most readily. When this was done, the more difficult muscles became relaxed, until finally she was cured completely by the relaxation of tension.

(The Alexander technique continues to be popular today; original and modern Natural Vision Improvement teachers apply neck relaxation, movement as a main vision improvement treatment. The Alexander Technique is known for improving breathing and vision.)

Better Eyesight Magazine Articles by Dr. Bates & Emily Lierman, Bates

#1 - Relaxation, Palming

REST

***By* W. H. BATES, M.D.**

REST and relaxation of the eye and mind is perfect when the vision is perfect, and can always be demonstrated.

When the eye is at rest, it is always moving. To demonstrate this, instruct the patient to close his eyes and imagine that he is looking fast over his right shoulder, then over his left shoulder. By alternating quite vigorously, the eyeballs can be seen to move from side to side. While the eyes are still closed, one can place the fingers on the closed eyelids and feel this movement. Now instruct the patient to imagine a shorter movement of the eyes from side to side, that is, look a shorter distance from right to left while the eyes are closed. The movement can usually be felt, but it is not so manifest to the observer as it is when the wide movement of the eyes is made. However, after a little practice, five minutes or more, when the patient is imagining the eyes are moving, one can feel the movement even though it may be very short, one-quarter of an inch or less. If the patient stares at a part of an imaginary letter with the eyes closed, the memory or the imagination of the letter becomes blurred and the movement of the eyeball is not continuous. On the other hand, if the patient remembers a letter perfectly, and shifts on it in the mind, the eyeball appears to move continuously a short distance in various directions.

Eyes closed - imagine looking back and forth over the left and right shoulders and lightly touch the fingers onto the upper closed eyelids and feel the eyes move left and right.
Next - imagine shifting left and right on a small letter and feel the eyes movement become smaller, shorter. The eyes, eye muscles and brain, mental pictures work together.

When central fixation is practiced, that is, when one remembers or imagines one part of a letter best, the eyeballs move. If one tries to remember or imagine a letter, all parts equally well, the movement of the eyeballs cannot be seen or felt, and the eyeballs appear stationary. One can demonstrate the movement of the eyeballs very well with the aid of the ophthalmoscope. When the optic nerve is regarded with this instrument, one can always see the movement of the pigment of the eye or of the blood vessels of the retina when the sight, memory, or imagination is normal. This movement is slow, short, easy and continuous. When the sight, memory, or imagination is imperfect, the eyeball may move very irregularly, with frequent periods when it is stationary. Eye immobility, impaired shifting = unclear vision.

In nystagmus, the eyeballs move from side to side, usually continuously, a distance so great that it is conspicuous. The rapidity of this movement may vary. It is always stopped after closing the eyes and resting them a sufficient length of time, several minutes or longer, or by practicing the slow, short, easy swing.

Nystagmus is generally believed to be difficult to cure. In fact, it is so difficult that very few cases have ever been reported as benefited by orthodox methods of treatment. It has usually been considered an incurable symptom of disease of the eye. Nystagmus is, however, to a greater or less degree, under the control of the mind of the patient. Some people are able to stop the movement at will. These cases, however, are rare. Some children acquire the ability to practice nystagmus just as they learn to look cross-eyed. Nystagmus requires a strain. When practiced either consciously or unconsciously, the vision is always lowered. When the nystagmic movements are lessened or stopped altogether, the vision improves and has frequently become normal, either temporarily or permanently.

Some years ago I treated a boy, aged ten, for the cure of nystagmus. His mother told me that she had visited many physicians and had sacrificed a great deal financially in order to obtain a cure for her son. I tested his vision and found it normal at times, when the nystagmus would stop. Repeated tests demonstrated the fact that his vision was always worse when he had the nystagmus. While he was reading with almost normal vision, I said to him: "Stop the movement of your eyes!" Much to my surprise, he did what I told him and then read the card with normal vision. Then I said to him: "Start it up again and read the card." This he did very promptly, but he was unable to obtain normal sight. Again I asked him to stop the nystagmus and his vision became normal and remained normal as long as he had no nystagmus.

The mother paid close attention to the conversation. She realized that the boy was able to produce or stop the nystagmus at will. He seemed to be pleased by the attention he received when he showed off his control of ft. The mother asked me no questions. There was no need of questions after the convincing demonstration that the boy gave of his ability to control the movement. There was a grim determination in her face when she left the office, and she grasped the arm of her boy with a great deal more force than was perhaps necessary. She spoke to the boy with considerable emphasis: "Just you wait until I get you home!" I am sorry that I cannot report what happened later, but I can guess. I hope that she was able to stop this bad habit without much severity.

It can be demonstrated that when the eyes are not at rest, the vision is always imperfect. When the memory or imagination is perfect with the eyes closed, the vision is improved when the eyes are opened. Usually the improvement of

the vision is only temporary, and may last for only a second, or in flashes. In these cases, the memory soon becomes imperfect with the eyes open. By alternating perfect memory with the eyes closed, the memory with the eyes open usually improves. By practice, many patients become able to remember or imagine with their eyes open a small area of black or white, as well as they can imagine it with their eyes closed. When such patients look at a blank wall, where there is nothing in particular to see, no effort may be made to see and the vision improves. One can practice with the Snellen test card and remember for a moment one known letter of the card, with the eyes open, as well as one can for a longer time with the eyes closed. When one letter of the Snellen test card is improved, all the letters and other objects are also improved. The perfect memory of a known letter with the eyes closed is perfect rest, while an imperfect memory or imagination with the eyes closed or open is always a strain. It is a great help to many people with imperfect sight to demonstrate that rest improves the vision, while the stare or strain always lowers it.

To fail to see requires an effort. When the patient regards the letters which are so blurred and indistinct that he cannot tell what they are, he is always straining, trying to see, either consciously or unconsciously. People are cured of their imperfect sight when they cease to strain, stare, or make an effort to see. When I explained this to one of my patients, she said that I was wrong, that the only way she could see was by means of an effort. I had her test the facts. When she looked at the Snellen test card at ten feet, she could not read it with normal vision. At five feet her vision was better, but when she made an effort, her vision became much worse. The same was true when she regarded letters at a nearer point, three feet, two feet, or even one foot. An effort to see always made her sight worse. She had to demonstrate the facts repeatedly before she was finally convinced that her vision was good only when her eyes were at rest and no effort was made. Articles not labeled are by Dr. Bates or Emily Bates. A few sentences are added in some articles by Clark Night for descriptions of modern training.

Be Comfortable

By W. H. BATES, M. D.

IT can be stated without fear of successful contradiction that persons with perfect sight are always comfortable, not only as to their eyes, but as to the rest of the body. As soon as they cease to be so, it can be demonstrated, by examination with the retinoscope, that their sight has ceased to be perfect. They become nearsighted, farsighted, or astigmatic. The art of learning to use the eyes properly, is, in short, the art of learning to be comfortable. Even the memory of comfort improves the sight, while the memory of discomfort lowers it. Persons with imperfect sight often say and think that they are perfectly comfortable; but invariably such persons experience a feeling of relief when they close their eyes, demonstrating that they were not perfectly comfortable before, but had merely formed a habit of ignoring that discomfort. Persons with perfect sight, on the other hand, can immediately produce discomfort by producing imperfect sight, or even by remembering or imagining it, and persons with imperfect sight can produce a degree of discomfort that cannot be ignored by making their sight worse.

Imperfect sight cannot, in other words, be produced without effort, and this effort tears the nerves of the whole body to pieces. The same is true of an imperfect memory and imagination. To demonstrate these facts is often the best way of improving the sight.

While persons with imperfect sight may feel no discomfort when looking at letters on the test card which they do not ordinarily distinguish, they cannot blur their vision for a letter they do distinguish without great effort and discomfort. In fact, the effort and discomfort are so great that many patients cannot be induced to make the experiment. When they can be prevailed upon to do so, however, they realize that they must be unconsciously straining whenever they look at anything with imperfect sight. It is often hard to convince patients of the existence of this unconscious strain, and nothing helps more in their treatment than to have them demonstrate the facts.

What is true of the vision is true of the memory and imagination. When a letter is remembered perfectly, with the outlines clear, and the opening as white as snow or starch; when the attention shifts easily from one part of the letter to another and it appears to move in a direction opposite to that in which the attention shifts; it is remembered easily. There is no sense of effort, or strain, and the individual is perfectly comfortable. When, on the other hand, a letter is remembered imperfectly, with the outline obscured by a gray cloud which is all the time changing, the mind tires so quickly that the memory of the letter is lost from time to time and has to be brought back by an effort. Discomfort is soon produced, and if the effort is continued long enough, severe pain may result. At the same time the retinoscope will show that an error of refraction has been produced, or if this condition previously existed, that its degree has increased.

It should be added, however, that if the strain is to remember a near object, myopia may be decreased, because a strain to see a near object always decreases myopia and the memory of near objects has the same effect. Similarly a strain to remember distant objects may decrease hypermetropia.

Staring is uncomfortable, and lowers the vision. Shifting and the realization of the apparent movement resulting from it are comfortable, and improve the vision. Let anyone try to stop the apparent movement of telegraph poles and other objects past a moving train, and discomfort, pain and carsickness result. In the same way any effort to stop the slighter movement of stationary objects produced by the normal shifting of the eyes, results in discomfort and pain, even though the individual may not previously have been conscious of the movement.

Some people are able to close their eyes and be comfortable. Such persons are easy to cure. In one case a man with presbyopia was completely relieved by keeping his eyes closed for half an hour; and the cure was permanent. Later his wife

was cured by the same means. Other people cannot rest with their eyes shut, and are very difficult to cure. It is the same way with palming. Some persons, when they close and cover their eyes so as to exclude all the light, at once relax and are comfortable, and such persons are easily cured. Others strain more than ever, and are very difficult to cure.

Perfect sight, perfect memory and perfect imagination cannot, in short, coexist with the consciousness of any abnormal symptom, and all such symptoms are relieved when the sight becomes perfect, or when one is able to remember or imagine something seen perfectly. See Dr. Bates Palming Articles in this book.

New Uses for Relaxation

By BESSIE VREDENBURGH

I HEARD a woman say once that she had followed a certain cult for seventeen years, thoroughly believing in it, but that she had never really put it to the test. This explained what had often been a mystery to me, why certain beliefs and cults could flourish and apparently satisfy so many people, because they were seldom tested.

Not so with the discoveries and teachings of Dr. Bates. They must prove of definite and distinct service, else, they must be discarded, for they make no other appeal than just their own merit. There is no dust thrown in the eyes of the devotees—patients.

This fact was most forcefully brought home to me this summer. I had been greatly benefited by Dr. Bates' treatment in several ways. My eyes responded immediately in that they are now almost cured, but I want to tell of another way in which I was helped, really rescued from the slough of despond and failure. I have suffered many years from a sensitive, irritable skin. Heretofore, this would come in spells and then leave me free again for a little while. I say free, I mean comparatively speaking, for I always was troubled with it more or less. Either the sun was too hot and it became inflamed, or it was too cold and it got chapped and so inflamed, or the wind irritated it or warm clothing; most anything, in fact could cause me trouble.

Of late years it came to stay longer each time so that the periods of so-called freedom became less and less. I tried everything I could hear of to do. Doctors seemed to prefer to let me worry along by myself rather than attempt to cure me beyond suggesting certain diets, etc. I tried mental healing of various kinds also.

To make a very long story short, when I began practicing Dr. Bates' methods for improving my vision I found it rested and relaxed my nerves and also my skin.

I was so much better that I determined to take a little trip that I had wanted to take for some time, but I happened on a terribly hot wave!

My first stop was at St. Louis, and I thought I had never been in a hotter place in my life. The irritation of my skin became intense and my arms, hands, face and neck were red and swollen.

I had a wait of two and a half hours at St. Louis before taking the sleeper on for a point further west. The station was full of hot perspiring people, of all ages and races. I was covered with train dust and perspiration and just about crazy. I realized that I had to get better or go back home, as I couldn't go on like that. I determined to get the short swing more completely than I had ever been able to get it and give it a thorough trial.

I left the hot sultry station and went out into the equally hot and blistering streets, but I had more freedom outside. There I walked for two hours, slowly round and round, trying to maintain the swing. I thought I never could do it. I was under such a strain it seemed utterly impossible to relax. Then when I got a bit of relaxation it seemed as if I couldn't maintain it long enough to get much benefit. But more and more I got it until I felt a great peace and relief. When I finally got on my train for the next step of my journey, I was feeling quite comfortable for the first time in many hours. I was a long way from being entirely cured, but I was better, so that I could continue to get better and have one of the most delightful vacations I have ever had. I stood with equanimity a daily temperature of 110 degrees in the shade. I was out in the open fields, and so in the sun most of the time and did nothing to ease myself from what a person with a normal skin would do. I believe that I could have a normal skin at all times if I would continuously do as Dr. Bates suggested to me; but I forget it so often, and sometimes it seems easier to just let myself get nervous and my skin irritated than it is to try to relax. But it isn't easier in the end, and I envy people who have stronger wills than I have. For all the most wonderful methods in the world won't help those who fail to put them into practice.

Concentration and Relaxation

By LAWRENCE M. STANTON, M.D.

I KNOW of no writer who has so clarified the murky philosophy of concentration and relaxation as has Dr. Bates, and yet the final word has not been said, as he himself would undoubtedly avow.

Therefore, but with humblest intention, I offer a few thoughts upon the subject which is of the utmost importance to those who are striving for better eyesight.

Concentration - Attention

To my patients I have forbidden the practice of concentration, saying that the very word suggests strain, or else I bid them modify the dictionary's definition. I have reasoned that if by concentration you mean, as Dr. Bates says, doing or seeing one thing better than anything else, you may speak of concentration; but if by concentration you mean, as the

dictionary says, doing one thing continuously to the exclusion of all other things, then you must abandon the practice as an impossibility.

Concentration, however, cannot psychologically be ignored, and recent psychology, I believe, has given us a new interpretation which is worthy of our consideration.

Attention underlies concentration, as that word is commonly used, and Ribot's statement of attention is very enlightening. Ribot says "that the state of attention which seems continuous is in reality intermittent; the object of attention is merely a center, the point to which attention returns again and again, to wander from it as often on ever-widening circles. All parts of the object, and then the reflections inspired by these various parts hold our interest by turns. Even when the attention is fixed on the most trifling material object, it works in just the same fashion." This is entirely in accord with Dr. Bates' statement; it is central fixation.

There are, however, two aspects of concentration to be considered—voluntary and involuntary. Voluntary concentration is an effort and, as Dr. Bates has so clearly shown, cannot be maintained without fatigue. The highest grades of attention, to which this brief consideration is confined, are involuntary, and involuntary concentration can be defined as "a psychological equivalent of attention minus effort." In ordinary attention—that is, in voluntary concentration—our thought holds the object in focus, whereas in involuntary attention (which we shall consider synonymous with involuntary concentration) the object holds our thought without our volition, perhaps even against our will. "Spontaneous attention is rooted at the very center of our being," and things that hold the attention captive, as in fascination, fixed contemplation, the Hindu's meditation and revery are instances of involuntary concentration, and involuntary concentration is as effortless as the rising sun—it just happens. Then, there are those cases of miraculous quick cures of imperfect sight by one or another of Dr. Bates' methods, where it was enough for the patient to see the better course in order to be able to follow it, the idea and its realization occurring simultaneously, without effort, without volition even. Contrast this with the attitude "No, I see the better course and approve it, but I follow the worse." Involuntary concentration is displayed in the case of the insect, related by Fabre and quoted by Dr. Bates, which in captivity hung downward for ten months, its whole life's span, and in this position performed all its functions, even to mating and laying of eggs, apparently without the least fatigue.

Still another instance is that of Napoleon, who could work for eighteen hours at a stretch on one piece of work without the least fatigue. Napoleon speaks of his various affairs arranged in his head "as in a wardrobe." He says: "When I wish to put any matter out of my mind, I close its drawer and open the drawer belonging to another. The contents of the drawers never get mixed and they never worry me or weary me. Do I want to sleep? I close all the drawers, and then I am asleep."

The question, then, may be asked wherein does involuntary concentration differ from relaxation. If involuntary concentration and relaxation are not always one and the same thing, they often are psychological alternatives and not the opponents we think them.

To regard all phases of relaxation as purely passive is as erroneous as it is to say that concentration of the kind under consideration is associated with effort. Relaxation of the passive kind usually ends in sleep or sleepiness, as experienced by many patients after palming. Relaxation combined with action, on the other hand, may also be absolutely free from effort and strain.

Dynamic Relaxation

In any case it is the matter of effort and strain that concerns us most, rather than a question of concentration or relaxation. Victor Hugo speaks of "the calm and intense fixation of the eyes," and surely nowhere is intensity so impressive as in calmness. To be calm is not to be oblivious, and to be intense need not be to strain.

Another thought about relaxation is this: Obstacles to relaxation may prove sources of relaxation. An instance of which, is found in the noise that is keeping us awake when wishing to go to sleep. If we sufficiently relax, if we accept the disturbance and sleep in spite of it, not only is the obstacle overcome, but because overcome it in turn becomes rather pleasantly associated with going to sleep. When again we desire to sleep, we find the noise soothing rather than annoying, and really a source of relaxation instead of an obstacle to it. (A child deeply relaxed, drifting in and out of sleep, safe amongst the trees inside the edge of a field in a dugout up on a small hill, buried in a deep leaf pile, the sound of trains passing by along the river, crickets chirping, brothers, sisters playing in the distance, fire crackling in a old fashioned outdoor fireplace, smell of hamburgers.) The following quotation from Jean Kenyon MacKenzie's "Minor Memories" well illustrates how obstacles may become ministering angels. She writes of the stillness of the African forest:

"I remember that stillness. Many a time when I am in the subway I remember the ineffable stillness of the forest. I wonder to find myself where I am—so savagely circumstanced—so pressed upon by alien bodies, so smitten by noise. Traveling like this, in white man's fashion, you are certainly safe from the snakes, and the leopards, and the cannibal tribes of that other world where you traveled in other fashions. Now that you are shut up so safely in the guts of Manhattan, your friends feel at ease about you—surely the sun shall not smite you by day nor the moon by night. And yet, perversely, in this perfection of safety you are intimidated. *Suddenly passive after* your desperate adventures with traffic, you feel the hidden things of memory rise and flood your heart; you dream. You remember other times of day than the manufactured night of the subway and other ways of travel. *And suddenly, in the indestructible silence that is the core of that incessant clamor,* you hear a bugle calling in a forest-clearing that is half way around the world."* Certainly a remarkable experience—what relaxation, what imagination!

Involuntary concentration without effort is equivalent to relaxation in action. If you can achieve such equilibrium; if you can perform your mental functions without strain as Fabre's little insect performed its physical; if you can, whatever your particular captivity, hang by your feet head downward without effort, then "be my friend and teach me to be thine."

Palming

When palming is done correctly, the vision, memory, and imagination always improve. By palming is meant to close the eyes and cover them with the palm of one or both hands without exerting any pressure the closed eyelids. Think of something pleasant, something that you can remember perfectly. Then let your mind drift from one pleasant thought to another. This should be practiced for five minutes ten times daily, or more often when convenient. Some people obtain more benefit by palming for one-half hour, an hour or longer.

There are patients who have difficulty in palming, that is, they strain and make hard work of it. For them it is easier to simply close their eyes and in this way rest them. Other patients obtain relaxation by closing their eyes for part of a minute, then opening them for part of a second, and quickly closing them again. This is called flashing, and usually improves the vision immediately.

It is true that when the eye is perfectly at rest, the sight, memory, and imagination are always normal. Conversely, it is impossible for the sight to be imperfect when the eyes are perfectly at rest. Not only are all errors of refraction benefited and cured by rest, but also organic diseases of the eye,—glaucoma, cataract, opacity of the cornea, disease of the retina, choroid, or optic nerve are cured by rest and relaxation.

HOW I IMPROVED MY EYESIGHT

By Pamela Speyer

This patient was wearing when first seen the following glasses: each eye, concave 5.00 D.S. combined with concave 1.00 D.C. A number of competent men had said that her myopia was progressive, and that her vision was certain to become very imperfect even with glasses. They all insisted that she must wear glasses constantly. Yet after she had discarded them her vision improved in two days from 6/200 to 20/100.

Treatment steps

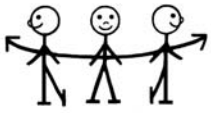
+Palm
+Swing
+Shift and see oppositional movement. Blink, relax.
+Long Swing
+Sway and shorter sway.
+Shift on a small or fine print letter and see a small, very short swing, (small oppositional movement).
+'Flash' letters, objects for a fraction of a second: Shift on a letter for a fraction of a second, then palm.
+Close the eyes and remember, imagine the letter clear and shift on it, see the swing in the mind.

I have always been near-sighted. When I was six years old, my father took me to a famous oculist in London, and he prescribed and fitted me with my first glasses. With these lenses I was able to distinguish things at a distance which before I had not been able to see. I found that I could read or see objects at close range just as well without the glasses. The only difference that they made to my sight in this case was that print appeared smaller and less black.

Every year stronger lenses were given to me, and I visited several oculists in England and America, in the hope of improvement. When I was fifteen an oculist told me that my eyesight, instead of improving each year as I had hoped, would gradually become worse. By this time I was wearing glasses all the time.

Then, quite by chance, my father heard of Dr. Bates through a friend whose eyesight had been cured by him. I was taken there at once. The first thing Dr. Bates did was to take away my glasses. I sat down in a chair, opposite which was a Snellen test card, fifteen feet away. I could not see the largest letter, a "C" about four inches by three, which people with normal vision are supposed to read at two hundred feet. He brought the card five feet nearer and then I read the "C." It appeared very blurred and indistinct. The smaller letters were so blurred that I could not see them at all.

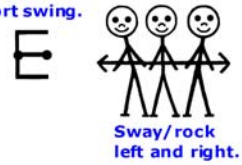
The most helpful thing I learned was how to "palm." This I did by closing my eyes and then covering them with the palms of my hands, so that I saw black and remembered it perfectly. This perfect black rested my eyes a great deal. After doing this for some ten or fifteen minutes, I looked at the card and found that I could read the two letters on the next line.



Long Swing

After I had learned to "palm," I learned to "swing." The reason I strained my eyes so when looking at the card was that I stared at one place. So by imagining the letter was swinging like a pendulum, I moved my eyes instead of staring as I had done before. At first the swing was a long one, but after practicing for some weeks, I began getting it shorter until it was only half an inch on each side of the letter. The short swing was more difficult to do than the long one, but it helped more in the end.

Shift on a small letter and see a short swing.



Sway/rock left and right.

Flashing

Then I learned to "flash." I looked at a small letter at fifteen feet distance and could not read it. The longer I looked the worse it grew. So by closing my eyes, remembering the swing for a few seconds, I just glanced at the letter and closing my eyes at once, I saw the letter in a flash.

All these things must be practiced every day, and even now I have to "palm" every morning and night. Palming, swinging and flashing were the three fundamentals. As soon as they were mastered only practice remained. I have now been going to Dr. Bates for over a year, and my eyesight is almost cured. I often have flashes of

perfect sight. Dr. Bates has certainly helped me in a remarkable degree, more indeed than I ever thought possible when I first went to him wearing strong glasses.
The above article contains many of the main Natural Vision Improvement treatments: Palm, Shift, See the Swing/Oppositional Movement, Long Swing, Sway, Short Sway/Tiny Shift, Flash letters, objects, Memory, Imagination, Relaxation.

THE EFFECTIVENESS OF RELAXATION

By May Secor

Special Teacher of Speech Improvement, New York City Public Schools

STAMMERING, stuttering, lisping, and other speech defects may be considered erroneous speech habits which may be corrected by inculcating new, correct habits of speech. This presents a psychological problem. There is, however, another aspect to the work of speech correction - a physiological aspect. Many cases of speech defect are difficult to correct, because of the physical condition of the pupils. It is considered an important duty of the speech improvement teacher, therefore, to check up physical conditions and to advise parents to have corrected such defects as eyestrain, unhygienic dental conditions, malnutrition, and excessive fatigue.*
(I believe, however, that it is not the province of any teacher, principal, or nurse to advise, urge, or insist upon parents having children operated. Those in charge of children may, with propriety, advise parents to consult physicians regarding their children. In many cases, however, physicians differ among themselves as to the advisability of operating. I believe that the decision should be made by the physicians and parents.)

Many stammerers suffer from eye-strain. For years I urged the patients of such children to consult oculists - any oculists of good standing. They did so, and many cases returned with glasses; however, many of these children who used glasses continued to suffer from eyestrain. Upon returning to the oculist they were usually instructed to continue wearing their glasses until they "became accustomed to them." In many cases eyestrain continued, and the correction of stammering was still impeded. I was deeply concerned about the apparent impossibility of eliminating eye-strain.

Finally a friend placed in my hand Dr. Bates' book entitled "Perfect Sight Without Glasses." At that time I was wearing bi-focals, and had used artificial lenses for many years.
I read Dr. Bates' book and decided to apply the method to the correction of my own visual defects.

On March 15, 1923, I removed my bifocals. I followed the Bates Method carefully, hopefully, and persistently and have never used glasses since. My near vision and distant vision are excellent and I enjoy great "eye comfort." I have come into contact with many other men and women who have attained normal vision without glasses by means of the Bates method, after having suffered along with eye-glasses and eyestrain for years.

Convinced of the efficacy of the Bates Method, I became a pupil of Dr. Bates and learned the secret of relaxation. I learned how to relax more completely, and how to help others relax. I began to realize the value of relaxation in education. I made relaxation the keynote of my work in speech correction, and there resulted a harmony that was most helpful to my pupils. It created a pleasant, healthful atmosphere, which enabled pupils to acquire more readily the desired, correct habits of speech.
To the stammerer, especially, palming, swaying, swinging, sun-treatment, and reading the Snellen card are Godsends.

In April 1925, I began work with the speech defect cases in two new schools. Among these cases were a number who wore glasses, and several of these children were cross-eyed. (The term "squint" is frequently misinterpreted.) To induce relaxation and thereby facilitate the formation of new, correct habits of speech I included in my program palming, swaying with music, swinging, the use of memory and imagination, and sun treatment. Early in June 1925, it became apparent that several pupils, who formerly were very noticeably cross-eyed, showed either no defect or a decidedly less acute condition. To verify my observations I photographed these children. I also requested several teachers, and a physician to observe them; they did so, and their findings coincided with mine. The following children were among those who entered my speech improvement groups early in April 1925:

+Case A - Boy, age 14; myopia and strabismus (crossed-eye, called also "squint"); used glasses several years; speech defects, stammering and lisping; known in school as a discipline case. June, 1925 - marked improvement in speech and strabismus entirely corrected.
+Case B - Boy, age 11; myopia and strabismus; used glasses two years; speech defects, stammering, defective phonation, and aphonia. June, 1925 - marked improvement in speech; strabismus much less acute, and entirely relieved at times, when glasses are not used.
+Case C - Boy, age 7; myopia and strabismus; never used glasses; speech defect, lisping. June, 1925 - speech improved; strabismus relieved - occasional relapse when under strain.
+Case D - Girl, age 8; strabismus (but normal vision); wears glasses, constant use; speech defect, lisping. June, 1925 - lisping corrected; when glasses are removed, strabismus is very evident and child sees "two ladies instead of one;" after removing glasses and relaxing a few minutes, strabismus and double vision disappear; subsequent use of glasses causes return of these two defects, which again disappear after the child removes the glasses and relaxes.

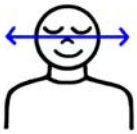
In these cases the relief of visual defects was merely a by-product of educational work, conducted on a basis of relaxation. Would it not be well for us to conduct all educational work in this way, and thus help to relieve eyestrain throughout our schools?

Let us consider the problem of the child having visual defects. What method has been used to help him? He has been urged to wear glasses, and if his eye distress or headaches persisted, he has been urged to continue wearing the glasses until he "becomes accustomed to them." Has this method been successful? Reports of the various sight conservation associations indicate that it has not been successful. What new method may we use to eliminate visual defects among school children? I suggest the Bates Method for Relaxation. Let teachers remove their glasses, and palm, sway, and swing. Let physicians and principals urge pupils to remove their glasses and practice these helpful exercises. Let us, as educators, be broad-minded and alert. When one method fails let us try another.

Relaxation occurs in many forms. See: Dynamic Relaxation – Book; The Art of Seeing by Aldous Huxley. Perfect relaxation can be deep as in the alpha, theta and delta brain wave states, hypnosis, meditation or dynamic: the mind, body, eyes can still be relaxed while more active, energetic. Example: when running a race; the runner is in a perfect state of relaxation, coordination. Mind, body positive, energetic, active but relaxed – no tension, strain. Walking in a relaxed strolling manner. (See Al Pacino walking in the park with his girlfriend in 'The Godfather' movie. Notice how his feet move outward, relaxed, strolling, perfect balance, coordination, character in his walk.)
Working on a science project, mind moving from thought to thought, no tension is dynamic relaxation.
See Better Eyesight Magazine April 1925 – Concentration and Relaxation.

#2 - SHIFTING-EYE MOVEMENT

SHIFTING AND SWINGING
Correct Appearance of Oppositional Movement



Eyes closed. Imagine looking over the left and right shoulders. Lightly touch the upper eyelids and feel the eyes move left and right when imagining looking left and right. The brain functions with the eyes.

Eyes closed. Imagine shifting left and right on the letter E. See it appear to move side to side opposite the movement of the eyes. Feel the eyes produce smaller movements.

E C

Look at, shift on, see one letter clearest at a time in the center of the visual field. Practice with the eyes open and in the imagination with the eyes closed.

Blink - the eyes shift automatically up and down when blinking. Blink and shift in any direction.

Shift left and right, top and bottom and in any direction on the E and see it move (swing) in the opposite direction.

When the eye with normal vision regards a letter either at the near-point or at the distance, the letter may appear to pulsate, or move in various directions, from side to side, up and down, or obliquely. When it looks from one letter to another on the Snellen test card, or from one side of a letter to another, not only the letters, but the whole line of letters and the whole card, may appear to move from side to side. This apparent movement is due to the shifting of the eye, and is always in a direction contrary to its movement. If one looks at the top of a letter, the letter is below the line of vision, and therefore appears to move downward. If one looks at the bottom, the letter is above the line of vision and appears to move upward. If one looks to the left of the letter, it is to the right of the line of vision and appears to move to the right. If one looks to the right, it is to the left of the line of vision and appears to move to the left.

Persons with normal vision are rarely conscious of this illusion, and may have difficulty in demonstrating it; but in every case that has come under my observation they have always become able, in a longer or shorter time, to do so. When the sight is imperfect the letters may remain stationary, or even move in the same direction as the eye.

It is impossible for the eye to fix a point longer than a fraction of a second. If it tries to do so, it begins to strain and the vision is lowered. This can readily be demonstrated by trying to hold one part of a letter for an appreciable length of time. No matter how good the sight, it will begin to blur, or even disappear, very quickly, and sometimes the effort to hold it will produce pain. In the case of a few exceptional people a point may appear to be held for a considerable length of time; the subjects themselves may think that they are holding it; but this is only because the eye shifts unconsciously, the movements being so rapid that objects seem to be seen all alike simultaneously.

The shifting of the eye with normal vision is usually not conspicuous, but by direct examination with the opthalmoscope5 it can always be demonstrated. If one eye is examined with this instrument while the other is regarding a small area straight ahead, the eye being examined, which follows the movements of the other, is seen to move in various directions, from side to side, up and down, in an orbit which is usually variable. If the vision is normal, these movements are extremely rapid and unaccompanied by any appearance of effort. The shifting of the eye with imperfect sight, on the contrary, is slower, its excursions are wider, and -the movements are jerky and made with apparent effort.

It can also be demonstrated that the eye is capable of shifting with a rapidity which the ophthalmoscope cannot measure. (Saccadic movements) The normal eye can read fourteen letters on the bottom line of a Snellen test card, at a distance of ten or fifteen feet, in a dim light, so rapidly that they seem to be seen all at once. Yet it can be demonstrated that in order to recognize the letters under these conditions it is necessary to make about four shifts to each letter. At the near-point, even though one part of the letter is seen best, the rest may be seen well enough to be recognized; but at the distance it is impossible to recognize the letters unless

one shifts from the top to the bottom and from side to side. One must also shift from one letter to another, making about seventy shifts in a fraction of a second.

A line of small letters on the Snellen test card may be less than a foot long by a quarter of an inch in height; and if it requires seventy shifts to a fraction of a second to see it apparently all at once, it must require many thousands to see an area of the size of the screen of a moving picture with all its detail of people, animals, houses, or trees, while to see sixteen such areas to a second, as is done in viewing moving pictures, must require a rapidity of shifting that can scarcely be realized. Yet it is admitted that the present rate of taking and projecting moving pictures is too slow. The results would be more satisfactory, authorities say, if the rate were raised to twenty, twenty-two or twenty-four a second. The human eye and mind are not only capable of this rapidity of action, and that without effort or strain, but it is only when the eye is able to shift thus rapidly that eye and mind are at rest, and the efficiency of both at their maximum. It is true that every motion of the eye produces an error of refraction; but when the movement is short, this is very slight, and usually the shifts are so rapid that the error does not last long enough to be detected by the retinoscope, its existence being demonstrable only by reducing the rapidity of the movements to less than four or five a second. The period during which the eye is at rest is much longer than that during which an error of refraction is produced. Hence, when the eye shifts normally no error of refraction is manifest. The more rapid the unconscious shifting of the eye, the better the vision; but if one tries to be conscious of a too rapid shift, a strain will be produced.

Perfect sight is impossible without continual shifting, and such shifting is a striking illustration of the mental control necessary for normal vision. It requires perfect mental control to think of thousands of things in a fraction of a second; and each point of fixation has to be thought of separately, because it is impossible to think of two things, or of two parts of one thing, perfectly at the same time. The eye with imperfect sight tries to accomplish the impossible by looking fixedly at one point for an appreciable length of time; that is, by staring. When it looks at a strange letter and does not see it, it keeps on looking at it in an effort to see it better. Such efforts always fail, and are an important factor in the production of imperfect sight.

+ One of the best methods of improving the sight, therefore, is to imitate consciously the unconscious shifting of normal vision, and to realize the apparent motion produced by such shifting. Whether one has imperfect or normal sight, conscious shifting and swinging are a great help and advantage to the eye; for not only may imperfect sight be improved in this way, but normal sight may be improved also.

Detailed instructions for improving the sight by this method will be given in my forthcoming book, *The Cure of Imperfect Sight by Treatment without Glasses*.

Rapid and tiny shifts, the eyes ability to shift many times per fraction of a second are called Saccadic eye movements, vibrations. The eye produces many different movements, high frequency…

SHIFTING

By W. H. Bates, M.D.

Shifting: The point regarded changes rapidly and continuously.

A man with imperfect sight, who had obtained normal vision by my method of treatment without glasses, called about five years later and announced that the cure had proved permanent. His vision was normal when each eye was tested at twenty feet with Snellen test cards which he had not seen before.

He was asked, "What cured you?"

"Shifting." he answered.

All persons with imperfect sight make an effort to stare with their eyes immovable. The eyes have not the ability to keep stationary. To look intently at a point continuously is impossible, the eyes will move, the eyelids will blink, and the effort is accompanied by an imperfect vision of the point regarded. In many cases the effort to concentrate on a point often causes headache, pain in the eyes and fatigue.

All persons with normal eyes and normal sight do not concentrate or try to see by any effort. Their eyes are at rest, and, when the eyes are at rest, they are constantly moving. When the eyes move, one is able to imagine all stationary objects in turn to be moving in the direction opposite to the movement of the head and eyes. It is impossible to imagine with equal clearness a number of objects to be moving at the same time, and an effort to do so is a strain which impairs the vision, the memory, or the imagination. To try to do the impossible is a strain, which always lowers the mental efficiency. This fact should be emphasized.

Many patients have difficulty in imagining stationary objects to be moving opposite to the movements of the eyes or head. When riding in a fast moving train, and one regards the telegraph poles or other objects which are seen,—the near objects may appear to be moving opposite to the direction in which the train is moving, while more distant objects may appear to move in the same direction as the train.

The above facts may also be imagined when traveling in an automobile. The driver of the car and others occupying a front seat may imagine the road to be moving toward the moving car. When pain, fatigue or other symptoms are present it always means that the individual is consciously or unconsciously trying to imagine stationary objects are not moving. The effort is a strain.

Walking and Eye Movement, Oppositional Movement

When walking about a room, the head and eyes move in the same direction as the body moves, and the carpet and the furniture appear to move in the opposite direction. However, it can be demonstrated that when the head and eyes are moving forward they are also moving from side to side. Every time the right foot is placed forward the eyes move to the right, while stationary objects appear to move in the opposite direction,—to the left; when the left foot steps forward the whole body, including the eyes moves to the left, while stationary objects appear to move in the opposite direction,—to the right.

Patients with normal vision are able to imagine this movement more readily than those with imperfect sight. The head and eyes also move upwards and downwards as the foot is lifted and lowered. When you raise your foot to take a step, the eyes go up, and everything else that is stationary appears to go down. When you lower your foot or head, the eyes go down, and stationary objects appear to go up.

Shifting

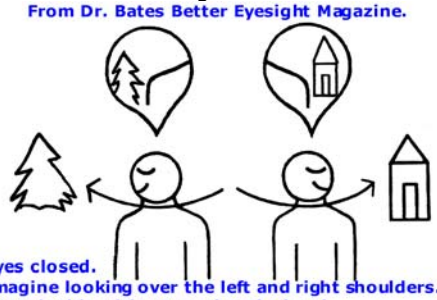
Shifting when practiced with the best results is usually unconscious. Very few people with normal sight, which may be continuous for many years, ever notice that they are constantly shifting correctly. One may shift in a wrong way, strain the eyes, and fail to improve the vision. What is the right way? The right way to shift is to move the eyes from one point to another slowly, regularly, continuously, restfully, or easily without effort or without trying to see. The normal eye with normal sight has the habit of always moving or shifting, usually an unconscious habit. When, by practice, the eye with imperfect sight acquires the conscious habit of shifting, the habit may become unconscious. When the shifting is done properly, the memory, imagination, mental efficiency, and vision are improved until they become normal.

It often happens that when one consciously or intentionally shifts in the wrong way, a better knowledge of the right way to shift may be obtained. When the eyes are moved to the right, stationary objects should appear to move to the left; and, when the vision is good, all objects not regarded are seen less distinctly than those regarded. When the vision is imperfect, objects not observed may be seen better, or an effort is made to see them better than those directly observed. In fact, it is always true that in all cases of imperfect sight the eyes do not see best where they are looking, and central fixation is lost. To shift properly requires relaxation or rest. To shift improperly and lower the vision requires an effort. When one stares at a point, without blinking or shifting; fatigue, distress, or pain is felt. To continue to stare without shifting is hard work. To see imperfectly is difficult; and, when one regards letters which are blurred or not distinguishable either at the distance,—ten feet or further, or at a near point,—six inches or less, the strain on the eyes can be felt. Imperfect sight or a failure to see requires much trouble and hard work. This fact should be demonstrated repeatedly by the patient until thoroughly convinced that rest of the eyes, mind or body can only be obtained by shifting easily, continuously and without effort.

What is true of sight is also true of the memory and imagination. With the eyes closed, one can imagine that he is looking over the right shoulder for a moment and then shift the imaginary gaze over the left shoulder. By lightly touching the closed eyelids with the tips of the fingers he can feel the eyeballs moving from side to side when the shifting is done right. It can be done wrong when one, by an effort, imagines the eyeballs stationary under all conditions.

With the eyes closed, one can imagine alternately looking from one side of a letter to the other. When the imagination of the shifting is done right, the letter remembered is imagined to be moving from side to side. Two letters close together may be imagined or remembered clearly, provided one is imagined better than the other, or when the attention is shifted to each alternately without effort or strain.

From Dr. Bates Better Eyesight Magazine.



Eyes closed.
Imagine looking over the left and right shoulders. First do this without moving the head.
Then, imagine looking left and right and move the head with the eyes. Move relaxed, easy - look left, then right, left, right... no hurry.
Notice the eyes move under the closed eyelids when imagining looking left and right.
The brain, memory, imagination, left and right hemispheres... control eye movement.
This activity relaxes the eyes, eye muscles, brain, head, neck, activates easy eye movement/shifting and activates, integrates the left and right brain hemispheres.

STOP STARING

It can be demonstrated by tests with the retinoscope that all persons with imperfect sight stare, strain, or try to see. To demonstrate this fact:

+ Look intently at one part of a large or small letter at the distance or near-point. In a few seconds, usually, fatigue and discomfort will be produced, and the letter will blur or disappear. If the effort is continued long enough, pain may be produced. To break the habit of staring:

(1) Shift consciously from one part to another of all objects regarded, and imagine that these objects move in a direction contrary to the movement of the eye. Do this with letters on the test card, with letters of fine print, if they can be seen, and with other objects.

(2) Close the eyes frequently for a moment or longer. When the strain is considerable, keep the eyes closed for several minutes and open them for a fraction of a second—flashing. When the stare is sufficient to keep the vision down to 2/200 or less, palm for a longer or shorter time; then look at the card for a moment. Later mere closing of the eyes may afford sufficient rest.

(3) Imagine that the white openings and margins of letters are whiter than the rest of the background. Do this with eyes closed and open alternately. It is an interesting fact that this practice prevents staring and improves the vision rapidly.

SHIFTING. When the eyes are normal, they are completely at rest and when they are at rest, they are always moving, which prevents the stare or strain. When looking at an object, do not try to see all parts of that object equally well, at once. That is, when you look at the back of a chair, you see that part best, and the seat and legs not so clearly. But do not hold the point regarded longer than a second.
Remember to blink, as you shift rapidly to the seat and then to the legs of the chair, seeing each part best, in turn. When the eyes stare and an effort is made to see, the vision is always lowered.

Blinking and Shifting

By W. H. BATES, M.D.

BY BLINKING is meant the opening and closing of the eyes more or less rapidly. The normal eye with normal vision blinks almost continuously. Sometimes the upper lid just covers the pupil while in other cases both lids may be completely closed. With the aid of the moving picture camera it has been demonstrated that one may blink five times in one second without being conscious of it.

When an effort is made to stop blinking, whether successful or not, the vision is always lowered. When the eyes are permitted to blink regularly, easily, continuously, the vision is usually benefited. The camera also shows that the lower lids move up with a strong contraction of the muscle.

In many cases of normal vision, especially in those cases which are even better than the average normal vision, blinking is sometimes practiced with incredible rapidity, and on other occasions the eyes may blink infrequently, perhaps once in ten or fifteen seconds. The blinking of the normal eye varies or is different from the blinking of the eye with imperfect sight. The blinking of the eye with imperfect sight is usually very irregular and jerky and is accompanied by a manifest strain of the muscles of the eyelids. With imperfect sight an effort is always being made to hold the eye stationary and to stop the blinking.
If the eyes are allowed to shift and to blink, the vision improves.

Blinking is fundamental and very important, because one cannot shift frequently or continuously with improvement in the vision, unless the eyes blink often. To keep the eyes open without blinking requires an effort, a stare or strain, the patient becomes unable to shift easily or rapidly, and the vision always becomes imperfect.

The best way to rest the eyes is to close them while many things in turn are remembered or imagined. Blinking is a rapid method of resting the eyes and can be practiced unconsciously all day long, regardless of what one may be doing.

It is interesting to observe some people's eyes when they are asleep. One may note that the eyelids are blinking, which prevents the eyes from staring or straining, although the patent is unconscious of his eyes.

It is a well known fact that when people are asleep the eyes are often under a terrific strain. The first thing in the morning, after such a patient opens the eyes, he may find that his sight is very imperfect. He may suffer from pain in the eyes, pain in the head or in other parts of the body, or from extreme fatigue, as if he had been awake and hard at work all night long. When first opening the eyes, the patient may experience a feeling of dizziness, after the eyes have been straining during sleep. It is not an easy matter to recommend successful methods of obtaining relaxation, to such patients so that instead of working hard during sleep, the eyes may be completely relaxed and rested.

In some cases, the patient may have fairly good vision when he first opens his eyes after a good sleep. However, such cases are uncommon.

When the normal eye has normal vision it is always at rest, shifting. (The eye is relaxed, at rest when it is in motion, shifting.) During sleep, however, with the aid of simultaneous retinoscopy it has usually been demonstrated that the eyes are straining, staring or making an effort to see. The unconscious blinking is nature's method of resting the eyes during sleep.

"Shifting"
Directions - How to Shift

When the normal eye has normal vision it is always shifting or moving from one point to another. This is true with the eyes open as well as with the eyes closed. The shifting with the eyes open may be from side to aide, from above, downward, or in any other direction. The horizontal shifting is practiced more than the other forms of shifting. The eye is never stationary. When the vision is imperfect, the shifting is also imperfect and may be jerky. It may result in discomfort of the eyes, the head or in any other part of the body. The shift of the normal eye varies and is more or less irregular.

To know the proper way to shift the normal eye, in order that the vision may be continuously normal, it is well to demonstrate the wrong way. When the shifting is practiced or the eyes move from point to point, the vision is usually benefited, provided one shifts slowly, easily and continuously.
(The eye, brain will activate saccadic and other faster shifts automatically, on its own.)

Advise the patient to look directly at one point or one part of the smallest letter which can be distinguished. When he does this for a few seconds, he usually becomes able to feel that an effort is being made, and when the effort is continued or increased, much discomfort is felt and the vision always becomes imperfect. The patient is encouraged to prove that concentration does not last long, and that it is impossible for the eyes, memory or mind to see perfectly, remember perfectly, or imagine perfectly, when an effort is made to concentrate. When the eyes shift from one point to another, a feeling of relaxation soon follows and the vision improves. When the eyes do not shift from point to point, it can always be demonstrated that the vision becomes worse and that the eyes, mind and all the nerves of the body are uncomfortable and may be conscious of an effort or strain.

Shift part to part on a letter and from letter to letter to remember, imagine and see letters clear.
Long Shift:
Shift 4 to R, R to 4.

Shift part to part (dot to dot) on the E to see it clear.
Short shift:
Shift dot to dot on the E, then try on a fine print E, then on one fine print dot.

To constantly stare at one point of a letter or other object is wrong, because it lowers the vision and causes discomfort to the eyes. Perfect sight is not possible and cannot be imagined continuously, unless the shifting is continuous. The movement of letters or words which can always be demonstrated in normal vision, depends upon the shifting.

When the eyes stare and do not move, or when an effort is made to imagine letters or other objects to be stationary, the shifting stops, and if things seen are imagined to be stationary without shifting, or an effort is made to stop the shifting, the vision always becomes imperfect.

With the eyes open, it is possible to shift from the first letter of a line, of the Snellen test card, at fifteen feet, to the end of the line and improve the sight. In most cases a known letter of the Snellen test card can be remembered more or less perfectly with the eyes closed, but only when the eyes or the mind shifts from one letter to another, or from one part of one letter to another part. The letter remembered can be imagined or a mental picture of the letter obtained only by constant, slow, short, regular, continuous, easy shifting. When the patient can remember or imagine letters or other objects perfectly with the eyes open, as well as with the eyes closed, the vision is always benefited. If shifting is not practiced the vision always becomes worse.

Many people with imperfect sight are not able to shift or move their eyes without an effort. They complain that they lose their mental control because they are unable to shift easily or continuously. Much better vision is obtained with a short movement or shift of the eyes than with a long shift. (Shifting on small objects, parts of objects, fine print letter.)

It is necessary for those who have imperfect sight caused by a stare, a strain or an effort to see, to become able to shift in such a way as to benefit their vision. Keep the eyes closed for a large part of a minute and open them for a short time, a second or less. It takes time to stare, concentrate or make an effort to see. It is not possible to stare and lower the vision in a fraction of a second. Perfect sight is inconceivably quick. It is easy, regular and continuous. When shifting is practiced rapidly, easily and continuously, the symptoms of imperfect sight and other symptoms caused by strain are relieved at once. Shifting can be practiced slowly or rapidly, as long as effort, strain is avoided. Relax, practice easy.

The general belief is that when we read we are looking at the letters. When one reads with perfect sight one does not look at the letters, but at the white spaces between the lines and imagines the white centers of the letters to be whiter than they really are. Look directly at a small letter of the fine print that can be read and concentrate your mind and eyes on one part of the letter. You soon feel an effort or strain and the vision is always lowered. If the vision was not lowered, you were unable to keep your attention fixed on the same part of a small letter for a continuous length of time.
Modern teachers state: use central fixation. When you want to read the letters: look directly at the letters, move the eyes along the letters. Do not try to read by looking at/moving the eyes along the white spaces. This would be eccentric fixation, diffusion; looking at two things at the same time, central and peripheral field. Eccentric fixation, diffusion causes mental and visual strain, blur.

Shifting is very often practiced wrongly and the vision becomes lowered or no benefit is gained. To shift rapidly, look up for a moment and then look down quickly, rest the eyes for part of a minute; then repeat, look up and down quickly without paying much, if any attention to the sight. While looking down again, rest the eyes for part of a minute. Alternate until the shifting up and down can always be accomplished rapidly or rapidly enough to avoid testing the sight. When the eyes move up the test card or other stationary objects move down. When the eyes move down stationary objects move up or in the

opposite direction to the movement of the shifting eyes.
Try shifting relaxed, continuously from point to point on a object and from object to object. Blink.

Normal sight cannot be demonstrated continuously unless the eyes are continuously shifting. The patient is usually unconscious that he is shifting rapidly when he believes that he can see one letter of the bottom line perfectly and all the time.

Many people have said that they can see a letter with normal vision at fifteen feet or further without moving their eyes, and without imagining the letter to be moving. In other cases where some people thought they could regard one letter with normal vision without shifting, it was found that while doing this the eyes, when observed at the near point, a few feet or further, could be seen to move very quickly, up, down, from side to side or in other directions. The movement of the eyes was so rapid that it was not noticeable, unless the patient was observed very closely.

When the top of a large letter is regarded, that part may be seen best for a short time, while the rest of the letter is seen worse, i.e. central fixation. One cannot see with central fixation and have normal vision unless one is continuously shifting. When the bottom of the letter is regarded, it may be seen best, while all the rest of the letter is seen worse. By shifting alternately from the top to the bottom of the large letter, the vision is usually improved. At the same time, the uncomfortable feeling in the eyes or head is relieved and all pain is benefited.

Shift top and bottom, left and right, part to part in any direction on a letter, seeing one small part clearest at a time in the center of the visual field for relaxation, clear vision.

One patient with very unusual vision read the bottom line marked "10" not only at ten feet but at a much greater distance. In a good light she claimed that she could see one letter of the "10" line at fifteen feet continuously without blinking and without shifting. Although she was not conscious of the fact she must have been blinking or shifting because the moving picture camera has always demonstrated that no one could see one letter of the Snellen test card continuously without rapid blinking or shifting.

It requires time for one's sight to become imperfect. The habit of staring or straining cannot be accomplished in a second. It takes a longer time to fail than it takes to succeed. Perfect sight can only be obtained quickly without effort or strain. The cure of imperfect sight, then, is to stop all effort. It is not accomplished by doing things; it can only come by the things that one stops doing.

SHIFTING AND SWINGING: When shifting is done properly, it is practiced easily, without effort or strain. When one shifts from a point to the left to a point to the right, the swing produced is continuous, regular, and promotes relaxation. It is possible to shift with the eyes closed with as much benefit as with the eyes open. There are some people who cannot shift with the eyes open without a strain and yet they can shift or swing or imagine perfect sight with the eyes closed.

Whenever the head and eyes are moved from side to side, one should imagine that stationary objects are moving in the opposite direction. This should be practiced at all times until the habit is obtained. (The various swings are described in the June and other issues of this magazine.)

Shift left and right on the E and see it move in the opposite direction.
+Shift to the dot on the left, The E moves right.
+Shift to the dot on the right, the E moves left.

Palm and imagine black or any pleasant object, scene... Think happy thoughts. Shift on objects in the mind, see them clear, in color, motion.

Shifting

When the normal eye has normal sight it is at rest and when it is at rest it is always moving or shifting. Shifting may be done consciously with improvement in the vision, or it may be done unconsciously with impaired vision.

Shifting can be practiced correctly and incorrectly.
+A wrong way to shift is to turn the head to the right while the eyes are turned to the left, or to turn the head to the left while the eyes are turned to the right.
+Correct way = Eyes, head/face, body move together, synchronized, same time, same direction.

To improve imperfect sight by shifting, it is well to move the head and eyes so far away that the first letter or object imagined is too far away to be seen at all clearly. Shifting from small letters to large letters alternately may be a greater benefit than shifting from one small letter to another small letter. Quite frequently the vision is decidedly improved by shifting continuously from one side of a small letter to the other side, while the letter is imagined to be moving in the opposite direction. When the shifting is slow, short, and easy, the best results in the improvement in the vision are obtained.
The eye also moves quick, very fast (Saccadic) and this occurs automatically. Any attempt to stop the shifting always lowers the vision. The letter or other object which appeared to move is usually shifting a short distance – one half or one quarter of an inch. It is not possible to imagine any particular letter or other object stationary for a longer time than one minute.
Strain, blur begins when the eyes have not moved after a fraction of a second to one second.

While the patient is seated, benefit can be obtained from shifting, but even more benefit can be obtained when the shifting is practiced while the patient is standing and moving the head and shoulders, in fact the whole body, a very short distance from side to side. (The Sway, Rock) Shifting the whole body makes it easier to shift a short distance and may explain why this method is best. It is easy to see letters on a eyechart clear when shifting easily on the letters while doing the sway a short distance left and right.
Blink, sway, relax.

3 - CENTRAL FIXATION, See Clearest With the Center of the Visual Field

MENTAL EFFECTS OF CENTRAL FIXATION

A man of forty-four who had worn glasses since the age of twenty was first seen on October 8, 1917, when he was suffering, not only from very Imperfect sight, but from headache and discomfort. He was wearing for the right eye: concave 5.00D.S. with concave 0.50D.C. 180 degrees, and for the left concave 2.50D.S. with concave 1.50D.C. 180 degrees. As his visits were not very frequent and he often went back to his glasses, his progress was slow. But his pain and discomfort were relieved very quickly, and almost from the beginning he had flashes of greatly improved and even of normal vision. This encouraged him to continue, and his progress, though slow, was steady. He has now gone without his glasses entirely for some months. His wife was particularly impressed with the effect of the treatment upon his nerves, and in December, 1919, she wrote:

"I have become very much interested in the thought of renewing my youth by becoming like a little child. The idea of the mental transition is not unfamiliar, but that this mental, or I should say spiritual, transition should produce a physical effect, which would lead to seeing clearly, is a sort of miracle very possible indeed, I should suppose, to those who have faith.

"In my husband's case, certainly, some such miracle was wrought, for not only was he able to lay aside his spectacles after many years constant use, and to see to read in almost any light, but I particularly noticed his serenity of mind after treatments. In this serenity he seemed able to do a great deal of work efficiently, and not under the high nervous pressure whose after-effect is the devasting scattering of forces.

"It did not occur to me for a long time that perhaps your treatment was quieting his nerves. But I think now that the quiet periods of relaxation, two or three times a day, during which he practiced with the letter card, must have had a very beneficial effect. He is so enthusiastic by nature, and his nerves are so easily stimulated, that for years he used to overdo periodically. Of course, his greatly improved eyesight and the relief from the former strain must have been a large factor in this improvement. But I am inclined to think that the intervals of quiet and peace were wonderfully beneficial, and why shouldn't they be? We are living on stimulants, physical stimulants, mental stimulants of all kinds. The minute these stop we feel we are merely existing, and yet if we retain any of the normality of our youth do you not think that we respond very happily to natural simple things?"

CENTRAL FIXATION: When the vision is best where the eyes are looking, and worse where the eyes are not looking, central fixation is evident. Central fixation when properly used is a relaxation and a benefit. It is interesting to observe that one cannot have perfect sight without central fixation. One should not strain and make an effort to obtain central fixation of a letter or any object, as by so doing, imperfect sight is very soon apparent. The normal eye shifts unconsciously from one part of an object to another, seeing the part regarded best and other parts worse, and the eye with imperfect sight must acquire this habit by practicing it consciously until it becomes an unconscious habit.

EXPERIENCES WITH CENTRAL FIXATION

By M. H. STUART, M.D.

Moultrie, Ga.

We are greatly indebted to Dr. Stuart for sending us this remarkable story of his own cure and that of his patients, all of which was accomplished without personal assistance by means of the information presented in this magazine.

Some sixteen years ago, when working as a stenographer, I developed indigestion and became extremely nervous, one of my symptoms being a tension in the spinal cord between the shoulder blades which was extremely uncomfortable. In the late afternoon and evening I would become so nervous that I could scarcely sit still, and I have walked five miles into the country and back again to get relief. I tried dieting for the indigestion, but after two months failed to get any relief. A medical student then suggested that the trouble might be due to my eyes. I went to an oculist, who fitted me with glasses, and all my troubles ceased.

The glasses given to me were convex 0.25, axis 90. A few years later, when I was in New York doing post-graduate work at the Polyclinic, they were changed to concave 0.25, axis 180, my refraction having changed from hypermetropia to myopia. In succeeding years the myopic astigmatism increased to concave 0.75, axis 180, and finally, after I had worn glasses for some fourteen years, to concave 1.00, axis 180. The last correction I had worn for about two years when I discarded glasses for good.

Slight as my error of refraction was, I was not able to leave off my glasses for more than an hour or two without suffering from nervousness and the feeling of tenseness in the spinal cord alluded to above. At other times I was perfectly

comfortable except for the last year or two, during which I had so much to do that I suffered at times from the old nervous trouble. I had no pain in my head or eyes, but the trouble in my back was so bad last fall that I had to have the services of a masseur in order to do my work.

Five years ago I first read about Dr. Bates' experiments upon the eye muscles of animals. While interested I was not prepared to abandon the accepted teachings on the subject, and I waited to hear more. Recently I read, in the May (1920) number of BETTER EYESIGHT, Dr. Arnau's story of how, his headaches were cured, and I was so impressed by it that I determined to try the relaxation method upon myself. I palmed for five minutes and then read the card three times with each eye as far as I could without effort. I did this six times a day for five days, and at the end of this time I had gained a very decided degree of relaxation. I had, of course, discarded glasses, and, although this caused me a little discomfort at first, I was able about a week later, to perform, without them, three tonsilectomies and one operation for cataract, and to remove two blind eyes. At the same time I went through my daily routine of treating ten to thirty patients, examining eyes, ears, noses and throats, much of which work requires extra good vision. At noon I lay down to rest as usual and read the Atlanta paper. At night I read the Moultrie daily paper and anything else that I wanted to.

After the first five days of systematic relaxation I have never done anything in a routine way for myself, but if I feel nervous, or my eyes feel drawn, I swing twenty times and palm. In this way I am always able to get relief. Another method of gaining relaxation that I have resorted to is to look at an imaginary period in any dark distant object. In this pine-woods district there are thousands of stumps, many of which have been burned and blackened. The third day after I discarded my glasses I had to drive about twenty-eight miles, and whenever my eyes felt drawn I would look in an easy relaxed way at a small point on one of these stumps and always got relaxation.

Nearly every afternoon at half past four I go out for a game of golf, and often I palm before going, as I find it gives me better control of my nervous system, and enables me to play a more consistent game.

I was so pleased with the results of the new treatment in my own case that I have since taught central fixation to about forty of my patients, and in only about two did I fail to improve the vision at the first sitting.

The following are some of my more notable cases.

Mr. S, an automobile mechanic, had been mentally deranged for two weeks, following an attack of flu, after which he gradually became rational, only to find that he saw double and his vision was imperfect in each eye. At the first examination he read with his right 20/120, and with the left 20/60. I suggested that he palm at least six times a day for five minutes, and on the second day he was greatly improved, reading with the right eye 20/80, left 20/40. On the third day he read with the right eye 20/40, left 20/30, an increase of vision in the right eye of 200 per cent, and in the left of 100 per cent. He is now at work, and when, occasionally, he has to lay off, it is not on account of any trouble with his eyes, but because of weakness in his knees.

A year ago a Mr. B consulted me about the sight of his right eye, the left having been blind for years. His vision was 10/40, and could not be improved by any lens. I advised him to have the left eye removed, since it was a menace to the other eye. He would not consent to this and I did not see him again until May 5 of this year, when he came to my office practically blind in his right eye from sympathetic opthalmia. At one foot he could only count fingers. I advised the immediate removal of the blind eye and of a few teeth that had pus about them; but I could not promise that his vision would be saved. That afternoon I removed the eye, and the following day I was gratified to find that he could count fingers at three feet. I sent him home with some large letters to use for the practice of central fixation, and by the fifteenth he was able to count fingers at five feet. I then told him how to practice the universal swing, and on the twenty-second he could count fingers at seven feet. On the twenty-ninth he could read the small type on the 20 line of the test card at four inches, whereas he had been entirely unable to see them previously. He states that he can now see the small chickens running about near his feet, and can see small cotton plants seven feet away. I am confident that in a year, or some such matter, he will have sufficient vision to attend to the necessary work of his farm.

I have treated three cases of squint, all of them with success. One of them, Delia S, aged twelve, came to me on May 15, with her right eye turned in to such a degree that the cornea was partly hidden. The sight of this eye was so imperfect that at three feet she could only count fingers. With her left eye she could read 20/30. She was told to palm, and when she returned on May 24 she was able, with the squinting eye, to count fingers at six feet, twice as far as at her first visit, and the eye was straighter. On June 5 she came again, and counted fingers at eight feet, an increase of vision since the beginning of 700 per cent. On July 3, while I was writing this report, she came in, and I found that her right eye had improved to 20/60, one third of normal, while her left had become entirely normal, 20/20. Her right eye was entirely straight at times, and I feel sure that in a few months this condition will have become permanent.

Another case of squint was that of a young girl of fourteen with rather large, pretty blue eyes, one of which, the right, was slightly crossed inwardly. Her sight was very imperfect—half normal in the right eye and one-third normal in the left—while, like most cross-eyed people, she was troubled with double vision. I asked her to palm at least six times a day, and she came back with her eyes straighter and able to read 20/30 with both. The next week showed normal vision, the eyes being at times perfectly straight.

I was particularly pleased to be able to relieve these little girls of a disfigurement which means so much more to them than it would mean to a boy, and I was much interested to note how much prettier their eyes were, apart from the disappearance of the squint, after a few treatments. They were wide open, softer-looking, in short, relaxed.

AN ARTIST'S EXPERIENCE WITH CENTRAL FIXATION

By FLORENCE CANE

This patient consulted the editor on July 20*, 1921, because her vision was getting worse, and she suffered from a constant feeling of strain and fatigue in her eyes. She had worn glasses since she was seven years old for hypermetropia, commonly called farsight, and was now wearing convex 4.00 D. S., a rather strong lens. Yet without her glasses she was able to read fine print imperfectly, and by the aid of her memory she became able at the first visit to read it at six inches. Her discomfort was relieved at the first visit, and her distant vision, which had been imperfect, though better than her near vision, also improved.*

I have made a few observations while improving my eyesight by the methods recommended by Dr. Bates, and many thoughts and questions regarding them have suggested themselves to me.

The first thing I remember observing on leaving the doctor's office after my first treatment was a new sense of movement and life. Never before had I seen such dear, bright color in the crowd. I walked toward the library on Fifth Avenue, and never had the sun shone so brightly, or the world looked so exciting. My heart beat faster. I felt a great elation, as if a new vision, a new power, had been given me.

The second thing I remembered was that I sat down the same evening with *The Cure of Imperfect Sight by Treatment Without Glasses*, determined to see what I could do without my glasses. I found that by shifting and palming I could read a sentence or two, later more, and after a while I could read a paragraph without stopping. I found shifting from a point above a word to one below it particularly helpful.

I went to bed at ten o'clock, but was so excited, after reading there until twelve that I could not sleep much. The magnitude of the truth thrilled me. The relation of sight, memory and imagination to body, mind and soul—the use of one faculty to strengthen another—seemed to be such a wonderful conception.

Soon I observed that looking upward seemed to improve my sight. I took to practicing on high objects out of doors. I shifted on points like two apples in a tree, or on the clouds. This helped me very much, and overcame my shrinking from light. I found that I had never walked with my eyes really open before. When I told Dr. Bates about it, he said it was the light that helped me, not the height of the objects I looked at.

I have had several experiences in the application of the principles of central fixation which seem interesting enough to communicate to the readers of BETTER EYESIGHT. The first occurred when I had mislaid something. I had looked everywhere for it in vain. I sat down and palmed and, quietly but suddenly, I saw in my mind where I had laid it. I got up and looked, and it was there.

I burned myself at a beach fire on a piece of wood that I picked up. It had been in the fire, but it was dark and I did not notice it. I burned my thumb quite badly-enough to raise a big blister. It was very painful, and I had no remedy at hand. I remember that I had read in Dr. Bates' book about central fixation in relation to pain, and I tried remembering the small *o*. After a few minutes the pain ceased until I could not tell which thumb I had burned. The same thing happened after a bee had stung me; and one night when I had a severe cold and could not sleep because of difficulty in breathing, I was greatly helped by seeing the period and making it swing. I fell asleep and continued seeing the period in my sleep.

In painting I have had the most interesting experiences of all. If I am working from the memory or imagination and it won't come the way I want, I try palming. The first time this happened. I was painting a lake with some birches at one side. I just couldn't remember how birches grew, and the trees wouldn't look right. So I closed my eyes and waited, and soon a vision came to me of myself walking in a young birch wood that I used to know; I saw how the branches grew, and felt the white glimmer of reflected light from the bark, and the tender young green of the fragile leaves, and I painted the birches with ease and joy. This use of palming may be of great value to artists, because the artist works from the image, and sometimes this image is lost. By straining and effort he cannot regain it, but by palming he may.

I have also had interesting experiences in treating others, my first pupil being my little girl. She had a great fear of the water, so that she could not let herself go, and float face down. She has a cat of which she is very fond; so I suggested that she recall her cat washing itself when she tried to float. She did this and was able to float for twelve seconds.

Another case of interest was that of a woman who was in a nervous condition, overwrought and discouraged over her problems. I began teaching her how to improve her eyesight and at the first lesson she made such great progress that she was overcome with happiness. The magnitude of the thing she had done gave her a sense of control over herself, a new sense of power. She said, "If I can do this, why I can do anything." And it is true; she has pulled herself out of the overwrought state.

Among all the people with whom I have talked, or to whom I have tried to explain these ideas, I have met only one with a perfectly rigid mind. He was, as one would expect, a pure scientist of very high standing. He wouldn't even admit that his hand appeared to move when he swung his bead from side to side with his hand eight inches before his eyes. He said it merely made him dizzy. He knew the hand was in a fixed position, so it couldn't appear to him to move. This statement showed that he only used half his functions. He used his reason but refused to allow his senses to record how things appeared.

There is one thing Dr. Bates has said that I want to question. "We can see only what we imagine, and we cannot imagine something which we have not seen or experienced." As an example, he gives our inability to imagine a foreign alphabet. Well, if that statement is true, how do we get at a new truth? I think it is from the imagination. One can conceive of new

forms in art, and I should judge that a scientist must conceive a possible truth in his imagination, and then set about testing it by experiment and observation. The marriage of the two—facts and imagination—creates new truth and widens man's consciousness. This Dr. Bates has done. But he has only called imagination good. I think it is infinite, and by penetrating deeper into its mystery we are penetrating into the source of man's growth.

MY EXPERIENCE WITH CENTRAL FIXATION

By Dr. Doris J. Bowlby

THE correction of imperfect sight without the use of glasses, as taught by Dr. Bates, first came under my observation on January 1 of this year when Dr, Etha Marion Jones, of St. Petersburg, Fla., called my attention to the method. It appealed to me as being both simple and rational, and I began at once to study and later to practice it. Since that time I have taken glasses off about fifty patients, varying in age from ten to eighty years. Among them have been cases of squint, glaucoma, iritis, retinitis, double progressive myopia and muscae volitantes (floating specks). Many had worn glasses for years. Yet I had great success with all of them. The following are specimens of other equally interesting cases that might be cited:

Frank, aged ten, came to my office on September 1, 1921, for examination. He had been wearing glasses since he was four years old for what was supposed to be congenital myopia, and was then wearing the following:

Right eye, concave. 15.75 D. S., combined with concave 4.00 D. C., axis 15;
left eye, concave 15.75 D. S., combined with concave 4.00 D. C., axis 165.

With his left eye he could see only the 200 letter at one foot (1/200), and with his right he had only light perception. His parents hesitated about putting him in my care, as it seemed incredible that he could ever be cured, but were finally persuaded to snatch at what must have appeared to them a forlorn hope. The boy himself was unwilling to discard his glasses at first; but after the second treatment, when the vision of the left eye improved to 3/30 and that of the right to 3/40, he hesitatingly consented to go home without their aid. After his third treatment he felt safe in going anywhere without them. As he lives twenty-five miles from my office, I could see him only twice a week, but after every treatment the improvement was so marked that now, after two months, his right vision is as good as his left, both being 11/30 for the Snellen test card, while he reads diamond type at six inches and the larger type of his school books at eight incites. I feel sure that he will soon be reading 20/20. He looks and acts like a different boy, and is, naturally, a very happy one. The case has attracted much attention in the village where he lives.

On September 9, a young girl of eighteen came to me because of the intense pain which she was suffering in her eyes and head. She had not been able to go to school, or use her eyes in any way, for over a year, and during this time had been to three specialists. Her lenses had been changed a number of times, she had dark glasses to wear whenever she went into the light, and for eight months she had spent most of her time in dark rooms. Her sight had been perfect, so far as she knew, until she had had measles four years previously. During this illness she had read and studied, and afterward her eyes were red and weak. Two years ago she noticed that she could not see writing on the blackboard, and in a few days an eruption appeared on the eyelids and side of the face. Later she had an infected sinus, and also infected tonsils, tonsillectomy and an operation upon the nose having been performed eighteen months previously. No doubt the foci of infection which had existed at least a year had something to do with her trouble. When she came to me she was suffering from conjunctival congestion, with exudation of purulent material, and there was some hardening of the eyeballs. Her left vision was 7/30 and her right vision 7/50, and she was wearing:

Right eye, convex 1.00 D. S., combined with convex 1.00 D. C., axis 100;
left eye, convex 1.00 D. S., combined with convex 1.25 D. C., axis 80.

The patient came for treatment every day and has been very faithful in her palming and other exercises. After the third treatment all pain left her and she left her glasses with me. By October 1 she was able to return to school. She now reads the lowest line of the test card at twenty feet (20/10), and reads diamond type at ten inches. The retinoscope shows no error of refraction in either eye, and the strained look about her eyes and in her face has given way to one of relaxation.

135 Jefferson Street, Brookville, Pa.check this not double..

CENTRAL FIXATION

When the eye sees best where it is looking it is called Central Fixation. Of course when one sees one point best it must see all other parts worse. It is a great help in accomplishing Central Fixation to ignore or dodge all other objects or letters (objects/letters the eyes are not looking directly at, that are in the peripheral field). To see worse may require in a way greater rest of the mind because in Central Fixation a great many more things are seen worse and only one thing is seen

best. It must be borne in mind that dodging may be done right or it may be done wrong like many other methods of improving the sight. Dodging is done properly when things are ignored. We do not think so much of the objects seen worse (in peripheral field) as we do of the one object which is seen best (in the central field). It is impossible to have perfect sight without Central Fixation. Central Fixation is demonstrated to be a passive condition of the mind and is always accomplished without effort. It is necessary then to dodge the objects not regarded.

CENTRAL FIXATION

By W. H. Bates, M.D.

Central Fixation: *The letter or part of the letter regarded is always seen best.*

With normal vision, a letter or an object cannot be seen clearly or perfectly unless one sees a part of the letter or object best, or better than all other parts.

Central fixation is passive. We do not see by any effort. Things are seen, one part best. Furthermore, it is a condition of relaxation of the eye or mind obtained without any effort.

The normal eye with normal sight is always at rest. Nothing is done. No effort is made. Many cases of imperfect sight have been cured when no efforts were made to see. One cannot relax by working hard, straining, nor obtain rest of the eyes or mind by the help of a strain. When the eyes are normal, they are at rest. When they are imperfect, they are always under a strain.

+Central fixation should not be confused with concentration, which is defined by the dictionary to mean an effort to keep the eyes or mind continuously on one point only, and to ignore all other points.

Try it. Look directly, for example, at the point of the notch on the upper right corner of the large letter C on the Snellen test card. Keep the eyes open without blinking. In a few seconds, or part of a minute, the mind begins to tire from the monotony. An effort is made to hold the concentration. The effort increases with discomfort or Pain. The vision becomes less, the white of the notch looks gray, the black appears less black, less clear and less distinct. The notch regarded is not seen as well as other parts of the large letter not regarded, and Central Fixation is lost. Not only does the notch appear less clear, but by continuing the effort the large letter C, as well as all the letters on the card, are seen less and less perfectly. The white of the whole card is also modified and becomes less white. Other objects in the neighborhood of the Snellen card soon begin to blur and are seen imperfectly. The stare or strain has very much the same effect as if the sun were covered with a cloud or as if the light in the room, or the general illumination, were lessened. When central fixation is practiced, all the objects in the room, including the Snellen card, look brighter, clearer, just as though the light had increased.

Experience the cause of unclear vision; staring, not blinking, not shifting, eccentric fixation, trying hard, using effort to see clear.

Learn to avoid this. Learn to use the eyes correct; relaxation, no effort, shifting, blinking, central fixation and the vision is clear.

+Concentration is trying to see one thing only. It always fails.

+Central fixation is seeing one thing best, and all other objects not so well. Central fixation is combined with shifting; the eyes, center of the visual field, shifts, moves continually from point to point; part to part, object to object.

When the vision, memory, or imagination are imperfect, concentration can always be demonstrated.

When the vision, memory, or imagination are perfect, Central Fixation can always be demonstrated.

Central fixation is an illusion. All parts of small letters as well as large ones are printed with the same amount of blackness. We do not see illusions. They are only imagined. When we see best one part of a letter, or other object regarded, we think we see it best, or more accurately, we imagine it best. One can imagine anything desired, and much more easily than to make an effort to see it. This fact should be demonstrated repeatedly, and consciously, until it becomes an unconscious habit.

With the eyes closed the imagination of Central Fixation may be much better than with the eyes open. By alternating the imagination of Central Fixation with the eyes open and closed, both may improve.

Many persons have no mental pictures with their eyes closed. For example: A patient consulted me about his eyes. He was asked to look at a white pillow. "Can you see it?" he was asked.
"Yes," he answered.

Shift point to point (dot to dot) on the E seeing one small part (dot) clearest at a time in the center of the visual field. The central field moves with the eyes as the eyes shift dot to dot.

Stare at the point on the upper right notch of the C. Do not shift the eyes, eyes immobile, do not blink. Strain, tension, blur occurs. Now shift on the C part to part and experience relaxation and clear vision.

Remember and see the pillow clear with central fixation and shifting: Look at and see one corner of the pillow best at a time. Shift from corner to corner (dot to dot) seeing one corner at a time best, clearest in the center of the visual field. Shift part to part on any area of the pillow.
The pillow is seen clear.

"Now, close your eyes. Can you remember it?"
"No," he replied; "I remember a black pillow."
"With your eyes open, can you see one corner of the pillow best, and the other corners not regarded worse?"

He was able to demonstrate this fact, and that he could in turn see, or imagine, each corner regarded best and the other corners worse. With his eyes closed he was able to remember one corner at a time best, and when he remembers the pillow by Central Fixation, he obtained a mental picture of a white pillow almost as well as he could see it with his eyes open.

He was then asked to remember two corners simultaneously, both perfectly clear. At once he lost his mental picture of the pillow. He demonstrated with other objects as well that he could only remember or imagine mental pictures of them by Central fixation.

Another patient had suffered for many years with almost constant pain and fatigue. With his eyes open his vision was 20/20. He read diamond type as close as six inches, and as far off as twenty inches. He could imagine the white part of large or small letters whiter than the rest of the Snellen test card, but only with his eyes open when regarding the letters. With his eyes closed he could not remember mental pictures of any objects.

He was asked: "Which is whiter, the white center of a large letter of the Snellen card or the white snow on the top of a mountain?" He answered, "The white snow on the top of a mountain."

"Can you shift from one mountain top to another, remembering each one best and the others not so well, or worse?"

This also he was able to do. But when he tried to imagine two or more snow-capped mountains simultaneously, he at once was conscious of an effort and lost his imagination of his mental pictures of the snow.

The memory of the snow-capped mountains by Central Fixation helped him to imagine Central Fixation with his eyes open as well as closed.

A girl, age eight, had imperfect sight not corrected by glasses. The right eye turned in continuously. The vision of this eye was 3/200 with glasses. The left vision was one-half of the normal. She was taught Central Fixation and became able, in a few days, to imagine one part best of the larger letters. The vision of both eyes improved very much. She demonstrated the value of Central Fixation, and that she could not distinguish clearly even the large letters with each eye unless she imagined one part best. By repeated demonstrations this young patient acquired speed in the practice of Central Fixation. She became able to read a newspaper more than five feet from her eyes by artificial light. Fine print, or diamond type, was read rapidly, easily, at one inch from each eye.

She enjoyed the practice of conscious Central Fixation. It was to me very wonderful to observe her imagine very small letters by Central Fixation and read them at ten feet or further.

The squint disappeared permanently.

A girl, aged twelve, was treated for progressive myopia. The vision of each eye was 3/200. With concave 16D.S. the sight of each eye was improved to 20/70. The patient was very nervous. Her memory was poor, and she was behind in her schoolwork. Treatment with the aid of Palming and Central Fixation improved her vision slowly. After about six months there came a sudden change for the better. In one day, her vision improved from 10/200 to 10/10 plus. The next day she read the bottom line of each of three strange cards at twenty feet. It was remarkable, also, because she read all the letters as rapidly as she could pronounce them. The mother was worried because her daughter had suddenly acquired a habit of running down stairs three steps at a time. She had never stumbled or fallen once. The mother also reported that the patient had acquired much pleasure in coasting and was the most daring of all the children. Her scholarship had improved. The teacher said the patient would read a page of history in a few seconds, and recite it with a perfect memory after a few days, a month, or longer. Her memory for other subjects was equally as good.

Immediately after she read the strange cards with normal vision, I asked her: "What helped you?"

"Starch," she answered.

Then she explained that she had become able to imagine a small piece of white starch perfectly white by Central Fixation. When her imagination was perfect her myopia disappeared, her eyes were normal, which made it possible to obtain normal vision. The retinoscope used at the same time demonstrated that her myopia disappeared when she had a perfect imagination of Central Fixation.

Patients whose sight is very imperfect usually require a much longer time to acquire Central Fixation than do some others. One should not be discouraged when, after some weeks or many months, their vision remains imperfect. Too many are disappointed because they fail to obtain Central Fixation after long periods of time, practicing without the help of a competent teacher. One very determined patient devoted many hours daily for over a year without any apparel benefit whatever. She told me that she knew she was curable and was resolved to keep at it the rest of her life if necessary. I wrote her a few suggestions. She followed my advice and was cured in a week.

Central Fixation

When the vision of myopic patients is imperfect, it can always be demonstrated that the point regarded is not seen best, and other parts of a letter may be seen equally well or better. When the patient becomes able to remember or imagine one part of a letter or an object best, the myopia is lessened and the vision improves. When the strain is prevented, by shifting from one side of the letter to another, the letter appears to move from side to side. The vision may then become normal and the myopia disappears.

CENTRAL FIXATION: Central fixation is seeing best where one is looking and worst at all other points. When the patient is swaying before the card, he is told to see one part of a letter which he is regarding at a time and to see that part better than any other part, then to quickly shift his glance to another part, seeing that part best and other parts of the letter worse. The letter is seen much more readily in this way. The patient is reminded that the normal eye uses central fixation at all times.

BLINKING: It can always be demonstrated that when a patient with imperfect sight looks intently at one point, keeping the eyes open constantly, or trying to do so, a strain of the eyes and all the nerves of the body is usually felt, and the vision becomes imperfect. It is impossible to keep the eyes open continuously without blinking. Each time the eyes blink, a certain amount of rest is obtained and the vision is benefited. For this reason, the patient is instructed to blink frequently while swaying before the card, and at all other times.

#4 - BLINKING

Blinking rests the eyes, activates shifting-eye movement, tear production, coats the eyes, cornea with tears that clean, nourish, protect the eye/cornea, prevent dry eyes and act as a natural contact lens increasing the clarify of vision. Blinking prevents over-exposure of the eyes to strong light.

It is a rest to the eyes to close them and keep them closed for a few minutes or a half hour or longer. When the eyes are open the vision is usually improved for a moment or longer. The normal eye can look at a small letter of the Snellen Test Card and see it continuously but when it does so the letter is always moving and the eyes are not kept open all the time. Closing the eyes effectually dodges perfect or imperfect sight. Usually unconsciously the normal eye closes and opens quite frequently and at irregular intervals and for very short spaces of time. Most people can demonstrate that when they regard a letter that they are able to see quite clearly it is possible for them to consciously close their eyes and open them quick enough and see the letter continuously. This is called Blinking and it is only another name for dodging. Dodging what? Dodging the tendency to look steadily at things all the time. All the methods which have been recommended for the improvement of the vision, central fixation, palming, swinging, blinking can all be grouped under the one word—dodging.

One of the characters in "Oliver Twist," by Charles Dickens, was called the "Artful Dodger." Persons with good sight may not be artful but they certainly are good dodgers.

Blinking

THE normal eye when it has normal sight rests very frequently by closing the eyes for longer or shorter periods, and when practiced quickly it is called BLINKING. When the normal eye has normal sight and refrains from blinking for some seconds or part of a minute, the vision always becomes imperfect. You can demonstrate that normal vision at the near point or at the distance is impossible without frequent blinking. Most people blink so easily and for such a short period of time that things are seen continuously while the blinking is done unconsciously. In some cases one may blink five times or more in one second. The *frequency* of blinking depends on a number of factors.

The normal eye blinks more frequently or more continuously under adverse conditions as when the illumination is diminished, the distance is increased or the print read is too pale or otherwise imperfect. The distraction of conversation, noise, reflections of light, objects so arranged as to be difficult to see, all increase the frequency of blinking of the normal eye with normal sight. If the frequency of blinking is diminished under adverse conditions or from any cause the vision soon becomes imperfect.

The imperfect eye or the eye with imperfect sight blinks less frequently than the normal eye. Staring stops the blinking. The universal optical swing, the long or short swing when modified or stopped are always accompanied by less frequent blinking.

Blinking

Blinking is necessary to maintain normal vision in the normal eye. When blinking is prevented, the eyes become tired

and the vision very soon becomes worse. Some persons, without knowing it, will blink five times in one second as demonstrated by the camera. When regarding a large letter of a Snellen test card at twenty feet or one foot, while blinking consciously, the letter appears to move up while the eyelids close slowly, and to move downwards as the eyelids are slowly opened. This apparent movement is caused by shifting the eyes up and down while blinking. (Blinking causes the eyes to shift automatically.) Many patients are unable to shift their eyes a short distance with benefit. When blinking, they may fail to obtain relaxation, because they too often blink with an effort. It is possible for most patients to demonstrate that the shifting of the eyes up and down improves the vision, when blinking is done easily, without effort. Blinking is very important. It is not the brief periods of rest obtained from closing the eyes which helps the sight so much as the shifting or movements of the eyes. It should be repeatedly demonstrated that the eyes are only at rest when they are shifting.

Blindness

By W. H. BATES, M.D.

A GREAT many people are blind or have vision so imperfect that they are unable to find their way about a strange place with the aid of their eyes. They are usually an object of interest to their friends and are frequently recommended to try every new form of treatment which comes out that promises any relief. They are too often disappointed.

Eyechart close to the face and move it side to side. If the vision is very unclear and the movement of the card cannot be seen: imagine it is moving. The letters will become clear. Then practice with the card at farther distances.

The orthodox ophthalmologist has been guided by a certain number of rules. For example: a patient who has no perception of light is at once considered incurable, no matter what may be the condition of the eyes. The first shock that I experienced in such cases was in that of a girl who had total blindness in one eye only, the other being fairly good. She had been to many physicians, and all pronounced her incurable because she had no perception of light in the blind eye. This was a long time ago, and at that time I did not know as much as I do now and told the patient that nothing could be done to improve the blind eye. The eye itself appeared normal. There was no opacity and no organic disease which I was able to find. She told me that one doctor said she was born with something wrong with the eye center in the brain, which accounted for the blindness in the one eye. However, I treated her, planning to improve the slight, imperfect sight that she had in the good eye. Much to my surprise, the vision in the blind eye simultaneously began to get better. The first improvement the patient noticed was that she could see strong light off to the outer side of the eye, while her vision straight ahead and to her left was still dark. One of the most remarkable things about the case was the rapidity with which the blind eye obtained perception of light when the vision improved for objects and letters of the Snellen Test Card. After two weeks of daily treatment the vision of the right eye had improved to 10/200, and at the end of another week she had 20/20. From the results of treatment and other reasons I believe that this was just a case of blindness from squint without the squint, which is called in the text books amblyopia ex anopsia. After doing her so much good, I expected that she would return or at least send word how she was getting along. She was not heard from again. I believe, if there had been any relapse, she might have returned. Sometimes these cases do relapse, and I learn the facts from friends of the patient.

About five years ago a patient was led into my office, blind from retinitis pigmentosa. The vision of the right eye was perception of light, while that of the left eye was 5/200. The pupils of both eyes were small, and in order to examine the interior of her eyes her pupils were dilated with a weak solution of atropine. It was followed very quickly by an attack of acute glaucoma. This subsided after about two weeks. The vision of the better eye was lowered to perception of light while that of the right eye, which had been practically blind for many years, had improved to 10/200. This was a great surprise because it was so unexpected. After many months of daily treatment she obtained normal vision in the right eye and almost normal vision in the left eye. She stopped treatment against my advice. The case was published in the New York Medical Journal, February 3, 1917.

Glaucoma is a very treacherous disease. One may have an attack and recover promptly under treatment. The same patient may have a number of attacks of temporary blindness, but sooner or later the patient will suffer an attack of glaucoma with total blindness, from which no recovery follows spontaneously. The patient goes to some competent ophthalmologist, who at once tells him that there is no hope of anything being done. At one time I examined with a microscope six eyes which had been enucleated for the relief of great pain from absolute glaucoma. Not one of these eyes was imperfect in any way. Quite frequently I have seen cases of absolute glaucoma which came to me for treatment, and which were completely relieved by palming and obtained normal vision in a very few days or weeks, some in even a shorter time. One such case, about ten years ago, had pain so severe that he was unable to attend to his business, and had been strongly advised to have the eye removed. He came to me as his last resort. After a half hour of palming the pain disappeared, and has not returned since in all this time. I saw the patient a few days ago and he is still full of gratitude for the benefit he received.

If my method never did anything more than to relieve the tension and pain of glaucoma, I would feel that I had done something worth while. Whenever I think of those glaucoma cases I relieved, it is a very difficult matter for me to refrain from boasting. There are many eye doctors of my acquaintance who do not believe that palming does much for glaucoma,

although I have gone to a great deal of trouble to advertise the fact. So strongly impressed on the minds of ophthalmologists that absolute glaucoma is incurable, that I can understand how difficult it is for men of experience to imagine that any of these cases can be benefited. Some day, soon I hope, some doctor will try the palming on a hopeless case and be gratified to find that these cases can be helped. If he has the courage to publish the facts he will find that his brother practitioners will not be as severe with him as he might expect. Some eye specialists have privately observed my work; and, although they at the time admitted that I was right and everybody else was wrong, they hesitated to indorse any of my discoveries publicly.

Many patients have said to me: "You cured me after other doctors failed. When I went back to some of them and reported the facts, they had nothing to say. What is the matter with them?"

Recently I was asked if my methods were of any benefit to the blindness of babies who have lost their sight from an infection soon after birth. I believe that these cases can be prevented by the well-known simple treatment as most doctors agree, but after the disease has caused blindness very few or no doctors believe that much can be done to restore the sight.

Some years ago I treated a girl, aged fourteen, whose right eye was blind following a severe inflammation of her eyes soon after birth. She was unable to see moving objects with this blind eye, but had perception of light. I had her hold the Snellen Test Card in her hand, close to her face, and to move it from side to side for a half hour or longer. In the beginning she could not imagine that the card was moving, but by appealing to her common sense she admitted that she did move the card, and furthermore that although she could not see it move, she could imagine it. The next day she practiced in the same way, and told me that she could imagine some black specks on this moving card and that the card was beginning to look more or less white. In a week's time she was able, as a result of daily use of the card, to see about half the letters with the card held close to her eyes. In another week she read the whole card. Then the card was placed gradually further off, and at the end of about three months the opacity on the front part of her eye had almost entirely disappeared and her vision had improved to 20/20.

I wish to emphasize that many cases of so-called incurable blindness can be completely relieved. It is wrong for any doctor or group of doctors who cannot cure cataract, for example, without an operation, to insist that because they cannot cure it nobody else can.

Blinking

Blinking, when practiced properly, promotes relaxation or rest. The normal eye blinks continuously all day long when the patient is awake. At night, when the patient is asleep, a movement of the eyeballs can be seen which resembles the movement of the eyeballs when the eye blinks. When the eye blinks slowly and the upper eyelid is slowly closed, distant objects appear to move up. When the eyelids slowly open, objects appear to move down. This movement is usually accompanied by an improvement in the vision. Blinking is absolutely necessary in order to obtain continuous normal vision. The normal eye blinks unconsciously, easily, sometimes with great rapidity and at other times rather slowly. It is impossible to stop the blinking of the normal eye. Any effort to do so is a strain, which lowers the vision and, if kept up for some minutes or longer, produces pain, fatigue, dizziness, and other nervous symptoms.

Shift left and right from one period to the other.
One period at a time is seen clear in the center of the visual field. When looking at a period: shift on it: tiny part to tiny part to see it clear. Blink.

The normal eye is shifting or looking from one point to another continuously, not only when one is awake, but also when one is asleep. This continuous movement of the eyes brings about a condition of perfect rest. To stare at one point for a few seconds or part of a minute is a difficult or painful thing to do. It requires a great effort which lowers the vision. It is not possible to see two black periods perfectly black at the same time. The only way that they can be seen perfectly black is to shift from one to the other alternately. It is not possible to see a large letter or a small letter perfectly without shifting or looking from one part of the letter to another part. It is well to realize that the human mind is not made to see more than one thing perfectly at a time. To see two or more things perfectly at the same time is impossible, but one can shift from one thing to another and alternately see each perfectly for a short time.

When regarding a person's face, it is impossible to see the whole face perfectly at once. It is necessary to shift from one part of the face to another to see those parts perfectly. If the shifting is more or less rapid, one gets the impression of seeing the whole of the face at once, when, as a matter of fact, only a small area is seen at a time.

One of my patients had normal sight in one eye and one-half normal vision in the other. He was very positive that he could see every letter of the Snellen test card perfectly at the same time. He was not aware that he shifted from one letter to the other, or that he shifted from one part to another of large and even small letters in order to see them clearly, or to be able to distinguish them at all. When he covered his good eye and looked with the poor one, he could read only one letter at a time. He was quite conscious that he did not see even the large letters perfectly; but when he practiced shifting with his poor eye, his vision improved not only for the large letters, but also for the small letters. It required considerable time and much patience to convince him that it was impossible for him to see all parts of any letter perfectly at the same time. When he demonstrated that staring lowered his vision, and that shifting improved it, he obtained normal vision in each eye.

5 - BREATHING, Deep, Relaxed

BREATHING

MANY patients with imperfect sight are benefited by breathing. One of the best methods is to separate the teeth while keeping the lips closed, breathe deeply as though one were yawning. When done properly one can feel the air cold as it passes through the nose and down the throat. This method of breathing secures a great amount of relaxation of the nose, throat, the body generally including the eyes and ears.

A man aged sixty-five, had imperfect sight for distance and was unable to read fine print without the aid of strong glasses. After practicing deep breathing in the manner described he became able at once to, read diamond type quite perfectly, as close as six inches from the eyes. The benefit was temporary but by repetition the improvement became more permanent.

At one time I experimented with a number of patients, first having them hold their breath and test their vision, which was usually lower when they did not breathe. They became able to demonstrate that holding their breath was a strain and caused imperfect sight, double vision, dizziness and fatigue, while the deep breathing at once gave them relief.

There is a wrong way of breathing in which when the air is drawn into the lungs the nostrils contract. This is quite conspicuous among many cases of tuberculosis.

Some teachers of physical culture in their classes while encouraging deep breathing close their nostrils when drawing in a long breath. This is wrong because it produces a strain and imperfect sight. By consciously doing the wrong thing, breathing with a strain one becomes better able to practice the right way and obtain relaxation and better sight.

The habit of practicing frequently deep breathing one obtains a more permanent relaxation of the eyes with more constant good vision.

Abdominal, diaphragmatic breathing, yawning is taught by modern Natural Eyesight Improvement teachers.

The Rabbit's Throat

DURING the past ten years a method of breathing has been practiced which has improved the vision of many patients after other methods had failed. It consists of depressing the lower jaw with the lips closed and lowering the tongue and muscles below the chin. At the same time one breathes in through the nose and throat in a manner somewhat similar to snoring and when done properly one can feel a coolness of the air while it passes down into the lungs. This method of breathing is accompanied with the eyelids being more widely open in a natural way without staring. **The ear passages, nose, and throat dilate. The tube which goes from the throat to the middle ear becomes more widely open, with improved hearing in chronic deafness which does not respond to any other treatment.** If one rests the chin with the thumb below it and the forefinger just below the lower lip, one can feel with the thumb the hardening of the muscles below the jaw accompanied with a decided swelling. By practice, the swelling and hardness increase. This suggested the title of the Rabbit's Throat because of a similar swelling below the rabbit's chin. The **tension of the other muscles of the body becomes relaxed.** There is a wonderful increase of muscular control. Music teachers have told me that the singing voice becomes much better because of the **relaxation of the muscles of the throat**. The involuntary muscles of the digestive tract become relaxed in a striking manner with the relief of many symptoms of discomfort. **Redness and inflammation of the mucous membranes of the eye, ear, nose and throat and the rest of the body are relieved in a few minutes with the aid of the Rabbit's Throat.**

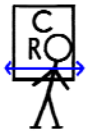
The Rabbits throat method improves breathing, relaxes the muscles in the neck, head, improves ear function. This helps to improve eye muscle and eye function, clarity vision. The visual system is connected/functions with the ears, balance system. Other breathing methods are found in yoga exercises, abdominal/diaphragmic breathing.

Relaxed throat, neck = improved circulation to the head, ears, eyes = clear vision.

REST—Children of all ages are benefited by resting their eyes and minds for a few minutes, several times a day. Teachers realize the benefit of rest in the school-room, and books are laid aside, windows opened, and a few exercises with deep breathing, are practiced. I am not aware that the school authorities have ever been criticized for devoting this daily amount of time to rest.

#6 - MOVEMENT, Oppositional Movement 'The Swing'

Demonstrate



Stand, face the eyechart, sway side to side.
Sway right and look away to the right of the card.
Sway left and look to the left of the card. Sway and look right, left, right, left...
See the card appear to move in the opposite direction the eyes, body move, look to.
Sway, move the body, eyes longer left and right and see a longer movement of the card. Sway shorter (6 in. or 1-3 in.) side to side and see the card move shorter and the vision become clearer.
Small shifts, movements of the eyes (saccadic) and perfect central fixation on objects=clear vision.

1 - That a short, swaying movement improves the vision more than a long sway.
Place the test card at a distance where only the large letter at the top of the card can be distinguished. This may be ten feet, further or nearer. Stand with the feet about one foot apart and sway the body from side to side. When the body sways to the right, look to the right of the card. When the body sways to the left, look to the left of the card. Do not look at the Snellen test card. Sway the body from side to side and look to the right of the Snellen test card, and alternately to the left of it. Note that the test card appears to be moving. Increase the length of the sway and notice that the test card seems to move a longer distance from side to side. Observe the whiteness of the card and the blackness of the letters. Now shorten the sway, which, of course, shortens the movement of the card. The card appears whiter and the letters blacker when the movement of the card is short, than when the movement of the card is long.

2 – Demonstrate that when the eyes are stationary, they are under a tremendous strain.
Stand before the Snellen test card at a distance of fifteen or twenty feet. Look directly at one small area of a large letter, which can be seen clearly. Stare at that part of the letter without closing the eyes and without shifting the eyes to some other point. The vision soon becomes worse and the letter blurs. Stare continuously, and note that the longer you stare, the more difficult it is to keep the eyes focused on that one point or part of the letter. Not only does the stare become more difficult, but the eyes become tired; and by making a greater effort, the eyes pain, or a headache is produced. The stare can cause fatigue of the whole body when the effort is sufficiently strong and prolonged.

THE SWINGING CURE

If you see a letter perfectly, you may note that it appears to pulsate, or move slightly in various directions. If your sight is imperfect, the letter will appear to be stationary. The apparent movement is caused by the unconscious shifting of the eye. The lack of movement is due to the fact that the eye stares, or looks too long at one point. This is an invariable symptom of imperfect sight, and may often be relieved by the following method:

Shift left and right on the E and see it move in the opposite direction.
Practice with the eyes open, then closed with the imagination, then open.

Close your eyes and cover them with the palms of the hands so as to exclude all the light, and shift mentally from one side of a black letter to the other. As you do this, the mental picture of the letter will appear to move back and forth in a direction contrary to the imagined movement of the eye. Just so long as you imagine that the letter is moving, or swinging, you will find that you are able to remember it, and the shorter and more regular the swing, the blacker and more distinct the letter will appear. If you are able to imagine the letter stationary, which may be difficult, you will find that your memory of it will be much less perfect.

Now open your eyes and look first at one side and then at the other of the real letter. If it appears to move in a direction opposite to the movement of the eye, you will find that your vision has improved. If you can imagine the swing of the letter as well with your eyes open as with your eyes closed, as short, as regular and as continuous, your vision will be normal.

The Thumb Movement

Move the thumb on the stationary finger tip in a 1/4 inch circle. Move clockwise for a while, then counter-clockwise.
Move the thumb left and right, up and down... against the finger. Practice with left and right hands.

Rest the hand against an immovable surface. Place the ball of the thumb lightly in contact with the forefinger. Now move the end of the thumb in a circle of about one-quarter of an inch in diameter. When the thumb moves in one direction, the forefinger should appear to move in the opposite direction, although in reality it is stationary. In the practice of the universal swing, everything is imagined to be moving in the same direction, except the eyes. With the aid of the thumb movement, however, one can imagine the spine and the head moving opposite to the direction of motion of the thumb, while the eyes, being fastened to the head, also move with the head and hand.

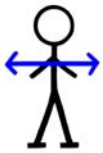
While watching the movement of the thumb, remember imperfect sight. At once, the thumb movement becomes irregular or may stop altogether. Demonstrate that any effort, no matter how slight, to see, remember or imagine, interferes with the movement of the thumb. The thumb is so sensitive to an effort or strain that the slightest effort is at once recorded by the motion.

While watching the movement of the thumb, remember perfect sight. Notice that the movement of the thumb is slow, short, continuous, and restful - with relaxation of all parts of the body.

Many patients have been successfully treated for pain, fatigue, and dizziness with the help of the thumb movement, after other treatment had failed. Some patients with severe pain complain that when they forget to practice the movement of the thumb, the pain comes back.

Not only have patients suffering from pain and symptoms of fatigue been relieved, but an equal number have been relieved of imperfect sight by the correct practice of the thumb movement.

Thumb movement done in various directions and with the left and right hands also activates, integrates the left and right brain hemispheres and eye movement, shifting.



Hang a ruler or curtain cord in front of a open window with a view of distant objects.
Rock left and right in front of the window. Body, head, eyes move together, at the same time, in the same direction.
See the cord appear to move opposite the movement of the body, head, eyes while distant objects appear to move with the body, head, eyes in the same direction.
The cord and distant objects move against each other in opposite directions.

Move the thumb side to side 1/4 inch or, do the thumb on finger tip movement as described in previous chapters.
Move the eyes with the thumb. Imagine stationary objects moving, 'the swing' when the eyes shift.

MOVING

The world moves. Let it move. People are moving all day long. It is normal, right, proper that they should move. Just try to keep your head, or one finger, one toe, stationary, or keep your eyes open continuously. If you try to stare at a small letter or a part of it without blinking, note what happens. Most people who have tried it discover that the mind wanders, the vision becomes less, pain and fatigue are produced.

Stand facing a window and note the relative position of a curtain cord to the background. Take a long step to the right. Observe that the background has become different. Now take a long step to the left. The background has changed again. Avoid regarding the curtain cord. While moving from side to side, it is possible to imagine the cord moving in the opposite direction. By practice one becomes able to imagine stationary objects not seen to be moving as continuously, as easily, as objects in the field of vision.

Seeing objects at different distances move opposite each other improves relaxation, eye movement and the clarity of vision. It also helps people with very unclear vision distinguish one object from another object, improves the ability to look at and shift part to part on one object at a time. This improves shifting with central fixation which further improves the clarity of vision.

The speed of the movement of close and distant objects changes if the eyes look at close or distant objects when moving left and right. Normally when practicing moving left and right the eyes do not look at any objects - just let the eyes move along, pass by over objects in the visual field.

Universal Swing: When one becomes able to imagine all objects seen, remembered, or imagined, to be moving with a slow short, easy swing, this is called the Universal Swing. It is a very desirable thing to have, because when it is imagined with the eyes closed or open, one cannot simultaneously imagine pain, fatigue, or imperfect sight.

The universal swing can be obtained without one being conspicuous. With the hand covered, move the thumb from side to side about one-quarter of an inch, and move the eyes with the thumb. Stationary objects can be imagined to be moving.

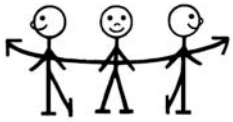
When walking rapidly forward, the floor or the sidewalk appears to move backward. It is well to be conscious of this imagined movement.

Never imagine stationary objects to be stationary. To do this, is a strain, a strain which lowers the vision.

Try Dancing

THERE has been repeatedly published in this magazine and in my book that the imagination of stationary objects to be moving is a rest and relaxation and a benefit to the sight. Young children, when one or both eyes turn in or out, are benefited by having them swing from side to side with a regular rhythmical motion. This motion prevents the stare and the strain and improves the appearance of the eyes. It helps the sight of most children to play puss-in-the-corner or to play hide-and-seek. Children become very much excited and laugh and carry on and have a good time and it certainly is a benefit to their sight. It seems to me that these children would be benefited by going to dancing school. Many of my patients practice the long swing in the office and give strangers the impression that they are practicing steps of a dance. One patient with imperfect sight from detachment of the retina recently told me over the telephone that he went to a dance the night before and although he lost considerable sleep his sight was very much improved on the following morning.

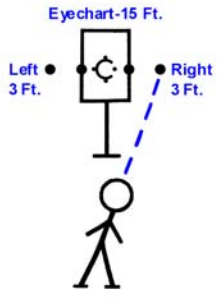
Dancing is certainly a great help to keep things moving or to imagine stationary objects are moving, and is always recommended. Some people have told me that the memory of the music, the constant rhythmic motion and the relaxation have improved the vision.



Long Swing

Swing the body left and right. Head/face, eyes, body move together, at the same time, in the same direction.
See oppositional movement; objects in the visual field appear to move 'swing by' in the opposite direction.
Do not stop to look at the objects. Keep swinging, relax and let them move.

Sway/rock left and right.

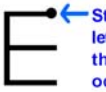


+Look 3 Feet to the right of the eyechart. Then, look 3 feet to the left of the eyechart.
+Notice the chart moves in the opposite direction the eyes, head, body move to.
+Shift long, left and right on the sides of the chart and see a long, wide oppositional movement. (see dots, shift dot to dot)
+Then shift shorter, left and right on the edges of the chart and see a shorter opposite movement. (see dots)
+Then shift shorter, smaller- left and right, top and bottom on the letter C and see a short, small opposite movement. (see dots)
+Shift point to point on a small part of the C and see a tiny opposite movement.
Small eye shifts on a object bring clearer, more fine detailed vision. Central Fixation. Practice at far and close distances.

SWAYING

It is a great help in the improving of vision to have the patient demonstrate that staring at one part of a letter at ten feet or further is a difficult thing to do for any length of time without lowering the vision and producing pain, discomfort, or fatigue. With the eyes closed it is impossible to concentrate on the memory or the imagination of a small part of one letter continuously without a temporary or more complete loss of the memory or the imagination.

When an effort is made to think of one part of a letter continuously with the eyes closed, the letter is imagined to be stationary. When the imagination shifts to the right of the letter a short distance and then to the left alternately, every time the attention is directed to the right, > the letter is always to the left, < and when the attention is directed to the left < of the letter, the letter is always to the right >. By alternating, the patient becomes able to imagine the letter is moving from side to side, and as long as the movement is maintained the patient is able to remember or imagine the letter. It can be demonstrated that to remember a letter or other object to be stationary always interferes with the perfect memory of the letter. One cannot remember, imagine, or see an object continuously unless it is moving. The movement must be slow, short, and easy.



Stare at one part (dot) of the letter E. Memory, imagination of the letter is lowered, strain occurs, the letter is seen unclear.

Shift part to part, left and right (dot to dot) on the letter E. Blink. See it appear to move opposite the movement of the eyes. Memory, imagination of the letter is perfect, the letter is seen clear. Shifting, movement relaxes the mind, body, eyes, improves memory, imagination and clarity of vision.

Natural Eyesight Improvement Astigmatism chart. Look at, shift on, see darkest black and clearest one black line at a time. Trace along a line, Shift line to line.

When patients stare habitually, the eyes become more or less fixed, and are moved with great difficulty. When the patient stands and sways the whole body from side to side, it becomes easier to move the eyes in the same direction as the body moves. No matter how long the staring has been practiced, the sway at once lessens it.

Swinging

By W. H. Bates, M.D.

The muscles on the outside of the normal eye are at rest when the sight is normal. Any contraction of one or more of these muscles by pressure, by operation or by electrical stimulation always produces an error of refraction. The removal of the crystalline lens may be done without changing the form of the eyeball.

The normal eye has normal sight when it is at rest. It is at rest, or relaxed, when it is moving to prevent the stare, strain, or effort to see. When the patient becomes aware that his eye troubles are always caused by one of these three, all of which are difficult, he becomes able easily to maintain the swinging of all objects. (Oppositional Movement)

Shifting or moving the eyes from side to side with a similar movement of the head

improves the sight when done properly. It can be done wrong when the eyes move in a different direction to the movement of the head. In some cases, when turning the head to the right, the eyes may turn in the opposite direction, for example, at the same time. Cases have been observed where one or both eyes appear stationary while the head may be moving.

One patient complained that when he planned to move his eyes with the movement of his head that he was not conscious that his eyes were moving as desired or that the eyes were moving and not stationary.

In some cases the eyes would move irregularly and unconsciously a longer or a shorter distance than the movements of the head. When one or more of the patient's fingers were pressed lightly on the closed eyelids, the eyes could be felt to move rapidly, slowly, or in any direction.

The eyes may move to the right while the head moves opposite, or to the left. Swaying the head and body a long distance to the right or left may be accompanied by an apparent movement of stationary objects in the opposite or in the same direction. Stationary objects with a prominent background move opposite, while objects partly covered may appear to move in the same direction.

Some people have difficulty in practicing the swing successfully. They cannot imagine any stationary object to be moving no matter how much swinging is practiced. They usually complain that they cannot imagine stationary letters or other objects to be moving when they move their head or eyes. They feel absolutely certain that the stationary object is always stationary and cannot be expected to move when the body sways from side to side in a long or short movement.

It is absolutely necessary that all persons with imperfect sight should become able to imagine stationary objects to be moving. When an effort is made to imagine stationary objects to be stationary, the eyes become fixed or stare at the letter or other object and make an effort which always fails. A very successful method of teaching nervous people how to imagine stationary objects to be moving is as follows;

The Snellen test card is fastened to a support about fifteen feet away from the patient. When the patient looks at a point about three feet to the right of the test card, the card is to the left of the point regarded, and advances farther to the left when the point regarded is moved to the right. When the patient is directed to regard a point to the left of the Snellen test card, the card moves to the right side of the point regarded.

The greater the shift from one point to another, the wider becomes the swing. By repetition, the patient becomes able to realize that whenever a point regarded is to the right of the card that the card and all other objects are to the left of the point regarded. When the eyes move to one side of the card, the card moves to the opposite side and this movement of the card can always be demonstrated by insisting that the patient imagine the Snellen test card moves to the left every time the eyes move to a point to the right. (The original sentence was; …insisting that the patient cannot imagine the Snellen test card moves…) The word cannot is thought to be a misprint and has been taken out.)

This method is always a truth without any exceptions because no matter how much the patient may insist that he is right, he has to acknowledge that when he looks to the right, the Snellen test card moves to the left, and this movement is so decided that it very soon becomes impossible for the patient to fail to imagine stationary objects to be moving whenever the eyes move from right to left, from left to right, or in any other direction. This demonstration may be made very convincing with a little time and patience. There are so many of these patients who have difficulty in imagining stationary objects to be moving when the eyes move from side to side or in other directions that the swing should be practiced.

Long Swing: The patient stands with the feet about one foot apart and turns the body to the right - at the same time lifting the heel of the left foot. The head and eyes move with the body, synchronized: eyes, head, body move together, same time, same direction. One should not pay any attention to the apparent movement of stationary objects. Do not look at the objects that are showing oppositional movement. Relax, swing and let the objects 'swing', pass by in the opposite direction. The left heel is then placed on the floor; the body is turned to the left as the patient raises the heel of the right foot. I usually advise patients to practice this right and left swing one hundred times morning and night, counting one to the right, two to the left, and so on.

Variable Swing with finger to side of face. Move the head left and right and see the finger move opposite.

Variable swing: The patients holds the forefinger of one hand six inches from the right eye and about the same distance to the right, as he moves the head a short distance from side to side. The finger should appear to move in the opposite direction to the movement of the head. This can also be done with the finger held between the left and right eyes, at eye level.

Universal Swing: The Patient stands and sways the body from side to side. While the body is moving, the eyes are moving, and stationary objects nearby (close objects) which have a background (distant object beyond close object) appear to move in the opposite direction to the movement of the head and eyes. Objects located at more distant points which have no background always appear to move in the same direction as the movement of the body.

If the finger is held before the eyes while the head is moved from side to side, one may, by practice, become able to imagine that everything connected with the finger, either directly or indirectly, is moving in the opposite direction, while the back ground is moving in the same direction. The universal swing is very beneficial and usually prevents and cures pain, dizziness, and other nervous symptoms.

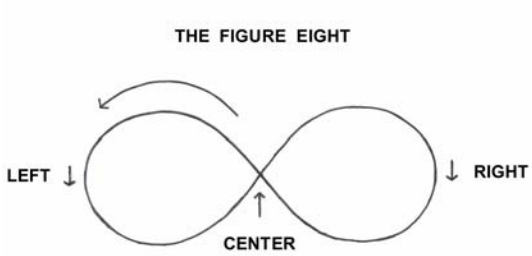
Variable Swing with finger in front, center of face, between the eyes, eye level.

Circular Swing: There is one objection to the universal swing and that is that at the end of the count to the right or left, the patient in some cases stares. This stoppage of the swing may be corrected by the

Sway/rock left and right.

practice of the circular swing, when all objects are imagined to move continuously in a circular direction. The circular swing may be remembered with the eyes closed and differs from the other swings in that the finger, Snellen test card, or other objects appear to move in a circular direction.
In the circular swing, the head and eyes are moved in a circular direction.

Square Swing: In the square swing, the head and eyes are moved in a horizontal line from one side to the other and then downward, across, upward, and across, without a stop being made in any part of the swing. Many patients can practice a square swing when they find it difficult or impossible to practice a circular swing. Either the circular or square swing may be practiced with the eyes open or closed.
(The Figure Eight – Infinity Swing is an improved, modern version of the circular and square swings.



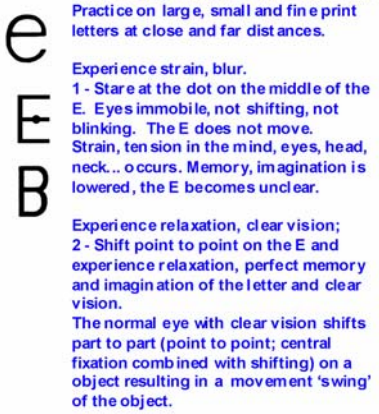
Not all persons can practice any particular kind of a swing successfully with the eyes open, but with the eyes closed, with the help of the memory and the imagination, almost any swing can be practiced with benefit. It is interesting to observe that swinging the head and eyes a long distance from side to side is more easily accomplished than a short movement, although a short swing when practiced properly is more beneficial. Practice the swings with the eyes open, closed, open and remember, imagine and see oppositional movement of objects.

The Optical Swing

By W. H. BATES, M. D.

MOST people when they look at stationary objects believe that they see such objects stationary; but if they observe the facts more closely, they find that when the normal eye regards a small letter of the Snellen Test Card with normal sight, the letter does not appear to be stationary, but seems to move from side to side, a distance about the width of the letter. This is called the *optical swing*.
This is caused by the movement, shift of the eyes from point to point (part to part) on the letter.

During the late war, a soldier, who was rated as a sharpshooter, told me that when he regarded the bull's eye of a target five hundred yards away or further, that he had difficulty in aiming his gun properly because the bull's eye seemed to move from side to side a very short distance. Both he and others who had observed it did not discuss the matter with any great interest.



The movement of a letter or other object from side to side in the optical swing is so short, so slow, that most persons with normal eyes have never noticed it. There is no reference to the optical swing in any publication which I have seen. It is a truth that in all cases of normal sight the optical swing can be demonstrated. In all cases of imperfect sight the optical swing is modified; it may be lengthened, it may become too rapid and irregular. The swing is a necessary part of perfect sight. The importance of it has not been realized. With the short optical swing the vision is good while the mental efficiency and the efficiency of the nerves and muscles is enormously increased.

THE SHORT SWING: When the swing is short, no more than the width of the letter, the vision is normal; when the vision is normal, the swing is short. One cannot have normal vision of a letter, a normal memory or a normal imagination, without demonstrating the presence of a short optical swing.

It can be demonstrated that it is impossible to remember or imagine with the eyes closed a letter, a color or any object without the optical swing. When the swing is stopped an effort or strain is necessary, which may be conscious or unconscious, and the memory or imagination becomes imperfect. Normal vision is not maintained continuously without the short optical swing. It is not necessary, however, for one to be conscious of the swing in order to demonstrate normal vision.

(Practicing seeing it improves the clarity of vision.)

Methods of treatment which restore the optical swing are a benefit to imperfect sight. When the short swing can be demonstrated, the vision, the memory and the imagination are normal. One cannot imagine the short swing and imperfect sight at the same time. One cannot remember or imagine pain, fatigue or any symptom of disease and the short swing at the same time. For example, the symptoms of acute indigestion have disappeared when the patient imagined the short swing of a letter or some other object. In some cases, hay fever symptoms have disappeared quickly and permanently, through the use of the short swing. Bronchial troubles, the cough associated with influenza and whooping cough, have disappeared quickly when the short swing was imagined quickly.

THE UNIVERSAL SWING: When you hold the Snellen Test Card in your hand, you can imagine a small letter "o" printed on the card to have a slow, short, easy, continuous, regular swing. Of course, when the "o" swings, the card to which it is fastened also swings; when the hand holding the card swings, the card swings and the letter "o" swings. When the letter "o" swings the card swings, the hand swings, the wrist, the forearm, the elbow, are all swinging with the "o". If the elbow rests on the arm of the chair, when the chair moves the elbow moves; when the elbow moves, the card moves. One can demonstrate that a letter "o" pasted on the Brooklyn Bridge moves when the bridge moves, and when the "o" moves the bridge moves. One may think of many objects, one at a time, each one in turn moving with the moving "o". This is called the *universal swing*.

This movement is caused by the movement, shift of the eyes. Moving the head/face, body with the eyes improves appearance of the movement.

The universal swing has been a wonderful benefit in improving many cases of imperfect sight, in the relief of pain, fatigue and other symptoms of disease. It can be demonstrated that when one has the universal swing the sight is perfect. If the universal swing becomes modified, the sight is imperfect. There are no exceptions. This fact has suggested successful treatment for myopia, cataract, and other causes of imperfect sight.

It is well to remember that some people have difficulty in imagining the universal swing. They are very apt to separate the letter "o" from the card and imagine that either the card or the letter moves; and it is difficult for them to imagine the letter and the card fastened together and one unable to move without the other moving. Of course one can imagine the hand moving and the arm stationary, but when the hand and the arm are in a vise or fastened very closely together without any hinges, it is difficult or impossible to imagine the hand is moving without the arm moving as well. Persons who have difficulty in imagining the universal swing should consult others who can demonstrate it, explain it and help them to accomplish it.

The entire visual field moves 'swings' in the opposite direction the eyes move, shift to.

I generally suggest to my patients that they practice the universal swing twice daily, morning and night; or better still, practice it at all times, in all places, no matter where they are or what they may be doing.

THE MEMORY SWING: With the eyes closed you can feel your eyes move under your fingers when lightly touching the eyelids. If you imagine that you are looking over your right shoulder, you can feel the eyeballs move to the right, and a long distance to the right. When you imagine that you are looking over your left shoulder, you can feel your eyeballs moving to the left, and far to the left. One can shorten the movement of the eyeballs by looking a shorter distance to the right, alternately looking to the left. With a little practice one can feel or imagine one feels, the eyeballs are moving the shortest possible distance from side to side. The eyeballs can be seen to move under the closed eyelids. The memory swing is a good thing to practice under conditions which would not be so convenient for the other kinds of swings. One can practice the memory swing in a dark room, on a dark night, in a dark cellar, in bed, and obtain a mental relaxation or an optical relaxation or a relaxation of the nerves which is worth while.

Imagine shifting left and right, top and bottom on a tiny fine print letter and feel the eyes move.
Imagine seeing the swing; the letter appears to move in the opposite direction the eyes shift to. Produces very clear vision.

THE OPTICAL SWING

By W. H. Bates, M. D.

For thousands of years mankind, both lay and professional, has overlooked a seemingly minute but vitally important phenomenon of the human system—the eye's normal inability to see a stationary object. Of the result in the science of the eye of the final observation of this vital matter, Dr. Bates tells in part in this article.

For Clear Distant Vision

+Shift on a fine print letter on a close card and imagine, see that it has a slow, short, easy swing, movement. Practice for a minute or less, 5-20 seconds. Avoid staring. Blink and keep the eyes moving on the letter.
+Then, look at the same letter on a identical distant card for less than a fraction of a second.
As vision improves the eyes can look at a letter for a second or longer without experiencing blur.
+ Repeat looking at the letters on the close and distant cards. Practice on one letter at a time.
+Practice with the distant card farther away as vision improves.
+Practice with both eyes together, one eye at a time, then both eyes again.
+Reverse the process to improve close vision, looking at the close letter for the shortest time.

IN this magazine, and in other publications, I have quite frequently written about the swing. The matter is so important that I feel that it should be described and recommended more frequently. The benefits which come from the optical swing are far-reaching and of greater importance, I find at the present time, than I realized even six months or a year ago.

When a person of normal sight regards one letter of the Snellen test card with normal vision, the letter appears to move about a quarter of an inch or less from side to side, continuously and slowly, a little more rapidly than a movement each second. This is what I call the optical swing.

Shift left and right on the E and see it move in the opposite direction the eyes move to.
Shift top and bottom, diagonally and in any direction.

For many thousands of years people of normal sight have regarded small and large objects which were stationary and imagined that they saw them stationary. It can be demonstrated that when the normal eye imagines a letter, or a part of a letter, stationary, that the letter becomes very soon imperfect. Furthermore, the letter has a jerky movement, irregular, and variable, demonstrating that it is impossible by any kind of an effort to keep or imagine a letter stationary for any length of time.

Swinging

It is also beneficial while practicing this method to sway the body, head and eyes, a short distance from side to side, and imagine the card and the letters to be moving in the opposite direction. It may help you to imagine the card moving by regarding the background close to one vertical edge of the card. By swaying from side to side the edge of the card appears to move over the background. The shorter the movement of the body, head and eyes, the shorter is the movement of the card and the better is it remembered, imagined or seen. The short swing is more beneficial than the long swing. It is necessary to realize, however, that it doesn't require much of a strain to stop the short swing and blur the whole card. When the short swing stops, you should increase the swing or the swaying of the body from side to side, until the card can be again imagined to be moving. This combination of swaying, memory with the eyes closed, and imagination with the eyes open, is a cure for hypermetropia.

Swinging
By W. H. BATES, M.D.

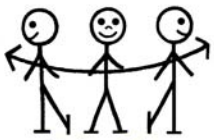
Swinging: When the eyes move slowly or rapidly from side to side, stationary objects appear to move in the direction opposite to the movement of the head and eyes.

PEOPLE with normal vision are not always conscious of the swing. When called to their attention, however, they can always demonstrate it, and are always able to imagine all stationary objects to be moving. In imperfect sight, the swing is modified or absent. This is a truth which has been demonstrated over a long period of years by a great many people, and no exceptions have been found.

The normal or perfect swing is slow, short, easy and continuous. When the swing is normal, it is always true that not only is the vision normal or perfect, but also the memory, the imagination, or the mental efficiency correspond. When the memory is imperfect, the imagination, the mental efficiency, and the sight are also imperfect.

All cases of imperfect sight from myopia, or near-sightedness, become normal when the swing becomes normal. The same is true in cataract, glaucoma, diseases of the optic nerve and retina. For example, a woman, aged sixty-three, was treated for imperfect sight from cataract. Her vision was 10/200, and was not improved by glasses. For twenty years she had not been able to read a newspaper with or without glasses. In three visits, with the help of the normal swing, her vision improved to 10/10 minus, with flashes of normal vision, and she read diamond type at twelve inches rapidly without glasses. Other similar cases have been relieved as promptly.

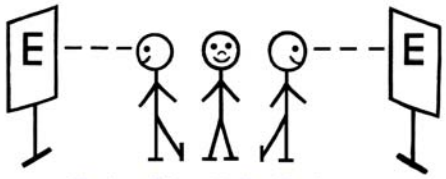
It is important to understand how the swing can be imagined. Some



Swing and turn left and right.
Swing, turn left-the heel of the right foot moves up.
Swing and turn right - heel of left foot moves up. 50-100 times.

The Long Swing

Long Swing relaxes the mind, body, eyes, activates eye shifting, clear vision. Do the Rock, (sway) a shorter swing for increased vision improvement. See oppositional movement.



The Long Swing with Two Eyecharts

Identical eyecharts placed on left and right side of the body.
Swing and turn left and right and 'Flash' glance at, shift on a letter on the eyechart for a 'fraction of a second'-
Swing, turn left and 'flash' a letter on the left chart: Blink and shift quickly, easy on the letter. Do not stop swinging.
Swing and turn right and flash a letter on the right chart.
Keep swinging left and right, glancing at the letters. Relax, no effort to see - vision be comes clear.

people with mild cases of imperfect sight can imagine a letter or other object to be moving when they see or remember it perfectly. There are many others who fail. Severe pain, fatigue, or worry often prevent the demonstration of the swing. Blinking and palming are helpful in demonstrating the swing. The distance of the object regarded is important. The patient should be placed at a distance at which he can best demonstrate the swing. The distance varies with the patient.

It is unfortunate that many patients consider the swing complicated or impossible. However, they can usually demonstrate that a stare or strain lowers the vision. When holding a test card at a convenient distance from the eyes, patients may be convinced that the test card is seen better when moving. They may not profit by their experience, but continue to stare or strain, which always lowers the vision.

One patient was unable to imagine any kind of a swing. He was suffering from pain, mental depression, and imperfect sight for the distance. Reading the newspaper, even with glasses, was impossible. Since nothing he tried gave him any relief, I suggested that he stop trying to see and make no effort to imagine stationary objects to be moving. He practiced this while sitting in my waiting room. He paid no attention to the apparent movement of stationary objects, nor did he look at any object more than a fraction of a second. His vision after that improved from 20/50 to 20/10. He became able to imagine the movement of objects and demonstrated that all his pain and mental depression were caused by a stare or an effort to see all things stationary, when he regarded, remembered or imagined them. He was comfortable when he imagined objects moving or swinging, but very uncomfortable when he made an effort or imagined them to be stationary.

Recently, I tested the sight of a girl about ten years old. She read the Snellen card at ten feet with normal vision. She was asked: "Do you see any of the small letters moving from side to side?"

"Yes," she answered, "they are all moving."

"Now can you imagine one of the small letters stationary?" At once she quickly looked away and frowned.

"Why did you look away?" her father asked her.

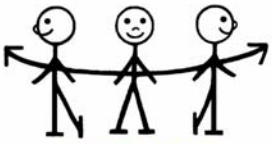
She replied: "Because it gave me a pain in my eyes and head, and the letters became blurred. Don't ask me to do it again."

The experience of this child is the same as that of everyone, young or old, with perfect or imperfect sight. When the sight is normal and continuously good, to try to stop the swing of a letter or other object necessitates a strain,—an effort which always lowers the vision and produces discomfort or pain in one or both eyes.

It has been repeatedly demonstrated that a letter or other object cannot be remembered or even imagined perfectly and continuously, unless one can imagine it to be moving or swinging. Not only does the sight become imperfect, but also the memory, imagination, judgment, and other mental processes are temporarily lost. These facts should be known to teachers, because they greatly affect the sight, the mental efficiency, and the scholarship of their pupils.

Variable Swing with finger to side of face. Move the head left and right and see the finger move opposite.

Variable Swing with finger in front, center of face, between the eyes, eye level.



Long Swing

Swing the body left and right. Head/face, eyes, body move together, at the same time, in the same direction.
See oppositional movement; objects in the visual field appear to move 'swing by' in the opposite direction.
Do not stop to look at the objects. Keep swinging, relax and let them move.

When the memory, imagination and vision are normal, the eyes, the brain and the entire nervous system are at rest. The reverse is also true, for when the muscles and nerves of the body are not at rest, the sight, memory and imagination are imperfect, and the mental efficiency is lessened or lost.

It is impossible to imagine pain, or any symptom of disease and the normal swing at the same time. Children with whooping cough have been immediately relieved by the relaxation obtained from the swing. Many patients suffering from severe attacks of bronchitis have been promptly relieved in the same way. Angina pectoris, pneumonia, trifacial neuralgia, and other serious diseases have also been relieved after relaxation or rest was obtained with the aid of the swing.

The swing is generally beneficial. Some patients obtain more relaxation from one type of swing than from another. The long swing, however, is most helpful in a great many cases.

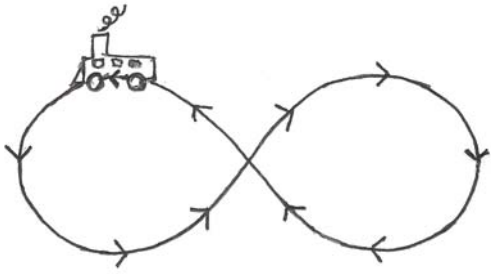
LONG SWING: Stand with the feet about one foot apart. Turn the body to the right, at the same time lifting the heel of the left foot. The head and eyes move with the movement of the body. Do not pay any attention to the apparent movement of stationary objects. Now place the left heel on the floor, turn the body to the left, raising the heel of the right foot. Alternate. Pain and fatigue are relieved promptly while practicing this swing. When done correctly, relief is felt in a short time. The long swing, when done before retiring, lessens eyestrain during sleep.

VARIABLE SWING: Hold the forefinger of one hand six inches from the right eye and about the same distance to the right. Look straight ahead and move the head a short distance from side to side. The finger appears to move in the direction opposite to the movement of the head and eyes.

DRIFTING SWING: The patient does not think of nor regard anything longer than a fraction of a second. It is helpful in doing this for the patient to imagine himself floating down a river. He may be able to imagine the drifting movement of the boat in which he is floating, better with the eyes closed than with them open. In this case, alternate the imagination with the eyes open and with them closed. The imagination may be improved in this way.

SHORT SWING: When the sight is normal, one can demonstrate the short swing. When it is imperfect, one can demonstrate only the longer swing. When a patient with imperfect sight regards the Snellen test card at ten or fifteen feet, he may be able to imagine one of the letters on the card to be swinging a quarter of an inch or less. The imagination of a shorter swing always improves the sight. Some patients can imagine the short swing better with their eyes closed than with them open. Alternate the imagination of the swing of the letter with the eyes closed and with them open. By repetition, the vision of the letter with the eyes open will improve (at first in flashes, later more continuously), if the memory of the short swing is perfect with the eyes closed.

UNIVERSAL SWING: When the eyes are at rest, they are always moving. When the body is at rest, it can always be imagined, one part in turn, to be moving or swinging. The chair, on which the patient is sitting, is swinging. The floor, on which the chair rests, is also swinging. The walls of the room also swing when the floor swings. When one part of the building swings, one can imagine the whole building to be swinging. The ground, on which the building stands, is also swinging. When the ground swings, other buildings connected with it swing. One can imagine the whole city to be swinging, this continent and all other continents on the earth can be imagined swinging. In short, one can imagine not only that the whole world is moving, but also the universe, including the sun, the moon and stars. The practice of the universal swing is of the greatest benefit, for in this way one can obtain the maximum amount of relaxation.



All objects appear to move, 'swing' in the opposite direction the eyes shift to. The Figure Eight shown on the right > is a new, improved version of a few different swings combined into one.

Trace up the center and to the left first for correct left and right brain hemisphere activation, integration.

THE VARIABLE SWING
Oppositional Movement
Conical Cornea Cured

Variable Swing with the finger in front of the face. Move the head left and right and see the finger move in the opposite direction.

Drifting Swing. Let the mind, eyes drift, shift freely from one thought, object to another. Relax.

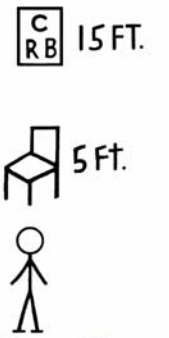
Shift left and right, top and bottom on a small letter and see it move 'swing' in the opposite direction. Practice with the eyes open, closed, open.

RECENTLY I have been impressed very much by the value of the variable swing. By the variable swing is meant the ability to imagine a near object with a longer swing than one more distant.

Example: To move the eyes, head, body left and right and imagine and see oppositional movement: close objects appear to move 'swing by' in the opposite direction to the movement of the eyes, head, body while distant objects, beyond the close object appear to move with the eyes, head, body in the same direction. The close and distant objects also appear to move against eachother in opposite directions. The close object shows the most movement. The distant object shows the least movement as long as the eyes do not lock onto any objects, at any distance while swinging side to side. This can be seen when doing the Sway or Long Swing, in front of two eyecharts or any stationary objects at close and far distances. A variety of examples for experiencing the variable swing are provided in Better Eyesight Magazines.

For example, a patient came to me with conical cornea, which is usually considered incurable. I placed a chair five feet away from her eyes, clearly on a line with the Snellen test card located 15 feet distant. When she looked at the Snellen test card and imagined the letters moving an inch or less (shifting on the letters) she could imagine the chair that she was not looking at moving quite a distance. As is well known the shorter the swing the better the sight. Some persons with unusually good vision have a swing so short that they do not readily recognize it. This patient was able to imagine the chair moving an inch or less and the card on the wall moving a shorter distance. She became able to imagine the chair moving a quarter of an inch

Treatment for conical cornea and unclear vision.



When looking at, shifting on the letters on the distant eyechart the chair and chart appear to move 'swing', in the opposite direction the eyes move to. The chair shows the most movement, more than the distant chart.

Practice relaxation and shorter shifting on small letters on the chart and see a shorter swing.

Rock the body left and right in front of the chair, chart and see the chair appear to move opposite the movement of the eyes/body and the chart appear to move with the eyes/body in the same direction.

and the movement of the Snellen test card at 15 feet was so short that she could not notice it. In the beginning her vision with glasses was poor and without glasses was double, and even the larger letters on the Snellen test card were very much blurred. Now, when she imagined the chair moving a quarter of an inch and the Snellen test card moving so short a distance that she could not recognize it, the conical cornea disappeared from both eyes and her vision became normal. To me it was one of the most remarkable things I have seen in years. I know of no other treatment that has ever brought about so great a benefit in so bad a case.

The variable swing is something that most people can learn how to practice at their first visit. Some people can do it better than others. The improvement depends directly upon their skill in practicing the variable swing.

The Baby Swing

YOUNG babies suffer very much from eyestrain. The tension of the eye muscles is always associated with the tension of all the other muscles of the body. Their restlessness can be explained by this tension. I was talking with an Italian mother in the clinic one day about restless children, and asked her why it was that her baby was always so quiet and comfortable when she came to the clinic, while many other babies at the same time were very restless and unhappy.

"Oh," she said, "I love my baby. I like to hold her in my arms and rock her until she smiles."

"Yes, I know," I said, "but that mother over there is rocking her baby in her arms, and the child is screaming its head off."

"Yes," exclaimed the Italian mother, "but see how she rocks it."

Then I noticed that the other mother threw the child from side to side in a horizontal direction with a rapid, jerky, irregular motion, and the more she jerked the child from side to side, the more restless did it become.

"Now, doctor," said the Italian mother, "you watch me."

I did watch her. Instead of throwing the child rapidly, irregularly, intermittently from side to side, she handled her baby as though it had much value in her eyes, and moved her not in straight lines from side to side, but continuously in slow, short, easy curves. The Italian mother picked up the other mother's child, and soon quieted it by the same swing.

I learned something that day.

#7 - MEMORY AND IMAGINATION

MENTAL PICTURES AN AID TO VISION

By W. H. Bates, M.D.

Shift part to part on the apple, seeing one small part clearest at a time. (Central fixation combined with shifting). See the swing - The apple moves in the opposite direction the eyes shift to. Remember, imagine the apple is clear with perfect color. Practice with the eyes open and in the imagination with the eyes closed.

WHEN an object is seen perfectly it is possible to form a perfect mental picture of it; when it is seen imperfectly this cannot be done. Persons with ordinarily good vision are able to form a perfect mental picture of some letter of the alphabet especially a letter of diamond type, when looking at the Snellen test card, or at fine print; but persons with ordinarily imperfect vision can do this only under certain favorable conditions, as with their eyes closed, or when looking at a blank surface where there is nothing particular to see. They may also be able to do it when looking at objects at a distance at which their vision is fairly good, as in the case of near objects in myopia. Persons with ordinarily good vision, on the other hand, have moments when they see imperfectly, and at such times their mental pictures are imperfect.

These facts are of the greatest practical importance, because many persons easily learn how to form mental pictures, and when they become able to do so under all conditions their sight becomes perfect.

Mental vision is subject to precisely the same laws as visual perception. The mental picture must be seen or imagined by central fixation; that is, one part of it at a time must be seen best, and the attention must shift continually from one point to another. This shifting of attention produces a swing which is even more pronounced than the visual swing. (The swing, opposite movement of the object the eyes are shifting on in the mind, imagination with the eyes closed is more pronounced than when shifting on a real object with the eyes open.) Furthermore, the mind adds details that do not exist in the object remembered or imagined. If this object is a black letter on a white background, for instance, the white openings and margins will appear more intense than the reality.

It is not possible to retain a mental picture of a letter *o* of diamond type when one tries to think of one point continuously. The point may be remembered for a brief interval—a few seconds or part of a minute; then it is lost and with it the whole letter. One cannot, in short, "stare" at a point with the imagination any more than one can stare with the eye, and if one tries to do so the point disappears. If one tries to think continuously of two points of the letter, imagining them

both to be equally black at the same time, the picture is lost more quickly. To think of four points or more, or to think of the whole letter perfectly black at the same time, is still more difficult.

Mental pictures cannot be retained for any length of time unless they appear to move. This movement may be so slight and easy that it is not observed until the attention is called to it, and even then it may not be realized. Some patients have told me that they could remember small letters of diamond type easily and continuously, and that they were not moving. Usually the patient can demonstrate the facts by trying to think of one part of the letter as stationary. In this case it immediately disappears. But the effort to keep the attention fixed on a point is so great that some patients cannot or will not make it. It is easier to let the attention shift naturally. In such cases I direct them to look at the letter *o* so close to their eyes, or so far away, that they are unable to see it clearly, and call their attention to the fact that now it seems to be stationary. Then I have them look at the letter at the distance at which they see it perfectly and ask them to imagine it stationary, as the letter at the preceding distance seemed to be. Usually they are able to do this, and to note that the letter blurs or disappears. After they become able to imagine that a letter which they see is stationary, they become able also to imagine that their mental picture of it is stationary, and to note that it cannot be held more than a moment under these conditions.

To imagine that other things seem to be moving helps some people to form and retain mental pictures. One patient, whose mental pictures were very poor, became able, when walking around the room and imagining things moving in the opposite direction, to imagine that a letter "o" was moving in the same direction as the furniture.

A mental picture need not be a complicated one. The perfect memory or imagination of even a small spot of color is sufficient to cure all errors of refraction—nearsight, farsight, and astigmatism—as well as many other abnormal conditions. But to form a perfect mental picture of a spot of color—say a black period—is not always easy. One may think one is imagining a black period perfectly, but when one compares one's mental picture with the reality, one usually finds that the former is several degrees paler than the latter. It is usually easier to form mental pictures with the eyes closed than with the eyes open, and by imagining a period, or other object, with the eyes closed and open alternately one can improve one's ability to imagine it under the latter condition. In a few exceptional cases, however, mental pictures are better and are more easily held with the eyes open than when they are closed.

When the sight is imperfect it is always easier to hold a mental picture when looking at nothing in particular than when looking at letters or other objects at distances at which they cannot be seen distinctly. To improve the ability to hold them under the latter conditions it is necessary, alternately, to imagine the object with the eyes closed, or looking away from the Snellen test card or printed page, and then to look back at the Snellen test card or reading matter.

Persons unable to imagine a period or letter may succeed with other objects. For example, one patient who could not imagine a white card with black letters on it which she had just seen in her hand was able, with her eyes closed, to imagine the color of her house, one part best, and the different objects—curtains, furniture, etc.—in the different rooms. She was able to see the lawn, the flower-bed, the numerous flowers, one part best, and to imagine the color of the eyes of her friends. After that she became able to imagine the white card with the black letters.

Persons who suffer from pain, fatigue, or other discomfort to their eyes, have great difficulty in forming mental pictures. Such persons, although they cannot remember a letter or other objects, are often able to remember the movement of a card held in the hand. If they cannot do this at first, they may become able to do it by alternately looking at the card and then closing their eyes and trying to recall the movement. When they become able to do this the pain stops and the sight becomes temporarily normal.

Most people are helped by learning how to fail. When they demonstrate that their sight is lowered by an imperfect mental picture, they become able to avoid such pictures. A patient with squint was cured when she learned to imagine double images. At first, with her eyes open, she could not imagine them more than two inches apart, Later, with her eyes open, she got them four feet apart, while, with her eyes closed, she could imagine one Snellen test card on one side of a bay five miles wide and another on the other. These images could be imagined either crossed or homonymous at will; that is, each eye sometimes seemed to see the image on its own side, and at other times the image seemed to be on the opposite side. When the images were homonymous the eyes turned in, and when they were crossed the eyes turned out, By means of this practice the patient gained such a degree of mental control that her eyes became almost continually straight, the slight occasional deviation not being noticeable.

HOW TO OBTAIN MENTAL PICTURES

Quick Distant Vision Improvement Activity

+ Look at a letter on the Snellen test card.
+ Remember its blackness.
+ Shift the attention from one part of this spot of black to another. It should appear to move in a direction contrary to the imagined movement.
+ If it does not, try to imagine it stationary. If you succeed in doing this it will blur, or disappear. Having demonstrated that it is impossible to imagine the spot stationary, it may become possible to imagine it moving.
+ Having become able to form a mental picture of a black spot with the eyes closed, try to do the same with the eyes open. Alternate until the mental vision with the eyes closed and open is the same.
+ Having become able to imagine a black spot try to imagine the letter *o* in diamond type with the center as white as snow. Do this alternately with eyes closed and open.
+ If you cannot hold the picture of a letter or period, commit to memory a number of letters on the test card and recite them to yourself while imagining that the card is moving.
+ If some other color or object is easier to imagine than a black spot it will serve the purpose equally well.
+ A few exceptional people may get better results with the eyes open than when they are closed.

Memory and Imagination

A perfect memory and perfect imagination cures myopia under favorable conditions. Patients who have a good memory of mental pictures have no myopia when the mental pictures are remembered or imagined perfectly. There are near-sighted people who, after a course of eye education, can look at a Snellen test card at ten feet or further and remember or imagine the white part of the card perfectly white and the black letters perfectly black. When this is accomplished, the myopia improves.

When school children regard the blackboard, they often half-close their eyelids, or stare and strain to see and thus produce myopia. When they can remember a mental picture of some small letter, and remember it as well with the eyes open as with the eyes closed, normal vision and a temporary cure of their myopia is obtained.

In myopia and other phases of imperfect sight, the white centers of all letters are imagined less white than the rest of the card. When the patient becomes able to imagine the white centers with a white background to be whiter than the rest of the card, the vision is improved and there is no myopia.

MEMORY AND IMAGINATION. The scholarship of children is affected by their memory of mental pictures. Measures which have been practiced by many school teachers for the preservation or the improvement of memory are quite numerous. When children learn how to remember some things perfectly, the memory of other things is improved. With a perfect memory, it is also possible to have a perfect imagination. We see only what we think we see, or what we imagine. When the imagination is perfect, the sight is perfect and when the sight is perfect, the memory is perfect. These and other clinical observations have demonstrated the truth that sight is largely mental. Perfect sight or imperfect sight is due to the condition of the mind. When the mind is healthy and active, perfect memory can usually be demonstrated, but when the mind has lost its efficiency, the memory becomes impaired. The memory is benefited by those methods which bring rest and relaxation. With the eyes closed, the memory is usually better than it is with the eyes open.

After regarding a letter which is seen imperfectly at a distance of ten feet or nearer, the student can remember the same letter more perfectly by closing his eyes. When the child can remember a perfect letter at ten feet with the eyes open, he soon becomes able to see and remember the same letter at eleven feet, and can gradually increase the distance to fifteen or twenty feet. Practicing the sway, alternately with the eyes open and with the eyes closed, is a benefit to the memory and the sight, because when the eyes are moving, a stare, strain or effort to see is more or less prevented.

When a line of letters on a Snellen test card can be read easily, it is usually possible to read some of the letters on the line below. However, if this cannot be done, have the child come closer, until all the letters of the bottom line are seen at a distance of five or ten feet. When a child cannot read all the letters on the 10 line at ten feet, he may be able to remember or imagine all the letters of the 10 line, with the eyes closed, better than with them open. By alternately closing the eyes for part of a minute or longer, and then opening them for only a moment, the vision improves.

A child may be able to see the first letter on the bottom line of the card when he is told what the letter is. Although he may not know what the second or third letters are, he may be able to actually see them and other letters on the bottom line by improving the vision of the first letter so that it is imagined perfectly. When the memory and imagination of the first letter is quite perfect, or sufficiently perfect to be distinguished, the eye becomes normal and the other letters are really

seen and not imagined.

A child, at some previous time, may have had an inflammation or disease of the eyeball, which caused his imperfect sight. For example, a scar, sufficiently thick to interfere materially with the vision, may have formed over the front part of the eyeball. A perfect memory or imagination of a letter with the eyes closed, always lessens the opacity, and the vision is always improved, at least temporarily. By repetition, the short periods of improved vision occur more frequently and last more continuously.

The imagination is very important, much more so than many of us believe. Some people think imagination is simply another word for illusion. However, it is possible to imagine correctly as well as to imagine incorrectly. Some people can imagine a truth perfectly, but react differently when they imagine things imperfectly.

A girl, twelve years of age, had unusually good vision. She was able to read the 10 line of a strange card, which she had never seen before, at fifty feet. She said that she could look directly at one letter of the 10 line and see it continuously, but when her eyes were observed while she was doing this, it was found that she shifted almost continuously.

Her memory was also unusually good. She was the only member of the party who could remember the names of the officers on the different steamers on which she had traveled to Europe. She remembered the numbers of her staterooms, as well as the numbers of the staterooms of the other members of the party. However, when she imagined all these things incorrectly, she felt decidedly uncomfortable, but when she remembered to imagined things perfectly, she felt no discomfort.

At school, her teachers considered her stupid, because she disliked some of her studies and devoted no time to those lessons. Her poor scholarship disappointed her family very much. She was very unhappy and decided to prove what she could do. About a week before the examinations, she read through her Latin textbook and remembered it perfectly. She also read her other textbooks and remembered what they contained. She asked to be examined in all her subjects and much to the surprise of the teachers, she passed the examinations with unusually high honors.

A student obtained high grades in history by creating movie pictures in his mind of every story, event he read in his history book.

He stole the history book for the next school year, read it during summer vacation (without pressure from teachers to hurry and get a perfect grade). In September he entered that class and earned all A's on his history papers.

+Memory.—When the sight is normal the mind is always perfectly at rest, and when the memory is perfect the mind is also at rest. Therefore it is possible to improve the sight by the use of the memory. Anything the patient finds is agreeable to remember is a rest to the mind, but for purposes of practice a small black object, such as a period or a letter of diamond type, is usually most convenient. The most favorable condition for the exercise of the memory is, usually, with the eyes closed and covered, but by practice it becomes possible to remember equally well with the eyes open.

When patients are able, with their eyes closed and covered, to remember perfectly a letter of diamond type, it appears, just as it would if they were looking at it with the bodily eyes, to have a slight movement, while the openings appear whiter than the rest of the background. If they are not able to remember it, they are told to shift consciously from one side of the letter to another and to consciously imagine the opening whiter than the rest of the background. When they do this, the letter usually appears to move in a direction contrary to that of the imagined movement of the eye, and they are able to remember it indefinitely. If, on the contrary, they try to fix the attention on one part of the letter, or to think of two or more parts at one time, it soon disappears, demonstrating that it is impossible to think of one point continuously, or to think of two or more points perfectly at one time, just as it is impossible to look at a point continuously, or to see two points perfectly at the same time. Persons with no visual memory are always under a great strain and often suffer from pain and fatigue with no apparent cause. As soon as they become able to form mental pictures, either with the eyes closed or open, their pain and fatigue are relieved.

+Imagination.—Imagination is closely allied to memory, for we can imagine only as well as we remember, and in the treatment of imperfect sight the two can scarcely be separated. Vision is largely a matter of imagination and memory. And since both imagination and memory are impossible without perfect relaxation, the cultivation of these faculties not only improves the interpretation of the pictures on the retina but improves the pictures themselves. When you imagine that you see a letter on the test card, you actually do see it because it is impossible to relax and imagine the letter perfectly and, at the same time, strain and see it imperfectly. The following method of using the imagination has produced quick results in many cases: The patient is asked to look at the largest letter on the test card at the near point, and is usually able to observe that a small area, about a square inch, appears blacker than the rest, and that when the part of the letter seen worst is covered, part of the exposed area seems blacker than the remainder. When the part seen worst is again covered, the area at maximum blackness is still further reduced. When the part seen best has been reduced to about the size of a letter on the bottom line, the patient is asked to imagine that such a letter occupies this area and is blacker than the rest of the letter. Then he is asked to look at a letter on the bottom line and imagine that it is blacker than the largest letter. Many are able to do this and at once become able to see the letters on the bottom line.

+Flashing.—Since it is effort that spoils the sight, many persons with imperfect sight are able, after a period of rest, to look at an object for a fraction of a second. If the eyes are closed before the habit of strain reasserts itself, permanent relaxation is sometimes very quickly obtained. This practice I have called *flashing*, and many persons are helped by it who are unable to improve their sight by other means. The eyes are rested for a few minutes, by closing or palming, and then a

letter on the test card, or a letter of diamond type, if the trouble is with near vision, is regarded for a fraction of a second. Then the eyes are immediately closed and the process repeated.

+Reading Familiar Letters.—The eye always strains to see unfamiliar objects, and is always relaxed to a greater or lesser degree by looking at familiar objects. Therefore, the reading every day of small familiar letters at the greatest distance at which they can be seen, is a rest to the eye and is sufficient to cure children under twelve who have not worn glasses as well as some older children and adults with minor defects of vision.
In the treatment of imperfect sight these fundamental principles are to a great extent interdependent. They cannot be separated as in the above article. It is impossible, for instance, to produce the illusion of a swing unless one possesses a certain degree of central fixation. That is, one must be able to shift from one point to another and see the point shifted from less distinctly than the one directly regarded. Successful palming is impossible without mental shifting and swinging and the use of the memory and imagination.

HOW TO IMPROVE THE SIGHT BY MEANS OF THE IMAGINATION: No. 2

Imagine parts of a letter correct/clear to see a letter clear.

In a recent issue directions were given for improving the vision by the aid of the imagination.

+ According to this method the patient ascertains what a letter is by imagining each of the four sides to be straight, curved, or open, and noting the effect of each guess upon the imagined swing of the letter.

+ Another method which has succeeded even better with many patients is to judge the correctness of the guess by observing its effect on the appearance of the letter:

+ Look at a letter which can be seen only as a gray spot, and imagine the top is straight. If the guess is right, the spot will probably become blacker; if it is wrong, the spot may become fainter or disappear.
+If no difference is apparent, rest the eyes by looking away, closing, or palming, and try again.

In many cases, when one side has been imagined correctly, the whole letter will come out.
+ If it does not, proceed to imagine the other sides as directed above.
+ If, when all four sides have been imagined correctly a letter does not come out, palm and repeat.

One can even bring out a letter that one cannot see at all in this way.
+Look at a line of letters which cannot be seen, and imagine the top of the first letter to be straight. If the guess is correct, the line may become apparent, and by continued practice the letter may come out clearly enough to be distinguished.

THE MEMORY CURE

When the sight is perfect, the memory is also perfect, because the mind is perfectly relaxed. Therefore the sight may be improved by any method that improves the memory. The easiest thing to remember is a small black spot of no particular size and form; but when the sight is imperfect it will be found impossible to remember it with the eyes open and looking at letters, or other objects with definite outlines. It may, however, be remembered for a few seconds or longer, when the eyes are closed and covered, or when looking at a blank surface where there is nothing particular to see. By cultivating the memory under these favorable conditions, it gradually becomes possible to retain it under unfavorable ones, that is, when the eyes are open and the mind conscious of the impressions of sight. By alternately remembering the period with the eyes closed and covered and then looking at the Snellen test card, or other letters or objects; or by remembering it when looking away from the card where there is nothing particular to see, and then looking back; the patient becomes able, in a longer or shorter time, to retain the memory when looking at the card, and thus becomes able to read the letters with normal vision. Many children have been cured very quickly by this method. Adults who have worn glasses have greater difficulty. Even under favorable conditions, the period cannot be remembered for more than a few seconds, unless one shifts from one part of it to another. One can also shift from one period, or other small black object, to another.

Remember, imagine and shift on a small black dot with the eyes closed. With practice it can also be remembered with the eyes open and the vision becomes clear.

MEMORY AND IMAGINATION: A perfect memory is a great benefit in obtaining perfect relaxation of the eyes as well as all the nerves of the body. One cannot remember a letter or other object perfectly unless it has been seen perfectly. When the memory is perfect, the imagination may also be perfect. Some people with a good imagination find it easier to imagine a letter or other object perfectly when they do not expend an effort in trying to see it. Knowing what the letter is, with the aid of the imagination, one becomes able to imagine that it is seen perfectly. (Familiar objects, Eyechart)

It is well to keep in mind that many patients believe that they see large letters perfectly when they do not and they can

be tested by bringing the card up close to the eyes. The vision should be just as good at fifteen feet as it is at one foot. By improving the memory and imagination one improves the vision.

MENTAL PICTURES: The mind is capable of imagining all kinds of mental pictures. When the mind is at rest and the memory and imagination are perfect, all kinds of mental pictures are produced. When the mind is under a strain, the memory and imagination are imperfect and mental pictures are indistinct and cannot be remembered for any length of time. Central fixation when properly imagined is very helpful. With its aid a perfect mental picture may be obtained easily. When a mental picture is remembered easily and perfectly, the vision is benefited. Shift on the mental pictures. Imagine them as a movie, a motion, active picture in the mind.

Demonstrate

That memory and Imagination improve the vision.

Open - 'Flash' shift on the letter for a second or less, 'fraction of a second'.

+Look at the large letter at the top of the card and note that it may be more or less blurred.

+Close the eyes and remember or imagine the same letter perfectly.

+Then open both eyes and imagine it as well as you can.

+In a second or less, close your eyes and remember the letter perfectly.

Closed - Shift on the letter in the imagination, part of a minute, 10-30 seconds.

+When this is accomplished open the eyes and imagine it as well as you can.

+Close them quickly after a second or less.

+Practice the slow, short, easy swing and alternately remember the large letter with the eyes closed for part of a minute or longer, and then open the eyes and imagine it as well as you can.

Open - 'Flash' shift on the letter for a second or less, 'fraction of a second'. Repeat.

+When done properly, you will be able to improve your vision of the large letter until it becomes quite perfect.

+Then practice in the same way with the first letter of the second line.

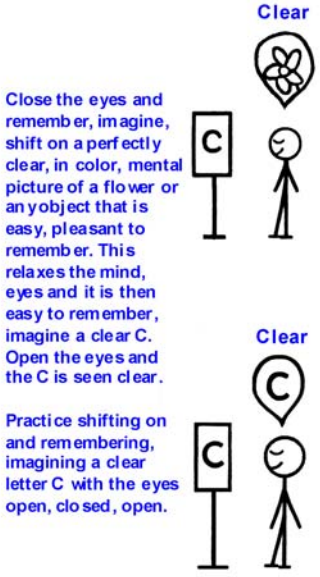
+Improve your imagination of the first letter of the second line in flashes, until it improves sufficiently for you to recognize the next letter without looking at it.

+Improve the sight of the first letter of each line by alternately remembering it with the eyes closed for part of a minute and then flashing it (looking at/shifting on it) for just a moment, a second or less.

You should be told what the first letter of each line is. With your eyes closed remember it as perfectly as you can. Then open your eyes and test your imagination for the letter for a very short time, one second or even less. Keep your eyes closed for at least a part of a minute, while remembering the known letter.

The flashes of the known letter with the eyes open become more frequent and last longer, until you become able to see, not only the known letter, but other unknown letters on the same line.

Mental Pictures



MANY patients with imperfect sight complain that when they close their eyes to remember a white card with black letters, they usually fail and remember instead a black card with white letters. The vision of these patients is very much improved when they become able to remember a white card white, with the black letters remembered perfectly black. Imperfect memory, imperfect imagination, imperfect sight are all caused by strain.

One patient could not remember a white pillow, but by first regarding the pillow and seeing one corner best and all the other corners worse and shifting from one comer to another he became able, when closing his eyes, to remember one comer in turn best, and obtained a good mental picture of the whole pillow. One cannot see a pillow perfectly without Central Fixation. To have Central Fixation requires relaxation or rest. One patient who could not remember a large letter C of the Snellen Test Card, with the eyes closed, was able to remember the colors of some flowers, and then he was able to remember a letter C. In order to remember a desired mental picture one should remember perfectly some other things. This is a relaxation which helps to remember the mental picture desired. It is well to keep in mind that one cannot remember one thing

perfectly and something else imperfectly at the same time.

In my book is described the case of a woman with imperfect sight who could remember a yellow buttercup with the eyes closed, perfectly, but with her eyes open and regarding the Snellen Card with imperfect sight, she had no memory of the yellow buttercup.

Memory

***By* W. H. BATES, M.D.**

When the sight is normal, the memory is perfect. The color and background of the letters or other objects seen, are remembered perfectly, instantaneously, and continuously.

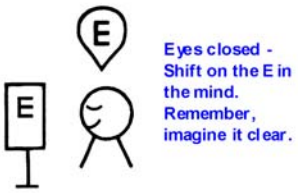
ONE of the quickest cures of imperfect sight has been gained through the use of the memory. When the memory is perfect, the eyes at once become normal with normal vision. A perfect memory changes the elongated eyeball of myopia into the shorter length of the normal eye. No matter how high a degree of myopia one may have, when he has a perfect memory of some one thing, he is no longer myopic, but has normal eyes with normal vision.

An imperfect memory or an imperfect imagination may produce organic changes in the eyeball. The organic changes, which are present in many diseases of the eye, have been relieved with the aid of a perfect memory. In some cases the vision has been reduced to perception of light from scars on the front part of the eyeball. Perfect memory brings about the absorption of such opacities. A perfect memory has cured these obstinate cases.

Conical cornea is a very serious disease. Neither operation nor the use of drugs relieves or cures it. A perfect memory gives instant relief, the curvature of the cornea becomes normal, and the patient obtains normal vision.

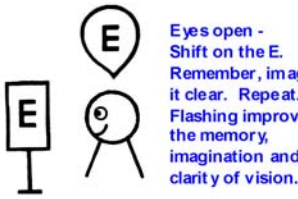
Glaucoma has been referred to as a very treacherous disease of the eye, because symptoms of blindness may become apparent at unexpected moments. The pain of glaucoma may be very severe. In most cases, the eyeball becomes very hard. The vision fails in a few hours, and all perception of light may be lost. These very severe cases are usually not benefited by operation nor drugs. The practice of a perfect memory has relieved all the disagreeable symptoms, and the vision has returned to normal.

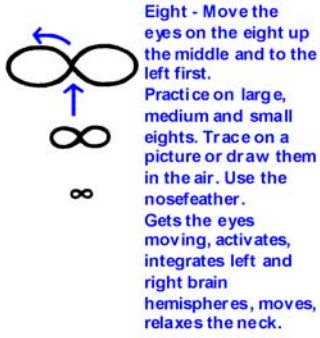
There are patients who suffer from paralysis of one or more of the nerves connected with the eye. By resting the nerves or the muscles to bring about a condition of relaxation, which is best obtained by a perfect memory, the symptoms of paralysis are relieved. Paralysis of the nerves of the eye is caused by too great activity and is relieved by relaxation.



When one of the eyes has been injured or has a foreign body in the inside of the eyeball, the good eye may become affected and, in rare cases, may even be lost before the eye that has been injured is lost. This is called sympathetic ophthalmia. Through the use of the perfect memory, these cases, although of many years' duration, have been benefited and normal vision obtained. To be able to demonstrate a perfect memory habitually or unconsciously, it is necessary first to consciously remember with the eyes closed or open one thing perfectly, until an unconscious habit is formed.

A person can remember what his own name is without having a mental picture of each letter of the name. This is an example of what is known as an abstract memory. A concrete memory is a more perfect memory, because one remembers a mental picture of the object with the eyes closed, as well or better, than he can see it with the eyes open. One can remember perfectly only that which is seen perfectly. When a letter is seen perfectly, the whiteness of the card or page in the neighbor-hood of the black letter is imagined whiter than the rest of the card or page, or that part in which there are no black letters. The whiter that one can imagine the white in the neighborhood of a letter, or inside of the letter, enables one to see the blackness of the letter blacker than before. In other cases, where the whiteness in the neighborhood of the letter is apparently of the same whiteness as the rest of the card, the memory or the imagination of the black letter is imperfect.





Mental pictures are imagined perfectly when the memory is perfect. A great many patients complain that they are unable to remember mental pictures of the letters of the Snellen test card. They can remember what the letters are but have no mental pictures of them. To obtain perfect mental pictures, it is necessary that the sight should be continuously good. Most people, when they fail to imagine mental pictures, try to remember too much at once. When remembering a letter, it is not necessary to recall all parts of the letter. The memory of the color or one small portion of the letter is sufficient. The smaller the part of a black letter that you remember, the blacker it is, and the easier it is to recall. It should be emphasized that when one has a perfect

memory, central fixation can always be demonstrated. When central fixation is absent, the memory of the letter, as well as the imagination or the sight, is always imperfect. One can regard a point or a small part of a letter by central fixation for only a short time, not longer than a few seconds, without the memory becoming imperfect. Shifting is necessary to maintain a perfect memory, which is continuous. In other words, when practicing central fixation, the point regarded changes frequently.
Shift from part to part on the letter and the memory, mental and visual picture of the letter is clear.

After a demonstration that central fixation is necessary for a perfect memory, one patient became able to imagine, with his eyes closed, a small letter "O" with a white center as white as snow, starch, or any other white object that he had ever seen. He had no trouble in doing this. He said that he could remember it easily and quite continuously. Then I requested him to remember an imperfect "O," which was a shade of light gray instead of black. It had no white center, but was covered with a blur or a fog. He was able to remember it quickly, easily, for a few seconds, but when he was requested to remember the imperfect "O" for a minute or longer, the gray shade became darker and, at times, lighter, and the memory of the imperfect "O" became very difficult. In spite of all the efforts he made, he was unable to remember the "O" continuously. In strong contrast to the memory of the perfect "O" the memory or the imagination of the imperfect "O" was difficult. He agreed with me when I told him that in order to fail to see perfectly, he had to stare, strain, and make a tremendous effort. On the other hand, the memory or the imagination of the perfect "O" was spontaneous, easy, and continuous, and he experienced a feeling of general comfort in all his nerves. He was able to demonstrate that he could remember the perfect "O," provided he imagined it was moving, and that he could not remember it when he tried to imagine it stationary.
O is moving = The eyes are moving, shifting on the O.

Flashing is a great help in improving mental pictures. With the eyes open, one may see a letter quite perfectly and have a mental picture of that letter with the eyes closed for a fraction of a second. By repeatedly flashing the letter in this way, the mental picture becomes more frequent and lasts longer. When the sight becomes more continuously good, the memory is also benefited, and with this improvement in the memory, the mental pictures become more perfect. The converse is also true. When the memory is improved, the sight is improved. You cannot have a perfect memory by any effort or strain. The more perfect your memory, the greater is your relaxation, and the more perfect is your sight.
Memory, imagination, relaxation, clarity of vision function together, strengthen, improve eachother.
Practice on eyechart letters and any objects at close, middle, far distances.

Memory and Imagination

A perfect memory and perfect imagination cures myopia under favorable conditions. Patients who have a good memory of mental pictures have no myopia when the mental pictures are remembered or imagined perfectly. There are near-sighted people who, after a course of eye education, can look at a Snellen test card at ten feet or further and remember or imagine the white part of the card perfectly white and the black letters perfectly black. When this is accomplished, the myopia improves.

When school children regard the blackboard, they often half-close their eyelids, or stare and strain to see and thus produce myopia. When they can remember a mental picture of some small letter, and remember it as well with the eyes open as with the eyes closed, normal vision and a temporary cure of their myopia is obtained.

In myopia and other phases of imperfect sight, the white centers of all letters are imagined less white than the rest of the card. When the patient becomes able to imagine the white centers with a white background to be whiter than the rest of the card, the vision is improved and there is no myopia.

MEMORY AND IMAGINATION. The scholarship of children is affected by their memory of mental pictures. Measures which have been practiced by many school teachers for the preservation or the improvement of memory are quite numerous. When children learn how to remember some things perfectly, the memory of other things is improved. With a perfect memory, it is also possible to have a perfect imagination. We see only what we think we see, or what we imagine. When the imagination is perfect, the sight is perfect and when the sight is perfect, the memory is perfect. These and other clinical observations have demonstrated the truth that sight is largely mental. Perfect sight or imperfect sight is due to the condition of the mind. When the mind is healthy and active, perfect memory can usually be demonstrated, but when the mind has lost its efficiency, the memory becomes impaired. The memory is benefited by those methods which bring rest and relaxation. With the eyes closed, the memory is usually better than it is with the eyes open.

After regarding a letter which is seen imperfectly at a distance of ten feet or nearer, the student can remember the same letter more perfectly by closing his eyes. When the child can remember a perfect letter at ten feet with the eyes open, he soon becomes able to see and

Look at, shift on a unclear letter on the eyechart. Close the eyes and shift on the letter in the mind and remember, imagine it clear.
Open the eyes, shift on the letter, close the eyes and repeat.
When the letter is clear, practice at farther distances.
Do the reverse for close vision improvement.

remember the same letter at eleven feet, and can gradually increase the distance to fifteen or twenty feet. Practicing the sway, alternately with the eyes open and with the eyes closed, is a benefit to the memory and the sight, because when the eyes are moving, a stare, strain or effort to see is more or less prevented.

When a line of letters on a Snellen test card can be read easily, it is usually possible to read some of the letters on the line below. However, if this cannot be done, have the child come closer, until all the letters of the bottom line are seen at a distance of five or ten feet. When a child cannot read all the letters on the 10 line at ten feet, he may be able to remember or imagine all the letters of the 10 line, with the eyes closed, better than with them open. By alternately closing the eyes for part of a minute or longer, and then opening them for only a moment, the vision improves.

A child may be able to see the first letter on the bottom line of the card when he is told what the letter is. Although he may not know what the second or third letters are, he may be able to actually see them and other letters on the bottom line by improving the vision of the first letter so that it is imagined perfectly. When the memory and imagination of the first letter is quite perfect, or sufficiently perfect to be distinguished, the eye becomes normal and the other letters are really seen and not imagined.

A child, at some previous time, may have had an inflammation or disease of the eyeball, which caused his imperfect sight. For example, a scar, sufficiently thick to interfere materially with the vision, may have formed over the front part of the eyeball. A perfect memory or imagination of a letter with the eyes closed, always lessens the opacity, and the vision is always improved, at least temporarily. By repetition, the short periods of improved vision occur more frequently and last more continuously.

The imagination is very important, much more so than many of us believe. Some people think imagination is simply another word for illusion. However, it is possible to imagine correctly as well as to imagine incorrectly. Some people can imagine a truth perfectly, but react differently when they imagine things imperfectly.

A girl, twelve years of age, had unusually good vision. She was able to read the 10 line of a strange card, which she had never seen before, at fifty feet. She said that she could look directly at one letter of the 10 line and see it continuously, but when her eyes were observed while she was doing this, it was found that she shifted almost continuously.

Her memory was also unusually good. She was the only member of the party who could remember the names of the officers on the different steamers on which she had traveled to Europe. She remembered the numbers of her staterooms, as well as the numbers of the staterooms of the other members of the party. However, when she imagined all these things incorrectly, she felt decidedly uncomfortable, but when she remembered to imagined things perfectly, she felt no discomfort.

At school, her teachers considered her stupid, because she disliked some of her studies and devoted no time to those lessons. Her poor scholarship disappointed her family very much. She was very unhappy and decided to prove what she could do. About a week before the examinations, she read through her Latin textbook and remembered it perfectly. She also read her other textbooks and remembered what they contained. She asked to be examined in all her subjects and much to the surprise of the teachers, she passed the examinations with unusually high honors.

A student obtained high grades in history by creating movie pictures in his mind of every story, event he read in his history book.
He stole the history book for the next school year, read it during summer vacation (without pressure from teachers to hurry and get a perfect grade). In September he entered that class and earned all A's on his history papers.

Esther

Esther, aged seven, first came to me in January, 1927, to be relieved of squint. She had worn glasses since she was three years of age for the relief of squint in the right eye. Her parents noticed, after she had worn glasses a short time, that she was more nervous than before. Later, they were much concerned because she acquired bad habits, such as holding her head to one side instead of straight, especially while studying and reading her school lessons. Her glasses were then changed. It was thought that wrong glasses had been prescribed because she still kept her head to one side as before, and her nervousness became more pronounced. The parents were told that in time the squint would be corrected if Esther wore her glasses all the time.

The squint continued to get worse instead of better, so the parents brought her to me. The vision of her right eye was 10/15, but in order to read the letters of the test card, she had to turn her head so that it almost rested on her right shoulder. Her left vision was 15/15 and she read the letters of the card in a normal position. I tested her right eye again, placing the card up close. She turned her head just as much to one side as she did when the card was placed ten feet away. I asked her mother to hold the child's head straight, and again told Esther to tell me what the letters were. I held the test card two feet away while she covered her left eye. She said everything was all dark, and she could see nothing.

It did not take me long to find out that Esther was a bright child, and that she would willingly do anything for the benefit of her poor eye. She said to me, "It is too bad that my sister should have two good eyes and that I should have only one good one." I encouraged her to follow my directions closely and I told her if she continued to do so and practiced as often as she should at home, that we would then try to correct the vision of the poor eye.

Left eye covered. Using the right (squint) eye. Mom touches a familiar toy and the girl names it.

Palming, Memory, Imagination

I found her to be quite an artist. When her eyes were covered, I asked her if she could remember a drawing of some kind. "Oh, yes," she answered, "while my eyes are closed and covered I can imagine that I am drawing your picture."

I said, "All right, you keep on imagining that you are drawing my picture and later on I will let you sit at my desk and draw a picture of me." We talked about pleasant things for five or ten minutes while she had her eyes covered.

Long Swing

I then taught her to swing her body from left to right, glancing for only a second at the test card, and then looking away to her left. I purposely avoided having her swing to the right, because she had the desire, while reading or trying to see more clearly to always rest her head on the right shoulder. I drew her mother's attention to the fact that, as she swung, both eyes moved in the same direction as her body was moving. When she stopped blinking, which I had encouraged her to do rhythmically with the swing, her right eye turned in and her head also turned to one side.

After she had practiced swinging for a little while, I noticed that she gaped a few times, which meant that she was straining. It is good for parents to notice this, in helping the child practice for the relief of squint, and to stop all practice with the exception of closing the eyes to rest them.

When practicing the Long Swing for the first few times, for some people with squint, (wandering/crossed eyes) the eye may wander, cross. This occurs due to the Long Swings function of removing different types, multiple layers of strain from the mind, eyes, eye muscles and correcting left and right brain hemisphere function, integration and eye movement. A negative thought, emotion, experience may have initially caused the first strain, slight blur, then the person worries about the blur, starts squinting, staring and this causes a additional, different strain: worry, eye muscle, eyestrain. Blur is increased, wandering/crossed eye occurs or increases and more worry, strain, staring, squinting and trying to force the eye straight occurs=a third type of strain.

The Long swing and other Bates activities will remove all these strains and reverse the condition back to normal - straight eyes, clear vision.

Esther palmed again for a little while and then I showed her some celluloid toy animals and asked her to name each one of them. She named each one correctly with the exception of the buffalo, so I did not use that one for her case. If a child under treatment for squint is asked to tell things in detail, the child must be familiar with the objects. While she again covered her eyes to rest them, I placed animals on the floor five feet away from where she was sitting. I told her mother to touch each animal and have Esther name them. Out of eight animals, she named three incorrectly. They were among the last ones she tried to see. We then noticed that her head turned to one side in order to see them. All this time her left eye was covered.

Then I had Esther sit at my desk and asked her to draw my picture. The drawing was quite well done for a little girl of her age. She kept her head straight while drawing. When strain is relieved, the symptoms of imperfect sight are relieved also. She enjoyed drawing, therefore it did not produce a strain. When she was asked to read the test card letters, she strained in order to see them and the condition of her eyes became worse.

Esther was encouraged to do something that she liked at every treatment, such as writing figures from one to ten, or drawing a line without using a ruler. At the first attempt, the lines were very crooked and the figures not straight.

Swinging and palming, practiced several times daily, soon improved the right eye to normal. At the last visit, her head remained straight and the squint had entirely disappeared.

The vision of her right eye became better than normal, as far as reading the test card was concerned. She read the bottom line at twelve feet and seven inches. This line is read by the normal eye at nine feet. She did equally as well with the left eye, which, of course, had normal vision in the beginning.

To be sure that the child was entirely relieved of squint, I told her to look at my right eye, then at my left eye, then to my chin and other parts of my face as I pointed with my finger to each part. She followed me with both eyes moving and her head perfectly straight and as yet she has had no relapse.

IMAGINATION: Another method is to improve the vision by a perfect imagination. If the patient is unable to see the letters on a certain line, he is told what the first letter is and is directed to close his eyes and imagine that letter as perfectly as he can, and then alternate by imagining it as perfectly as he can with his eyes open. When the letter is imagined perfectly enough, other letters on that line when regarded are seen and not imagined.

It is very evident that one cannot imagine unknown letters. Therefore, if the vision improves by the use of the imagination, unknown letters when regarded are seen and not imagined. It has been repeatedly demonstrated that an opacity of the cornea which may be so dense that the pupil or iris are not seen, will clear up in some cases after the alternate imagination of a known letter or a known object is practiced with the eyes open and closed. When opacity of the lens is examined with the aid of the ophthalmoscope, the opacity becomes increased when the patient remembers imperfect sight. The memory of imperfect sight causes a contraction of the muscles on the outside of the eyeball, which in turn produces imperfect sight, cataract, cornea scar…

Shift dot to dot on the E seeing one dot clearest at a time in the center of the visual field.

The bird is seen clear by placing it in the center of the visual field. The eyes are looking at the middle of the bird, placing it in the exact center of the visual field. (See dot=exact center.) The dot (center) moves with the eyes as the eyes shift part to part, point to point on the bird seeing one part (actually one small point) clearest at a time.

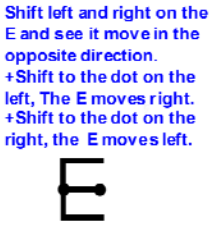
MEMORY: The pupil is told to remember a small letter "o" with a white center which is whiter than other letters on the Snellen test card. A small letter may be imagined much better than large letters of the Snellen test card. When the facts are analyzed, it is discovered that the reason small letters are imagined better than large ones is because a small letter has not so much of an area to be seen. It is easier for the eye to remember or imagine a small object than a large one. A perfect letter "O" can only be remembered when no effort is made; an imperfect letter "O," on the contrary, is difficult to remember. When a letter "O" is remembered very black with a very white center, the vision is benefited because no effort is made.

A great many near-sighted patients believe that they can remember or imagine an imperfect letter "O" much easier than a perfect letter "O." These people are encouraged to remember or imagine an imperfect letter "O," which helps them to understand and realize as thoroughly as possible that the memory or the imagination of imperfect sight is very difficult and requires a good deal of hard work, whereas the memory of perfect sight can only be accomplished easily without effort.

THE PERIOD: With the help of the imagination, alternating with the eyes open and closed, it is possible for many patients to remember or imagine they see a small black period. It may not necessarily be a black period but may have any color of the spectrum and be of any shape—round, square, triangular or irregular. It is impossible to remember or imagine a period that is stationary. It must always be remembered by central fixation and be moving. Some patients can imagine a period as small as it is printed in the newspaper. Unfortunately, it is difficult or impossible to teach all patients how to remember a period perfectly. The great value of the period is that when it is remembered perfectly, many serious diseases, such as opacities of the cornea, opacities of the lens, diseases of the retina and choroid, diseases of the optic nerve and blindness can all be relieved promptly.

MEMORY AND IMAGINATION: A perfect memory is a great benefit in obtaining perfect relaxation of the eyes as well as all the nerves of the body. One cannot remember a letter or other object perfectly unless it has been seen perfectly. When the memory is perfect, the imagination may also be perfect. Some people with a good imagination find it easier to imagine a letter or other object perfectly when they do not expend an effort in trying to see it. Knowing what the letter is, with the aid of the imagination, one becomes able to imagine that it is seen perfectly. (Familiar objects, Eyechart)

It is well to keep in mind that many patients believe that they see large letters perfectly when they do not and they can be tested by bringing the card up close to the eyes. The vision should be just as good at fifteen feet as it is at one foot. By improving the memory and imagination one improves the vision.



REST: Rest or relaxation of the nerves of the eyes, mind and all other parts of the body is necessary before perfect vision can be obtained. When the nerves of the body are at rest, it is possible to remember, imagine or see all letters or other objects perfectly. It is not possible to remember, imagine, or see anything without perfect relaxation. Perfect relaxation or rest comes without effort. When the mind is at rest, any effort to improve the memory, imagination or sight is wrong. (Use the memory, imagination in a easy, relaxed manner.) When the eye is at rest, it is perfectly passive. The eye at rest is never stationary: it is always moving. This seems a contradictory statement to make, but it is a fact which does not permit of any explanation.

PALMING: One of the best methods of obtaining relaxation is by palming. There is more than one way of palming. One very good way, however, is to cup both hands, press the sides of the palms together, and place the two hands over the closed eyes and in front of the nose. When done properly, all light is excluded, one sees black perfectly and relaxation is obtained.

Palm and imagine black or any pleasant object, scene... Think happy thoughts. Shift on objects in the mind, see them clear, in color, motion.

BLINKING: When the normal eye is at rest, the eyelids are continually closing and opening. Blinking may be done so rapidly that it does not become conspicuous. Moving pictures (movies) have demonstrated that the normal eye may open and close, or blink, five times or more in one second. The habit of blinking may be acquired by remembering to blink at frequent intervals. All patients with 15 diopters or more of myopia may blink five times or more in one second when the eye becomes normal and myopic alternately five times in one second. There are no exceptions to this truth.

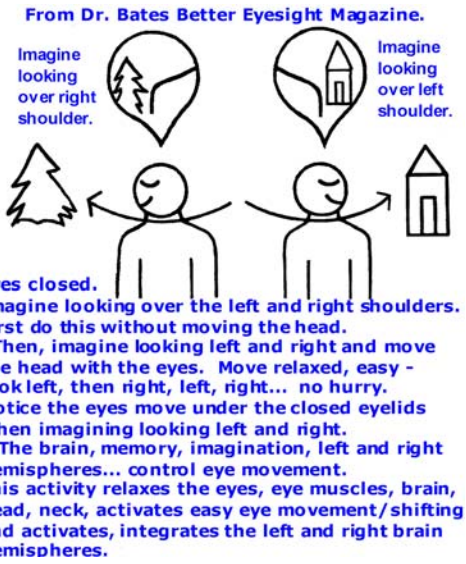
MENTAL PICTURES: The mind is capable of imagining all kinds of mental pictures. When the mind is at rest and the memory and imagination are perfect, all kinds of mental pictures are produced. When the mind is under a strain, the memory and imagination are imperfect and mental pictures are indistinct and cannot be remembered for any length of time. Central fixation when properly imagined is very helpful. With its aid a perfect mental picture may be obtained easily. When a mental picture is remembered easily and perfectly, the vision is benefited. Shift on the mental pictures. Imagine them as a movie, a motion, active picture in the mind.

The Memory Swing

The memory swing relieves strain and tension as do the long or the short swings which have been described at various times. It is done with the eyes closed while one imagines himself to be looking first over the right shoulder and then over the left shoulder, while the head is moved from side to side. The eyeballs may be seen through the closed eyelids to move from side to side in the same direction as the head is moved. When done properly, the memory swing is just as efficient as the swing which is practiced with the eyes open, whether it be short or long.
Feel the physical eyes move left and right when imagining moving left and right and when physically moving the head left and right. The eyes move in the same direction the mind imagines moving and the physical body, head moves. The brain works with the eyes.
This swing also relaxes, improves movement of the neck. Enjoy relaxation of the mind, eyes, head, neck, shoulders, body.

The memory swing can be shortened by remembering the swing of a small letter, a quarter of an inch or less, when the eyes are closed.

The memory swing has given relief in many cases of imperfect sight from myopia, astigmatism, and inflammations of the outside of the eyeball as well as inflammations of the inside of the eyeball. It is much easier than the swing practiced with the eyes open and secures a greater amount of relaxation or rest than any other swing. It may be practiced incorrectly, just as any swing may be done wrong, and then no benefit will be obtained.



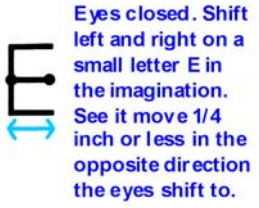
Mental Activity

By W. H. BATES, M.D.

IT IS a truth that activities of the mind under favorable conditions accomplish many things. As an example, let us consider the following case. A man, aged 30, employed in a distant city as a helper in a library, was treated about 15 years ago. He called to see me at about seven o'clock in the evening and remained with me for more than two hours. The patient was born with cataracts in both eyes. He also had amblyopia from birth. Some months previous to his visit, the cataract in both eyes had been removed. The vision of the right eye was very poor and not corrected by glasses. The vision of the left eye was worse than that of the right and also was not improved by glasses.

The treatment which was prescribed was to rest both eyes by closing them. His attention was also called to a known letter of the Snellen test card, a letter which he imagined better with his eyes closed than with his eyes open. When a known letter was regarded by central fixation, the vision improved. It did not take longer than half an hour to improve the right eye in this way, at first in flashes and then more continuously later.

At first he was able to flash the letters of the Snellen test card when he had momentary glimpses of the known letter very much improved. It did not take long before, much to my surprise, he was able to read all the letters on the lowest line at 10 feet. The vision of the left eye improved much more slowly, but after continual practice the vision of this eye became normal.



The eye which obtains improved sight by the aid of the memory and imagination very soon obtains improved vision for all the letters. It was demonstrated in this case and in others that the memory and the imagination of a known letter is a cure for myopia, hypermetropia, astigmatism, cataract, glaucoma, atrophy of the optic nerve, and other diseases of the eye.

With the aid of the retinoscope it has been demonstrated that the memory and the imagination are capable of improving the vision of these cases of refraction until the functional element is relieved. It is interesting to observe that these patients become able to see as well without glasses as they had previously seen with them.

Congenital cataract, traumatic cataract, and simple cataract have all been promptly cured with the aid of the imagination when it became as good with the eyes open as with the eyes closed. When one letter, a part of one letter, a period, a comma, or a semi-colon, is imagined as well with the eyes open as with the eyes closed, there follows almost immediately a temporary cure of imperfect sight. To understand how this can occur, one should demonstrate how imperfect sight is produced by an effort. It is a truth that the memory of imperfect sight has produced myopia, hypermetropia, and the increased tension of the eye in glaucoma. School children acquire myopia by a strain to see better. Some forms of concentration produce an inflammation of the retina similar to the imperfect sight of amblyopia ex anopsia. This must be a truth because it suggests proper treatment for amblyopia; namely, rest of the eyes.

Amblyopia is very frequently associated with imperfect sight, an imperfect field which may be irregular in its outline. For

many years amblyopia has been considered by authorities to be incurable, but these cases have been studied in recent years so that now most authorities believe that amblyopia is usually curable. It is a fact that some individuals with amblyopia ex anopsia recover without treatment. It seems reasonable to believe, if a number of patients recover spontaneously, that the treatment suggested to achieve this result would be successful in obtaining a cure. Normal eyes have been observed to acquire amblyopia, which was increased by an effort or a strain to see. By the practice of relaxation methods the amblyopia is usually benefited or cured.

There are diseases of the choroid which for many years have been understood to be incurable. The fact that a strain or effort to see may produce choroiditis suggests that relaxation methods should be practiced in order to obtain a cure. Cases of this type are too often neglected because they have not been sufficiently studied. The proper kind of mental activity benefits and cures functional or organic diseases of the eye: Some patients suffering from choroiditis obtain benefit quickly, while others take a longer time.

A man, aged 25, complained of many disagreeable symptoms. With both eyes open his vision at fifteen feet was one third of the normal. He suffered very much pain. Treatment relieved this pain and made it possible for him to read at the near point. At ten feet he read the bottom line of the test card with his right eye, a vision of 10/10. With the left eye at ten feet, he read the 50 line. In a poor light, his vision for distance and for the near point was much below the normal with either eye. When he covered the closed eyelid of the right eye with the palm of his hand, he saw a field of green which continued to be evident for part of a minute. When the eyelids of the left eye were covered with the palm of his hand, he imagined the whole field to be red, changing to yellow and orange. When he produced those colors in his closed eyelids he complained of headache, dizziness, and considerable pain in both eyes.

Some months previous each eye had started to turn in at different times. A stare, strain, or effort to see better increased the squint of the left eye. When the left eye was covered, an effort to see produced a squint of the right eye, which turned in. An operation, which was a failure, was performed on the left eye by a prominent ophthalmologist. Shortly after the operation the left eye turned out almost continuously.

The patient was nervous. His mind planned very unusual things which lowered the vision of the right eye when he stood six feet from the card. When he regarded the Snellen card at six feet and a half, only half a foot further off, his vision became much worse. When he regarded a letter at seven feet that he remembered or imagined, the vision of the right eye became normal for a few minutes. When the illumination of the Snellen test card was imperfect, his vision became very poor.

At a distance of ten feet, in ordinary daylight, his vision became normal. At twelve feet the vision of the right eye was reduced to one fourth of the normal. Most of the time the vision of the left eye was imperfect at a near distance, five feet or further. He was able to read fine print at ten inches from his eyes. At twelve inches he could remember or imagine diamond type, which he read quite readily, but at the same distance, he was unable to read print which was five times as large as diamond type. Such cases are rare.

After resting his eyes by palming for long periods of time—one hour, two hours, or longer—the vision of the right eye was improved to the normal for a few hours, but the vision of the left eye was improved to 1/20 of the normal for a few minutes only. Under favorable conditions the vision of the left eye was decidedly improved. When the light was quite bright, the vision of the left eye improved, while the vision of the right eye became worse. At twelve inches or farther, he was unable to read any of the print.

It was interesting to study his mind while the left eye was reading the Snellen test card at different distances. There were times when he could straighten the left eye when the Snellen test card was placed at five feet or ten feet. This ability to straighten the left eye was very changeable. With the right eye covered, the left eye read one half of the Snellen test card at five feet. Later the large letters of the Snellen test card were distinguished at 20 feet, while strange to say, his vision at five feet or ten feet was very poor. At about the same time he could read the Snellen test card with normal vision with the left eye at twelve inches.

It was difficult to explain or to find out why it was that there were periods of time when the vision at the middle distance was poor and why the vision at 20 feet was good. Sometimes the vision at the middle distance would be almost entirely absent. It was difficult or impossible for me on many occasions to understand the idiosyncracies of this man's vision. Another important fact was that the patient himself could improve his vision for any distance desired by some activity of his mind which was neither a strain or a relaxation. This patient, like other and similar cases, was bothered by a large blind area which interfered seriously with his sight. There were times when he was able to increase the blind area while there were other occasions when the area lessened its size.

The activity of this man's mind was very uncertain, and neither he nor his friends could prophesy what was going to happen next. He discontinued coming to me before he was entirely cured and I have not heard from him since.

Glaucoma is a very serious, treacherous disease of the eyes. The principal symptoms are hardness of the eyeball and a contracted field with imperfect sight. By prescribing rest or relaxation of the eyes all cases of acute glaucoma have been benefited.

Recently a number of patients were seen suffering from a mild form of glaucoma. Usually the field was contracted on the nasal side, but there were periods of time when the contracted field was on the temporal side. One patient could consciously manipulate the size, form, and location of the blind area of the field. A large letter which would appear about three inches in diameter, when regarded by an eye with normal sight, would seem to some cases of glaucoma to be only an

inch or less in diameter. The large letter which was seen by the normal eye to be a dark shade of black would appear to some patients as brown, lavender, yellow, or fiery red when regarded at fifteen feet or farther. At twelve inches the letters of the Snellen test card might have almost any color.

The letters might appear to be single, double, or more numerous. Every other line of letters would appear to consist of a number of letters instead of being seen properly one at a time. The mental strain to accomplish this consciously was not understood. As a matter of common sense, one would expect that if one line of letters was seen double, all the lines of letters should be seen double. Sometimes the letters of one line would be apparently one above the other. Sometimes the double images appeared to be slanting. The ways that the patient mentioned that he was able to have imperfect sight were very numerous. One of the peculiarities of his case was that he was able to see small letters more clearly than large letters. The different ways that he could see imperfectly with the left eye were not duplicated with the right eye.

Another patient, a girl with a very high degree of near-sightedness, had difficulty in finding a way which would produce some improvement in her sight. After spending a good many months in studying the problem and in trying various methods, she became able, with the aid of a rectangular swing, a swing which was accomplished by moving one hand in a rectangular direction, to obtain benefit. A finger of one hand was moved in such a way that she appeared to be drawing a rectangle, three feet by one foot. The patient was very much thrilled to find that the improved vision occurred at the same time that she produced the rectangular swing.
(Original, partial versions of the modern Infinity, Figure Eight swing.)

Some patients improved their vision by practicing the vertical swing; others, by practicing the oblique or horizontal swing, obtained an improvement in the sight. The more the facts were investigated, the greater became the evidence that it is a mental strain which lowers the vision and not a local strain of the eye itself. In all cases of imperfect sight a mental strain can always be recognized. When this strain is relaxed, the vision always improves.

In the treatment of imperfect sight by eye education, the results should be obtained very promptly. One soon becomes able to remember many other ordinary objects besides the letters of the Snellen test card. When the memory becomes as good with the eyes open as with the eyes closed, the mental strain disappears and the vision becomes normal. This suggests that by practicing with the Snellen test card at a near point—three, five, or ten feet—the memory will become more nearly normal. Patients with high degrees of myopia have been cured very promptly, perfectly, and continuously by the memory of perfect sight.

It is very important that mental activity be understood, because imperfect sight is not possible without a mental strain. When a patient with very imperfect sight is benefited or cured by relaxation methods he is very much inclined to say that he does not *see* the letters on the Snellen test card—that he just remembers or imagines them. The mind of the patient with imperfect sight will always imagine things wrong, although the patient may not be conscious of this fact. For example, he may see a large letter E at fifteen feet, and make the statement that it is not a letter E, but that it is a letter O. The patient may argue about that for some time. When he is told that it is a letter E, he says that it can't be a letter E, that it must be something else.

Double image of the letter E caused by imperfect vision. Shift on the letter, part to part, blink, relax, use central fixation and the letter will merge into one clear image.

In short, most patients are more apt to miscall large letters than to miscall small letters. Sometimes the letter E is not imagined or seen until the letter is brought a foot or two away. Then when the letter becomes known by regarding it at the near point, it may gradually be taken farther away and still be seen as a letter E. The next day when the E is regarded, it may not be seen, although it is known to be an E. It may be necessary to place the letter E closer to the patient again before it is recognized.

I have repeatedly stated that it is usual for patients to see a known letter better with the eyes closed than with the eyes open. In the treatment of such cases one should realize that the number of ingenious methods employed to make the sight worse are sometimes very remarkable. If the patient knows what is wrong with his eyes, the knowledge is a great help in obtaining a cure. Some patients have been told a number of times that when they know what is the matter with their eyes or their sight that they are more readily cured. By repetition, the vision of most people has been permanently cured. Staring, squinting, not shifting on a letter and remembering, imagining it unclear causes strain and blur. Experiencing this teaches the person to avoid it.

There are many ways of securing relaxation, but the best one of all is the simplest. The perfect memory of a house or a chair is a great help, but one obtains still greater assistance by the memory of a very small part of a chair. The smaller the object, the more perfectly can it be remembered, imagined, or seen. After the patient becomes convinced that he is suffering from a mental trouble as well as an eye trouble, progress toward a complete recovery in a very short time is obtained. Patients with a high degree of myopia have been cured by the memory of one half of a large letter, but others have been cured more quickly by the memory of a smaller area. Large letters are not seen, remembered, or imagined as well as small periods.

#8 - SWITCHING, Shifting Close, Middle, Far

Switch the Visual Attention at Close and Far Distances

Each day I varied the treatment. One day I placed her by a window and had her shift from the fine print up close to her eyes to the distant signs which I called to her attention, and to tops of houses and other buildings. An American flag waved in the distance and shifting from the flag to the flagstaff helped her to see the staff more clearly and by keeping up the constant sway of the body, blinking easily, but steadily all the while, she became able to see the harbor in the distance and also the boats which were moored near the shore. She told me that this was the first time in her life that she could ever see at such a distance.

She was the means of changing the mind of a skeptical husband who thought that the Bates treatment was a myth or something like it. However, he decided that if palming and swinging was a good thing for his wife and could make her so much more contented in her home duties than she was before, that perhaps it would help him to be a more agreeable person in his office as well as in his home. With just a few suggestions from me, my patient treated him successfully at home, and her last report was that he was reading his newspaper and book type without the use of his glasses.

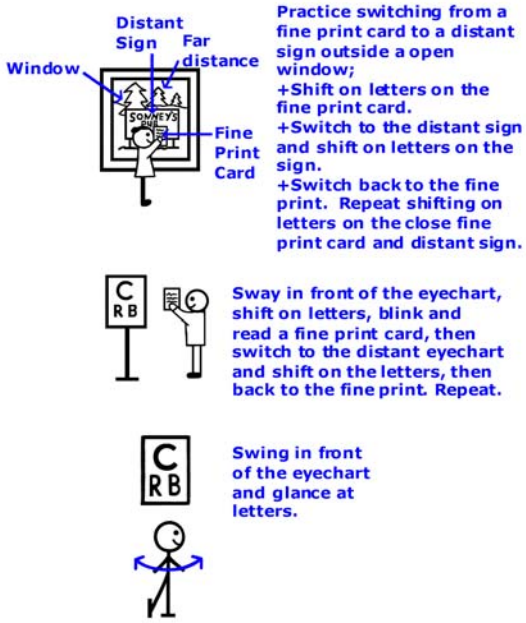
I realized more and more that if Dr. Bates could live until the end of time that it would be his cured patients who would advertise him in the right and only way. Times without number there have been magazine and newspaper writers, as well as authors of books who were cured after being treated by Dr. Bates who offered to advertise him in the way that they thought best.

Many years ago, without realizing that it would harm him, Dr. Bates allowed these grateful patients to advertise him in their own way. They unintentionally caused him much worry and concern with the medical profession. The only way to make Dr. Bates' work known to the world is to have his cured patients talk about the benefit they received and in that way help others who are suffering from defective vision. (Optical Industry Trying to Hide Bates Method From the Public.)

During the last treatment I gave my patient she read the various test cards, 15/15, with the exception of the black card with white letters, which she was able to read 15/10. Also, the floating specks had entirely disappeared after her third treatment. This case was very interesting, because it is seldom that one has presbyopia and myopia simultaneously.

To carry out treatment successfully, I try to be careful to vary the method of treatment at each lesson. I find it true also that if I try out things by myself, without the help of Dr. Bates, or his suggestions in the matter, that I fail sooner or later. Our students will benefit greatly by doing the same thing always. If the student is in doubt as to whether he or she can cure a difficult case, it is always best to write or come directly to headquarters and find out what is wrong. It is Dr. Bates' desire *always* to help the students to cure any case which may be difficult.

School Children
By Emily C. Lierman
Davey



Davey, eight years old, was very near-sighted, and the glasses he was wearing, made him nervous and irritable. His father had been told about the Bates Method and what could be done to restore perfect sight without wearing glasses. Davey's father brought the boy to me, although he was skeptical and his mother was even more so. I could tell by the little boy's attitude toward me that the Bates Method had been much discussed in the home circle, and that I was considered a sort of mystic worker.

The first question Davey asked me was, "What are you going to do to me?"

I answered, "I am not going to do anything to you, but I will try to do a whole lot for you. I will help you to get rid of your thick glasses that I am sure you don't like."

His answer was, "O, yes, I would like my glasses if I could see out of them. Father said that if you don't help me, he will try to find other glasses that will help."

I let the little fellow talk for a while, because I thought it would help me to understand him better. I told him I was especially interested in children and that it was always my delight to give school children better sight. I said I would not interfere with him, if glasses were what he wanted most. He said that he was afraid to play baseball or other games which might not only break his glasses, but perhaps hurt his eyes.

I tested his vision with his glasses on, and found that at ten feet from the regulation test card, he could see only black smudges on the white, but no letters. Then I placed the card six feet away. All he could see at that distance was the letter

on the top of the card, seen normally at two hundred feet. I then had him take off his glasses to see what he could read without them. He could not see anything at all on the card. I asked him to follow me to the window and to look in the distance and tell me what he could see. To the right of me, about one hundred feet away, there was a sign. The letters of this sign appeared to be about three feet square. One word of the sign had four letters. The first letter was straight and the last was curved, and had an opening to the right. I explained this to Davey, as I told him to look in the direction in which I was pointing, and then to a small card with fine print that I had given him to hold. I told him to read what he could of the fine print. He read it at two inches from his eyes. Under my direction, he alternately followed my finger as I pointed to the fine print and then to the building sign. He told me he could not see anything in the distance.

Davey felt very uncomfortable because of his poor sight and became rather restless. I told him to hold the fine print card closer, and not to read the print this time, but to look only at the white spaces between the sentences, and to blink often. He shifted from the white spaces of the fine print to the sign in the distance, watching my finger as I pointed, first to the near point and then to the distance. Suddenly, he got a flash of the first letter of the first word on the sign. This practice was continued for twenty minutes, and then we had a rest period. Davey sat comfortably in a chair and palmed his eyes. Children are very apt to become bored with anything that takes time and patience, and I know that Davey had little patience with anything regarding his eyes.

I asked him questions about his school work, and what subjects he liked best. He said he just loved arithmetic. I asked his father to give him an example to do while he palmed. The little fellow thought this was great fun, and without hesitation he gave his father the correct answer for each example. This gave Davey a rest period of fifteen minutes. His mother remarked that this was the first time she had ever noticed him sit quietly for so long a time.

Long Swing and Sway

Davey was then shown how to swing, by moving his body slowly from left to right, and getting only a glimpse of the letters on the card, at six feet. When he looked longer than an instant at the card, he leaned forward and strained to see better, but failed each time. When he learned not to stare, but to shift and blink while he swayed, his vision improved to 6/50. We returned to the window. I told him to shift from the white spaces of the fine print, which I held close to his eyes, then to the distant sign, and he became able to read all of the sign without any difficulty.

Much had been accomplished in one treatment and both parents were grateful. Davey was given a card with instructions for home practice. He returned three days each week for further treatment. Every time he visited me, I placed the test card one foot further away. Eight weeks after his first treatment, he read all of the test card letters at ten feet. This was accomplished by reading fine print close to his eyes, then swinging and shifting as he read one letter of the card at a time.

This boy has sent other school children to me as well as a school teacher with progressive myopia, who practiced faithfully until she was cured. Every week, she sent me a report about her eye treatment and the progress she made. Her pupils noticed that she had discarded her glasses, and after school hours she invited some of them, who had trouble with their eyes, to practice the Bates Method with her. In eight weeks' time, her vision became normal, and all her pupils, with the exception of three, are improving their vision without the use of glasses.

Test Card Practice

By Emily C. Lierman

My experience with school children and with people who are advanced in years has proved to me that daily test card practice is the quickest way completely to relieve eyestrain and imperfect sight. It is the custom always to give a patient a large test card with a small pocket size test card for home practice. Patients are encouraged to write for more help if needed further to improve their vision if they no longer come to the office for treatment. There is not a day goes by but that a patient will report that he did not have time to practice reading the test card for the improvement of his sight.

This is a natural thing, because most of us have more plans made for the day than we have time to carry out. For that reason we find the miniature test card very valuable. The card is just large enough to be placed in a dress or coat pocket. It is not necessary to spend any extra time at home in practicing with this card if the patient has a journey before him in going to or from business. Riding in trains, taxicabs, the subway or surface cars will give the patient time enough to improve the vision by practicing with the little card, even if it is only for ten minutes at a time.

If one is riding in the subway, either sitting or standing, one can use the small test card by holding it about six or eight inches away and shifting from a letter of the card to a sign directly opposite. If the print of a sign looks blurred, the print will soon clear up if one practices shifting and blinking from the letter of the card up close to the letter of the sign.

Many people whom I have helped in this way have enjoyed practicing with the signs and small test card because by the time they arrived at their destination their eyestrain was entirely relieved. It is so much easier then to use the memory for objects seen without effort or strain. One can remember part of the sign which was seen in the subway and if during the course of the day there should be a strong desire on the patient's part to put on glasses again, all he has to do is to close his eyes for part of a minute and remember that sign. Instantaneous relief sometimes follows and this encourages the patient to practice. These small test cards are always available at the Central Fixation offices for a very small sum and there is always someone there to explain how the card can be used successfully.

Children like the small test card with numerals. The numbers are distributed so that wherever the eye glances there is always some number which can be seen perfectly within a normal distance from the eyes. Children, as a rule, are not satisfied until the card can be read normally with each eye separately. Over each line of numerals there is a small number

indicating at which distance the normal eye should read it. School children who have never been to the office or seen Dr. Bates or myself have been able to improve their imperfect sight to normal by the daily use of this small card.

Sometimes children do need encouragement from their parents or from their school teachers, because they forget just as grown folks do when a thing should be done for their benefit. I have been asked this question many times: "How about younger children who cannot read or write?" For them we have a card called the "pothook" card which contains inverted "E's." It does not take long for a two-year-old to be taught how to say which way the "E's" are pointing. Children soon learn how to say whether the "E's" are pointing up, down, left or right. By shifting from one "E" to the other, they notice the white spaces between the lines of "E's." Unconsciously they notice that the black letter "E's" become blacker or appear to, which is a good thing for the sight.

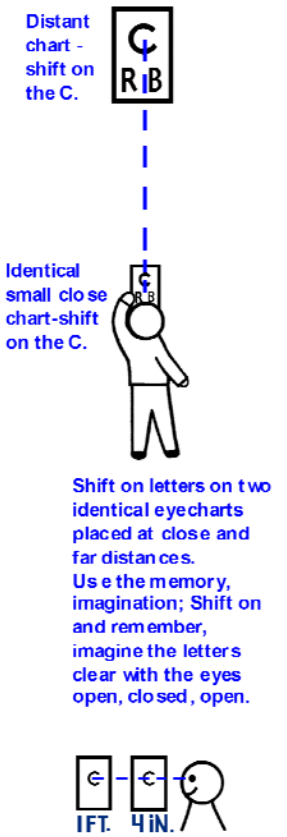
The "pot hook" test card is also used for sailors who have difficulty in reading flag signals at sea. Many mid-shipmen from Annapolis are at the present time using this card for the benefit of their sight.

There is a small black card with white letters for those who are partially blind, which is of great benefit to them. Such a patient is placed with his back to the sunlight and while the sun is shining on the black card, the white letters appear more clear and white and by closing the eyes often, avoiding the stare, the vision is not only improved, but if there is any pain or discomfort it soon disappears. The patient is advised to hold the card up close to the eyes and while the card is moved slightly from side to side about an inch or two, relief soon comes. The patient is then advised to hold the card a little further away day by day.

Patients to whom the large test card beginning with the letter "C" is given at the first visit find the pocket size test card, which is a duplicate of the large one, a great help. They shift from the small card, which is held in the hand, to the large card which is placed ten, fifteen, or twenty feet away. The patient looks at a letter of the small card, closes the eyes to rest them for part of a minute and then looks at the card in the distance and sees the same letter on the same line, (Switching close and far on identical familiar objects) which in most cases becomes clear and easy to see without strain.

For those who do close work, more than one small test card is used. During work hours two cards can be placed on the desk, for instance, or near to their work. One is placed to the left and the other to the right at an even distance of about two or three feet, or a little closer. The shifting, which is done rapidly and only takes a second to do, is done by first shifting from the work to the card at the left, back to the work, over to the card on the right and back to the work.

The patient soon notices that the small letters which were not seen clearly appear distinct. There are times when patients become discouraged because the sight does not appear to improve as rapidly as they expect. Sometimes the vision even becomes lower, which is discouraging. If those patients who have been to Doctor Bates can get in touch with him and explain just where the difficulty lies, the advice that will be given is sometimes all that is necessary.



I hesitate to mention my book to the subscribers of our magazine, but I always mention it to my patients. In it I have described as carefully as I could how important it is for patients to continue practicing after they have seen the Doctor. It is written so that everyone with eye trouble will find an article which will apply to his case. Those who have Dr. Bates' book find my book of additional help, and it is because of this that I mention it at this time. At the time the articles for my book were written, I had some blind and partially blind patients, an account of whose cases can be found in my book. Since the book has been written I have had further experience in treating difficult cases, which I try to explain in each number of the magazine.

I have found that practice with microscopic type is most helpful in near-sightedness. The patient holds the fine print as close as he can, looking at the white spaces between the black lines of type while blinking and then looking out of a window, for example, or at a distant corner of the room. Then looking at, shifting on the black fine print, remembering, imagining and seeing the fine print dark black and clear, then looking to the distant object and remembering, imagining, seeing it clear. Practice shifting on, remembering, imagining the fine print, then distant object, then fine print again, then distant object again… clear with the eyes: open, closed, open. Practice with both eyes together, then one eye at a time, then both together again. If vision is less clear in one eye, practice extra time with that eye to bring the vision equal, perfect in both eyes. Patch the eye not in use.

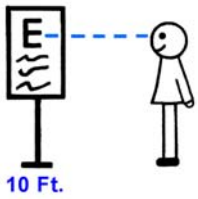
As I have said in this magazine before, all cases cannot be treated alike. There may be in one room at the same time ten or more cases of myopia, cataract, glaucoma or any other disease of the eye, and yet perhaps only one of the group would respond to one kind of treatment. For that reason, all cases have to be studied by the doctor or teacher and if one method of treatment does not help, another method must be applied immediately, so that the patient does not become discouraged. It takes just as much time in a great many cases to cure a simple case of imperfect sight as it does a more

serious eye trouble, and yet it does not require a college education to be able to be cured of imperfect sight by the Bates Method.
Switching, shifting on letters on two – three identical eyecharts (or 2-3 identical fine print cards) at two-three different close distances improves close vision and reading distance.

Test Card Practice

***By* EMILY A. BATES**

Editor's Note—The following is taken from Mrs. Bates' (Lierman) book, "Stories From The Clinic". Although the majority of our subscribers have Mrs. Bates' book, we believe that these suggestions can always be re-read with benefit.



Read the test card daily in good light, sunlight is best. Shift on a letter and remember, imagine it clear, correct with the eyes open, then in the imagination with the eyes closed, then with the eyes open again. Repeat. Blink. Practice on smaller letters. Practice with both eyes together, one eye at a time, then both eyes together again. Practice with the chart at various distances 5 ft. to 200 ft. + Practice on fine print at 20 inches and closer to 3, 2, 1, inches from the eyes.

1. Every home should have a test card.

2. It is best to place the card permanently on the wall in a good light.

3. Each member of the family or household should read the card every day.

4. It takes only a minute to test the sight with the card. If you spend five minutes in the morning practicing, it will be a great help during the day.

5. Place yourself ten feet from the card and read as far as you can without effort or strain. Over each line of letters are small figures indicating the distance at which the normal eye can read them. Over the big C at the top of the card is the figure 200. The big C, therefore, should be read by the normal eye at a distance of two hundred feet. If you can read this line at ten feet, your vision would be 10/200. The numerator of the fraction is always the distance of the card from the eyes. The denominator always denotes the number of the line read. If you can only read the line marked 40 at ten feet, the vision is 10/40.

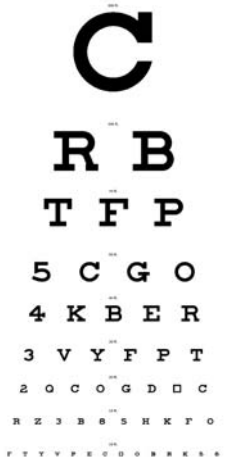
6. If you can only see the fifth line, for example, notice that the last letter on that line is an R. Now close your eyes, cover them with the palms of the hands and remember the R. If you will remember that the left side is straight, the right side partly curved, and the bottom open, you will get a good mental picture of the R with your eyes closed. This mental picture will help you to see the letter directly underneath the R, which is a T.

7. Shifting is good to stop the stare. If you stare at the letter T, you will notice that all the letters on that line begin to blur. It is beneficial to close your eyes quickly after you see the T, open them, and shift to the first figure on that line, which is a 3. Then close your eyes and remember the 3. You will become able to read all the letters on that line by closing your eyes for each letter.

8. Keep a record of each test in order to note your progress from day to day.

9. When you become able to read the bottom line with each eye at ten feet; your vision is normal for the distance, 10/10.

10. The distance of the Snellen test card from the patient is a matter of considerable importance. However, some patients improve more rapidly when the card is placed fifteen or twenty feet away, while others fail to get any benefit with the card at this distance. In some cases the best results are obtained when the card is as close as one foot. Others with poor vision may not improve when the card is placed at ten feet or further, or at one foot or less, but do much better when the card is placed at a middle distance, at about eight feet. Some patients may not improve their vision at all at ten feet, but at one foot. While some patients are benefited by practicing with the card daily, always at the same distance, there are others who seem to be benefited when the distance of the card from the patient is changed daily.
Experiment with the test card placed at a variety of close, middle, far distances.



Better Eyesight in Schools

By a Superintendent of Public Schools

Editor's Note -The following was written by a superintendent of public schools who not only helped his own eyes, but also helped the nurses to help the children. Permission was given these nurses to attend the clinic so that they could test the vision of each child and make records accordingly. Further advice was given by Dr. and Mrs. Bates and the work was carried

on so that within a year's time it was noticed by those not interested in the Bates Method that there were less eye-glasses being worn by the school children.
UNDER the direction of our school nurse, a Snellen test of the eyes of all our pupils was made. A novel health experiment was begun, a campaign for "Better Eyesight." A second test was made in order to verify the value and progress in this phase of health work which showed marvelous, practical, successful results. Only the skepticism of principals, teachers and pupils, and the lack of faithfulness in carrying out its conditions, prevented the wonderful results achieved from paralleling those of an Arabian Night's story.

A Snellen test card was placed permanently in the class rooms. The children were directed to read the smallest letters they could see from their seats at least once every day, with both eyes together and with each eye separately, the other being covered with the palm of the hand in such a way as to avoid pressure of the eyeball. Those whose vision was defective were encouraged to read it more frequently, and in fact needed no encouragement to do so after they found that the practice helped them to see the blackboard, and stopped the headaches, or other discomfort, previously resulting from the use of their eyes.

Some years ago the same system was introduced into some of the schools of New York City with an attendance of about ten thousand children. Many of the teachers neglected to use the cards, being unable to believe that such a simple method and one so entirely at variance with previous teaching on the subject, could accomplish the desired results. Others kept the cards in a closet except when they were needed for the daily eye drill, lest the children should memorize them. Thus they not only put an unnecessary burden upon themselves, but did what they could to defeat the purpose of the system, which is to give the children daily exercise in distant vision with a familiar object as the point of fixation. A considerable number, however, used the system intelligently and persistently, and in less than a year were able to present reports showing that of three thousand children with imperfect sight over one thousand had obtained normal vision by its means.

Not only does this work place no additional burden upon the teachers, but, by improving the eyesight, health, disposition and mentality of their pupils, it greatly lightens their labors.

9 - SUNLIGHT, Sunning

Sun-Gazing

***By* W. H. BATES, M.D.**

Sunning - face the sun, eyes closed, move the head side to side.

Sunlight shining on the sclera, white part of the eye. Person looks down, eyes pupil under the lower eyelid. Upper lid is pulled up to expose the sclera to the sunlight.

IT is a well-known fact that the constant protection of the eyes from the sunlight, or from other kinds of light, is followed by weakness or inflammation of the eyes or eyelids. Children living in dark rooms, where the sun seldom enters, acquire an intolerance for the light. Some of them keep their eyes covered with their hands, or bury their faces in a pillow and do all they possibly can to avoid exposure of their eyes to ordinary light. I have seen many hundreds of cases of young children brought to the clinic with ulceration of the cornea, which may become sufficient to cause blindness. Putting these children in a dark room is a blunder. My best results in the cure of these cases were obtained by encouraging the patients to spend a good deal of the time out of doors, with their faces exposed to the direct rays of the sun. In a short time these children became able to play and enjoy themselves a great deal more out of doors, exposed to the sunlight, than when they protected their eyes from the light. Not only is the sun beneficial to children with inflammation of the cornea, but it is also beneficial to adults.

When the patient looks down sufficiently, the white part of the eye can be exposed by gently lifting the upper lid, while the sun's rays strike directly upon this part of the eyeball. In most cases it is possible to focus the strong light of the sun on the white part of the eyeball with the aid of a strong convex glass, being careful to move the light from side to side quite rapidly to avoid the heat. After such a treatment, the patient almost immediately becomes able to open his eyes widely in the light. Plain sunlight (without use of the convex glass) is also very effective. Glass filters the light causing unbalanced, unhealthy (not full spectrum) sunlight to contact the eyes. The convex glass is only used by a experienced eye doctor and only in cases of extreme vision impairment, blindness and is not applied too often.
Looking at the bright area of the sky on a sunny day,(not directly into the sun) and closed eye sunning while facing directly at the sun are safer alternatives. **MOVE THE EYES, HEAD WHEN SUNNING**.

Demonstrate
Sunning and use of the Sunglass

1 - That sun treatment is an immediate benefit to many diseases of the eye.
Before the treatment, take a record of your best vision of the Snellen test card with both eyes together and each eye separately without glasses. Then sit in the sun with your eyes closed, slowly moving your head a short distance from

side to side, and allowing the sun to shine directly on your closed eyelids. Forget about your eyes; just think of something pleasant and let your mind drift from one pleasant thought to another. Before opening your eyes, palm for a few minutes. Then test your vision of the test card and note the improvement. Get as much sun treatment as you possibly can, one, two, three or more hours daily.

When the sun is not shining, substitute a strong electric light. A I,000 watt electric light is preferable, but requires special wiring. However, a 250 watt or 300 watt light can be used with benefit, and does not require special wiring. Sit about six inches from the light, or as near as you can without discomfort from the heat, allowing it to shine on your closed eyelids as in the sun treatment.

2 - That the strong light of the sun focused on the sclera, or white part of the eyeball, with the sun glass, also improves the vision.

After the eyes have become accustomed to the sunlight with the eyes closed, focus the light of the sun on the closed eyelids with the sun glass. Move the glass rapidly from side to side while doing this for a few minutes. Then have the patient open his eyes and look as far down as possible, and in this way, the pupil is protected by the lower lid. Gently lift the upper lid so that only the white part of the eye is exposed, as the sun's rays fall directly upon this part of the eyeball. The sun glass may now be used on the white part of the eye for a few seconds, moving it quickly from side to side and in various directions. Notice that after the use of the sun glass, the vision is improved.

Myopia and Presbyopia Relieved By Treatment

Floating Specks Relieved

By Emily C. Lierman

A woman, aged 51, whose vision had been impaired for a good many years, thought that she would try the Bates treatment and see if she could in time discard her undesirable glasses. When I tested her eyes, her vision was 15/70 with the right eye and 15/200 with the left. When I first meet a person I have an unconscious habit of looking at the eyes and I noticed particularly that this woman seldom blinked. She had worn glasses for twenty years, but recently she had worn them only at the theater, movies and in places where the light was dim.

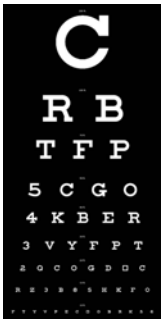
She complained of floating specks which at times seemed to her like miniature airplanes or tiny round white circles with gray centers. She boasted about being able to multiply these imaginary things floating before her eyes and to see them just as clearly with her eyes closed as she could with them open. It is hard to even imagine how terribly she strained in order to bring about such a condition.

She told me that previous to her coming to me she had visited an eye specialist who examined her eyes thoroughly and who told her that he could see no condition of her eyes that would cause floating specks, and that the retinas of her eyes were perfectly clear. He diagnosed her case as progressive myopia and then gave her a stronger pair of glasses than she had been accustomed to wearing. It was because of these stronger lenses and the discomfort that she experienced in trying to get accustomed to the wearing of them that prompted her to come to me.

The black card with white letters was used in testing the sight of my patient. While she was resting her eyes by palming, I placed the test card ten feet from her eyes instead of fifteen, just to see how much more she could read at a nearer distance. After a short period of palming, I asked her to read the card again and her vision had improved to 10/50. I was glad to see this improvement even though it was slight. However, I thought that it might have been her right eye which was reading the 50 line, even though she was reading the card with both eyes.

I wanted to be sure that improvement had been made, so I asked her to cover her right eye and read the card again with the left. She read up to the 50 line just the same, which I thought was a good improvement in so short a time. I told her how other patients had improved by practicing many times a day at home and that if she would follow my directions, and come to see me for a few lessons that she would make steady progress.

A few days later she came again and I noticed that she had acquired the habit of blinking. This was encouraging, because it is not often that patients who have only had one treatment can remember to keep up this good habit (correct vision habit) which is done unconsciously by people who have no trouble with their eyes. I did not mention this to the patient because I was afraid to make her conscious of the fact and again unconsciously get into her bad habit of staring. However, I made note of this in my record and the last time I saw her I drew her attention to it, which pleased her.



Look at the white spaces between sentences of fine print at a close distance to relax the mind, eyes and then look at, shift t on letters on a distant eyechart and see the letters clear.

Read fine print close to the eyes, in the sunlight daily or a few times a week for clear close and distant vision.

During her first treatment I did not make any special effort to relieve her trouble with the floating specks, nor did either one of us mention it. Before I tested her sight at her second treatment, she said she had something to tell me. She noticed for the first time that in trying to increase the number of floating specks which she formerly was able to do, she had produced a terrific pain in both eyes and so she stopped doing it.

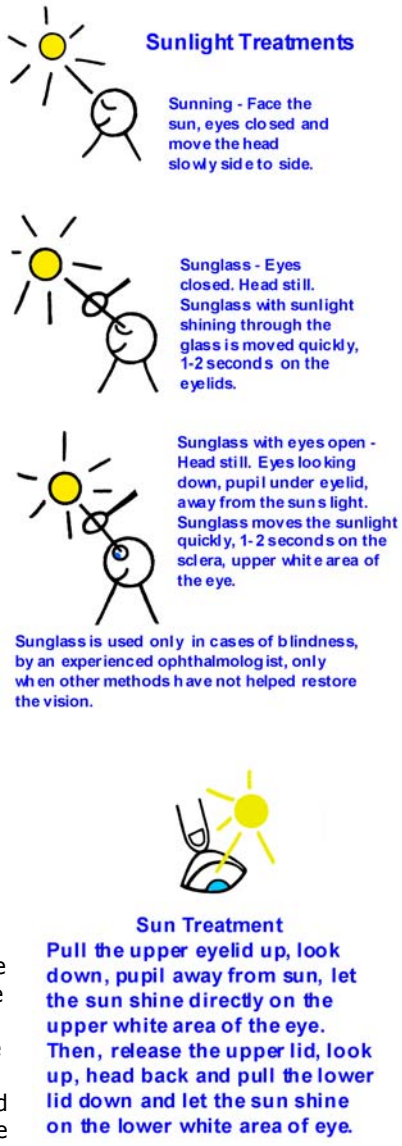
At my patient's second treatment I used the black test card and I gave her a card with diamond type to hold near her eyes. I gave her the usual advice, saying that she was not to try to read the print but only to look at the white spaces between the lines of fine type. Closing the eyes often and remembering the white spaces helped her to see the letters of the distant card, seeing one letter at a time and then looking to the white spaces of the fine type. She read 10/40 with each eye separately, seeing each letter clear and white. She remarked that the whiter the letters appeared to her, the more black became the background of the card.

At her first treatment I noticed that the sclera or white parts of both her eyes were bloodshot and looked as though she did not get enough sleep. I wrote this in my record of her case, but I said nothing about it to her. At this, her second visit, I noticed that the patient's eyes looked clear and the white parts were as white as my own eyes.

I placed her before a mirror and told her to blink and to look at her right eye and then at her left. This helped her to see that her eyes were moving while she blinked. It was then that she remarked how white the white parts of her eyes were. I enjoy treating a patient like her because there is a great deal of satisfaction in having the patient know that there has been an improvement in so short a time. She told me that her husband had read to her for one whole hour while she was palming or just keeping her eyes closed and resting her arms on her lap or on the arms of her chair.

I gave her more advice about what she was to practice at home and then two days later I saw her again. This time I asked her to hold the fine print as close as she could read it and to read what she saw on the little card. During her first treatment, I did not ask her to read the fine print because I thought she would have no trouble in reading it. I was much surprised to hear her say that she could not read it.

I was out-of-town treating patients at this time and as I was away from Dr. Bates, I was not allowed by the medical authorities to use a retinoscope or an ophthalmoscope, or to do any examining of the eyes of any kind. I was perfectly willing to abide by the law and was told particularly by Dr. Bates himself to do so. Therefore, I could not determine just what was wrong and why, when she was myopic, she could not read fine type as most myopic patients can. However, that did not worry me in the least because all the articles comprising my book were reports of cases treated by me during more than nine years when I did not at any time use any apparatus in the treatment or in the cure of these cases. I did, however, use a sun glass.



This patient was sitting near a window with her back to the sun. I asked her to stand up while I turned the chair the opposite way and told her to keep her eyes closed as she sat in the sun, while I used the sun glass on her closed eyelids. I timed this treatment and gave her exactly eight minutes of the sun, focusing the sun glass on the closed eyelids, at the same time advising the patient not to open her eyes even for a second. Then I pulled down the shade to shut out the sunlight and immediately after opening her eyes she became able to read all of the fine print. And this with just that one treatment with the sunlight. After that she gave her eyes sun treatment many times a day and remained in the sunshine as much as possible, discarding her parasol which she usually carried with her and also leaving off her hat whenever it was possible.

All patients do not have the advantages which this patient had, I know. Yet patients are cured who have no chance to take sun treatment during the day except at their lunch hour. Patients who have found it impossible to get any sun treatment during the day have been successfully treated and cured of their imperfect sight by the use of a strong electric light.

While I was away from Dr. Bates, doing his work at the seashore and in other places, it was astounding to see so many people wearing dark glasses called "sun glasses" to protect their eyes from the glare of the sun. What a mistake it is to wear these glasses, even though so many specialists advise such a procedure! One cannot always wear them; therefore it is best for the human eye to get accustomed to all kinds of light without protection of any kind.

During the time I was treating this patient, while she was rapidly improving at each lesson, I had the great pleasure of meeting a noted criminologist who was very near-sighted. He had difficulty in seeing things clearly while driving his car and doing other necessary things which required good sight, unless he wore his strong glasses. This man mentioned the case of his brother, who had read Dr. Bates' book, "Perfect Sight Without Glasses" and practiced the methods advised.

Sunning

Sunning
Face the sun, eyes closed, move the head side to side moving the sunlight over the entire retina.

He said that every day he practiced in the hot sun in the desert where all he could see was sand, distant mountains and the sky; he would close his eyes and allow the sun to shine on his closed eyelids, then open his eyes and look off at the distant mountains, alternately shifting from the saddle of his horse to the distant mountains. He was not only cured of his imperfect sight, but also became able to look at the sun by shifting and blinking without any tearing of the eyes or any discomfort whatever. He also noticed, being an expert in the different breeds of horses, that those which had blinders put on them acquired cataract, or could not see as well as horses who were free from any incumberance as far as their eyes were concerned. After reading Dr. Bates' book he wrote to his brother and said that if the strong light of the sun was not injurious to an animal, why should it be injurious to the human eye? He was convinced that imperfect sight was caused by strain or an injury and if there were any sight at all that it could be improved by natural methods and not by the use of glasses.

To go back to my patient. She came for four days in succession for treatments, being encouraged at the progress she had made. At each treatment she improved, reading another line of the test card, by first reading the fine print as close as she could get it to her eyes. Shifting from a blank wall to the test card while she was standing and swaying her body slowly from side to side also helped in the improvement of her sight for the distance.

Sunning
+Face the sun, eyes closed, move the head side to side, up and down, circular...
Do the Sway.
+Open the eyes and look away from the sun to the bright sky, clouds, tree tops.
+Go outside in the sunlight daily.
Full spectrum sunlight contains all wave lengths, frequencies, colors, mixtures of colors of the light spectrum.
Full spectrum sunlight, not filtered through eyeglasses, contacts, sunglasses, windows keeps the eyes, brain, body healthy and vision clear.

Switch Visual Attention to Close and Far Distances

Each day I varied the treatment. One day I placed her by a window and had her shift from the fine print up close to her eyes to the distant signs which I called to her attention, and to tops of houses and other buildings. An American flag waved in the distance and shifting from the flag to the flagstaff helped her to see the staff more clearly and by keeping up the constant sway of the body, blinking easily, but steadily all the while, she became able to see the harbor in the distance and also the boats which were moored near the shore. She told me that this was the first time in her life that she could ever see at such a distance.

She was the means of changing the mind of a skeptical husband who thought that the Bates treatment was a myth or something like it. However, he decided that if palming and swinging was a good thing for his wife and could make her so much more contented in her home duties than she was before, that perhaps it would help him to be a more agreeable person in his office as well as in his home. With just a few suggestions from me, my patient treated him successfully at home, and her last report was that he was reading his newspaper and book type without the use of his glasses.

I realized more and more that if Dr. Bates could live until the end of time that it would be his cured patients who would advertise him in the right and only way. Times without number there have been magazine and newspaper writers, as well as authors of books who were cured after being treated by Dr. Bates who offered to advertise him in the way that they thought best.

Many years ago, without realizing that it would harm him, Dr. Bates allowed these grateful patients to advertise him in their own way. They unintentionally caused him much worry and concern with the medical profession. The only way to make Dr. Bates' work known to the world is to have his cured patients talk about the benefit they received and in that way help others who are suffering from defective vision. (Optical Industry Trying to Hide Bates Method From the Public.)

During the last treatment I gave my patient she read the various test cards, 15/15, with the exception of the black card with white letters, which she was able to read 15/10. Also, the **floating specks had entirely disappeared after her third treatment.** This case was very interesting, because it is seldom that one has **presbyopia and myopia simultaneously.**

To carry out treatment successfully, I try to be careful to vary the method of treatment at each lesson. I find it true also that if I try out things by myself, without the help of Dr. Bates, or his suggestions in the matter, that I fail sooner or later. Our students will benefit greatly by doing the same thing always. If the student is in doubt as to whether he or she can cure a difficult case, it is always best to write or come directly to headquarters and find out what is wrong. It is Dr. Bates' desire *always* to help the students to cure any case which may be difficult.

Dark Glasses Are Injurious

He was a very intelligent chauffeur, and very polite and popular with most people. I enjoyed listening to his experiences in driving various types of cars. Nothing seemed to give him so much pleasure as to get into a "jam" and get out without suffering any injury to his own car or without tearing the "enemy" apart. The "enemy," as he explained, were the numerous other cars which were driven by chauffeurs who did not understand their business very well and who enjoyed teasing the inexperienced drivers.

One day we were driving to the seashore. The sun was very bright and the reflection of the light from the sun on the water was very strong and made most of the occupants of the car very uncomfortable. Personally I enjoyed the strong light of the sun. The chauffeur did not wear glasses for the protection of his eyes from the sun or dust and I asked him if he had ever worn them. He very promptly answered me by saying that he had worn them at one time, but discontinued wearing them because he found that after wearing them for a few days, his eyes became more sensitive to the light than they were before. He said he could not understand why it was that when he wore glasses to protect his eyes from the dust he accumulated more foreign bodies in his eyes than ever before. This seemed strange to the people in the car and they asked him to explain. It was decided that when the dust got into the eyes, the glasses prevented the dust from going out.

The eyes need the light of the sun. When the sun's rays are excluded from the eyes by dark glasses, the eyes become very sensitive to the sun when the glasses are removed.

Eye doctors sell sunglasses knowing it will lead to unclear vision, prescriptions for eyeglasses, eye surgery. Lack of sunlight causes cataracts and other eye problems.

The Sun as a Cure for Imperfect Sight

***By* EMILY A. MEDER**

The article reprinted below gives us the opportunity to dwell in a little more detail on the benefits of the sun for all cases of defective vision. Although this subject was discussed in the January issue, too much stress cannot be laid on it:

SIGHT RESTORED BY SOLAR ECLIPSE

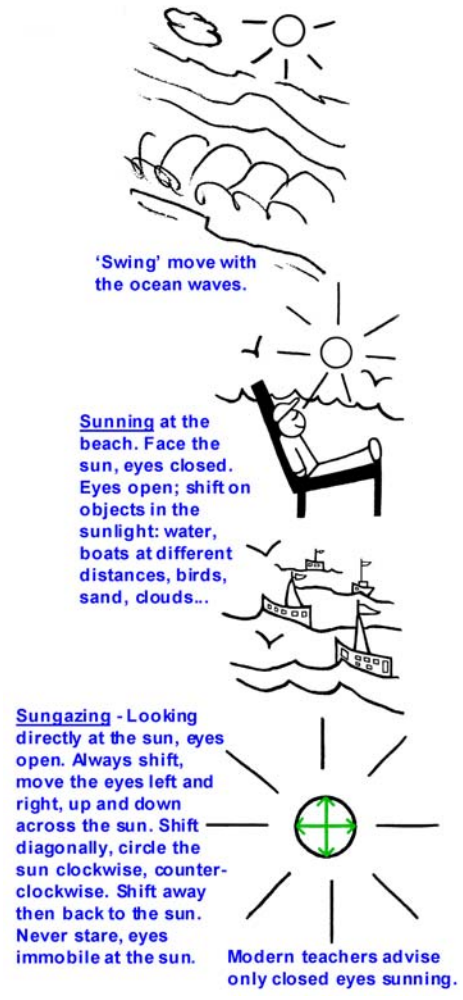
Lodi, N. J, January 27.—As the result of looking directly at the eclipse of the sun last Saturday, Louis Pretola, 54 years old, professes to have regained his sight after having been unable to see without glasses for seven years due to cataracts.

Pretola had undergone four unsuccessful operations for removal of the cataracts.

After he had gazed at the sun without smoked glasses he suffered severe pains, but within a few hours his sight began to return to normal and he discarded the strong glasses he had worn for seven years.—Cincinnati "Inquirer."

Note by Clark Night; Eye Doctors have stated for years that looking at a solar eclipse without eye protection can cause eye/vision impairment.

I do not advise looking at a eclipse, even though in this case it helped the persons vision.



I HAD an experience last week, which served to bring home more forcibly, the great healing, alleviating power of the sun.

I was to spend a few days at the ocean-side, and arrived in the midst of a terrific storm. The sky was black, the rain came down in great sheets, and the waves beat ceaselessly against the rocks under my window. It was a little frightening, watching this, but soon the rhythm of the gathering, rising, and receding of the huge billows seemed to form a natural swing. I could relax by moving forward and backward, almost imperceptibly, with the rise and fall of the waves.

The next day was beautiful, with the ocean smooth and peaceful, and the sun shining gloriously on everything. I left the hotel for a stroll along the boardwalk, but upon emerging from the dim light into the blazing sun, I was blinded. I tried to open my eyes but found them straining to close, and it seemed as though a great flashlight was being focused on my eye-balls. The sudden strain brought on a severe headache. Perhaps it was the glare of the sun on the water, or it may have been the intensified brightness after a dark and gloomy day that caused the sudden blindness.

There was a summer house about fifty yards off, overlooking the ocean. I made for that, and sat down, facing the water,

and with the sun beating down on my closed lids. After about fifteen minutes of this sunbath, I was able to open my eyes with comfort, and look across the water. The glare was gone, but I found it difficult to look directly at the sun. I just lazily shifted my glance from one object to another. A flock of sea-gulls amused me for about an hour. In my interest in them, I forgot about the sun's effect on my eyes, and caught myself glancing straight up, watching the flight of a particularly energetic pair of birds. There were so many of them, they were all so busy and active, that my eyes were not still for one moment.

I palmed again for about ten minutes, and when I removed my hands, I saw a fleet of four sailing ships away off in the distance. I could barely discern the outline, but this was more remarkable, because I did not see them when I first sat down, and they were much nearer then.

Before I left, I could look directly at the sun for about five seconds, but had to keep it swinging. Another unusual feature was that the sun, instead of being a blazing red, as it first appeared, changed to a silver or white color. This was more relaxing and soothing. Dr. Bates informed me that the sun always looks white to those with perfect sight.

That first attack was the only one I had during my stay. I enjoyed the sun and glanced up at it whenever I thought to do so, without discomfort. Pain and tension immediately disappeared.

With the spring on the way, there will be more opportunity to give your eyes a sun treatment. Try it.

Modern Scientists warn to never look at the sun during a eclipse. It can harm the eyes.

Read all directions for correct Sunning, Sunlight, Sun-Gazing Treatments in this book. Keep the eyes closed, move the eyes, head, face side to side. Avoid sunburn, overexposure.

#10 - FINE PRINT, Reading, Clear Close Vision

Fine Print a Benefit to the Eye

Its Effect the Exact Contrary of What Has been Supposed

Seven Truths of Normal Sight

1—Normal Sight can always be demonstrated in the normal eye, but only under favorable condition.
2—Central Fixation: The letter or part of the letter regarded is always seen best.
3—Shifting: The point regarded changes rapidly and continuously.
4—Swinging: When the shifting is slow, the letters appear to move from side to side, or in other directions, with a pendulum-like motion.
5—Memory is perfect. The color and background of the letters, or other objects seen, are remembered perfectly, instantaneously and continuously.
6—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, or form, of the letters.
7—Rest or relaxation of the eye and mind is perfect and can always be demonstrated.
When one of these seven fundamentals is perfect, all are perfect.

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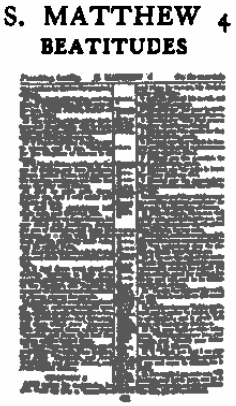
7—Rest or relaxation of the eye and mind is perfect and can always be demonstrated.
When one of these seven fundamentals is perfect, all are perfect.

It is impossible to read fine print without relaxing. Therefore the reading of such print, contrary to what is generally believed, is a great benefit to the eyes. Persons who can read perfectly fine print, like the above specimen, are relieved of pain and fatigue while they are doing it, and this relief is often permanent. Persons who cannot read it are benefited by observing its blackness, and remembering it with the eyes open and closed alternately. By bringing the print so near to the eyes that it cannot be read pain is sometimes relieved instantly, because when the patient realizes that there is no possibility of reading it the eyes do not try to do so. In myopia, however, it is sometimes a benefit to strain to read fine print. Persons who can read fine print perfectly imagine that they see between the lines streaks of white whiter than the margin of the page, and persons who cannot read it also see these streaks, but not so well. When the patient becomes able to increase the vividness of these appearances [see *Halos*, February number] the sight always impro

Read Fine Print

Shift dot to dot (part to part) on the C. See one small part of the C darkest black and clearest at a time in the center of the visual field. The center of the visual field moves with the eyes as the eyes shift part to part on the C. Shift point to point on the top right hook in the blue circle.



ALL of our imperfect sight is just the result of our using our eyes wrong, and permitting bad habits to grow on us. Staring is only a bad habit, but it causes a great deal of trouble. When it is stopped and the eyes are rested by palming and blinking, the sight is immediately benefited.

Bad habit number two: The reading of large type in preference to finer print. It requires more of an effort to see a large letter than a small one, strange as it may seem. When you look at the big C on the Snellen Test Card, you don't see it all at once. You have to look at one part best, the hook on the upper right hand corner or the curve on the left side. You cannot look at the hook, the space on the right and the curve on the left side all at once. Some people think they see it at the same time, but they do not. Their eyes shift from one point to another, unconsciously.

Fine print is a benefit because it cannot be read while the eyes are under a strain. They have to be relaxed. For instance, in reading the chapter printed below, you cannot accomplish anything by staring at the letters, or screwing your face into a knot. Do not look at the letters but at the white spaces between them, and imagine them whiter than the margin. Blink and shift constantly to avoid the stare. If your eyes feel strained, stop and palm. You will notice that where it all looked blurred before, a word will appear clear and distinct. By constant practice more words clear up, until the entire chapter can be read easily.

RELAXATION FROM FINE PRINT

+ A BUSINESS card, 3" x 2" with fine print on one side is held in front of the eyes as near as possible, the upper part in contact with the eyebrows, the lower part resting lightly on the nose.

+ The patient looks directly at the fine print without trying to see. Being so close to the eyes most people realize that it is impossible to read the fine print and do not try, in this way they obtain a measure of relaxation which is sufficient to benefit the sight very much.

+ The patient moves the card from side to side a short distance slowly and sees the card moving provided the movement is not too short or too slow. The shorter the movement and the slower it is, the better.

+ Some patients, although the card is held very close, note that the white spaces between the lines become whiter and the black letters become blacker and clearer. In some cases one or more words of the fine print will be seen in flashes or even continuously as long as no effort is made to see or to read the fine print.

+ This movement of the card should be kept up to obtain the best results, for many hours every day. The hand which holds the card may soon become fatigued; one may then use the hands alternately. Some patients vary this by holding the card with both hands at the same time.
(This does not need to be done for many hours a day. Just a few minutes is beneficial.)

Fine print card placed in front of the eyes, lower part rests on nose, upper part on eyebrows. Look at the card without trying to see. Relax. Move the card side to side, slowly, a short distance. The print becomes clear when the eyes, mind relax. Microscopic vision.

The amount of light is not important.

READ FINE PRINT

Many nearsighted patients can read fine print or diamond type at less than ten inches from their eyes easily, perfectly and quickly, by alternately regarding the Snellen test card at different distances, from three feet up to fifteen feet or further. The vision may be improved, at first temporarily, and later, by repetition, a permanent gain usually follows.

It is a valuable fact to know, that when fine print is read perfectly, the near-sightedness or myopia disappears during this period. It can only be maintained at first for a fraction of a second, and later more continuously.

Nearsighted patients and others, with the help of the fine print can usually demonstrate that staring at a small letter always lowers the vision, and that the same fact is true when regarding distant letters or objects.

With the help of the fine print, the nearsighted patient can also demonstrate that one can remember perfectly only what has been seen perfectly; that one imagines perfectly only what is remembered perfectly, and that perfect sight is only a perfect imagination.

A great many people are very suspicious of the imagination, and feel or believe that things imagined are never true. The more ignorant the patient, the less respect do they have for their imagination, or the imagination of other people. It comes to them as a great shock, with a feeling of discomfort, to discover that the perfect imagination of a known letter improves

the sight for unknown letters of the Snellen test card, and for other objects.

It is a fact, that one can read fine print perfectly, with perfect relaxation, with great relief to eyestrain, pain, fatigue and discomfort, not only of the eyes, but of all other nerves of the body.

Fine Print

When the vision for distance becomes nearly normal, the vision at the near point can then be improved to normal. Hold a card of fine print about ten inches from the eyes. Do not look directly at the letters. Imagine that where the bottom of the letters comes in contact with the white space between the lines, that the whiteness is increased, and with practice your can become able to imagine a thin, white line, which is below the letters and whiter than the rest of the white space. When this thin, white line is imagined white enough, the letters are imagined black enough to be read.

If you fail to imagine this thin, white line, with your eyes open you may be able to imagine it with your eyes closed. Then open your eyes and imagine it as well as you can. Close your eyes and remember or imagine the thin, white line whiter. Then bring the card up an inch or two closer and imagine the thin, white line as well with the eyes open as you can remember it with the eyes closed. By alternately remembering, with the eyes closed, the thin, white line quite perfectly at ten inches, it becomes possible to imagine it with the eyes open at nine inches or six inches, or even nearer, and to imagine it as well with the eyes open as with the eyes closed. When you become able to imagine the thin, white line as well at six inches with the eyes open, as you can remember it with the eyes closed, the hypermetropia is usually corrected. This treatment has cured hypermetropia of 16 D.S.

SUN TREATMENT (with Memory, Imagination and Palming) : An important part of the routine treatment is the use of the direct sunlight. The patient is told to sit in the sun with his eyes closed, moving his head a short distance from side to side, and allowing the sun to shine directly on his closed eyelids. He is instructed to forget about his eyes, to think of something pleasant and let his mind drift from one pheasant thought to another. Before opening his eyes, he palms for a few minutes. When the sun is not shining, a strong electric light (I000 watts) is substituted. The patient sits about six inches from the light, or as near as he can without discomfort from the heat, allowing it to shine on his closed eyelids as in the sun treatment.

FINE PRINT: If the patient has presbyopia, he is directed to practice with the fine print in the Fundamental card in the following way: The card is held at first at the distance from his eyes at which he sees best. He is told not to look directly at the letters, but just at the white spaces between the lines and imagine that they are perfectly white - whiter than the margin. He is asked if he can imagine that there is a thin, white line beneath each line of letters, and that it is whiter than the rest of the white spaces between the lines.

When this line is imagined perfectly white, the eyes then shift to, look directly at the letters and the letters are read without effort or strain. If the patient cannot imagine the white line easily, he is told to close his eyes and think of a series of white objects; he may recall a white-washed fence, a snow drift, several pieces of white starch, or a pot of white paint. He is then directed to open his eyes again and look at the white spaces, imagining them to be as white as the white objects he remembered. He is told to close his eyes again and imagine that he has a pot of white paint and a fine pen and that he is drawing a thin, white line beneath a line of print, then to open his eyes and imagine that he is drawing a thin white line beneath each line of letters on the Fundamental card, as he moves his head from side to side. He is told to blink as he shifts from one end of the line to the other, to occasionally look away and to close his eyes frequently for half a minute or so to rest them. Imagining the white spaces and white line perfectly white causes the mind, eyes to remove the 'grey blur' and other incorrect images from the white page in and around the black letters, words. The brain imagines the page the way it truly appears; clear and white. This causes the letters to be seen dark black, distinct, and clear.

By practicing in this way, letters which could not be seen before appear black and distinct. As one's ability to read is improved, the card is brought closer and the patient is instructed to practice in this way, until the entire card can be read at six inches from his eyes. If it is impossible for him to do this during his treatment at the office, he is directed to practice in this way every day at home. The patient is told that fine print cannot be read when an effort is made see it and that it can only be read when the eyes are relaxed. For this reason, the reading of fine print is helpful in producing relaxation.

Take a break anytime and look at the white spaces, thin white line to relax the eyes, mind. Shift on them. Avoid staring, eye immobility.

Use the soft end of a white imaginary feather (nosefeather) to imagine painting the white spaces and thin white line with bright, glowing, pure white paint.

BLIND FOR FIVE YEARS

(This case should encourage those who have only slight perception of light.)

A few weeks ago there was lead into the Clinic a man of 65 who told us he had been blind for five years and the doctors at the hospital had told him nothing more could be done for him, as his case was hopeless.

On testing his sight we found the right vision 3/80 and the left vision only just perception of light.

He was eager to know if we thought he could be helped and listened attentively while he was being told how to palm and how to strengthen his eyes by splashing them with cold water. He started right away palming and was left to amuse himself in this way, while other patients were attended to, and afterwards he said his eyes felt rested and much easier. He was asked what he was to do at home during the week to see if he had remembered the directions given to him, and then went home in a very hopeful frame of mind.

The following week he came along and looked rather more cheerful and was very excited to tell us that he thought he could see a little with the blind eye. Both eyes were tested, the right one was now 3/60, and with the blind eye he could see the big C, the 200 line when the Chart was held close.

Two weeks later we held the Clinic in another room and we were amazed to see him walk boldly in alone. He was looking much better and very proud of himself. He had been under the doctor's care for the last two or three months as he was generally run down, and this week he was delighted to tell us that he had caught his doctor napping. His doctor had greeted him one morning by saying how much better his eyes were looking, how much brighter and more alive. "Yes, because I am having treatment for them," said our friend. He told the doctor of the treatment, whose reply was that it was rubbish and could not possibly do any good. "Well, you said yourself how much better they were looking, and they must look very different for you to notice them and remark on them, and besides I can see more than I did."

He continues to be very much in earnest and is now able to see 3/30 with the right eye, and can read the 40 line quite easily close up to the other eye which previously had only perception of light.

A MAN WHO HAS WORN GLASSES FOR 60 YEARS

This man without his glasses was very helpless. He had no vision at all with the right eye, just perception of light, but very slight. The left eye was such that he could read with difficulty the 60 line at 6 inches. In three weeks the vision with both eyes was improved, so that at 6 inches he could read the 20 line comfortably and the 15 line with difficulty. The right eye is better but the improvement is not so marked as that of the left. It is a great joy to help this man, he is so grateful for the smallest thing that one does, and his childlike faith and obedience is something rarely seen. The reason he has made so much progress in so short a time is due to the fact that he cooperates willingly and with pleasure and is really interested in getting his sight.

One notices that on the whole people with slightly imperfect sight are not sufficiently interested in getting their sight normal to take much trouble. If it could be done for them they would not mind; but they do not like to bring it about themselves. The continuous relaxation practiced by those with imperfect sight is a joy to see and they are well paid for it.

Fine Print

By W. H. BATES, M.D.

THE photographic reduction of the fine print can be used with great benefit to patients suffering from high degrees of nearsightedness. At first it has to be held at a certain close distance from the eyes and cannot be seen so well if placed an inch further or an inch nearer. When read easily or perfectly the white spaces between the lines appear much whiter than they really are and the card seems to be moving from side to side or in other directions, if one takes the trouble to notice it. The eyes are blinking frequently and this is also usually an unconscious act.

More perfect rest or relaxation of the eyes is obtained by reading this fine print perfectly than by doing some other things. By alternately looking at the large letters of the Snellen Test Card at five or ten feet or further and reading the fine print close to the eyes, one can obtain flashes of improved vision at the distance. By practicing, these flashes become more frequent and the letters are seen more continuously. The method is to be highly recommended because it seems to be one of the best methods of improving the distant vision. (Fine print also improves close vision.)

Fine Print

By W. H. BATES, M.D.

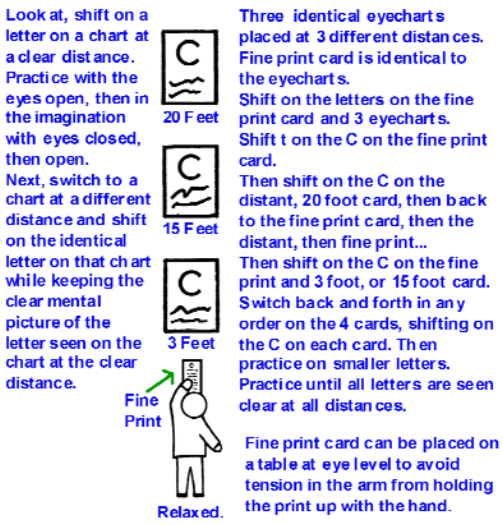
MANY near-sighted patients can read fine print or diamond type at less than ten inches from their eyes, easily, perfectly, and quickly by alternately regarding the Snellen Test Card at different distances, from three feet up to fifteen feet or further. The vision may be improved, at first temporarily, and later by repetition, a permanent gain usually follows.

It is a valuable fact to know that when fine print is read perfectly, the near-sightedness disappears during this period. It can only be maintained at first for a fraction of a second, and later more continuously.

Near-sighted patients and others, with the help of the fine print can usually demonstrate that staring at a small letter always lowers the vision and that the same fact is true when regarding distant letters or objects.

With the help of the fine print, the near-sighted patient can also demonstrate that one can remember perfectly only what has been seen perfectly: that one imagines perfectly only what is remembered perfectly: and that perfect sight is only a perfect imagination.

A great many people are very suspicious of the imagination and feel or believe that things imagined are never true. The more ignorant the patient, the less respect do they have for their imagination or the imagination of other people. It comes to them as a great shock, with a feeling of discomfort and annoyance that the perfect imagination of a known letter improves the sight for unknown letters of the Snellen Test Card.



It is a fact that one can read fine print perfectly with a perfect relaxation, with great relief to eye-strain, pain, fatigue and discomfort, not only of the eyes, but of all other nerves of the body.

Regarding fine print, even when not read, is also of use in improving the distant vision of the Snellen Test Card, and the ability to read at a near point in patients whose imperfect sight is caused by Astigmatism, Hypermetropia (far-sight), Presbyopia and others.

Reading fine print brings clear close and distant vision.

This simple, effective cure has been hidden from the public by the optical/medical industry for years!

Presbyopia: its Cause and Cure

By W. H. Bates, M.D.

Most people, when they reach the age of forty years or older, become unable to read or see things clearly at the near point, while their sight for distance is usually good. This is called presbyopia or middle-aged sight. It is sometimes, although infrequently, found in children.

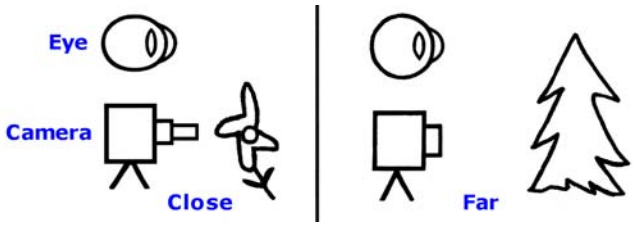
Old Gentleman Cures Unclear Close Vision by Reading, Writing Fine Print

While it is sometimes very difficult to cure presbyopia, it is, fortunately, very easy to prevent it. Oliver Wendell Holmes told us how to do it in "The Autocrat of the Breakfast Table," and it is astonishing , not only, that no attention was paid to his advice, but that we should be warned against the very course which was found so beneficial in the case he records:

"There is now living in New York State," he says, "an old gentleman who, perceiving his sight to fail, immediately took to exercising it on the finest print, and in this way fairly bullied Nature out of her foolish habit of taking liberties at the age of forty-five or thereabouts. And now this old gentleman performs the most extraordinary feats with his pen, showing that his eyes must be a pair of microscopes. I should be afraid to say how much he writes on the compass of a half dime, whether the Psalms or the gospels, or the Psalms and the gospels, I won't be positive."

Presbyopia Cure

Persons, whose sight is beginning to fail at the near-point, or who are approaching the presbyopic age should imitate the example of this remarkable old gentleman. Get a specimen of diamond type, and read it every day in an artificial light, (sunlight is best) bringing it closer and closer to the eye till it can be read at six inches or less. Or get a specimen of type reduced by photography until it is much smaller than diamond type, and do the same. You will thus escape, not only the necessity of wearing glasses for reading and near work, but all of those eye troubles which now so often darken the later years of life.



Reading fine print prevents cataract and other eye problems. The smaller the print, the more vision improves. Shifting point to point on tiny details of small objects; stone, jewelry… at close distances from the eyes also improves close vision. Practice relaxed, no effort, no force.

I remember an old darkey who said he was a hundred and six years old, who was quite blind for distant objects, and was unable to read an ordinary newspaper at one foot or further. With the aid of eye education, his vision for distance soon became normal, and his vision for near point also improved so that he could read diamond type at six inches without glasses.

The cause of presbyopia has been ascribed by most authorities to a hardening of the lens of the eye, so that the focus of the lens cannot be readily altered. This theory is incorrect. When the lens has been removed for cataract or some other reason, most cases have become able, by education, to read fine print at six inches or less without glasses.

Authorities on ophthalmology have always claimed that the focus of the eye was benefited by a change in the curvature of the lens. The evidence that the lens is not a factor in accommodation has only been recently proved. The eye changes its focus by a change in its length, brought about by the action of the muscles on the outside of the eyeball. In near-sightedness, the eyeball is squeezed by the external muscles and the optic axis is lengthened, i.e., the eyeball becomes elongated.

The human eye acts in the same way as a photographic camera acts. If a picture is taken at the near point, the bellows of the camera is lengthened in order to focus the near object, while to focus objects at the distance the bellows of the camera is shortened. When the eye is at rest, it has the form of a perfect sphere. See more info on the lens, outer, inner eye muscles, accommodation in the July, 1926 'The Great Delusion' issue of Better Eyesight Magazine.

Fine Print

When people are able to read fine print with perfect sight at six inches or further, the white spaces between the lines are seen or imagined whiter than the rest of the card. The ability to imagine the white spaces between the lines to be very white is accomplished by the memory of white snow, white starch or anything perfectly white, with the eyes closed for part of a minute. Some patients count thirty while remembering some white object or scene with the eyes closed. Then, when the eyes are opened for a second, the white spaces between the lines of black letters are imagined or seen much whiter than before. By alternately remembering something perfectly white with the eyes closed and opening them for a few seconds and flashing the spaces, the vision or the imagination of the white spaces improves. One needs to be careful not to make an effort or to regard the black letters. When the white spaces between the lines are imagined sufficiently white, or as white as they can be remembered with the eyes closed and with the eyes open; then, look at the black letters, see them clear, the black letters are read without effort or strain, or without the consciousness of regarding the black letters.

Read fine print for clear close vision.
See the 'Swing':
Place the fine print 6 in. from the eyes and the thumb 5 in. from the eyes in front of the fine print and 1/4 in. to the left of a letter. Move the head and eyes side to side and see the thumb move opposite the movement of the head/eyes and the fine print move in the same direction with the head/eyes. This prevents staring, keeps the eyes moving, relaxed and vision clear. See the thin white line.

The Thin White Line

Many people discover that they can imagine a thin white line where the bottom of the letters comes in contact with the white spaces. This thin line is very white, and the thinner it is imagined to be, the whiter it becomes. When it is imagined perfectly, the letters are read without the consciousness of looking at them and the vision or imagination of the white is very much improved. This thin white line can be imagined much whiter than any other part of the page, and is more easily imagined or seen than any other part. Of course, the eyes have to shift from the thin, white line to the letters in order to see them, but the shifting is done so readily, so continuously, so perfectly that the reader does not notice that he is constantly shifting. When the vision of the thin, white line is imperfect, the shifting is slow and

imperfect and the vision for the letters is impaired. The memory or the imagination of the thin, white line is usually so easy, so perfect and so continuous that everything regarded is seen with maximum vision. Patients with cataract who become able to imagine this thin, white line perfectly, very soon become able to read the finest print without effort or strain, and the cataract always improves, or becomes less. Patients with hypermetropia, astigmatism, squint, diseases of the retina and optic nerve are benefited in every way by the memory or the imagination of the thin, white line. Reading fine print with perfect sight benefits or improves all organic diseases of the eye.
Another reason Dr. Bates has the person remember, imagine and look at the white spaces, white line is that: white functions as/with 'light', and activates the eyes retina. For this reason there are eyecharts with white letters printed on a black, blue… background. They are easier to see and relaxing especially for patients with low vision.

FINE PRINT. When school children are able to read fine print at the distance from their eyes at which they see it best, the eyestrain is relieved as fine print cannot be read with an effort. The distance where fine print is seen best varies with people. All children should not be encouraged to see fine print at the same distance from their eyes.
With practice, relaxation, people can see fine print up close to the eyes, even seeing it in a 'microscopic view' close to the eyelashes of one eye at a time. Bates teaches to switch back and forth, close and far, shifting on the fine print up close and a distant object with both eyes, then one eye at a time, then both together again. Switching on two fine print cards at close distances about 3 inches to 1 foot apart also improves close vision. See the 'correct vision habits card' in our other book.

FINE PRINT: If the patient has presbyopia, he is directed to practice with the fine print in the Fundamental card in the following way: The card is held at first at the distance from his eyes at which he sees best. He is told not to look directly at the letters, but just at the white spaces between the lines and imagine that they are perfectly white - whiter than the margin. He is asked if he can imagine that there is a thin, white line beneath each line of letters, and that it is whiter than the rest of the white spaces between the lines.

When this line is imagined perfectly white, the eyes then shift to, look directly at the letters and the letters are read without effort or strain. If the patient cannot imagine the white line easily, he is told to close his eyes and think of a series of white objects; he may recall a white-washed fence, a snow drift, several pieces of white starch, or a pot of white paint. He is then directed to open his eyes again and look at the white spaces, imagining them to be as white as the white objects he remembered. He is told to close his eyes again and imagine that he has a pot of white paint and a fine pen and that he is drawing a thin, white line beneath a line of print, then to open his eyes and imagine that he is drawing a thin white line beneath each line of letters on the Fundamental card, as he moves his head from side to side. He is told to blink as he shifts from one end of the line to the other, to occasionally look away and to close his eyes frequently for half a minute or so to rest them. Imagining the white spaces and white line perfectly white causes the mind, eyes to remove the 'grey blur' and other incorrect images from the white page in and around the black letters, words. The brain imagines the page the way it truly appears; clear and white. This causes the letters to be seen dark black, distinct, and clear.

By practicing in this way, letters which could not be seen before appear black and distinct. As one's ability to read is improved, the card is brought closer and the patient is instructed to practice in this way, until the entire card can be read at six inches from his eyes. If it is impossible for him to do this during his treatment at the office, he is directed to practice in this way every day at home. The patient is told that fine print cannot be read when an effort is made see it and that it can only be read when the eyes are relaxed. For this reason, the reading of fine print is helpful in producing relaxation.
Take a break anytime and look at the white spaces, thin white line to relax the eyes, mind. Shift on them. Avoid staring, eye immobility. Use the soft end of a white imaginary feather (nosefeather) to imagine painting the white spaces and thin white line with bright, glowing, pure white paint.

EYECHARTS

Letter size for the charts on the following pages are approximate; print from the PDF E-Book and resize with a copy machine for exact measurement. Print the 20/20 line 3/8 inches. When letters on that line and below are clear; vision is clearer than 20/20 for distant vision at 20 feet and farther. Print the charts small and fine print for close vision practice at 5 feet and up to 1 inch from the eyes.

Read, See Small letters Clear on a Familiar Eyechart Daily;
Both eyes together, one eye at a time, both eyes together again.

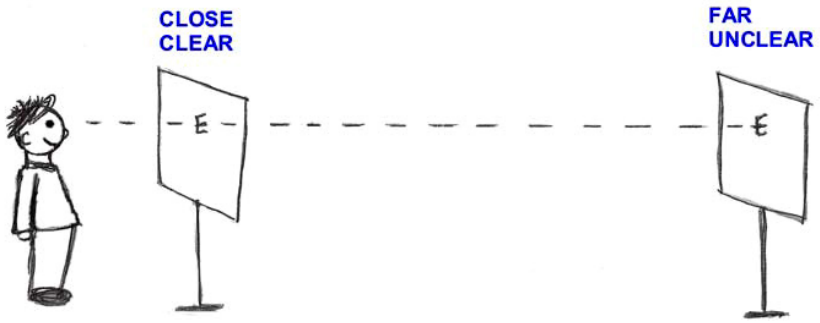
Eyechart Videos

Videos are on Youtube. Download with Real Player SP.
Watch on computer. Can also be converted for television.

http://www.youtube.com/watch?v=sM-EHgC-J6w&feature=channel
http://www.youtube.com/watch?v=863yFmc-Ius&feature=channel
http://www.youtube.com/watch?v=mYpsYPPV_hg&feature=channel
http://cleareyesight.info/id79.html

1 - EYECHARTS TO TEST AND IMPROVE CLOSE AND DISTANT EYESIGHT

SWITCH AND SHIFT ON LETTERS ON TWO IDENTICAL EYE CHARTS PLACED AT CLOSE AND FAR/ CLEAR AND UNCLEAR DISTANCES.



SHIFT FROM PART TO PART (DOT TO DOT) ON THE E'S

TOP AND BOTTOM | LEFT AND RIGHT | DIAGONALLY CORNER TO CORNER | MIDDLE | SHIFT FROM PART TO PART IN ANY DIRECTION

Videos - http://www.youtube.com/watch?v=863yFmc-Ius

Meaning of 20/20; (for Distant Vision)
+The top number indicates the distance the person is standing from the chart.
+The bottom number indicates the size of the letter, the line the eyes are looking at. A 20/20 letter is 3/8 inch. high.

E This E is about 3/8 inch. on 100% computer screen.

+The bottom number also indicates the distance that a person with clear vision sees the letter clear.

Example; the 20/20 line on the test chart for distant vision;
+The top number, 20 indicates; the person is standing 20 feet away from the letter on the eyechart.
+The bottom number, 20 indicates the person is looking at the 20/20 line, 3/8 inch. letter and, that; a person with clear 20/20 vision can see the letter clear at 20 feet away.

The eyechart is placed at 20 feet to test distant vision because the eyes do not need to un-converge, un-accommodate any further when looking at about 20 feet and farther into the distance. If the letters are seen clear at 20 feet, they are seen clear at all distances beyond 20 feet.

Here's another example; 20/200;

+The top number (20) indicates the person is standing 20 feet away from the eyechart.
+The bottom number (200) indicates the size of the letter, line the person is looking at.
The 200 line letter is the largest letter on the top of the chart.
A 20/200 letter is 3 ½ inch. high.
+The bottom number, (200) also indicates that a person with

Distant vision - Big C eyechart with a small 5 line added at bottom.

20 = 20 feet
20 = 3/8 inch letter - 20 line.
Normal, clear vision.

20 = 20 feet
5 = Smallest letter, bottom of chart - 5 line.
Clearer than 20/20.

40 = 40 feet
5 = Smallest letter, bottom of chart - 5 line.
Most clear vision, much clearer than 20/20.
Person sees 5 line at 40 feet away.

CLEAR

20 = 20 feet
200 = Largest letter, top of chart - 200 line.
Most unclear vision for this eyechart.

5 = 5 feet
200 = Largest letter, top of chart.
Vision more unclear.
The person must stand closer to the chart, at 5 feet, to see the 200 line letter clear.

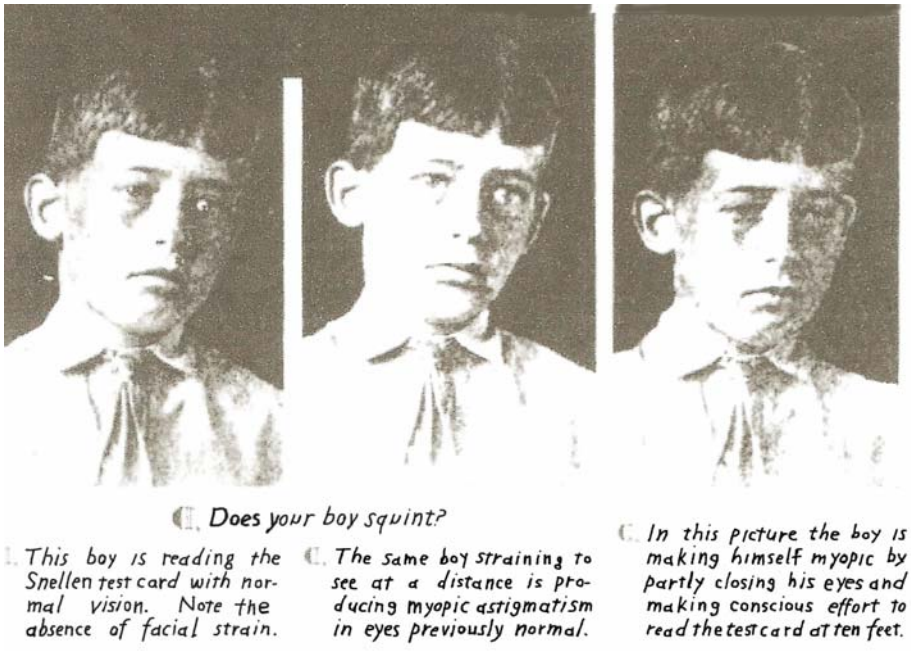
20 = 20 feet
300 = Letter larger than 200 line.
More unclear than 20/200.
Person cannot see the 200 line clear.
A larger, 300 size letter is seen clear.
The 200 and other lines might be seen clear at closer distants to the chart.

UNCLEAR

clear 20/20 vision can see the letter clear at 20 feet and up to 200 feet away.
A person with 20/200 distant vision can see the large 20/200 letter at 20 feet but cannot see it clear farther than 20 feet. It may be seen clear at closer distances.
Smaller letters below the 20/200 line are not seen clear at 20 feet and farther away.
20/200 vision is very unclear, much less clear than 20/20.
Vision can be more unclear; 20/300, 5/200... Many people with 20/200, 300 and more unclear vision have attained 20/20 and clearer vision with practice of the Bates Method.

20/40 vision is clearer than 20/200 but less clear than 20/20. 20/40 is considered legal for driving in most states. 20/40 is close to 20/20 clarity and people can function comfortably with 20/40 vision without wearing eyeglasses. 20/30, 20/25 is clearer than 20/40 and almost 20/20.
When vision is less clear than 20/40; 20/50, 70, 100... it is still best to avoid wearing eyeglasses as much as possible. Eyeglasses maintain and increase the eye muscle tension and blur. When glasses are avoided the eyes, eye muscles, mind/brain, (visual system) relax, correct vision habits are easily applied and clarity of vision improves.
Close vision is tested with smaller letters with the eyechart placed at various distances closer than 20 feet. Reading vision is tested at 3 ft. to 6 inches and closer to the eyes with small and fine print. Seeing fine print clear at 5 to 1 to 1/4 inches from the eyes is very clear vision. Healthy for the eyes.

Relax and Shift, Blink when Reading the Eyechart. Use Central-Fixation



Immediate Production of Myopia and Myopic Astigmatism in Eyes Previously Normal by Strain to See at the Distance;

Fig 1 - Boy reading the Snellen test card with normal vision. Note the absence of facial strain.
A boy with normal eyes reading the X line of the Snellen test card at 10 feet.
Notice the expression of the eyes with the focus completely relaxed.

Fig 2 - The same boy trying to see a picture at twenty feet. The effort, manifested by staring, produces compound myopic astigmatism, as revealed by the retinoscope. Simultaneous retinoscopy indicated compound myopic astigmatism. He was unconscious of the fact that his eyes were focused for a near point. Note the manifestation of effort by staring.

Fig 3 - The same boy making himself myopic voluntarily by partly closing the eyelids and making a conscious effort to read the test card at ten feet. Functional myopia produced voluntarily by partly closing the eyelids (squinting) and making an effort to read the Snellen test card at ten feet.

There are large and small close and distant eyecharts on the last pages of this book and in the Free PDF E-Book.

Fig. 43

Patient with atrophy of the optic nerve gets flashes of improved vision after palming.

It is difficult to print the exact, correct letter size from a computer. Try printing at 100% or larger.
The Big C and E charts print out on 4 separate pages, 11 x 8 ½ inches, landscape. Tape them together after printing.
If the print is too light, darken it to dark black with a black marker.
If they print too small or large; place them in a copier and use the zoom setting to enlarge or reduce the letters until all letters are the correct eyechart size. See correct sizes listed below.
Letters on the charts can be reduced to small and fine print for testing, improving close vision and reading vision distances, 3 feet, 20, 10, 7, 6, 5, 3... inches away from the eyes.
Small charts are also provided.
The charts can be printed from the PDF E-Book with white letters on a black, blue... background. White letters are easy to see and relaxing to the eyes. Color activates, is healthy for the eyes, brain, visual system.
The reader can also create small charts as a identical copy of the big C, E charts. Place the identical copy at a clear close distance and look at the identical clear letters to strengthen the memory, imagination of the same letter on the distant chart. If preferred, use a large close and distant chart.

The Big C chart is the eyechart Ophthalmologist Bates refers to in his Better Eyesight Magazine.
The large big letter E and C charts are for testing distant vision.
Print the chart with correct letter size;

Start with the big letter E (or C) at the top of the chart - 20/200 line;

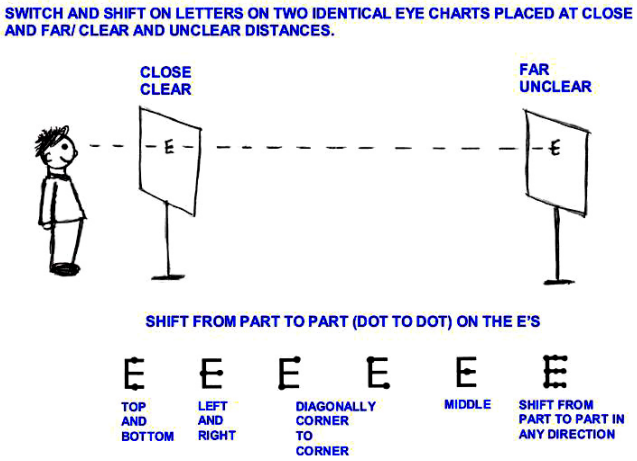
20/200 - 3 ½ inch. high
20/100 - 1 ¾ inch.
20/70 - 1 ¼ inch. **All numbers above 20/20 indicate vision**
20/50 - 7/8 inch. **less clear than 20/20.**
20/40 - 11/16 inch.
20/30 - 1/2 inch.
20/20 - 3/8 inch. ---------- Normal clear vision at 20 feet away.
20/15 - 1/4 inch. **All numbers below 20/20 indicate clearer**
20/10 - 3/16 inch. **than 20/20.**
20/5 - 3/32 inch.
20/4, 3, 2, 1... Letters are smaller. Very clear vision.

Standing farther away and seeing the letters clear;
Example 40/5; standing 40 feet away and seeing the 20/5, 3/32 inch letter and/or smaller letters clear indicates very clear vision, much clearer than 20/20.

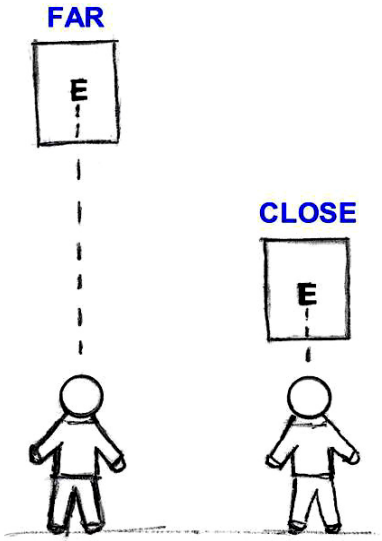
Practice Shifting, Central-Fixation, Switching Close and Far on the Eyecharts

Print the Eyecharts.

Make two identical copies of the chart, place them at close and far distances. Practice Correct Vision Habits: shifting, central-fixation... on the charts once or more per day.
Practice in the sunlight, sun shining over the shoulder onto the charts.
Shifting, switching on the two identical charts improves the memory, imagination, ability to remember, imagine and see the letters clear, improves the brains function of storing clear images of objects in the memory.
The eyecharts become familiar objects.
Familiar objects are relaxing to the mind, eyes and are seen clear. When a letter on the chart is seen clear at a specific distance; all objects at that distance are seen clear.



Practice Correct Vision Habits #1 to 8 on two identical eyecharts;
One chart is placed at a close distance.
The other chart is placed at a far distance. See picture.
Keep one chart at a clear distance.
When looking at a chart, place the chart at eye level, directly in line with the eyes, face.
The letter the eyes look at is placed in the center of the visual field; between the left and right eyes, at eye level.
The far chart is placed about 1 foot to the left or right (alternate) so the close chart does not block the view of the far chart.
When looking at a chart, maintain central-fixation;
when looking at the close chart - stand directly in front of it.
When looking at the far chart - move and stand directly in front of it.
See picture on right.



Shift on letters on the clear and unclear charts and remember, imagine and see the letters dark black and clear.
Practice with the eyes open, closed, open.
Practice with both eyes together, then one eye at a time, then both eyes together again. If vision is less clear in one eye, practice extra time with that eye. Then again a bit with the other eye, then both eyes together again to keep the vision balanced, equal in both eyes.
Keep the letter between the eyes, at eye level, center of the visual field when using both eyes together and when using one eye at a time.
Cover the eye not in use with a eyepatch and keep the eye open under the patch when the eye in use is open. Blink and relax.

Example; Person needs distant vision improvement.
Place one chart at a far, unclear distance.
Place the other identical chart at a clear close distance.
Look at the letter E at the clear close distance; shift on the letter.
Remember, imagine, see the E dark black and perfectly clear.
Do this with the eyes open, then, in the imagination with the eyes closed, then with the eyes open again.

Then; switch to the unclear distant chart.
Look at the identical letter E.
Shift on the E and continue to remember, imagine the E is dark black and clear.
Practice with the eyes open, closed, open.

With practice the distant E will be seen clear.

Switch back to the clear close E.
Repeat; shift on the E, Remember, imagine, see it dark black and clear.
Practice with the eyes open, closed, open.
Looking at the clear close E reinforces the clear image of the E in the brain/memory and helps the brain and eyes work together to produce a clear image of the E when it is seen at the far distance.

Switch back to the E at the far distance.
Shift on it, remember, imagine and see it dark black and clear.
Blink, breathe, relax.
Practice switching, shifting on the close and far E's with both eyes together, then one eye at a time, then both eyes together again for perfect equally clear 20/20 and clearer vision in the left and right eyes at close and far distances. Example: Both eyes together, then one eye at a time: start with either eye: left, then right, then left, right... If vision is less clear in one eye, practice extra time with that eye. Then; end with both eyes together again.

Allow the eyes, head/face, neck and body to relax, move freely when looking at the letters. Relaxation and movement bring clear vision.
Eye, head/face, neck, body immobility, tension, staring, squinting, straining, trying hard to see the letters clear produces unclear vision.

Practice on other letters.
Practice on smaller letters.
Practice at a variety of close, middle, far distances for clear vision at all distances.
Practice on two identical fine print charts with medium, small, smaller, and fine print size letters.
Place the charts at two different close distances.

Memorize the letters on the chart. Memorizing the letters causes the chart to become a familiar object, something that is easy to see. Familiar objects relax the mind, eyes and activate clear vision.
When the brain memorizes the letters, becomes familiar with them, there is not any effort to see them, mental strain and eyestrain are avoided, the mind/brain, eye muscles, eyes stay relaxed when viewing the chart and the letters are seen clear. This relaxation and clear vision continues when looking at other objects.
When taking a eye test at the eye doctors office, the patient is often hurried, pressured to see the letters on a unfamiliar eyechart clear.
This causes temporary mental strain, leads to squinting, staring, effort to see the letters. This causes temporary eye muscle tension, slightly altered eye, cornea shape with incorrect focus of light rays in the eye causing temporary blur that results in a unnecessary prescription for eyeglasses and over-corrected lenses that are too strong and cause increased eye muscle tension, abnormal eye shape, mental strain, increased blur and future prescriptions for stronger eyeglass lenses.
If the patient knew the letters on the chart and was allowed to relax, and use Correct Vision Habits; shifting, central-fixation... on the letters; the mind, eye muscles, eyes would remain relaxed, the letters on the memorized and unfamiliar eyecharts would be seen clear and the eyeglass prescription would be avoided.

Place a familiar eyechart in the home, work, school and shift on the letters occasionally.
Practice all Correct Vision Habits on the letters;
Central-fixation; the letter the eyes are looking at is placed in the center of the visual field; between the eyes, at eye level.
Look at and see one letter darkest black, clearest at a time in the center of the visual field. The letter the eyes are looking at is in the center of the visual field and is clearest.
Other letters on the chart around and away from the letter are in the peripheral field and are less clear.
Avoid staring, squinting, trying hard to see letters clear. Blink, relax and combine shifting with central-fixation;
When looking at a letter; shift on it from small part to small part. Move the small exact center of the visual field part to part, (point to point) on the letters. Blink, let the eyes move. Shift relaxed, easy, continually, restful.

See Doctor Bates directions in his articles in the Close Vision chapter; 'The Menace of Large Print' and 'Think Right'.

See the 'Illusion of Oppositional Movement'; the letter appears to move in the opposite direction the eyes move to, a small, quick movement no larger than the size of the letter. 'The Swing.' See Better Eyesight Magazine and this Chapter; The Long Swing, Rock, Short Swing.

When reading a eyechart;
Don't spend a long time looking at a letter if it's unclear. Avoid staring, squinting, straining, trying hard to see it. Shift on it, then move, shift to a new letter. Shift on that letter.
Blink, breathe abdominally, relax.
Shift from letter to letter on the chart.
It is ok to stay on one letter if relaxation, eye shifting occurs. Relax, shift point to point-see small parts-let the eyes move on the letter automatically, on their own.
The eyes, head/face, neck and body are relaxed and move freely. Move the head/face and body with the eyes when shifting on a letter and from one letter to another.

When moving to a new letter, move the head/face, body with the eyes and look/face directly at the letter.
The center of the visual field is clearest. The center of the visual field moves with the eyes from letter to letter, placing each letter the eyes look at, one letter at a time, in the center of the visual field, keeping each letter perfectly clear.
The exact center of the visual field is most clear; place the part of the letter the eyes look at in the exact center of the visual field.
Shift the eyes (visual attention) from small part to small part, moving the small exact center of the visual field from small part to small part (point to point), seeing one small part (point) of the letter darkest black, clearest at a time in the exact center of the visual field. (The part (point) of the letter the central field is on, moving upon/over is clearest while the central field is on that part.)
Practice on small and fine print letters.

The exact center of the visual field; produced by the fovea centralis in the center of the macula, in the center of the eyes retina can be seen/measured by looking at a capitol letter E, 3/8" high, 20/20 line of the distant eyechart, from 20 feet away.
When looking directly at the E, the E occupies space in the center of the visual field produced by the macula and fovea. When looking at a small part of the E (Example; a part in the center of the E), that small part is in the exact center of the visual field produced by the fovea.
+Light rays from this part of the E focus on the center of the fovea when looking at this part, placing it in the center of the visual field.
+Light rays from other areas of the center of the visual field focus on the macula around the fovea.
+Light rays away from the E in the peripheral field of vision focus on the peripheral field of the retina around/away from the fovea and macula.
The fovea (especially the center of the fovea) produces the clearest vision, clearer than 20/20.
The outer fovea and macula produce very clear vision, clearer than 20/20, but not as perfect as the center of the fovea.
The peripheral field of the retina produces less clear vision.
The far outer peripheral field is the most unclear.

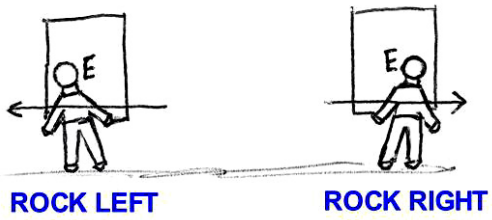
See a letter clear by placing it in the center of the visual field and then;
use the exact center of the visual field; place one small part of the letter at a time in the exact center of the visual field and see it darkest black and clearest.
Avoid staring; always shift the eyes to prevent staring, immobility; shift/move the eyes/visual attention (exact center of the visual field) from small part to small part on the letter; top to bottom, side to side, corner to corner, middle; shift from small part to small part in any direction on the letter.

Example; shift from dot to dot on the letter E. See picture on page 5.
As the eyes/exact center of the visual field move from part to part (dot to dot); see each part, one small part (dot) at a time darkest black, clearest in the exact center of the visual field.
The entire visual field moves with the eyes as the eyes shift from part to part;

Example;
Looking at the small part (dot) in the middle of the E.
This part is in the exact center of the visual field and is darkest black and clearest. All other parts are in the peripheral field and are less clear.
Now; shift from that small part in the middle of the E to a small part (dot) on the far edge of the top right side. The small part on the top right is now in the exact center of the visual field, its light ray is focusing on the fovea and it is seen darkest black and clearest.
The previous part and all other parts of the E are in the peripheral field and less clear.
Shift to a new small part; that new part is now in the exact center of the visual field and is darkest black and clearest. Blink.
The eyes can shift to a new part each second, fraction of a second, but, in that short time that a part is in the exact center of the visual field, it is seen darkest black and clearest. This is central-fixation.
When the eyes see the part/area of visual attention with the exact center of the visual field, central-fixation, the exact center is very clear, much clearer than 20/20, and the outer center of the visual field is also very clear, clearer than 20/20 and the peripheral field is normally less clear but is at its maximum clarity.
Seeing clear with central-fixation improves clarity and function of the entire visual field.

When the mind, body, eyes are relaxed the letters are clear.
Do the rock and long swing in front of the eyechart and do not try to see any letters clear. Just relax, rock or swing left and right and notice the soothing oppositional movement of the chart;
When the eyes, head/face, body swing left <; the chart appears to move right >.
When the eyes, head/face and body swing right >; the chart appears to move left <.
The rock, long swing.
Relax and rock or swing left and right without trying to see the letters.

ROCK LEFT AND RIGHT IN FRONT OF THE CHART
RELAX, DONT TRY TO SEE THE LETTERS CLEAR



Then, stop moving left and right. (Some small relaxed movement can be maintained.)
Look at the chart and shift on a letter for a second or two. Blink, breather, relax.

'The Short Swing'

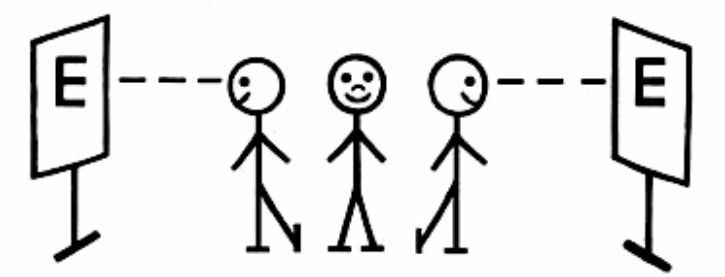
See the 'Illusion of Oppositional Movement' of the letter when the eyes shift on it;
+Shift from the left side of the letter to the right side > ;
the letter appears to move 'Swing' to the left <.
+Shift from the right side of the letter to the left side < ;
the letter appears to move 'Swing' to the right >.
Shift up, down, any direction and see the letter appear to move in the opposite direction the eyes/visual attention move to.
Practice shifting and seeing oppositional movement on large, medium, small and fine print letters at close, middle and far distances.
The movement of the letter is short, less than the width of the letter.
Blink and relax.
Seeing oppositional movement of the letter relaxes the mind and eyes, improves the clarity of vision.
Practice shifting on the letter and seeing the illusion of oppositional movement with the eyes open, then in the imagination (use memory, imagination) with the eyes closed, then with the eyes open again.
The long swing and rock are longer movements of the eyes, head, body and produce a longer (swing) appearance of oppositional movement.
Shifting on a small letter produces a smaller oppositional movement, a small Short Swing.
With practice, smaller shifts, on small letters, with a small appearance of oppositional movement Short Swing of the letter can be done. This greatly improves shifting, central-fixation and produces very clear vision. Short, small and tiny shifts, swings produce very clear vision, clearer than long, larger shifts, swings. All shifts, swings activate relaxation, movement and improve the vision.

Next; return to the rock or long swing.
The rock, long swing keeps the mind, body, neck, eyes relaxed, keeps the eyes shifting and vision clear. Stop rocking, swinging left and right every once in a while and then, shift on the letters on the chart again. Notice they are seen clear when the mind/eyes are relaxed and there is no effort to see.

Shorten the rock for a short shift, swing;
Rock left and right 2 feet, then 1 foot, then 6 inches, 4,3,2,1, ½... inch. Rock with a small movement ½ - 1 - 2... inches left and right and shift on the letters on the eyechart. See a small swing of oppositional movement of the letters. The rock keeps the eyes, head/face, neck, body relaxed, moving when looking at a letter. This prevents staring and blur. The small shift, swing also produces clear vision.

Practice Dr. Bates method of 'Flashing' the Letters; looking at, shifting on a letter for only a fraction of a second, then looking away to a different letter or object, shift on that object, then return to the letter, shift on it, fraction of a second, then look away, return, look away...
This prevents effort to see, prevents strain and blur; there is not enough time to strain, try to see any object so relaxation is maintained.
The normal eye moves continually, restful, shifting easy from point to point.

Practice The Long Swing with 2 Identical Eyecharts: Flashing, Shifting for a 'Fraction of a Second' on letters on the Eyecharts:



The Long Swing with Two Eyecharts
Identical eyecharts placed on left and right side of the body.
Swing and turn left and right and 'Flash' glance at, shift on a letter on the eyechart for a 'fraction of a second'-
Swing, turn left and 'flash' a letter on the left chart: Blink and shift quickly, easy on the letter. Do not stop swinging.
Swing and turn right and flash a letter on the right chart.
Keep swinging left and right, glancing at the letters. Relax, no effort to see - vision be comes clear.

Place 2 identical eyecharts on the left and right sides of the body.
Swing left and right and Flash a letter on the eyechart for a fraction of a second;
+Swing left < ; shift on, flash the letter for a fraction of a second on the left chart. Blink.
+Swing right > ; shift on, flash the identical letter for a fraction of a second on the right chart. Blink.
Then swing back to the left side, flash the same letter again... Repeat right, left, right, left...
Do this without stopping; keep moving, swinging left and right. Do not stop swinging when looking at the letter. The eyes, head/face and body move, swing and turn left and right together, at the same time, in the same direction. See The Long Swing.

The continual movement keeps the eyes, mind, body relaxed, left and right brain hemispheres integrated. The very short time the eyes, head, body are facing the chart prevents strain, staring at the letter. The eyes shift on the letter quick, easy, do not try to see it clear. Relaxation occurs and vision becomes clear. Practice on identical letters, then on any letters, then on smaller letters.

'Flashing the letters' = Shifting on a letter for a fraction of a second produces a 'Flash' of clear vision. The flash of clarity may last only a second but with practice, maintaining relaxation, the flashes occur more often, last longer, and vision remains clear.

Practice palming, covering the eyes, then reading, flashing the letters on the eyechart. Palming-chapter 6.

+Palm for a while and relax.
+Uncover and open the eyes and look at a letter on the chart.
+Shift on the letter for only a second or fraction of a second.
No effort to see clear.
+Then cover the eyes and palm again. Think pleasant thoughts.
Remember, imagine shifting on the letter and see it dark black and clear in the mind. See the mental picture of the letter show oppositional movement as the eyes shift on the image of the letter.
+Uncover, open the eyes and shift on the letter again, fraction of a second.
+Palm again.
+Repeat palming and shifting on the letter (flashing the letter) for a fraction of a second.
This method keeps the eyes, mind relaxed, prevents effort to see, mental, visual strain and blur. Flashes of clear vision will occur.
When relaxation of mind, eyes continues, the vision, letters remain clear.

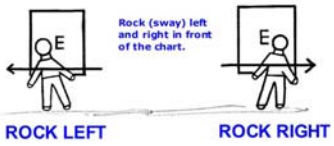
Rock, sway the body left and right in front of the eyechart again and see the chart, letters move, swing in the opposite direction.

Then; Reduce the length of the rock to 2-4 inches, moving left and right and shift part to part on a letter. Let the eyes move freely to another letter, then another as the body, head, eyes move left and right.
No effort to see. Just relax, shift, blink, breathe abdominally.

Rock up and down 1-2 inches. Rock on the feet 1-2 inches forward and backward.

http://www.youtube.com/watch?v=863yFmc-Ius
http://www.youtube.com/watch?v=mYpsYPPV_hg

Click the links for YouTube Videos teaching Natural Vision Improvement with Eyecharts.



The pothooks eyechart is designed for children, adults that have not yet learnt to read the alphabet. The person points their hand in the direction the E is pointing.
Familiar objects relax the mind, eyes and keep the vision clear. This eyechart is easy to see clear because it is a familiar object: the person knows that every letter on the chart is an E. This makes it easier, more relaxing to look at the different size unclear E's and use the memory and imagination to see the E's clear: the person only needs to shift on the E, guess, imagine which way the E is pointing to see it clear.
When the brain remembers, imagines a clear, dark black letter E and guesses, imagines the E pointing in the correct direction; the brain, eyes relax, the brain directs the eye muscles, eyes to move, shift correct, directly on the letter E and the E is seen clear.
If the person guesses an incorrect direction, the E remains unclear because the eyes, brain are trying to shift on, see an incorrect image, trying to shift, move the eyes along areas of the white page away from the E. See the Pothooks Eyechart on the right.

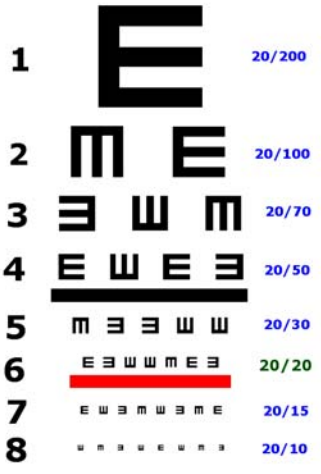
Read another example of guessing with the memory and imagination; looking at, guessing the # 7 on a bus; chapter 7 - Memory and Imagination.

Shift top and bottom, left and right on the E. (Shift dot to dot). Blink.

Flash a letter -
+Shift on the E for a fraction of a second then
+look away from it to another object or close the eyes, palm and remember the E, shift on it in the mind. Or just think any pleasant thoughts with the eyes closed.
+Open, shift on the E fraction of a second,
+Close, repeat...

+Use the memory, imagination:
Remember, imagine the E is clear when the eyes are open and when closed. Practice on any objects, at any distance.

Pothooks, Tumbling, Inverted E Eyechart



2 - Eyechart Pictures From Ophthalmologist Bates Medical Articles

The pictures below show how strain, squinting, effort to see clear causes the letters on the eyechart to appear unclear.
Relaxation, no effort = the letters are seen clear.

Throw Away

By W. H. Bates, M. D.

¶ When Mr. Hapgood was in Berlin he was astonished to see that the authorities had taken glasses off the school children. An American is pioneer in the movement

¶ Does your boy squint?

¶ This boy is reading the Snellen test card with normal vision. Note the absence of facial strain.

¶ The same boy straining to see at a distance is producing myopic astigmatism in eyes previously normal.

¶ In this picture the boy is making himself myopic by partly closing his eyes and making conscious effort to read the test card at ten feet.

¶ It is not light that is injurious to the eye. This woman is reading the Snellen test card while the sun is shining into her eye.

Dr Bates, Emily Lierman, Bates and a Bates Method Student

Dr. Bates Directions for Eyecharts. From Better Eyesight Magazine

BETTER EYESIGHT

October, 1919

THE SWINGING CURE

If you see a letter perfectly, you may note that it appears to pulsate, or move slightly in various directions. If your sight is imperfect, the letter will appear to be stationary. The apparent movement is caused by the unconscious shifting of the eye. The lack of movement is due to the fact that the eye stares, or looks too long at one point. This is an invariable symptom of imperfect sight, and may often be relieved by the following method:
Close your eyes and cover them with the palms of the hands so as to exclude all the light, and shift mentally from one side of a black letter to the other. As you do this, the mental picture of the letter will appear to move back and forth in a direction contrary to the imagined movement of the eye. Just so long as you imagine that the letter is moving, or swinging, you will find that you are able to remember it, and the **shorter and more regular the swing, the blacker and more distinct the letter will appear**. If you a re able to imagine the letter stationary, which may be difficult, you will find that your memory of it will be much less perfect. Now open your eyes and look first at one side and then at the other of the real letter. If it appears to move in a direction opposite to the movement of the eye, you will find that your vision has improved. If you can imagine the swing of the letter as well with your eyes open as with your eyes closed, as **short**, as **regular** and as **continuous**, your vision will be normal.

FUNDAMENTALS OF TREATMENT

By W. H. Bates, M. D.

BETTER EYESIGHT

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

June, 1921

HOW TO DEMONSTRATE THE FUNDAMENTAL PRINCIPLE OF TREATMENT

The object of all the methods used in the treatment of imperfect sight without glasses is to secure rest or relaxation, of the mind first and then of the eyes. Rest always improves the vision. Effort always lowers it Persons who wish to improve their vision should begin by demonstrating these facts.
+ **Close the eyes and keep them closed for fifteen minutes. Think of nothing particular, or think of something pleasant. When the eyes are opened, it will usually be found that the vision has improved temporarily. If it has not, it will be because, while the eyes were closed, the mind was not at rest.**
+ **One symptom of strain is a twitching of the eyelids which can be seen by an observer and felt by the patient with the fingers. This can usually be corrected if the period of rest is long enough.**
+ Many persons fail to secure a temporary improvement of vision by closing their eyes because they do not keep them closed long enough. Children will seldom do this unless a grown person stands by and encourages them. Many adults also require supervision.
+ To demonstrate that strain lowers the vision, think of something disagreeable—some physical discomfort, or something seen imperfectly. When the eyes are opened, it will be found that the vision has been lowered. Also, stare at one part of a letter on the test card, or try to see the whole letter all alike at one time. This invariably lowers the vision and may cause the letter to disappear.

ALL errors of refraction and many other eye troubles are cured by rest; but there are many ways of obtaining this rest, and all patients cannot do it in the same way. Sometimes a long succession of patients are helped by the same method, and then will come one who does not respond to it at all.

+Closing the Eyes. — The simplest way to rest the eyes is to close them for a longer or shorter period and think about something agreeable. This is always the first thing that I tell patients to do, and there are very few who are not benefited by it temporarily.

+Palming .— A still greater degree of rest can be obtained by closing and covering the eyes so as to exclude all the light. The mere exclusion of the impressions of sight is often sufficient to produce a large measure of relaxation. In other cases the strain is increased. As a rule, successful palming involves a knowledge of various other means of obtaining relaxation. The mere covering and closing of the eyes is useless unless at the same time mental rest is obtained. When a patient palms perfectly, he sees a field so black that it is impossible to remember, imagine, or see, anything blacker, and when able to do this he is cured. It should be borne in mind, however, that the patient's judgment of what is a perfect black is not to be depended upon.

+Central Fixation. — When the vision is normal the eye sees one part of everything it looks at best and every other part worse in proportion as it is removed from the point of maximum (central) vision. When the vision is imperfect it is invariably found that the eye is trying to see a considerable part of its field of vision equally well at one time. This is a great strain upon the eye and mind, as anyone whose sight is approximately normal can demonstrate by trying to see an appreciable area all alike at one time. At the near-point the attempt to see an area even a quarter of an inch in diameter in this way will produce discomfort and pain. Anything which rests the eye tends to restore the normal power of central fixation. It can also be regained by conscious practice, and this is

sometimes the quickest and easiest way to improve the sight. When the patient becomes conscious that he sees one part of his field of vision better than the rest, it usually becomes possible for him to reduce the area seen best. If he looks from the bottom of the 200 letter to the top, for instance, and sees the part not directly regarded worse than the part fixed, he may become able to do the same with the next line of letters, and thus he may become able to go down the card until he can look from the top to the bottom of the letters on the bottom line and see the part not directly regarded worse. In that case he will be able to read the letters. On the principle that a burnt child dreads the fire, it is a great help to most patients to consciously increase the degree of their eccentric fixation. For when they have produced discomfort or pain by consciously trying to see a large letter, or a whole line of letters, all alike at one time, they unconsciously try to avoid the lower degree of eccentric fixation which has become habitual to them. Most patients, when they become able to reduce the area of their field of maximum vision, are conscious of a feeling of great relief in the eyes and head and even in the whole body. **Since small objects cannot be seen without central fixation, the reading of fine print, when it can be done, (with relaxation, without effort, no squinting, strain) is one of the best of visual exercises, and the dimmer the light in which it can be read and the closer to the eye it can be held the better. (Practice reading fine print in the sunlight for healthy eyes.)**

+Shifting and Swinging.—The eye with normal vision never regards a point for more than a fraction of a second, but shifts rapidly from one part of its field to another, thus producing a slight apparent movement, or *swing*, of all objects regarded. The eye with imperfect sight always tries to hold its points of fixation, just as it tries to see with maximum vision a larger area than nature intended it to see. This habit can be corrected by consciously **imitating the unconscious shifting of the normal eye and realizing the swing produced by this movement**. At first a very long shift may be necessary, as from one end of a line of letters to another, in order to produce a swing; but sometimes even this is not sufficient. In such cases patients are asked to hold one hand before the face while moving the head and eyes rapidly from side to side, when they seldom fail to observe an apparent movement of the hand. Some patients are under such a strain, however, that it may be weeks before they are able to do this. After the apparent movement of the hand has been observed, patients **become able to realize the swing resulting from slighter movements of the eye until they are able to look from one side to another of a letter of diamond type and observe that it seems to move in a direction contrary to the movement of the eye.**
A mental picture of a letter can be observed to swing precisely as can a letter on the test card and, as a rule, mental shifting and swinging are easier at first than visual. The realization of the visual swing can, therefore, be cultivated by the aid of the mental swing. It is also an advantage to have the patient try to look continually at some letter, or part of a letter, and note that it quickly becomes blurred or disappears. When he thus demonstrates that staring lowers the vision he becomes better able to avoid it. **When visual or mental swinging is successful, everything one thinks of appears to have a slight swing**. This I have called the ***universal swing***. Most patients get the universal swing very easily. Others have great difficulty. The latter class is hard to cure.

+Memory.—When the sight is normal the mind is always perfectly at rest, and when the memory is perfect the mind is also at rest. Therefore it is possible to improve the sight by the use of the memory. **Anything the patient finds is agreeable to remember is a rest to the mind**, but for purposes of practice a small black object, such as a period or a letter of diamond type, is usually most convenient. **The most favorable condition for the exercise of the memory is, usually, with the eyes closed and covered, but by practice it becomes possible to remember equally well with the eyes open.**
When patients are able, with their eyes closed and covered, to remember perfectly a letter of diamond type, it appears, just as it would if they were looking at it with the bodily eyes, to have a slight movement, while the openings appear whiter than the rest of the background. If they are not able to remember it, they are told to shift consciously from one side of the letter to another and to consciously imagine the opening whiter than the rest of the background. When they do this, the letter usually appears to move in a direction contrary to that of the imagined movement of the eye, and they are able to remember it indefinitely. If, on the contrary, they try to fix the attention on one part of the letter, or to think of two or more parts at one time, it soon disappears, demonstrating that it is impossible to think of one point continuously, or to think of two or more points perfectly at one time, just as it is impossible to look at a point continuously, or to see two points perfectly at the same time. Persons with no visual memory are always under a great strain and often suffer from pain and fatigue with no apparent cause. As soon as they become able to form mental pictures, either with the eyes closed or open, their pain and fatigue are relieved.

+Imagination.—Imagination is **closely allied to memory,** for we can imagine only as well as we remember, and in the treatment of imperfect sight the two can scarcely be separated. **Vision is largely a matter of imagination and memory**. And since both imagination and memory are impossible without perfect relaxation, the cultivation of these faculties not only improves the interpretation of the pictures on the retina but improves the pictures themselves. When you imagine that you see a letter on the test card, you actually do see it because it is impossible to relax and imagine the letter perfectly and, at the same time, strain and see it imperfectly. The following method of using the imagination has produced quick results in many cases: The patient is asked to look at the largest letter on the test card at the near point, and is usually able to observe that a small area, about a square inch, appears blacker than the rest, and that when the part of the letter seen worst is covered, part of the exposed area seems blacker than the remainder. When the part seen worst is again covered, the area at maximum blackness is still further reduced. When the part seen best has been reduced to about the size of a letter on the bottom line, the patient is asked to imagine that such a letter occupies this area and is blacker than the rest of the letter. Then he is asked to look at a letter on the bottom line and imagine that it is blacker than the largest letter. Many are able to do this and at once become able to see the letters on the bottom line.

+Flashing.—Since it is effort that spoils the sight, many persons with imperfect sight are able, after a period of rest, to **look at an object for a fraction of a second**. If the eyes are closed before the habit of strain reasserts itself, permanent relaxation is sometimes very quickly obtained. This practice I have called *flashing*, and many persons are helped by it who are unable to improve

their sight by other means. The eyes are rested for a few minutes, by closing or palming, and then a letter on the test card, or a letter of diamond type, if the trouble is with near vision, is regarded for a fraction of a second. Then the eyes are immediately closed and the process repeated.

+Reading Familiar Letters.—The eye always strains to see unfamiliar objects, and is always relaxed to a greater or lesser degree by looking at familiar objects. Therefore, the reading every day of small familiar letters at the greatest distance at which they can be seen, is a rest to the eye and is sufficient to cure children under twelve who have not worn glasses as well as some older children and adults with minor defects of vision.

In the treatment of imperfect sight these fundamental principles are to a great extent interdependent. They cannot be separated as in the above article. It is impossible, for instance, to produce the illusion of a swing unless one possesses a certain degree of central fixation. That is, one must be able to shift from one point to another and see the point shifted from less distinctly than the one directly regarded. Successful palming is impossible without mental shifting and swinging and the use of the memory and imagination.

All these functions of the visual system work together, are integrated. Practicing, improving one, improves all. Practice improving each one and all are greatly improved. Relax, Blink, Breathe abdominally, Shift, Central Fixation, Memory and Imagination, Oppositional Movement (The Swing), Switching and Shifting on objects at close and far distances with both eyes together, one eye at a time, both eyes together again, shifting on familiar objects/eyechart letters, Flashing, Read Fine Print, Sunning, daily exposure to sunlight, Palming, Good Posture, exercise,
Diet …

STORIES FROM THE CLINIC

Better Eyesight Magazine

16: Methods That Have Succeeded

By Emily C. Lierman

The patients who come to our clinic do wonderful things, especially the schoolchildren. We can give each one of them, as a rule, only about five minutes of our time, and yet they are able to carry out the instructions given to them at home, and to get results. This is a great tribute to their patience and intelligence.

Most of the children, and of the grown people as well, are helped by palming, and some wonderful cures have been obtained by this means alone. In my first story for this magazine I told about a little boy named Joey whose left eye had been so injured in an automobile accident that he had only light perception left. It was some time before I could get him to palm regularly, but as soon as he became willing to do it many times a day his sight began to improve rapidly, and he is now completely cured.

There are some patients, however, who cannot or will not palm. One of these was a little colored girl, with corkscrew curls, for all the world like Topsy. She had been sent to the clinic because she could not see the writing on the blackboard, and the school nurse told me later that she was very unruly and a great trial to her teacher. She was something of a trial to me too at first, for I could not get her to palm for a moment, and did not know what to do with her. Then I discovered that she had a wonderful memory when she chose to use it, and I resolved to treat her by the aid of this faculty. I was able to improve her sight considerably, and the very next day her teacher noticed such a change in her behavior that on the next clinic day the school nurse came with her to see what I had done. I then asked her to remember, with closed eyes, a letter on the test card grey instead of black. She could not stand still a minute while she did so, and when she opened her eyes there was no improvement in her vision. Then I asked her to remember the blue beads she had around her neck. She did so for five minutes, standing perfectly still all the time, and when she opened her eyes she read an extra line on the test card. I had her do this again, and again she read an extra line. The nurse was thrilled by this demonstration of the fact that **perfect memory improves the sight and relieves nervousness**.

Recently a poor young man called at our magazine office and asked if Dr. Bates had written a book about the treatment of the eyes. When told that there was such a book, he bought it and also subscribed for the magazine. His sister was being treated at the clinic, he said, and he wished to take off his glasses as she had done. Later he came to the clinic, as he lives in the hospital district. I found that he could not read newspaper print without his glasses, while his distant vision was 12/70, both eyes. This was about six months ago. He now reads diamond type, and last week his sister asked Dr. Bates if he had finer print, as her brother found the diamond type so easy that he wanted something smaller. Dr. Bates gave her a page from a photographic reduction of the Bible, and he reads this also without any trouble. The methods he used were **swinging** and **flashing**, **together with palming**.

The influence of this cure has been extensive and is still going on. The patient loaned the book to a myopic youth in his office, and by means of palming he was able to improve his sight so that now he dispenses with glasses for long periods. An elderly man in the same office thought the palming a very absurd practice but, having borrowed the book, he started shifting and flashing at lunch time, just to pass the time. He now does much of his work without glasses.

HOW I IMPROVED MY EYESIGHT

By PAMELA SPEYER

This patient was wearing when first seen the following glasses: each eye, concave 5.00 D.S. combined with concave 1.00 D.C. A number of competent men had said that her myopia was progressive, and that her vision was certain to become very imperfect even with glasses. They all insisted that she must wear glasses constantly. Yet after she had discarded them her vision improved in two days from 6/200 to 20/100.

I have always been near-sighted. When I was six years old, my father took me to a famous oculist in London, and he prescribed and fitted me with my first glasses. With these lenses I was able to distinguish things at a distance which before I had not been able to see. I found that I could read or see objects at close range just as well without the glasses. The only difference that they made to my sight in this case was that print appeared smaller and less black.

Every year stronger lenses were given to me, and I visited several oculists in England and America, in the hope of improvement. When I was fifteen an oculist told me that my eyesight, instead of improving each year as I had hoped, would gradually become worse. By this time I was wearing glasses all the time.

Then, quite by chance, my father heard of Dr. Bates through a friend whose eyesight had been cured by him. I was taken there at once. The first thing Dr. Bates did was to take away my glasses. I sat down in a chair, opposite which was a Snellen test card, fifteen feet away. I could not see the largest letter, a "C" about four inches by three, which people with normal vision are supposed to read at two hundred feet. He brought the card five feet nearer and then I read the "C." It appeared very blurred and indistinct.

The smaller letters were so blurred that I could not see them at all.

Palming

Treatment steps

+Palm
+Swing
+Shift and see oppositional movement. Blink, relax.
+Long Swing
+Sway and shorter sway.
+Shift on a small or fine print letter and see a small, very short swing, (small oppositional movement).
+'Flash' letters, objects for a fraction of a second: Shift on a letter for a fraction of a second, then palm.
+Close the eyes and remember, imagine the letter clear and shift on it, see the swing in the mind.

After I had learned to "**palm**," I learned to "**swing**." The reason I strained my eyes so when looking at the card was that I stared at one place. So by **imagining the letter was swinging like a pendulum, I moved my eyes instead of staring** as I had done before. **At first the swing was a long one, but after practicing for some weeks, I began getting it shorter until it was only half an inch on each side of the letter. The short swing was more difficult to do than the long one, but it helped more in the end.**

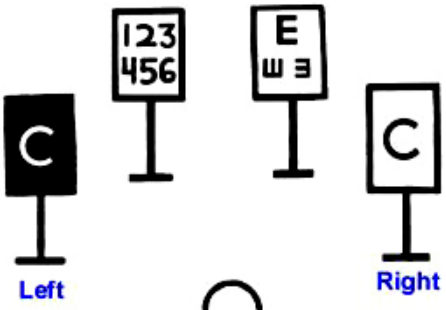
Flashing

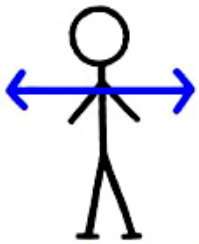
Then I learned to "**flash**." I looked at a small letter at fifteen feet distance and could not read it. The longer I looked the worse it grew. So by **closing my eyes, remembering the swing for a few seconds, I just glanced at the letter and closing my eyes at once, I saw the letter in a flash.**

All these things must be practiced every day, and even now I have to "palm" every morning and night.

Palming, swinging and flashing were the three fundamentals. As soon as they were mastered only practice remained. I have now been going to Dr. Bates for over a year, and my eyesight is almost cured. I often have flashes of perfect sight. Dr. Bates has certainly helped me in a remarkable degree, more indeed than I ever thought possible when I first went to him wearing strong glasses.

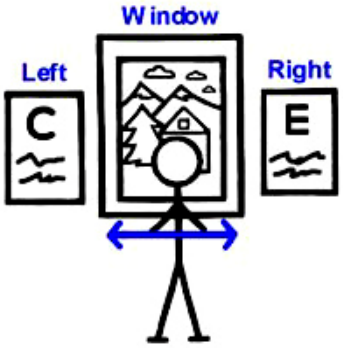
Palm and remember, imagine a flower, its color, white cloud with sun shining behind it, blue sky and any pleasant objects, scenery that is easily remembered clear, perfect.
See objects clear, in color, motion: wind blowing green grass, pink, blue, purple, red, orange... flowers, yellow black bee with golden pollen on its legs, rainbow colors in its clear wings flying about the garden.





Sway left and right in front of 4 eyecharts. Blink. Notice the charts appear to move past in the opposite direction to the movement of the body. (More movement is seen with the charts at close distances before 20 ft.) Shift without effort on a letter on the charts for a second, fraction of a second when swaying in the direction of a chart. No effort to see. No staring. Keep moving. Relax. Do the same with the Long Swing. Swing right and 'shift for a fraction of a second' 'flash' on the letter C on the chart on the right. Then swing left and 'flash' the letter C on the chart on the left. Then, flash a number on the card on the left when moving left and flash a inverted E on the E card when moving right. Practice flashing, seeing clear smaller letters at various distances.

Sway left and right



Sway left and right

Charts can also be placed on the left and right sides of a open window. Sway and swing left and right and shift, flash the letters on the left and right charts as described above. Shift on distant objects outside the window. Practice day and night.

For Pilots - Aviators - Better Eyesight Magazine

Many articles on pilot's vision are posted in Dr. Bates Better Eyesight Magazines.
Do word search in the Adobe Reader Better Eyesight Magazine PDF; Aviators, Pilots, Air Force, Military, Marines, Navy, Army, War, Soldiers...

Here is one of the Pilots Articles from Better Eyesight Magazine;

Better Eyesight

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

September 1928

EYESTRAIN

The eyes of all people with imperfect sight are under a strain. This is a truth. Most people believe that during sleep the eyes are at rest and that it is impossible to strain the eyes while sound asleep. This, however, is not true. Persons who have good sight in the daytime under favorable conditions may strain their eyes during sleep. Many people awake in the morning suffering pain in the eyes or head. Often the eyes are very much fatigued and have a feeling of discomfort. There may be also a feeling of nervous tension from the eyestrain, or there may be a feeling as of sand in the eyes. At times all parts of the eye may be suffering from inflammation. The vision is sometimes lowered for several hours whereupon it begins to improve until it becomes as good as it was before the person retired the night before. Many people become alarmed and seek the services of some eye doctor. Usually the doctor or doctors consulted prescribe glasses which very rarely give more than imperfect or temporary relief.

There are various methods of correcting eyestrain occurring during sleep. Palming is very helpful even when practiced for a short time. A half an hour is often sufficient to relieve most if not all of the symptoms. In some cases the long swing, practiced before retiring, is sufficient to bring about temporary or permanent benefit. Blinking and shifting are also helpful. Good results have been obtained by practicing a perfect memory or imagination of one small letter of the Snellen test card alternately with the eyes open and closed. A number of patients were benefited and usually cured by remembering pleasant things perfectly.

AVIATORS' EYES

By W. H. Bates, M.D.

AVIATION is becoming more popular than ever before. The writer has treated many aviators who had, within a few months, acquired trouble with their eyes which made it dangerous for them to continue to fly. During the war a Major, an Aviator in the Army, consulted me about his eyes. His principle trouble was dizziness. He was wearing glasses for the correction of a slight astigmatism. The glasses did not relieve the dizziness. At this time a large number of aviators had been killed by falls.

The history of this aviator was very interesting and valuable. He was positive that a number of years previously when he began to practice flying that his sight was normal - 20/20 with each eye or with both. After a few years he noticed that his sight was impaired and that he had attacks of dizziness which did not last long in the beginning. These attacks of dizziness would come without warning while he was flying about one thousand or more feet above the ground. While he was conscious of the dizziness, he noted that his machine (plane) started to fall and continued falling until the dizziness stopped. It was some months before he realized that with every attack of dizziness the machine fell a greater distance, and he feared that these spells would ultimately cause his death.

Like most Army and Navy men, the Major did as he was told and was cured by me. This is the way it was done. I tested his eyes with the ophthalmoscope and retinoscope and found no disease of his eyes. The retinoscope revealed a small amount of astigmatism in each eye. His vision for the test card was 20/30. When he closed his eyes and rested them, the astigmatism became less and his sight for the test card became normal - 20/20. This was accomplished in about an hour. The improvement was only temporary, however, and he was given advice for treatment at home. A large test card was given him with directions to read it with each eye separately at twenty feet. He was directed to rest his eyes often by closing them. It was suggested to him that he look at one letter which he remembered better with his eyes closed than he imagined or saw it with his eyes open. By repetition, his vision for the known letter improved and his sight for unknown letters and other objects improved until his vision became 25/10. He was under treatment for about a month and he was seen at irregular intervals during that time. Since that time I have not heard from him personally.

Other aviators have been benefited by the same treatment. There is a right way and there is a wrong way to use the eyes when controlling a flying machine. The time required to do the wrong thing is just as long as the time required to do the right thing. The aviator can also demonstrate that an imperfect memory, imagination or sight is more difficult than a perfect memory, imagination or sight.

For example, a small letter "o" can be remembered imperfectly on one of the lines of small letters of the Snellen test card, but a stare or strain to see it with a white center as white as snow may require much effort, time and trouble. The imperfect whiteness of the letter soon disappears while its blackness turns to a shade of dark or light gray, all covered by a blurred cloud. The concentration, the effort to see, brings on discomfort, fatigue, pain, dizziness and other nervous symptoms which are all difficult to remember, imagine or feel. The memory, imagination or sight can only be demonstrated easily when exercised without strain. The successful pilot when at his best is always doing the right thing.

When riding in a fast moving train, the telegraph poles, although fastened to the ground, appear to move in the opposite direction. But any effort to stop this movement brings on a strain which may cause much pain, dizziness, fatigue or other nervous discomfort. The Major, who recognized the bad effects of dizziness from imperfect sight, believed that the dizziness, if sufficient, could cause fatal accidents when flying. He became able consciously to produce dizziness by eyestrain or by an effort to improve his vision.

He was taught to imagine the floor to be moving when he walked about his rooms. Swaying his head and eyes from side to side enabled him to imagine the floor to be always moving. When he steered his plane to the right, all objects seen appeared to move to the left. When he moved to the left all objects seen appeared to move to the right. He was able to lengthen the apparent movement of stationary objects. The wider the movement, the less was the sight improved, while a shorter movement of the eyes or head was followed by a greater improvement.

It was difficult for him to demonstrate that perfect sight can only be obtained by rest and prevented by an effort. But when he had learned that it was a truth without an exception he soon became able to demonstrate the facts. He was encouraged to improve his vision by using various or all parts of his machine as objects for testing and improving his sight. The more successful he was in improving his memory for objects, the better was the vision. We can only remember perfectly what we see perfectly; we can only imagine perfectly what we remember perfectly; we can only see perfectly what we imagine perfectly.

The time required for a cure varies with individuals. The eyes of some aviators may be under a greater strain than that of others.

The aviator should demonstrate that shifting the eyes or moving the eyes from one small part of his plane to other objects is restful and that his sight is always improved by resting his eyes. Blinking or closing the eyes and opening them quickly is also a rest. He should also demonstrate that closing the eyes for a few seconds or longer and then opening them for a shorter time is a benefit to the sight. Palming or covering the closed eyes with the palm of one or both hands when done right always improves the vision. Blinking, shifting, or palming can be practiced before entering the plane and so accidents may often be avoided.

While attacks of dizziness are a frequent cause of accidents, many of them fatal, there are numerous other causes which are just as serious or important. Many fliers of airplanes seldom have accidents. What is the secret of their success? It is due to their control at all times in all places.

Control of what?

The answer is: Control of the mind, control of the eyes and of all the nerves generally.

When the efficiency of the mind is at its maximum, it is at rest. Nothing is done consciously or unconsciously. It was a shock to the writer to discover with the aid of the retinoscope that the greatest strain of the body occurred during sleep. Strain is always accompanied by a loss of mental control when things go wrong. Accidents, fatal accidents, always mean a loss of mental control. The fact should be demonstrated. It should also be demonstrated that it is more difficult to fail than to succeed.

"Lindy" (Charles Lindbergh – Pilot) could not have crossed the Atlantic Ocean, a 3,000 mile journey, by making a constant effort to obtain nervous control. The effort would have caused fatigue, and no man can have control of his nerves by using some form of effort. Dizziness is caused by prolonged effort and no man could fly very far when dizzy. The eyesight of even the best of us would become imperfect in a few minutes or less. Now let me ask how many of the best aviators could be efficient if their sight should become imperfect?

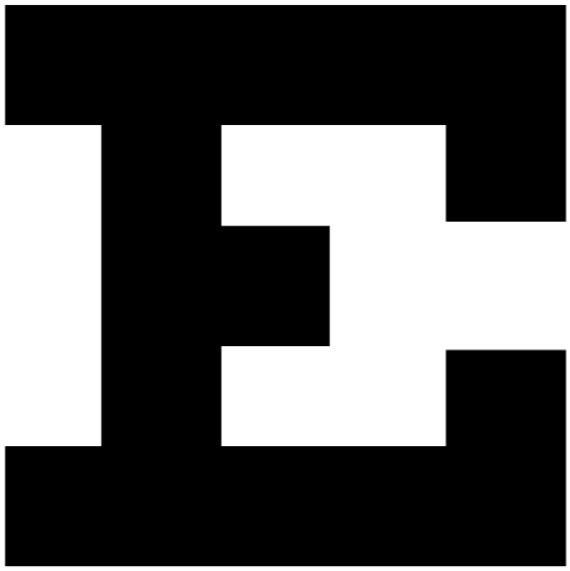
Control is necessary.

How can it be obtained? Very easily. First demonstrate that doing the wrong thing - like staring, straining or making an effort to remember, imagine or see - requires an effort, while resting the eyes or mind is easy and requires no effort.

It is a common experience for many people to fail to remember a person's name. An effort to remember it always fails but if they rest their minds by thinking of something else the name comes to them without their volition. A perfect memory can be obtained by practice. Perfect mental control comes or is manifest when the memory is perfect. Practice is important and very necessary. One may see and remember familiar or well known objects with the eyes open but better with the eyes closed. By alternating, the memory with the eyes open improves until it becomes as good as with the eyes closed. This means mental control of the mind, eyes, and all the nerves of the body.

The imagination can also be improved by practice. For example, if a well known or familiar letter of a sign or print on a card can be imagined more clearly than it really is, the vision of all parts of the letter is improved as well as the vision for other objects which were not seen before. Imagining the letter alternately with the eyes open and closed is a benefit to the imagination and the memory as well as to the sight. The aviator can improve his control by improving his memory, imagination, and sight, while flying. It is not necessary for him to practice on letters or other objects several miles away. He can practice successfully, more or less continuously, on the face of his compass or some other part of his machine. Finally he should remember that perfect control can only be obtained by rest and not by any effort whatever.

20/200 at 200 Feet



20/100

F P

20/70

T O Z

20/60

P D C

20/50

L P E D

20/40

P E C F D

20/30

E D F C Z P

20/25

F E L O P Z D

20/20 Vision at 20 Feet

20/20 D E F P O T E C

20/15

L E F O D P C T

20/13

F D P L T C E O

20/10

P E Z O L C F T D

20/8

E D L T O Z F C P

20/6

L P C F E T O D Z

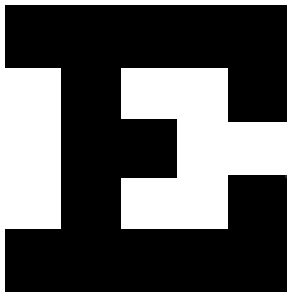
20/5

T F D O P Z L E C

Very Clear Vision, Small Print Clear at 20 Feet

Z C T L O P D F E

20/200



F P

T O Z

L P E D

P E C F D

E D F C Z P

F E L O P Z D

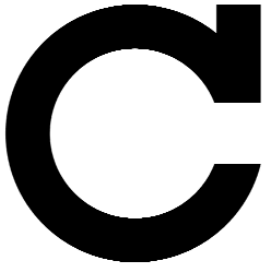
20/20 D E F P O T E C

L E F O D P C T

F D P L T C E O

P E Z O L C F T D

Big C Chart
From Better
Eyesight
Magazine



R B

T F P

5 C G O

4 K B E R

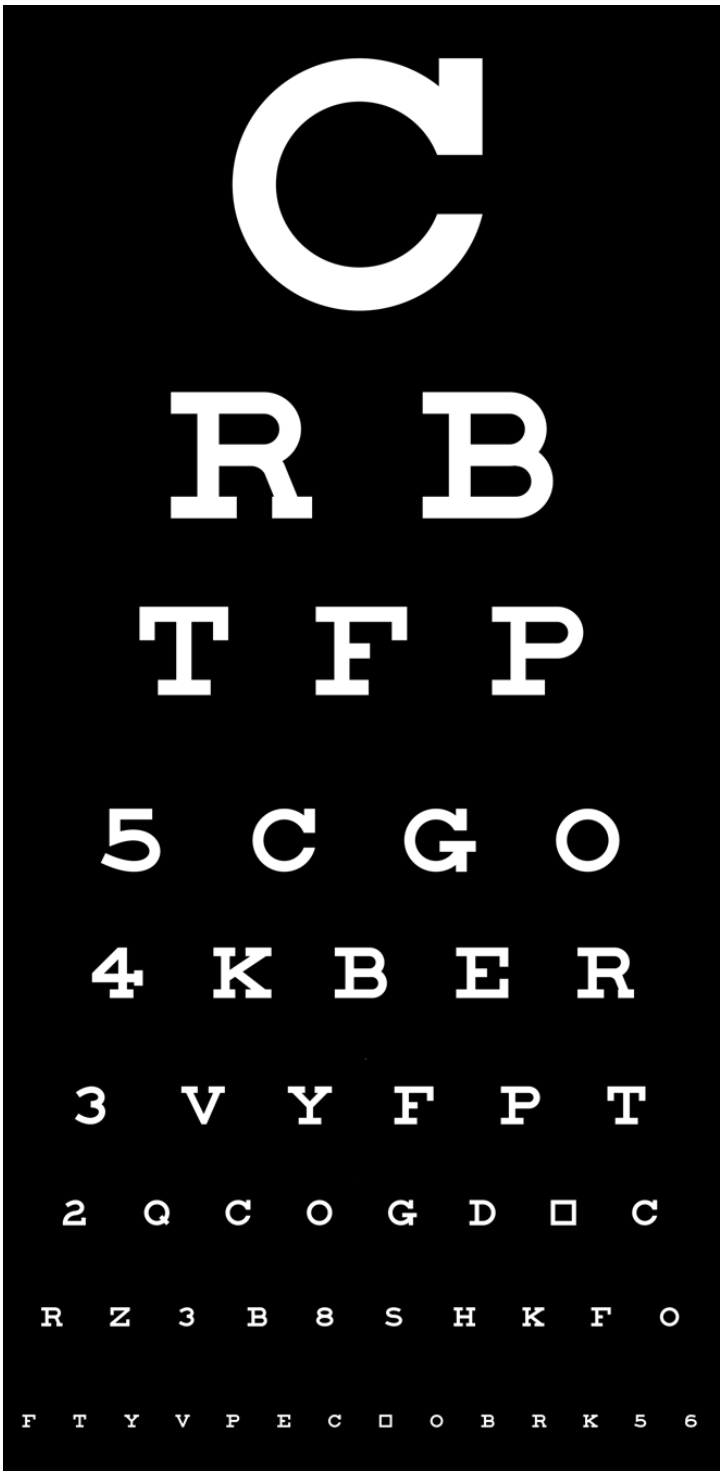
3 V Y F P T

20/20 2 Q C O G D □ C

R Z 3 B 8 S H K F O

F T Y V P E C □ O B R K 5 6

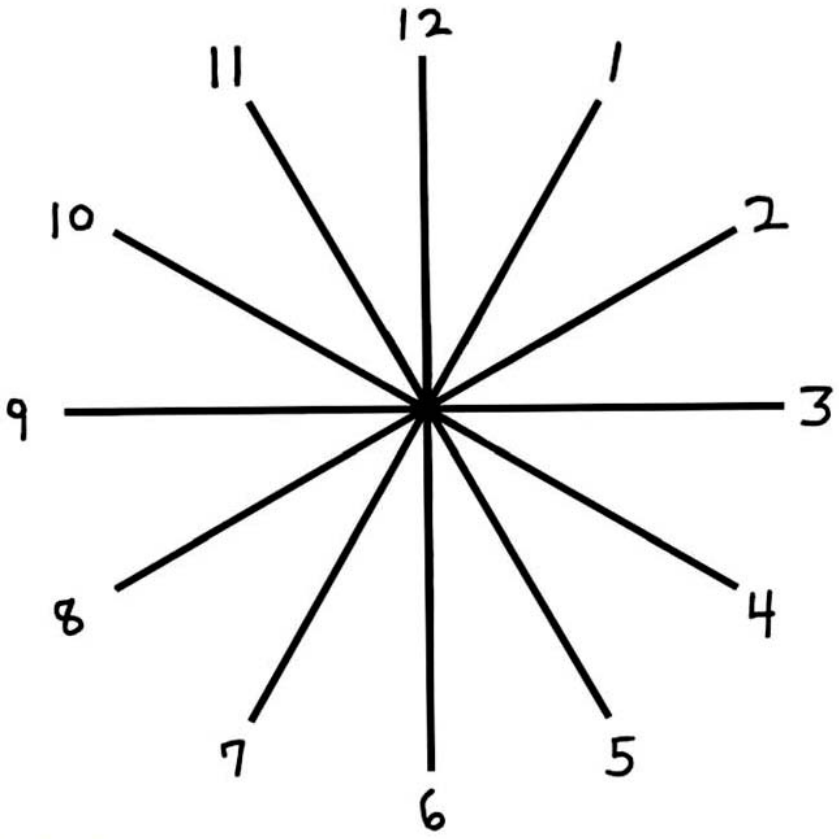
White Print Relaxes the Mind and Eyes



20/20

Astigmatism Removal
Natural Eyesight Improvement for Clear Vision

Natural Eyesight Improvement astigmatism removal wheel



Shift on the lines;
Left and right - 9 to 3, 3 to 9
Up and down - 12 to 6, 6 to 12
Diagonally - 8 to 2, 2 to 8, 10 to 4, 4 to 10, 5 to 11, 7 to 1
Shift, trace on the lines in any direction; center to left or right, up, down, diagonally... and back to center.
Move the eyes/center of the visual field along the lines and remember, imagine, see the lines dark black and perfectly clear.
Central fixation; see one small part of a line clearest at a time in the center of the visual field and move the eyes/center of the visual field continually, easy, relaxed along the line from part ot part.
Blink. breathe slow, abdominally, relax.

Astigmatism Videos for this next training Lesson:
http://www.youtube.com/watch?v=W6YLe-Wgpv8
http://www.youtube.com/watch?v=UUF02OdGFCg

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12 PDF E-Books: Natural Eyesight (Vision) Improvement Training

Do It Yourself-Natural Eyesight Improvement-Original and Modern Bates Method

+ A Exact Copy the Author's Natural Eyesight Improvement Website in book form, with all Training, Activities, Treatments, Text, Pictures, Downloads, Links.
+ Natural Eyesight Improvement Training Book with 100+ Color Pictures. Less reading: Easy to learn steps-Read the short directions on the pictures to quickly learn, apply a treatment, activity for Fast Vision Improvement. (All of Dr. Bates, Clark Night's Kindle, PDF & Paperback books are in this E-Book.)
+ Better Eyesight Magazine by Ophthalmologist William H. Bates - (Unedited, Full Set - 132 Magazine Issues - 11 Years-July, 1919 to June, 1930.) Illustrated with 500 Pictures and additional, up to date Modern Natural Eyesight Improvement Training.
+ Original Better Eyesight Magazine by Ophthalmologist William H. Bates - Photo copy of all his Original Antique Magazine Pages in the 1900's Print. (Unedited, Full Set 132 Magazine Issues - 11 Years-July, 1919 to June, 1930.) A History Book. Learn Natural Eyesight Improvement Treatments directly from the Original Eye Doctor that discovered and practiced this effective, safe, natural method! Magazines & Method Hidden from the public by eye surgeons, Optometrists, optical businesses for over 100 years because this method works and frees the patient from the need to purchase eyeglasses, drugs, unnecessary eye surgery. Yes, it can and has reversed cataracts and other eye conditions!
+ The Cure of Imperfect Sight by Treatment Without Glasses by Dr. Bates (Photo Copy of the Original Antique Book Pages) with Pictures. Dr. Bates First, Original Book. (Text version with Modern Treatments included.) 2nd Printing Title: Perfect Sight Without Glasses.
+ Medical Articles by Dr. Bates - with Pictures.
+ Stories From The Clinic by Emily C. A. Lierman/Bates. (Dr. Bates Clinic Assistant, Wife.)
+ Use Your Own Eyes by Dr. William B. MacCracken M.D. (Trained with Dr. Bates.)
+ Normal Sight Without Glasses by Dr. William B. MacCracken M.D.
+ Strengthening The Eyes by Bernarr MacFadden & Dr. Bates - with Pictures and Modern Training. (Trained with Dr. Bates. One of the First Physical Fitness Teachers.)
+ EFT Training Booklet - with Acupressure, Energy balance, strengthening, Positive Emotions. Easy step by step directions with Pictures.
+ Seeing, Reading Fine Print Clear, Clear Close Vision (Presbyopia Treatments) with Videos.
+ Eight Correct, Relaxed Vision Habits- A Quick Course in Natural Eyesight Improvement.
+ Astigmatism Removal Treatments - Natural Eyesight Improvement with Astigmatism Swings, Eyecharts and Videos.
+ Eyecharts Booklet with Natural Eyesight Improvement Basic Training.
+ Eyecharts - 15 Large, Small and Fine Print Big C, E Charts for Close and Distant Vision, White and Black Letter Charts, Tumbling E Chart, Astigmatism Test and Removal Charts, Behavioral Optometry Charts. Eyechart Video Lessons.
+ Audio Lessons in Every Chapter
+ Video Links in Training Chapters - Learn a Treatment, Activity Quick and Easy.
+ Videos Page: Links to 35+ Natural Eyesight Improvement Training Videos; YouTube and on the Author's Website. Download Videos to DVD with Real Player SP, Convert for Television. Watch YouTube Videos on Cable TV. Watch for new videos in 2011-2012.
E-Book contains over 1500 pages. 650+ Color Pictures. No security; print, bind all 12 books.
Read the Books, Watch the Videos for Complete Natural Eyesight Improvement Training.

Check the 'New Stuff Page' on http://cleareyesight.info/id61.html for notice when new Chapters, Activities are added to the PDF, Kindle Books. Contact mclearsight@aol.com for the new download link. Print the pages, add them to the Paperback Book.

When the vision becomes clear with Natural Eyesight Improvement, old fashioned paper Eyecharts and the new eye tests using a machine at the Eye Doctors office and when testing for a Drivers License are seen clear. Paper charts are healthier, natural. The machines prevent complete normal, natural eye function and can cause temporary unclear vision. Natural Eyesight Improvement can prevent unclear vision.