Better Eyesight Magazine

Original Antique Pages

By

Ophthalmologist William H. Bates

July, 1919 to June, 1930 - 132 Issues

Better Eyesight

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

Vol. I JULY, 1919 No. 1

$2.00 per year 20 cents per copy

Published by the CENTRAL FIXATION PUBLISHING COMPANY
39-45 EAST 42nd STREET NEW YORK, N. Y.

Better Eyesight Magazine

Original Antique Magazine Pages

July, 1919 to June, 1930 - 132 Monthly Issues
By Ophthalmologist William Horatio Bates M.D.,
Eye, Ear, Nose & Throat

Stories From The Clinic by
Emily C. A. Lierman, Bates Included

Dr. William H. Bates
Ophthalmologist - M.D.
Eye, Ear, Nose & Throat.
Discovered the Principles
of Eye Function-Natural
Eyesight Improvement.

Better Eyesight

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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 the letters themselves, 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.

Natural Eyesight Improvement

The Bates Method

This Book Contains a Photo Copy of the Original Printed Pages of Ophthalmologist William H. Bates Better Eyesight Magazine. Every Year, Month, Page from July, 1919 to June, 1930. Unedited. True History! An Antique Collection, The Origin of Natural Eyesight Improvement. Treatments, Activities from the Eye Doctor that discovered and practiced this effective technique of Natural, Normal Eye Function.

Book consists of his Original Treatments and a 2nd additional Better Eyesight Magazine Book Illustrated with 500 Pictures, containing the Original and Modern Versions of Older Treatments & New Treatments. Read the Original and New 2nd Book to learn which treatments have been improved or changed, how to practice the activities, treatments correct.

Pictures with directions are placed in the 2nd book to help the reader quickly understand each activity Dr. Bates describes. Learn and apply Natural Eyesight Improvement, obtain clear vision easy and fast. Safe, Natural Treatments for Clear Close, and Distant Vision, Astigmatism, Cataract, Glaucoma and other Eye Conditions.

12 Natural Eyesight Improvement E-Books, Eyecharts, Videos & Audio Training included.

**Pictures, blue text in the 2nd book are drawn, written by Clark Night. Books Assembled, Distributed by Clearsight Publishing Co. -
Do It Yourself–Natural Eyesight Improvement.
Clearsight Publishing Co., www.cleareyesight.info preserves Ophthalmologist Bates work free and low cost to the public. mclearsight@aol.com**

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. 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.

Entire Introduction, Dedication to Dr. Bates, Directions for viewing pages clear, How to use the PDF E-Book are on the last pages of this book. Click Here

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Dedication To

David Kiesling

Ophthalmologist William H. Bates Original Better Eyesight Magazine Issues (in their Antique Print from the 1900's) were destroyed, hidden from the public by Eye Doctors, the Optical Industry for many years after Dr. Bates death. The magazines contain the truth about the eyes function, effective, safe Natural Eyesight Improvement-The Bates Method, taught directly from Dr. Bates, 'Do It Yourself' Training. Most Eye Doctors prefer to sell eyeglasses, eye surgery, drugs and hide Natural Eyesight Improvement from their patients. Dr. Bates worked to prevent this during his lifetime. After Dr. Bates death, Bates Teachers, Students and a few honest Eye Doctors preserved his Better Eyesight Magazines, Original book and Medical Articles, hid them from Eye Doctors, the Optical Industry in order to prevent their destruction.

As time went on, natural cures became popular, the public realized the harm that eyeglasses, drugs, certain eye surgeries (cornea laser…) caused. Public demand, true freedom of the press on the Internet made it safe for Dr. Bates magazines, books to be brought back to the public without fear of imprisonment, fines by the Eye Doctors, Optical Industry. Now in Modern times, there are more honest Eye Doctors (Ophthalmologists, Optometrists) teaching Natural Eyesight Improvement. Optical businesses work with Bates Method Behavioral Optometrists, Students to provide low cost, weaker and weaker eyeglasses (temporarily, only if needed for safety; driving, work…) as the Bates Method Student reverses his/her vision back to perfect clarity with application of The Bates Method of Natural Eyesight Improvement.

Most modern Natural Eyesight Improvement Teachers did not provide their students access to Dr. Bates original magazines. They hide, are very protective of their training, source of knowledge.

David Kiesling is the first Bates Method Teacher to search for and re-assemble all 132 Issues of Dr. Bates Original, Unedited Better Eyesight Magazine. Every year, month, page is included in the collection. Over 2400 pages. He also preserved Dr. Bates Medical Articles and has Dr. Bates original book 'Perfect Sight Without Glasses' (The Cure of Imperfect Sight by Treatment Without Glasses) on his website.

Read about how David cured his eyesight; unclear vision, strabismus and learn free Natural Eyesight Improvement on his 11 year Website, Forum at www.iblindness.org. This Paperback book is created from David's Original Better Eyesight Magazine PDF E-Book.

Article by David Kiesling;

Like many people, I first discovered these magazines when Tom Quackenbush put them together as a paperback volume years ago when I was just starting to explore the topic of vision improvement. I read it over the next few months and started improving my vision.

Dr. Bates came up with his material based largely on his own experimentation and clinical observations, with very little else to draw from. Today we have a whole frame of reference for what we call the "Bates method", based on Bates material and the insights offered by other people throughout the decades. Optometry and the scientific world are slowly coming to grips with the fact that vision problems don't have to be permanent like they once believed. The evidence is piling up. Dr. Bates, however, lived in a time where he was almost entirely alone with his theories, and the results his patients obtained with his methods were simply ignored. So he had the task of trying to explain aspects of what he was observing in some kind of cohesive way, when what he was observing was supposed to be impossible. At that time in the US there wasn't even any concept of stress-related disorders. Behavioral Optometry hadn't gotten off the ground yet. What things should he pay attention to when people could see more clearly? Why was it happening? In my opinion, he did an admirable job putting it all together. It was his life's work.

Now with modern technology we can distribute this kind of material much more easily and get it out there for more people to read than ever before. I gathered up copies of all the original magazines and put them together in an e-book. They were just image scans of all the pages, so later on Mary spent countless hours converting the entire collection to text, proofreading it, and adding helpful comments throughout.

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Your purchase supports free and low cost Natural Eyesight Improvement and Donations to the Guide Dog Schools, Perkins School for the Blind, DAV, ASPCA at; http://cleareyesight.info/id73.html

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.

All sentences stating 'Refer Too' page or chapter is for the pages in the PDF E-Books.

March 2012 -14 books included-See website

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

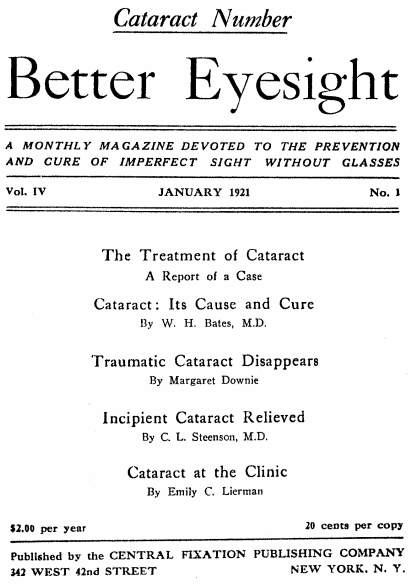
Original Antique Magazine Pages

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.

Distributing this book free to the public is encouraged. Keep this page in the Original Better Eyesight Magazine E-book that states; The modern version is free with the original book and should also be read to insure correct application of some of the older original practices, treatments.

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.

+David Kiesling - http://www.iblindness.org For creating, bringing the first photo copy of all Dr. Bates Original Better Eyesight Magazines back to the public. Every page, month, year in original antique print type! This proved that Dr. Bates is the discoverer of Natural Eyesight, Vision Improvement, the true source of the Bates Method. Original Pictures of Better Eyesight Magazine Pages and Dr. Bates... were provided, purchased from David.

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

Better Eyesight Magazine

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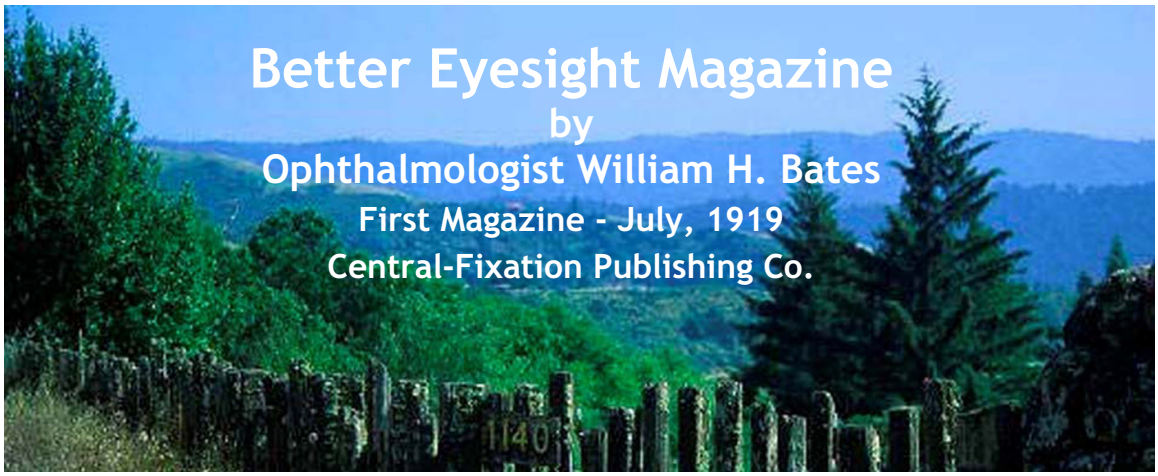
This Index contains additional articles that are in the E-Book; 'Better Eyesight Magazine Illustrated with 500 Pictures'.



Better Eyesight

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

Vol. I JULY, 1919 No. 1

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39-45 EAST 42nd STREET NEW YORK, N. Y.

"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

Better Eyesight

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

Vol. I **JULY, 1919** **No. 1**

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39-45 EAST 42nd STREET **NEW YORK, N. Y.**

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.

Aug. W. H. Bates
Aug. 28 1924

BETTER EYESIGHT

A Magazine devoted to the prevention and cure of imperfect sight without glasses

Editor—W. H. BATES, M.D.
Publisher—CENTRAL FIXATION PUBLISHING CO.

Vol. I JULY, 1919 No. 1

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 interferring with vision, slight nystagmus, and color blindness. Even total blindness in one eye was not a cause for rejection in 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.

[1]Havard: Manual of Military Hygiene for the Military services of the 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.

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 per cent. higher.[1]

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 experi-

[1]Second Report of the Provost Marshal General to the Secretary of War on the Operations of the Selective Service System to December 20, 1918.

mental 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.

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." [1]

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.

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.[2] 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.

[1]Everyman's Library, 1908, pp. 166 and 167.

[2]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.

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.[1] When the vision of such persons becomes imperfect at the distance it will be found that myopic refraction has been produced;[2] 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,

[1]Bates: The Imperfect Sight of the Normal Eye. N. Y. Med. Jour., Sept. 8, 1917.

[2]*Idem:* The Cause of Myopia. N. Y. Med. Jour., March 16, 1912.

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.

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 fixa-

tion, 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.

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. 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 he does not see best where he is looking, and that when he looks a sufficient distance away from a point 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.

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 he 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:

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 at the top and see the bottom worse. With practice she became able to look at the smaller letters in the same way, and 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.

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.

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 gonorrhœa, 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.

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 ear-marks 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.[1] Once in a great while I feel the necessity of it. The same with remembering a period.[2] 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.

[1]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.

[2]Bates: *Memory as an Aid to Vision*. N. Y. Med. Jour., May 24, 1919.

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 pleasant 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.

SCHOOL NUMBER

Better Eyesight

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

Vol. I AUGUST, 1919 No. 2

$2.00 per year 20 cents per copy

Published by the CENTRAL FIXATION PUBLISHING COMPANY

39-45 EAST 42nd STREET NEW YORK, N. Y.

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.

BETTER EYESIGHT

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

Editor—W. H. BATES, M.D.
Publisher—CENTRAL FIXATION PUBLISHING CO.

Vol. I AUGUST, 1919 No. 2

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 specalist 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

[1] For reports of all the papers quoted, see Jour. Am. Med. Assn, June 21, 1919.

Cycloplegics - Paralyzed Accommodation Inner Eye Muscle

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.[1] 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

1 Bates: The Imperfect Sight of the Normal Eye, N. Y. Med. Jour., Sept. 8, 1917.

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." [1]

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 reforms, 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." [2]

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.[3] 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

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1 The Hygiene of the Eye in Schools, English translation, edited by Turnbull, p. 127.

2 System of Diseases of the Eye, 1897, Vol. II, p. 361.

3 Brit. Med. Jour., June 18, 1898.

survey of the whole question, to the "absolutely negative results of school hygiene,"[1] and Dr. Sidler-Huguenin reports[2] 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,[3] 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 Asso-

[1] Die Entstehung der sphärischen Refraktionen des menschlichen Auges, Berlin, 1913, p. 540.

[2] Archiv f. Augenhlk., Vol. LXXIX, 1915, translated in Archives of Ophthalmology, Vol. XLV, No. 6, November, 1916.

[3] Bates: The Cause of Myopia, N. Y. Med. Jour., March 16, 1912.

ciation 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.[1] In many

[1] Bates: The Prevention of Myopia in School Children, N. Y. Med. Jour., July 29, 1911.

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. 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 City [1] with an attendance of about ten thousand children. Many of the teachers neglected to use the cards, being unable to believe that such

[1] Bates: Myopia Prevention by Teachers, N. Y. Med. Jour., Aug. 30, 1913.

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 shownig 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.

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 travellers. 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.

THE STORY OF EMILY

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 th 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

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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 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.

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Better Eyesight

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

Vol. I SEPTEMBER, 1919 No. 3

$2.00 per year 20 cents per copy

Published by the CENTRAL FIXATION PUBLISHING COMPANY
39-45 EAST 42nd STREET NEW YORK, N. Y.

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.

BETTER EYESIGHT

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Editor—W. H. BATES, M.D.
Publisher—CENTRAL FIXATION PUBLISHING CO.

Vol. 1 **SEPTEMBER, 1919** **No. 3**

VISION AND EDUCATION

Poor sight is admitted to be one of the most fruitful causes of retardation in the schools. It is estimated[1] 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

1 School Health News, published by the Department of Health of New York City, February, 1919.

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 haye 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 irrarational 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.

Better Eyesight

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

Vol. I OCTOBER, 1919 No. 4

The Swinging Cure

Simultaneous Retinoscopy

Floating Specks

Correspondence Treatment

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Published by the CENTRAL FIXATION PUBLISHING COMPANY
39-45 EAST 42nd STREET NEW YORK, N. Y.

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.

BETTER EYESIGHT

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

Editor—W. H. BATES, M.D.
Publisher—CENTRAL FIXATION PUBLISHING CO.

Vol. I **OCTOBER, 1919** **No. 4**

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 focussed 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 débris 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 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.

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

Vol. I NOVEMBER, 1919 No. 5

The Memory Cure

Reason and Authority

The Effect of Light Upon the Eyes

Two Points of View

$2.00 per year **20 cents per copy**

Published by the CENTRAL FIXATION PUBLISHING COMPANY
39-45 EAST 42nd STREET NEW YORK, N. Y.

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.

BETTER EYESIGHT

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

Editor—W. H. BATES, M.D.
Publisher—CENTRAL FIXATION PUBLISHING CO.

Vol. I NOVEMBER, 1919 No. 5

REASON AND AUTHORITY

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 astigmatism[1] suffered from almost constant headaches which were very much worse when she took her glasse soff. 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

1 A condition in which the eye is shortsighted in all meridians, but more so in one than in the others.

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 benefitted 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.

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 wtihout 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."[1] Since then,

[1] Jour. Am. Med. Assn., Dec. 10, 1910, p. 2028.

Verhoeff and Bell have reported[1] 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

[1] Proc. Am. Acad. Arts and Sciences, July, 1916, vol. 51, No. 13.

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 overstimulated. This is one cause of headaches and tired eyes."[1]

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

1 School Hygiene, Brief Course Series in Education, edited by Paul Monroe, Ph.D., 1916, pp. 235-236.

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.

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.

Blindness Number

Better Eyesight

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

Vol IV MARCH 1921 No. 3

$2.00 per year 20 cents per copy

Published by the CENTRAL FIXATION PUBLISHING COMPANY
300 MADISON AVENUE NEW YORK, N. Y.

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.

BETTER EYESIGHT

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

Editor—W. H. BATES, M.D.
Publisher—CENTRAL FIXATION PUBLISHING CO.

Vol. IV **MARCH, 1921** **No. 3**

BLINDNESS: ITS CAUSE AND CURE

By W. H. BATES, M.D.

As ordinarily used the word *blindness* signifies a degree of defective sight which unfits the patient for any occupation requiring the use of the eyes. Scientifically it means a state in which there is no perception of light. Speaking of this condition in his *Cause and Prevention of Blindness* Fuchs tells us that except in extraordinarily rare cases it is incurable, and this is the accepted opinion of ophthalmology today.

The facts that have come to me during thirty-five years of ophthalmological practice have convinced me that the above statement should be reversed, and made to read: "Except in extraordinarily rare cases blindness is curable." In fact, unless the eyeball has been removed from the head, I should be unwilling to set any limits whatever to the possibility of relieving this greatest of human ills, for I have never seen a case of injury or disease of the eye which was sufficient to prevent improvement of vision. In all cases of blindness, whatever their cause, a mental strain has been demonstrated, and when this strain has been relieved perception of light has always been obtained.

Even when the eyeball has been so shrunken that the patient scarcely seemed to have an eye sight has been restored. In one such case the cornea of the left eye had shrunk to an eighth of an inch in diameter, and only a suggestion of the sclera was visible, while the right eye was reduced to a quarter of its normal size and showed only a hazy cornea and a blurred piece of iris, with no pupil. The patient was ten years old, and the condition of her right eye was congenital (present at birth); that of the left was due to an inflammation which she suffered when she was a year old. From that time she had had no perception of light; but in fifteen minutes she became able to see the furniture of the room indistinctly and to imagine that it was swinging. In spite, however, of this remarkable demonstration of what could be accomplished by relaxation her parents did not bring her again.

Atrophy of the optic nerve is one of a considerable number of diseases, like detachment of the retina, irido-cyclitis and absolute glaucoma, which have been placed beyond the pale of hope by the science of ophthalmolgy. Yet persons with atrophy of the optic nerve sometimes have normal vision, and persons blind from this cause sometimes recover spontaneously. At the New York Eye and Ear Infirmary, thirty years ago, a patient was exhibited who had all the symptoms of atrophy of the optic nerve, but who nevertheless possessed perfect sight. The case was exhibited later at the Manhattan Eye and Ear Hospital, the New York Ophthalmological Society, and the Ophthalmological Section of the New York Academy of Medicine. Later I saw several similar cases; but when a colored woman came to my clinic a few years ago with atrophy of the optic nerve it did not occur to me that it would be possible to help her. Not knowing what to do I asked her to sit down while I

attended to some other patients, and meanwhile my assistant, Mrs. Lierman, who tells the rest of the story in a later article, got hold of her and made her see. Later many similar cases were relieved. A few obtained normal vision, but most of them did not have the courage to continue the treatment long enough for this purpose.

A few weeks ago a patient came to me completely blind in both eyes from atrophy of the optic nerve. Before he left the office he had become able, by the aid of the swing, to see the light with both eyes. He went away greatly encouraged, and promised to come again as soon as he returned from a neighboring city. Later he sent me a statement, signed by an oculist and witnessed by a notary public, to the effect that he was completely and incurably blind from primary optic atrophy. I have not seen him since.

The following remarkable story of a spontaneous cure was told me recently by a patient: A commercial traveller, a friend of the man who told me the story, was treated for two years in a Chicago Hospital for total blindness from atrophy of the optic nerve. Although the doctors told him that his case was quite hopeless, he refused to believe it. He talked much of a grey cloud that he had seen before his eyes at the time he became blind, and said that if he could only remember how it looked he was sure it would help him. One day he had a perfect mental picture of that grey cloud, and at once he found that he could see. He is now back in his old position, doing his usual amount of work, attending to his correspondence, and reading as well as he ever did. Doctors who have examined his eyes since say he still has atrophy of the optic nerve and ought still to be blind.

Irido-cyclitis, a combined inflammation of the iris and ciliary body, is a frequent cause of blindness. Often it results from an injury to the adjoining eye, and in that case

is known as sympathetic ophthalmia. In severe cases it is believed to lead inevitably to blindness, which is, of course, thought to be incurable. Yet in all cases in which blindness has resulted from this disease I have seen perception of light, and even normal vision, restored.

One day a young girl came to my clinic with one eye as soft as mush from irido-cyclitis (the other having been removed four years before). The iris and pupil were covered by a white scar, and she had no perception of light. After palming, swinging and using her imagination for about fifteen minutes, the scar cleared up sufficiently for me to see the iris and pupil indistinctly, and two visiting doctors also saw them, while the patient saw the light. Later she became able to see people on the street, and to see the pavement and imagine that it was swinging. At that point she ceased coming to the clinic.

A case of practical blindness from this cause was cured within a month by the use of the imagination. When the patient looked at the large letter at the top of the card at one foot and was told what it was, he was able to imagine that he saw it, and thus he became able to see it actually. Then he did the same thing at ten feet. Next he imagined that he saw the first letter of the second line at ten feet, and became able to recognize the second letter. The same method was used with all the other lines, until he became able to imagine the first letter of the bottom line, and then go on and read the other letters.

When his eye was examined with the ophthalmoscope the vitreous was so opaque that one could not distinguish the optic nerve and retina. He said that the light bothered him, and prevented him from imagining any of the letters on the Snellen test card. With the retinoscope at six feet, however, he stated that the light did not bother him so much,

and he was able to imagine, while it was being used, that he saw a letter on the bottom line perfectly. The refraction was then normal, and a clear red reflex (light reflected from the retina) was obtained, indicating that the vitreous was now quite clear. When he failed to imagine that he saw the letter, the reflex was much blurred, indicating cloudiness of the vitreous. These are facts. I cannot offer any explanation for them.

Of detachment of the retina Fuchs says: "It is generally possible in recent and not too excessive cases of separation of the retina to obtain an improvement of the sight by a partial attachment, and in especially favorable cases even to cause the detachment to disappear completely. Unfortunately it is only in the rarest cases that these good results are lasting. As a rule, after some time, the separation develops anew, and ultimately, in spite of all our therapeutic endeavors, becomes total . . . In inveterate cases of total detachment it is better to abstain from any treatment." Compare this statement with the results obtained by central fixation, as told in the following article. In many other such cases useful vision has obtained.

The incurability of blindness resulting from glaucoma is taken so completely for granted that Nettleship defines absolute glaucoma as "glaucoma that has gone on to permanent blindness." Yet in the December (1920) issue of *Better Eyesight*, and again in this issue, is reported a case in which light perception was restored in an eye stone blind with glaucoma after a few minutes of palming. This was witnessed by several visiting doctors. Later the patient became able to read the twenty line at ten feet with this eye. As nearly half of our blind population at the present time is believed to be over sixty years of age, and a great part of the blindness of later life is attributed to glaucoma, the

curability of this condition is a fact of immense importance.

Statistics indicate that in this country, at the present time, external injury is the most frequent cause of loss of vision between the ages of twenty and thirty-four. I believe that a great part of this blindness could be relieved, for, as I have already stated, I have never seen an eye so badly injured that its vision could not be improved. To cite only one of many similar cases, a patient injured in an automobile accident became suddenly and completely blind, either from hemorrhage into the orbit, or from injury to the optic nerve. By palming and the use of his imagination he at once became able to count his fingers.

Perhaps the most remarkable cures of blindness are those in which the loss of vision is supposed to be due to general disease. These have frequently been relieved, partially or completely, without relief of the disease. Thirty years ago a man stone blind with what I diagnosed to be albuminuric retinitis was led into my clinic at the New York Eye and Ear Infirmary. This condition is so closely associated with disease of the kidneys that its existance is considered sufficient evidence of the existence of the latter. Yet the patient regained normal vision and held it up to the time of his death without any improvement in the condition of the kidneys. On the contrary the disease of these organs became worse, and when he died a few years later the physicians who performed the autopsy wondered how he had been able to live so long. The evidence seems to me complete that the blindness was not due to the kidney trouble but to strain.

Many diseases of the eye are attributed to syphilis. Yet in every case these conditions have been relieved by rest, and often the sight has become normal without any improvement in the syphilis.

In spite of the very prompt improvement which patients obtain in these cases, they often, as the cases mentioned in the foregoing pages show, fail to continue the treatment. The weight of public and professional opinion is too much for them, and they are practically compelled to take this course. Such dogmatism is both unwise and unscientific. The causes of disease are obscure and variable, and we do not know it all. It does not seem to me that a doctor is justified in telling a patient that he is incurable just because he has never seen such a case cured, or has forgotten, because it was contrary to rule, any case that he has seen. This may cause the patient to accept as inevitable a condition which might have been cured, and may even prevent Nature, because of the depressing effects of discouragement from doing what the doctor has failed to do. Still less is it justifiable for the medical profession to assume, as it now seems to do, that we have learned all there is to be known about blindness. Such an attitude throttles research, and actually exposes to the suspicion of being a quack any man who tries to help these unfortunates.

RELIEF OF RETINAL DETACHMENT

By Clara E. Crandall

Twenty-five years ago Samuel D. was struck in the left eye by a nail thrown carelessly from a roof, and nineteen years later, while he was chopping wood, a stick flew up, hitting him in the face and injuring the same eye.

There were, apparently, no serious consequences from either of these accidents, but about a year after the second one the patient noted that his sight was getting dim. He consulted an oculist, thinking that he probably required glasses, and was told that he had iritis. He was given drops

for this condition, and had been using them for a month when, on May 12, 1916, while digging in the garden, he went suddenly and completely blind in his left eye. The cause proved to be a detached retina, and the oculist whom he consulted sent him to a hospital where he underwent a thorough examination. His teeth were X-rayed, and it was thought best to remove his tonsils. He was then kept for eight weeks motionless, flat upon his back.

At the end of this time it was found that the retina, as a result of the complete rest, had become partially reattached, and the vision was, to some extent, improved. Hoping to improve it still further, the doctors operated upon the eye, but without success. Two weeks later a second operation was performed, after which the eye became totally blind again. The condition of the left eye was complicated by a traumatic cataract and senile cataract now developed in the right. He was sent to another hospital in the autumn where he was again thoroughly examined, but the doctors decided that nothing more could be done for him.

And so, with one eye totally blind and cataract rapidly obscuring the sight of the other, Samuel went back to his work as a gardener, trying to resign himself to the dark future before him. From month to month he struggled on; but he found it increasingly difficult to do his work, and felt that the time would soon come when he would have to give it up. He suffered greatly from the strain of trying to see, and complained of a constant yellow glare in the blind eye, together with many other painful and unpleasant symptoms which, he said, interfered with the sight of his right eye also.

From a time several years antedating his sudden attack of blindness Samuel has been in the employ of my family. After he became blind I went to Dr. Bates to have some eye

troubles of my own treated, and, hearing of the many remarkable cures that were effected by his method of treatment, it occurred to me that he might be able to do something for Samuel. It seemed to Samuel a forlorn hope, but as it was the only one he allowed me to take him last May to Dr. Bates' clinic in the Harlem Hospital.

At this time he was still without light perception in the left eye, and with the right was unable to make out the smaller letters on the test card when it was held a foot from his face, while even the largest letters appeared grey and blurred. Dr. Bates told him that the cataracts could be cured, and encouraged him to hope for improvement in the condition of the detached retina also. He told him to leave off the dark glasses he had been wearing, to palm as often and as long as possible, to drink twelve glasses of water a day, to imagine and flash the letters on the Snellen test card, and to imagine everything, himself included, as swinging.

Samuel followed these instructions conscientiously, and in a short time the strain and other distressing symptoms from which he had previously suffered were greatly relieved. The sight of the blind eye improved gradually. At the first visit he became able to distinguish light, and later he saw the shadowy image of a moving object, at first only when held close to the left side of his head, but afterward in all parts of his field of vision. The perception of light in the blind eye has grown steadily, and the vision has so improved that now, at a distance of fourteen feet, he can see a moving object against a strong light, while at the near-point he even thinks that he can sometimes catch a glimpse of the large letter on the Snellen test card. With the right he can read the smallest letters on the test card at the near-point, and they appear black and distinct. At fourteen feet he can flash them.

Among those who have benefited by Dr. Bates' remarkable discoveries, there is no one who owes more to them than Samuel D.; for now, instead of having to look forward to blindness and utter dependence on others, he has been enabled to take up his life with renewed courage and interest, confident that if he faithfully continues the treatment he will eventually obtain good vision in both eyes.

STORIES FROM THE CLINIC

13: The Relief of Blindness

By Emily C. Lierman

Clinic day is always a happy day for me. It is true one sees at the hospital a great deal of suffering, sorrow and poverty; but it is a pleasure to be able to relieve some of the suffering, and sometimes things happen which are very amusing.

Some time ago a blind negro was led into the clinic by a friend. This was a case which really ought to have been very sad, but it turned out, instead, to be very amusing. In spite of his affliction the patient seemed to be in a happy mood and very well pleased with himself. He was neatly dressed and his shoes, though worn, were carefully shined, while over them he wore spats. His cravat was a very bright red, and his hat was a light shade of tan. A cane, which his blindness compelled him to carry, completed a costume which I am sure he considered to be that of a real swell gentleman. When I approached him he said, in a very gracious manner:

"Glad to see you, ma'am! Glad to see you, ma'am!"

And yet he could not see me, as I soon found out. I held my fingers before his eyes and asked him if he could see them. He answered that he could not. Further tests showed

that he had no light perception whatever, and Dr. Bates said that his condition was due to atrophy of the optic nerve. I showed him how to palm, and after five minutes he pointed to an electric light in the ceiling and said:

"It looks light there."

I told him at once to palm again, and when he opened his eyes he saw the shadow of my fingers moving from side to side before his face. In a few moments, however, the blindness returned. Again I told him to palm, and while he was doing so I asked him if he could remember something black, or something else that he had seen before he became blind, such as a beautiful sunset, or white clouds. He thought a while, and then remembered that in the days when he had been a house-painter he had used black paint. I told him to remember the black paint while he was palming, and then I left him to attend to other patients. When I came back to him I held two of my fingers close to his face, and asked him if he could see them.

"Ma'am," he said, "I'm not at all sure, but I think I see two fingers."

I think the man must have been quite popular with the ladies, for he now remarked that one of his lady friends would be pleased if he could see her. He came quite regularly for a time, and each time I noted improvement in his vision. Sometimes this was not very marked, and then I knew that he had not been palming very much at home. He was greatly helped by the focusing of the sun's rays upon the white of his eyes with a burning glass. This had a very soothing effect.

He was soon able to dispense with his guide, and, when leaving the clinic, used to use his cane to obviate collisions with the benches, nurses and patients. One day as he was leaving the room Dr. Bates called my attention to him, and I noted that instead of tapping with his cane upon the floor

he was carrying it on his arm. With head erect he walked down the long corridor, opened the door and left the hospital, with apparently no more difficulty than a person with perfect sight. A little later he came without the cane. He became able at last to read the fifty line at five feet with both eyes, and then he stopped coming. Probably he thought he would be able to continue the treatment by himself.

In the October (1920) number of *Better Eyesight* I wrote about another case of blindness from atrophy of the optic nerve, the patient having no light perception. Unlike the preceding patient she was very much depressed by her condition, and begged me piteously to give her back the light of day. She had heard of our clinic through some of the patients, and had confidence that Dr. Bates or myself would give her some relief. But I was very far from feeling this confidence. Sometimes I am a doubting Thomas. I always try, however, not to reveal this fact to the patients, but simply go ahead and do the best I can. After this woman had palmed for ten minutes or longer, all the time remembering black stove polish, she became able to see the 200 letter a foot in front of her eyes. Since my previous article was written she has become able to read the ten line at this distance. She is able to go out to work during the day, and to work for herself at night, and she says she sleeps better.

In the December (1920) number I told the story of a woman who had absolute glaucoma of the right eye. This meant that she was stone blind. She was also suffering terrible pain in this eye. I had to do a great deal of coaxing to get her to palm, but I was willing to give her more time than I do to most of the patients, because her age was seventy-nine. With the exception of one or two relapses she got on nicely, and the last time I saw her she had half-normal vision for the distance in the once blind eye and

normal vision in the other. She had learned how to keep her eyes at rest by palming and using her imagination for flowers and other objects, and this relieved the strain which had been the cause of all the trouble.

We have had many cases of total blindness at the clinic, most of them due to glaucoma and atrophy of the optic nerve, a few to detachment of the retina and irido-cyclitis, and all have gained at least perception of light, while many have been more materially benefited. But most of them did not come more than a few times. It is unfortunate that the blind, as a rule, consider their condition so hopeless that it is difficult to convince them that any treatment is worth while, even after they have received some benefit from it.

Presbyopia Number

Better Eyesight

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

Vol IV APRIL, 1921 No. 4

$2.00 per year 20 cents per copy

Published by the CENTRAL FIXATION PUBLISHING COMPANY
300 MADISON AVENUE NEW YORK, N. Y.

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.

BETTER EYESIGHT

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

Editor—W. H. BATES, M.D.
Publisher—CENTRAL FIXATION PUBLISHING CO.

Vol. IV **APRIL, 1921** **No. 4**

PRESBYOPIA: ITS CAUSE AND CURE

By W. H. Bates, M. D.

PRESBYOPIA is the name given to the loss of power to use the eyes at the near point, without the aid of glasses, which usually occurs after the age of forty.

The text-books teach that this change is a normal one: but it is a noteworthy fact that many other eye troubles often date from the time of its appearance, or develop a little later. Many cases of glaucoma start about this time, and so do many cases of cataract and inflammation of the interior of the eye. Patients with presbyopia are very likely to have conjunctivitis. They are also subject to congestion and hemorrhages of the interior of the eye. One patient developed a lot of muscular trouble and a marked degree of double vision at the time he became presbyopic, and suffered three nervous breakdowns in quick succession. He was operated on for the muscular condition, and took prism exercises, but obtained very little relief. In another case a patient began to suffer, at the time she became unable to read without glasses, from a contraction of the muscles

of the face, congestion of the conjunctiva and continual headaches. The strain was so great that she had to keep her eyes partly closed, and glasses did nothing to relieve her discomfort. Up to the time when her presbyopia appeared she had had none of these troubles.

The accepted explanation for the loss of near vision with advancing years is that it is due to the hardening of the lens, but it is quite impossible to reconcile the facts with this theory; for not only does presbyopia occur much below the age of forty and even in childhood, but it is often delayed beyond the age of fifty, and sometimes does not occur at all. There are also cases in which near vision is restored after having been lost. We are told that presbyopia comes early in the hypermetropic (farsighted) eye, and late in the myopic (nearsighted) eye; that premature hardening of the lens and weakness of the ciliary muscle (supposed to control the accommodation) may cause it to appear in youth; and that the swelling of the lens in incipient cataract may account for the restoration of near vision after it has been lost; but there are still many cases to which these explanations cannot be made to apply.

It is true that hypermetropia does hasten and myopia prevent or postpone the advent of presbyopia, and as myopia may exist in only one eye, without the patient's being aware of it, he may think that his vision is normal both for the near-point and the distance. There are cases, however, in which the vision has remained absolutely normal in both eyes long after the presbyopic age, and a considerable number of these cases have been brought to my attention. One of them, a man of sixty-five, examined in a moderate light indoors, was found to have a vision of 20/10. In other words he could see twice as far as the normal eye is expected to see. He also read diamond type at less than six inches, and at other distances, to more than eighteen inches. In

reply to a query as to how he came to possess visual powers so unusual at his age, or, indeed, at any age, he said that when he was about forty he began to experience difficulty, at times, in reading. He consulted an optician who advised glasses. He could not believe, however, that the glasses were necessary, because at times he could read perfectly without them. The matter interested him so much that he began to observe facts, a thing that people seldom do. He noted, first, that when he tried hard to see either at the near-point or at the distance, his vision invariably became worse, and the harder he tried the worse it became. Evidently something was wrong with this method of using the eyes. Then he tried looking at things without effort, without trying to see them. He also tried resting his eyes by closing them for five minutes or longer, or by looking away from the page that he wished to read, or the distant object he wished to see. These practices always improved his sight, and by keeping them up he not only regained normal vision but retained it for twenty-five years.

"Doctor," he said, in concluding his story, "when my eyes are at rest and comfortable, my vision is always good and I forget all about them. When they do not feel comfortable I never see so well, and then I always proceed to rest them until they feel all right again."

The fact is that presbyopia is due to a strain. It is a strain similar to the one that produces hypermetropia, but differs from it in the fact that it affects chiefly vision at the near-point. This can be demonstrated with the retinoscope. When a person with presbyopia tries to read, the retinoscope will show that he has hypermetropia, but when he looks at a distant object the retinoscope will show either that his eyes are normal, or that the hypermetropia is less. Simultaneous retinoscopy is difficult in the case of a reading patient, for not only is the pupil small, but in order to find the shadow

it is necessary for the patient to look in one general direction all the time, and this is not easy. It is also difficult to hold a glass at one side of the eye for the measurement of the refraction in such a way that the observer can look through it while the patient does not. With a sufficient zeal for the truth, however, these difficulties can be overcome.

The strain which produces presbyopia is accompanied by a strain, more or less pronounced, of all the other nerves of the body. Hence the many distressing sysmptoms from which presbyopic patients suffer. Glasses, by neutralizing the effect of the imperfect action of the muscles, may enable the patient to read; but they cannot relieve any of these strains. On the contrary they usually make them worse, and it is a matter of common experience that the vision declines rapidly after the patient begins to wear them. When people put on glasses because they cannot read fine print they often find that in a couple of weeks they cannot, without them, read the coarse print that was perfectly plain to them before. Occasionally the eye resists the artificial conditions imposed upon them by glasses to an astonishing degree, as in the case of a woman of seventy who had worn glasses for twenty years, in spite of the fact that they tired her eyes and blurred her vision, but was still able to read diamond type without them. This however is very unusual. As a rule the eyes go from bad to worse, and, if the patient lives long enough, he is almost certain to develop some serious disease which ends so frequently in blindness that nearly half of our blind population at the present time is believed to be over sixty years of age. Persons with presbyopia who are satisfied with the relief given to them by glasses should bear this fact in mind.

Presbyopia is cured just as any other error of refraction is cured, by rest. But there is a great difference in the way

patients respond to this treatment. Some are cured very quickly, even in as short a time as fifteen minutes; others are very slow; but as a rule relief is obtained wtihin a reasonable time.

One of my earliest cures of presbyopia was accomplished in less than fifteen minutes by the aid of the imagination. The patient had worn glasses for reading for ten years. When I showed him a specimen of diamond type and asked him to read it without glasses he said he knew the letters were black but they looked grey.

"If you know they are black, and yet see them grey," I said, "you must imagine that they are grey. Suppose you imagine that they are black. Can you do that?"

"Yes", he said, " I can imagine that they are black," and immediately he proceeded to read them.

In another case a patient was cured simply by closing his eyes for half an hour. His wife was cured in the same way, and when I saw the couple six months later they had had no relapse. Both had worn reading glasses for more that five years.

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 whatever should have been paid to his advice, but that we should have been 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 micro-

scopes. 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."

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, 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.

HOW I WAS CURED OF PRESBYOPIA

By Francis E. McSweeny

This patient was first seen on March 11, 1919. *His right vision was* 20/50 *and his left vision* 20/70, *and, although he was fifty-one years of age, he read diamond type at eight inches. He had not worn glasses for some months, and with the help of a cured patient had been able to improve his sight considerably. His last prescription for reading glasses was: right eye, convex* 3.00 *D. S.; left eye, convex* 3.75 *D. S., combined with convex* 0.50 *D. C.,* 180 *degrees.*

I am a church organist, choir director and music teacher. Those familiar with the duties of my profession will understand what an important part good vision plays in its successful practice. I realized this, and from the first consulted the best oculists periodically in order to preserve and

protect my eyesight. Notwithstanding my care, I was told upon reaching the "dead line" of forty-five years that I had presbyopia, and would henceforth be obliged to wear at least two pair of glasses, one for near and one for distant vision. I rebelled at this, but submitted for some years to the annoyance with as good grace as possible.

I knew that braces and crutches never cured weak limbs, but that exercise and use of the weak muscles, when the patient had the necessary perseverance, had often made them strong and vigorous. I began to think that glasses were like the braces and crutches, and I expected some day a method of treatment would be found that would strengthen and build up the eyes instead of weakening them.

I was in this mood when Dr. Bates' treatment of imperfect sight without glasses was brought to my attention. My father and sister had received benefit from the treatment, and I believed that I could be benefited too.

When I first took off my glasses I could see nothing on the front page of the newspaper but the larger headlines. I could read down to the 30 line of the Snellen test card at 5 feet. My sister showed me how to "shift" from the top to the bottom of the letters on Dr. Bates' professional card. I read a column of the *Saturday Evening Post* that day by this method.

At first I tried to wear my glasses for close work, but after a few months felt that this was retarding my cure and I left them off altogether. That was in January, 1919. With the exception of a few Sundays at the beginning I have done all my work without putting on my glasses even once.

It would be well for anyone who would follow my example to understand, however, that this result was not accomplished without many mistakes. I often misunderstood and lost valuable time doing things wrong. There

were many discouragements too. So many to tell me how foolish I was to try to do the impossible. I had the consolation, on the other hand, of knowing that my vision was improving all the time.

The exercises which I found most helpful were: 1. Palming—I think that nothing so relieves strain as this exercise does. 2. Flashing—This exercise helps particularly when one has been straining or using the eyes wrongly. 3. Memory practice—This has been my best exercise. One remembers a letter, picture, or other familiar object, at first with the eyes closed, then with the eyes open. If he can retain the memory of the object while looking in the direction of the test card he will be able to read the letter easily. 4. Imagination—Imagining that the white part of a certain letter is whiter than the margin of the card. This has helped me greatly.

My present vision is: Distance (both eyes): 10/10, 15/15, some of 15/10, 20/20 and 30/30. Fine print (both eyes): best at 12 inches, some at 20 inches, can see period at 20 inches.

I should advise anyone who contemplates taking up this treatment, to first see Dr. Bates personally for diagnosis and to get right ideas in the beginning. By doing this one would save much time and many missteps.

To those who cannot do this I should say that the first thing to do is to discard glasses altogether. Relax the mind and eye by palming. Learn to know how the eyes feel when relaxed and when doing your accustomed tasks try to keep this feeling of relaxation (lack of effort) present at all times. Do not allow the eyes to become strained. Let objects that you wish to see come to you, do not try to go to them. You will fail sometimes. If you persist, however, your failures will be less and less frequent and as your vision improves, which it surely will, you will gain

confidence. The exercises which I refer to are described in Dr. Bates' book, which contains many valuable suggestions besides interesting matter bearing on his experiments and achievements.

STORIES FROM THE CLINIC

14: Three Cases of Presbyopia

By Emily C. Lierman

As a rule more children than adults come to the clinic. They are sent to us by the schools, usually because they cannot see the blackboard. But during the war it was astonishing how many women came to us. Many of them were employed in factories where American flags were manufactured and could not see to do the work properly, although their sight at the distance seemed to be satisfactory. Some had trouble in threading their needles. Others complained that they saw double. One told me that she sometimes stitched her fingers to the blue field of the flag along with the stars. They all asked for glasses, of course, but were very glad to learn that they could be cured so that they could see without them.

Among these very interesting patients was a woman of about fifty who had great trouble in threading her needle, and who begged me to help her because she had her living to earn. She spoke with a pronounced Irish accent, and was very amusing. Her distant vision was quickly improved by palming and flashing the letters on the Snellen test card. Then I suggested that she practice with fine print six inches from her eyes. Even though she did not see the letters, I told her, it would help her to alternately rest her eyes by closing for a few minutes and then look at the small letters for a couple of seconds. She got im-

mediate results from this, and was enthusiastic in her expressions of appreciation.

"Sure, ma'am, may the good angels bless you for that!" she exclaimed. "I think this very minute I would be threadin' a needle if I had one. Me old man and the young ones at home will think it foine to have meself threadin' a needle."

It seemed that members of her family had been called upon to thread her needles, and had found the task somewhat irksome.

The next clinic day she came again, and, although it was afternoon greeted me vociferously with the Irish salutation:

"Top o' the mornin' to you!"

"Top o' the morning to yourself!" said I, and then I suggested that she should not speak so loud, as I was afraid she would disturb the other patients.

I am not sure that she did any harm, however. The patients all smiled at her remark, even the Jewish patients, who, I imagine, could not have understood it. It does me good to see these poor unfortunates smile a little, and I think it must do them good also.

She soon became able to thread her needle without any trouble, and she wanted everyone in the room to know it. The last time I saw her she said:

"Sure, ma'am, me eyes are very sharp now, for the minute I set eyes on me man when he comes home at night I can tell by the twinkle in his eye whither he has had anything stronger than water or tea."

Another woman, forty-eight years of age, told me that the first time she came to the clinic she thought she had got into the wrong place. Half a dozen people had their eyes covered with the palms of their hands, to rest them, and she thought it was a prayer meeting. It was she who sewed her fingers to the flag along with the stars.

"What I need is glasses," she said, "and that's what I am here for"; but I soon convinced her that the glasses were unnecessary.

By having her alternately close and open her eyes I improved her sight for the Snellen test card from 15/40 to 15/20. Then I gave her some fine print to read, but it was only a blur to her. I now told her to palm, and imagine that she was sewing stars to the flag. When she opened her eyes her sight was worse. The very thought of those stars increased her strain and made her vision worse. This convinced her that her trouble was due to strain, and that all she needed was to get rid of the strain. I now asked her to imagine more agreeable objects at the near-point. She at once became able to read the fine print, and her sight for the distance also improved. After four visits to the clinic her vision both for the distance and the near-point had become almost normal. It was quite easy for her to thread a needle and to do her work without glasses.

A woman of seventy-four who has been coming to the clinic for some time works every day in an orphanage where she mends the children's clothes, and does other sewing. She complained that her glasses did not fit her, and she could no longer see to sew with them. I gave her a small card with some fine print on the back.

"Do you mean to tell me," she asked, "that I will ever read that?"

"It is possible," I said.

Her smiling face was good to see, as she tried to do as I instructed her. The print was larger on one side of the card than on the other, and I asked her to read the name printed in the larger letters. She could not do so at first. I told her to close her eyes, count ten, then open them and look at the card while she counted two, then repeat. In a few minutes she saw the name on the card and also the

phone number. I then had her do the same thing with the diamond type on the reverse side, and after a while she became able to see some of the letters. At later visits she obtained further improvement, and after some months she had no difficulty in sewing the buttons on the children's clothes, without her glasses, although as she said, there were a lot of them and they kept her busy. Once during the treatment I asked her to remember the daisy in the green field as she saw it in the country last summer.

"There weren't any daisies but me while I was there," she answered. " I was the only daisy."

QUESTIONS AND ANSWERS

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

Q. While I can see the letters on the Snellen test card distinctly with both eyes down to the 50 line, the right eye sees double below that point. What is the reason? J. C. H.

A. While you see the letters down to the 50 line singly and well enough to recognize them, you do not see them perfectly. Otherwise you would see them perfectly below that point. The double vision of the right eye below that point is not due to its error of refraction but to imagination. With both eyes closed imagine the letters single. Then look at the test card for a moment. Repeat until the letters can be regarded continuously without doubling. Practice first with both eyes together, then with the right eye separately.

Q. I have conical cornea. Can it be cured or relieved without glasses or operation? A. R.

A. Yes. One such case secured normal vision in six weeks by the aid of the methods presented in this magazine. Another case was cured in two weeks. Conical cornea is simply an anterior staplyloma, or bulging of the front of the eyeball, similar to the posterior staplyloma which so often occurs in myopia. Both are cureable by the same methods.

Imagination Number

Better Eyesight

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

Vol IV MAY, 1921 No. 5

$2.00 per year 20 cents per copy

Published by the CENTRAL FIXATION PUBLISHING COMPANY
300 MADISON AVENUE NEW YORK, N. Y.

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.

BETTER EYESIGHT

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

Editor—W. H. BATES, M.D.
Publisher—CENTRAL FIXATION PUBLISHING CO.

Vol. IV MAY, 1921 No. 5

IMAGINATION ESSENTIAL TO SIGHT

By W. H. BATES, M. D.

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

When the vision is imperfect the imagination is also imperfect. The mind, in short, adds imperfections to the imperfect retinal image. A great part of the phenomena of imperfect sight are, therefore, imaginary and not in any way to be accounted for by the derangement of the visual apparatus. The color, size, form, position and number of objects regarded are altered, and non-existent objects may

be seen. Some persons with imperfect sight literally see ghosts. A boy, or a grown person either, in a dark cellar, is often under such a strain that he thinks he sees sheeted figures, and one of my patients, in broad daylight, used to see little devils dancing on the tops of high buildings.

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

How patients manage to see best where they are looking without a macula is hard to explain, but the imagination of letters which are not consciously seen is probably made possible by a certain degree of unconscious vision. When one looks at a letter on the Snellen test card which can be seen distinctly and tries to imagine the top straight or open when it is curved, or curved when it is straight or open, it will be found impossible to do so, and the vision will be lowered by the effort, to a greater or less degree. In one case the mere suggestion to a patient that he should imagine the top of the big C straight caused the whole card to become blank. When one looks at a letter seen indistinctly without knowing

what it is and tries to imagine it to be other than it is, one is usually able to do so, but not without strain, evidenced by the fact that the letter becomes more blurred, or by the impossibility of imagining that it has a slow, easy swing of not more than a quarter of an inch. This fact makes it possible to find out what the letter is without seeing it.

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

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

Having imagined the letter correctly, the patient is told to imagine it first with the eyes closed and covered and then with the eyes open and looking at the card, until he is able

to imagine it as well when looking at the card as when palming. In this way it finally becomes possible for him to imagine it so vividly when looking at the card that he actually sees it.

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

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

A school girl of sixteen with such a high degree of myopic astigmatism that she could see only the large letter at ten feet became able in four or five visits, by the aid of her imagination, to read 20/20 temporarily, and at her last visit she read 20/15 temporarily. A college student twenty-five years old, with compound hypermetropic astigmatism (four diopters in each eye), could read only 20/100 with his right

eye and 14/200 with his left, and had been compelled to stop his studies because of the pain and fatigue resulting from the use of his eyes at the near-point. In four visits his vision was improved by the aid of his imagination to 20/30 and he became able to read diamond type at six inches without glasses and without discomfort.

These and many other cases of the same kind have demonstrated that imagination is necessary to normal sight.

STORIES FROM THE CLINIC

15: Imagination Relieves Pain

By Emily C. Lierman

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

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

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

ister, return them to the angel and take them again and again. As soon as I could do it well, I could read the lettering. Another trick was to pick up with my eyes one of the brass vases on the altar and place it on the pulpit. There it would stand and at times be almost knocked off by the gestures of the speaker or momentarily be occupying the same position as his hand. As I look back on my childhood I remember that children are always imagining absurdities of this sort.

I practice on the streets and when no other letters are near use moving automobile numbers for test cards. I found they generally passed too quickly for me to read. Then I discovered that I could take a glance, close my eyes quickly, then read unhurriedly with eyes shut and still have time to open my eyes and verify the numbers before they were out of sight. This pleased me as much as anything I had learned.

With children I have found that palming helped most when I read aloud to them. They all liked the swing and caught quickly on to it and also to my idea of seeing the letter best with a stolen glance.

I have enjoyed telling of Dr. Bates as much as I have enjoyed anything all winter. I have never once wished to put my glasses on again after the first visit, though for days I had many difficulties especially on the street. Now I do not miss the glasses at all except for quite a distance and at the theatre. One most welcome result of the treatment is in connection with the severe headaches which I have always had. Always when these occurred the pain in the eyes was acute. For the past year without glasses this eye pain has not been intense when the sick headaches came—thanks to Dr. Bates.

I do send him my sincere thanks for the results of his work with me. His book and the magazine have been of much value to me and to my friends. I have felt that the best way for me to show my appreciation was to tell of his work to as many as I saw that needed his help.

Sincerely yours,

ELIZABETH McKOY,

10 Highland Terrace, Winchester, Mass.

An Enjoyable Vacation

By M. E. MARVIN

VACATION-TIME is with us again in all its glory, and most everyone is looking forward to some change in environment during the next few months. Some are pouring over "Blue Books" mapping out their trail for their auto-camping trip. Others are concerned about the mode of bathing-suit being used at the seashore this summer, while the rest are intent on the more dignified pastime of replenishing their wardrobes that they may more appropriately enjoy the splendors of the mountains.

Whether in the woods, at the seashore or in the mountains, we want to say to our friends and subscribers again, "Do not be tempted to wear "sun glasses." Of course most of you who are familiar with Dr. Bates' book, know the reason of this. He has proven again and again that the sun is very beneficial to the eye. Sometimes one experiences temporary discomfort, but this is not harmful, and when one learns to "swing the sun" properly as advised by Dr. Bates, it always proves a relaxation. Anyone wanting further information on this subject is invited to write us at this office.

This is the time of year, when those wearing glasses, who have not had the good fortune to learn of Dr. Bates' method, find themselves more uncomfortable than ever. Eye glasses are a handicap in every sport or pleasure in which one wishes to indulge, and it is for those who know how they can be dispensed with, to spread Dr. Bates' message. You will meet all cases of defective vision this summer, and when an opportunity presents itself, prove yourself a true friend, and tell those who will listen, just how the glasses can be left off, and with a few moments spent in palming and swinging, the benefits will be readily manifested.

Last Fall, we received quite a few testimonials from those who had learned of this work on their vacation and

with the aid of the book were enabled to discard their glasses. We were also deluged with inquiries which were the result of these "vacation chats."

You will find that nine out of every ten people wearing glasses are only too pleased to learn how their eyes can be cured without them. They know that glasses do not eliminate the defects. They know that while in some cases temporary relief is afforded by the strong magnifying lenses, it stands to reason the eye is not functioning naturally, since it is straining itself all out of shape to conform to the shape and strength of the glass lens.

While we are anxious for you to help as many people as possible it is also our wish that all our friends continue to practice and help themselves during vacation. The following instance may prove of interest. A lady telephoned to Dr. Bates this week, asking him what she should do in regard to her son who is Dr. Bates' patient. They are going to travel through the state on a week's motor tour, and she was wondering if her son should palm while riding. Dr. Bates said that riding is extremely beneficial. The scenery, the road signs, and houses all seem to move, and this demonstrates the fact that the normal eye should never be stationary, but should continually see things moving. The boy while enjoying his trip, can also practice swinging various objects. If he strains while traveling he can close his eyes and imagine the trees, the road, etc. This is equivalent to palming, and the mental relaxation is immediately apparent.

To get back to the main point at issue. When one meets a friend anxious to learn how to get rid of glasses, and all the attending discomforts, tell him all you know. We are very busy in our new office, but we shall be glad to give all the information at our command, and to explain any parts of the book that may appear ambiguous.

We are looking forward to encouraging reports from all our friends at the end of vacation-time. Take your book "Perfect Sight Without Glasses" and your Snellen chart with you and you will find that your vacation is a happier one in a great many ways.

Announcements

Meeting of the Better Eyesight League

DUE to the fact that our magazine goes to the press a week earlier than heretofore, we are unable to publish the minutes of the BETTER EYESIGHT LEAGUE for the month of June. These will appear in the following issue of the magazine.

We hope that everyone will be able to attend the next meeting of the League, which will be the second Tuesday of July, at 383 Madison Avenue.

Microscopic Print

WE are very glad to announce that, owing to the large demand for samples of diamond type and microscopic print, we have at press a little folder containing chapters of the Bible, etc., printed in this type. We know that this announcement will meet a great need, and we shall be glad to add your name to our list to receive this upon its publication.

The price has not yet been determined, but it is extremely nominal. We shall be pleased to give, on request, further information relative to the benefits of fine print.

IF any of our subscribers have friends to whom they would like to make known Dr. Bates' work, we would be pleased to have you send us their names and addresses, so that we may place them on our regular mailing list. This will insure their getting our literature from time to time and if they make a special request, we will send a sample copy of our magazine.

The Question Mark

QUESTION—Why is it a rest to read fine print. I should think it would be more of a strain?

ANSWER—Fine print is a relaxation, large print a menace. Send for the December, 1919, number which explains this is detail. M. F. S.

QUESTION—My son is taking treatment for squint. While on auto trips is it necessary for him to palm continually? A. O. R.

ANSWER—No. The finest thing he can do is to see things moving. He can do this to great advantage in a car. If his eyes burn or seem tired, he can then palm occasionally.

Chicago, Ill.

QUESTION—I am 75 years of age. Do you mean to say that you can make me see with normal vision?

G. W. M.

ANSWER—We most certainly do. Old age sight is not incurable.

San Francisco, Cal.

QUESTION—I still cannot visualize "black" what else can I use as a substitute? W. H. H.

ANSWER—Don't try to see anything. If it is an effort to visualize black, think of something that is pleasant, for instance, a field of daisies, a sun-set, etc. The result will be just as beneficial.

QUESTION—Must the body be at rest before the eyes can be cured?

ANSWER—When the eyes are relaxed, the whole body is relaxed.

PRESS OF
THOS. B. BROOKS, INC.
NEW YORK

Better Eyesight

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

Vol. VIII. AUGUST, 1923 No. 2

$2.00 per year 20 cents per copy

Published by the CENTRAL FIXATION PUBLISHING COMPANY
383 MADISON AVENUE NEW YORK, N. Y.

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.

BETTER EYESIGHT

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

Editor, W. H. BATES, M. D.
Publisher, CENTRAL FIXATION PUBLISHING COMPANY

Vol. VIII. AUGUST, 1923 No. 2

Hypermetropia in School Children

By W. H. Bates, M.D.

HYPERMETROPIA or far-sightedness is more frequent in school children than is myopia. The statistics average in the lower grades about ten percent myopia and eighty percent or more of hypermetropia. In higher grades the percentage of myopia is increased while that of hypermetropia is decreased.

It has been generally believed for more than one hundred years that while myopia is usually acquired by school children, hypermetropia is always present at birth. Many physicians who study the eyes of school children have had more interest in hygienic methods of myopia prevention and have recommended better schools, prescribed the early use of glasses and other measures to lessen the number of children who become nearsighted after they were at school. The prevention of hypermetropia was ignored and I have never seen any article devoted to the prevention of hypermetropia in school children. In the first place it is very difficult to prove or to demonstrate the amount of hypermetropia in young children with any degree of accuracy. I spent many weary hours many years ago when I prescribed glasses, trying to measure hypermetropia with the eye under the influence of eye drops. Twenty years ago I first introduced my method for the prevention of imperfect sight

in children and kept records of the vision of the children from year to year, for eight years, in one school of about two thousand pupils. In New York City I have acquired a much larger experience. The symptoms of hypermetropia were more uncomfortable and interfered much more with the mental efficiency of the children than did myopia. Most children with myopia were able to read with comfort and their imperfect sight for distance is only inconvenient at certain times, but children with hypermetropia not only have difficulty in seeing near but they also have trouble in seeing objects at a distance. Some hypermetropes have just as poor sight as children who have only myopia. Hypermetropia not only impairs the vision more than does myopia but it is associated often with a great many more uncomfortable symptoms, pain, headache, fatigue. In short, hypermetropia interferes seriously with the school work much more than does myopia. A great many children leave school because they cannot stand the discomfort of their eyes suffering from hypermetropia and those who continue their school work suffer in many ways. They are unable to read without pain and fatigue and the memory is impaired, they fall behind in their classes and their school life is a burden. Surely it is more important to study the problems of hypermetropia than those of myopia.

The condition of the eyes at birth has been a matter of discussion for many years. Some of the early statistics recorded considerable myopia, 90%, others found no myopia and the eyes were apparently normal. It is difficult to draw correct conclusions from most statistics.

For some years I made it a habit to test the eyes of new born children a half hour after birth and to examine the eyes again at regular intervals. Some children's eyes were examined every hour with the aid of the retinoscope and the eyes under the influence of eye drops. The characteristic of them was the variability in the amount of hypermetropia. At certain hours the eyes would be apparently normal, a half hour later they would be hypermetropic in one or both eyes, at a later period, mixed astigmatism in one eye, and the other eye normal or

hypermetropic. At a still later period both eyes normal. A week later both eyes might be normal or both eyes might have hypermetropia in the morning and be normal in the afternoon. Usually six months or a year later the eyes became more continuously normal. At four years of age, six years of age, just before they began school, the eyes of the children were usually normal. After being in school for a year or more hypermetropia began to be manifest and increased with each succeeding year. Myopia did not appear to any great extent before the age of ten or twelve and increased while the hypermetropia appeared to diminish. I have seen some children ten years of age with normal eyes, at eleven years with hypermetropia, at twelve years of age myopia, at thirteen hypermetropia, at fourteen the eyes apparently normal. This variability of the eyes of young children is a matter that should be considered very seriously. Those children who practiced with the Snellen Test Card every day with the help of the teachers, improved. The myopia disappeared, the astigmatism disappeared, the hypermetropia disappeared and the eyes became normal. Coincident with the improvement in the sight, teachers informed me that there was a wonderful gain in the efficiency of the children. There are teachers in the city of New York still using my method for the prevention of imperfect sight in children who have obtained so much benefit from its use that they are continuing to practice it although they were ordered by the Board of Education more than ten years ago to stop using my method.

It is a great temptation to put glasses on children for the correction of hypermetropia. The glasses for the correction of hypermetropia are magnifying glasses and their effect is to enlarge the fine print of school books to such a degree as to make it much easier for the children to read. Children who are under a strain and have imperfect sight find their vision or their ability to read improved very much by glasses, much more so than the children who wear glasses for nearsightedness. There have been many plausible theories which have encouraged eye physicians to prescribe glasses for many

children who do not manifest a very high degree of hypermetropia. It is possible to put glasses on children who have normal sight and by compelling them to wear the glasses continuously they develop hypermetropia and become able to see with the glasses. In fact there are very few people with normal sight but who can,—by wearing glasses continuously, become able to see at the distance with glasses for the correction of hypermetropia, when they do not have it. Just as there are children who can wear nearsighted glasses and see with them although their vision may be perfectly good without the glasses.

If a child has headaches and many children do have headaches from nervousness, from stomach trouble, conditions which often disappear by simple treatment and rest, I believe it is much better to have the children rest their eyes when they are in this condition, for a few days or a week or two because many recover without the need of glasses. Very few eye specialists realize the facts, and, without even considering the possibilities that the headaches might come from something else than the eyes, have prescribed glasses whether the children needed them or not. I do not believe that any children with normal eyes, under twelve years of age, ever recover or are benefited to any great extent by their use.. It seems to me very much like a crime to compel children to wear glasses when their sight for distance and for near is perfectly good without them. The oculists will tell you all about latent hypermetropia, which means in the mind of the physician, that the child is really in need of glasses although the sight is normal. They believe that the child really has hypermetropia which is concealed or corrected by a strain of a muscle inside the eyeball and that it is the strain of this muscle to correct the hypermetropia which causes the headaches, or the nervousness, or the stomach troubles or any other disease of the body generally. Some have gone to an extreme and claim that epilepsy, St. Vitus Dance, deafness, diseases of the chest, diseases of the liver and many other diseases are caused by a strain of a muscle inside of the eyeball. This theory

is wrong and the published evidence is conclusive that no muscle inside the eyeball is a factor in the focussing power of the eye.

Low degrees of farsightedness are readily curable, but in a great many cases which have 4, 7, or more degrees of error, the cure is for most people, or to most eye-specialists, very incredible. One of my patients had 7 D.S. She could hardly see the large letter on the Snellen Test Card without her glasses. To read was impossible. After a few treatments her vision became normal at 20 feet, and she read diamond type perfectly at less than 10 inches. She wrote me a letter recently as follows: "M eyes are behaving wonderfully well. At one time it was impossible for me to read even with my glasses in a moving train. To-day I read three columns of the newspaper without any trouble." Her letters are very legible and written without glasses.

Fine Print Pamphlet

THE announcement in our July issue regarding the little pamphlet of microscopic print which we were about to bring forth was certainly received enthusiastically. The requests have come in so numerously that the initial order is almost exhausted. The benefits derived from this little booklet cannot be compared to the cost, which we have fixed at twenty-five cents per copy.

Place your order now, and learn how to read the smallest printing matter in the world.

Stories from the Clinic

By EMILY C. LIERMAN

SARAH

(Continued from July number)

SARAH seldom missed a clinic day and she was very faithful in her treatment at home. Within a year's time she became able to smile with her mouth almost straight. I decided to try out a few ideas of my own, and suggested to her that a mirror might be of benefit in helping her to speak and smile, with her mouth straight all the time. As Sarah did not like palming, I had difficulty in getting her to imagine things perfectly with her eyes closed. She had no mental pictures. Below I describe how she obtained them. The mirror would help her to watch her mouth while she was talking or studying her lessons. I told her to go into a room by herself and practice for at least an hour every day. She was to study her lessons and recite poetry out loud, while looking at herself in the mirror, and to see how straight she could keep her mouth during this performance. I told her to remember, while at school, how she appeared while looking in the mirror reciting her lessons. I was amazed at the result, and so were Sarah's friends, as well as herself. This is the way she obtained the imagination of mental pictures. I always asked her to repeat the alphabet very slowly each clinic day. After a while she became able to pronounce each letter of the alphabet with her mouth perfectly straight. She could never do this correctly unless she blinked her eyes for each letter. This may sound silly to the reader, but when Sarah did not blink, before repeating a letter after me, she stared, and not only did she say the letter with her mouth crooked, but her left eye would bulge almost out of its socket. After Sarah noticed this wonderful improvement, she very often had a surprise for me when she came. One day we were late for the clinic, but there was Sarah, sitting patiently with the rest, eager to tell me of some wonderful thing she was able to do. When her turn came, she whispered in my ear, "What do you think I can do now? I can wiggle my left ear." It sounded so funny that I wanted to laugh, but Sarah was so serious about it that I dared not. Strange to say, when I asked her to do it for me, before she did the swing, without first closing and opening her eyes, she was unable to move her ear. But when she started to move her head slowly from left to right and began to blink her eyes, she wiggled her left ear, which greatly amused the kiddies awaiting treatment. Two years had passed and Sarah still had hopes that we could cure her, and her mother and father were very grateful because of her improved condition.

She came one day with a sty on the upper lid of the left eye. When I remarked it, she said she had been troubled with sties for many years, and at times they were very painful. I spoke to Dr. Bates about it, and he prescribed eye drops and salve, which gave her some relief, but the sties appeared again from time to time. At my suggestion, Sarah acquired the habit of closing her eyes frequently most of the time, day or night, while she was awake. She was permanently relieved. She believed, as I do, that rest and relaxation helped in getting rid of the sties altogether.

At school one day she passed one of her former teachers in the corridor. This teacher had not seen Sarah for a year or more. She stopped and asked if she were not a sister to Sarah. "Why, no," she answered, "I am Sarah." The teacher looked at her in astonishment and said, "I did not know you, dear; your smile is so different, and your left eye looks so much better." Sarah told her about Dr. Bates, and his method of curing people without glasses. This teacher had progressive myopia for many years, and suffered greatly with her eyes. What Sarah told her did not convince her at the time, that she might also be cured, but about six months later sixteen girls from her class room came to us at the clinic for eye treatment. When she saw that their glasses had been removed from their eyes, and that they had improved faster in their studies, she called to see Dr. Bates at his office. In less than a year's time she herself was able to

see without glasses. Every clinic day Sarah repeated the letters of the alphabet faithfully, until she could say them with her mouth perfectly straight. Then one day she had another surprise for me. Something she had never been able to do in all her life. She learned to whistle with her mouth straight. What a wonderful stunt that was for Sarah. This she could not do unless she first practiced the swing. Rest or relaxation always relieves tention of the body as well as the eyes. I wish to emphasize the value of rest and relaxation obtained by the swing and by blinking in curing all diseases of the eye, no matter what the cause may be.

My experience in the treatment demonstrated that many popular theories of the cause of paralysis of the motor nerves are wrong. For example, it is generally believed that when a motor nerve ceases to function properly, the recovery cannot take place until some disease or permanent organic condition is relieved. Sarah became able to close her eye quickly almost completely, after practicing the swing, which could not have occurred if the paralysis of the nerves was of a permanent nature. I am aware that cerebro-spinal meningitis is caused by a germ, which is an important factor in the destruction of the nerves which control the muscles of the eye and face. I do not think that anybody will maintain that the swing had anything to do, directly or indirectly, with the germs of the disease, or with the results of the inflammation caused by the germs. My experience with the treatment of other cases of paralysis of the muscles of the eyes, caused by infection, confirms my belief that the paralysis is not due so much to local changes in the nerves as it is to mental causes. Sarah was pronounced incurable by many prominent, capable nerve specialists. I believe that one reason why local treatment did not help her was because she had no trouble with the nerves sufficient to produce the paralysis. The only treatment which helped her was mental relaxation obtained by the swing. It was the strain of her mind which produced all the symptoms of paralysis. She had no more trouble when her mind was at rest.

What the Silver Jubilee Omitted

By Emily A. Meder

CIVIC interest was thoroughly aroused at the recent exhibition at New York's Twenty-fifth Anniversary. What old, half-forgotten memories surged through my mind as I looked once more at the obsolete horse-drawn street cars. While gazing at these, they seemed to fade away before my sight (complete relaxation, not eccentric fixation), and I recalled the trips I used to take in these cars in the past. With a stiffly starched frock, and, if I were extra stylish, a little handkerchief tucked in at the waist, I trudged beside my Dad en route to the street car. Upon boarding this we sat peacefully for an hour and a half, before we reached our destination, the Aquarium. One hour there looking at the wonders of the sea, and another two hours to get home. Practically the whole afternoon consumed for what can now be accomplished in about two hours. No wonder we swelled with pride while looking at the evolution of the various vehicles, instruments, machinery, and public conveniences. I only had one regret. Great effort, both physical and mental, was manifested in the production of such superior tools with which the humans work, but the same detailed thought was not given to devise ways for us to obtain the utmost efficiency from the greatest tool of all—our body. I readily admit that great strides forward have been made in medicine, surgery, dentistry, and industrial appliances, but we are, in one respect, just where we started one hundred and fifty years ago. PEOPLE STILL WEAR GLASSES. The Jubilee could have produced no greater thrill for me if there had been a separate showcase with a pair of glasses carefully protected, and marked, like the dodo, EXTINCT.

There is an expression used greatly of late, which, by the way, should be discarded with glasses, and that is, "Better late than never." People who apply this maxim to their daily lives are usually "fired" from their positions

or are the onlookers of life, and at the tail end at that. However, to go on, Dr. Bates' work is becoming better known than ever before, and the papers are wildly clamoring for interviews, until it seems as though the public were trying to make up for lost time. We can truthfully say that it is better to come late than not at all, but looking at this from another angle, just think of all the people who could have evaded untold misery, and even agony, if they had known of this work before.

One lady reporter had heard of Dr. Bates' cure of imperfect sight without glasses, and came for an interview about a week ago. Dr. Bates saw that she had imperfect sight, and in order to determine the trouble he applied the retinoscope, which tells at a glance the condition of the patient's eyes. The young lady was intensely interested in this instrument as Dr. Bates explained its use to her. He also told her of one of his discoveries regarding this. Telling lies is bad for the eyes. If a patient lies, the retinoscope will indicate that the shape of the eyeball has been sufficiently altered to make the focus imperfect. Defective vision is caused by strain, and to lie requires an effort or strain. Practice, of course, makes perfect, but even those accomplished in the art of "fine fabricating" have to make more of an effort than they do when telling the truth. The mental effort, therefore, produces a slight strain, which is immediately discovered by the retinoscope.

This piece of news evidently interested the reporter more than the other discoveries made by Dr. Bates, as she wrote an article dealing with the retinoscope alone. Since that time reporters have been writing about this, claiming that Dr. Bates has found a better "truth detector" than scopalamin. We know this to be true, because exceptions have been found in the use of scopalamin, whereas the retinoscope reflects the natural change in the eyeball, and this is infallible.

One of the reporters from a large city paper asked innumerable questions relative to the discovery and use of the lie-exposing qualities of the retinoscope. When these were answered to his satisfaction, I asked him

why he was dwelling so much on the novel and sensational properties of this instrument, rather than the prevention and cure of imperfect sight. He answered in a way that rather dampened my good opinion of the sagacity and intelligence of the average newspaper reader. "The public is always on the lookout for something novel that will insure a thrill. Something that they can take in at a glance, which doesn't need to tax their thinking capacity. The retinoscope will supply them with a topic of conversation for a time, and they can make witty quips, about installing one in the home, to find out the true relation of the family budget to the dressmaker's bills." I suppose this is true, but wouldn't the public be doubly thrilled and excited if it were to be made plain to them that glasses are wrong, that they can dispense with them, and last, but not least, can cure themselves?

I hope that we all may be able to visit the next anniversary of New York City and note some of the great improvements made in the human physique, among and foremost of these being the prevalence of perfect sight, and absence of glasses from all. This is coming gradually to be sure, but inevitably.

FROM time to time we receive letters containing various questions that are supposed to be answered in the subsequent issue of the magazine. Some of our correspondents, however, do not sign their names or addresses. We wish to say here, that while we are very glad to give personal attention to every letter, we will not do so if the letter is unsigned. We think it is only common courtesy for the writer to let us know with whom we are dealing.

A Game to Cure Stage Fright

By Florian A. Shepard

"MARIAN is going to clap part of this piece for us before she plays it on the piano," I said to our friends at the June Recital. She wanted to do this because she loves to "clap" any music, and she knew she would play all the better for it.

She knew the piece perfectly, so for the sake of the audience I asked, "What time is this piece written in?" A terrified look came into her eyes, and she stared blankly. At any other time she would have answered readily and delightedly. Here was the time for our "game."

"Shut your eyes, dear," I suggested. "Can you see a picture of the piano keys?" A smile spread over her face and she nodded happily. "Now, can you see a picture of the printed music? Do you see the measure full of chords—one for each beat?" She saw them, counted them, and told us what kind of notes they were; then she remembered the time-sign.

After that everything went happily and smoothly. The memory of perfect sight had helped her to forget her fear and relax while she did her part. It has helped Marian (and other pupils) many times in her lessons when she was disturbed over some mistake or supposed difficulty. If she repeatedly makes the same mistake from a wrong habit formed at home, and fails to correct it when she tries, I get her to close her eyes and see a "picture" of the right finger on the right note at the right time. When she opens her eyes, she usually plays the passage correctly. The memory of perfect sight helps her to relax mentally and physically, and so she gets a fresh start.

I have always asked "leading questions" when a child seemed rattled; but by helping him with "mental pictures," I have demonstrated that a pupil can think and act more naturally and efficiently. This game quiets him when he is excited or hurried, and rests him from strain.

Announcements

WITHIN the past few months we have received innumerable inquiries regarding the use of the burning glass. It is well known that the sun strengthens the eyes, and with the aid of the burning glass the direct rays of the sun are focused on the sclera.

Have you ever noticed that upon emerging from a dark room into a strongly lighted one, or from the dark movies into the sunlight, that you are temporarily blinded? This should not be. The normal eye accommodates itself to the varying conditions, and if it fails to do so the vision is defective. The burning glass accustoms the patient to the strong sunlight, and strengthens the eye.

We have on sale a burning glass which is a magnifying glass of the desired strength, bound with a german-silver rim, especially constructed for this particular purpose.

Price $5.00

Important

The attention of our readers is called to the forthcoming September issue of Hearst's International Magazine, which contains an article by W. H. Bates, M.D., entitled, THROW AWAY YOUR GLASSES.

August Meeting

The next meeting of the Better Eyesight League will be held as usual on the second Tuesday of the month, August 14th, and we hope all our members who can conveniently do so will attend with their friends. Our new quarters are so pleasant and cool that we know the evening will be an enjoyable one in many ways.

Minutes of the Better Eyesight League June Meeting

NOTWITHSTANDING the fact that the New York City Silver Jubilee was at its height only one block away, and that the evening was one more conducive to a nice cool "bus" or boat ride, the meeting-room of the Central Fixation Publishing Company was filled to capacity long before the meeting was called to order.

Miss Hurty, in her very capable and business-like manner, presided, and after discussing some "old business" which has been a source of confusion to a few of the members, introduced Dr. Cornelia Brown, of East Orange, who was scheduled to be the principal speaker of the evening.

Dr. Brown is certainly a strong enthusiast for Dr. Bates' method of curing imperfect sight by treatment without glasses, and she knows whereof she speaks, for not only has she cured her own eyes, after wearing glasses for twenty years, but she has had great success in treating her patients. A year ago she started a Better Eyesight League in East Orange, and it is growing not only in size, but in popularity, ever since. She told of many experiences, and the results have been such that no one hearing her would have the slightest misgiving about their own particular case, be it ever so serious. Dr. Brown emphasized the fact that what impressed her most was the naturalness, the simplicity of this treatment. When one has imperfect sight, one has to go to a great deal of trouble to *keep* it imperfect. One strains, and stares continually, which *is not* the normal thing to do. The normal eye is forever moving, and constantly sees things move, not by making an effort, but by doing the most natural thing in the world—*relaxing.*

Miss Reicher brought a man who is totally blind, having atrophy of the optic nerve. He is undertaking the treatment, and we will tell of his results in a later issue.

Dr. Bates then spoke of the benefits of the sun. He mentioned the case of a young lady who went to an eye-hospital for treatment, where she was kept in a dark room for two years. At the end of that time her condition was decidedly worse and in due time she came to him. Dr. Bates *cured her by the sun treatment.* He quickly trained her eyes to become accustomed to the sunlight until she could look at the sun, swinging it from side to side without discomfort. She finally obtained normal vision in both eyes.

In a New York paper, under to-day's date, their is an article which brings home stronger than ever the fact that the eyes need the sunlight. It seems that a little child of about three years, born with a twisted leg, and considered somewhat of an "ugly duckling" to her inhuman parents, was isolated in a dark hole in the cellar of their home. By accident, a plumber, who was called to make some repairs, unknown to the parents, discovered the unfortunate child, and immediately reported the state of affairs to the local police. The child was taken to the hospital, and all efforts to cure her are of no avail. She was totally blind, due to lack of sunlight, and incurably insane.

Another instance cited by Dr. Brown, which substantiates Dr. Bates' statement regarding the benefits of strong light, was her experience with the ultra violet ray. Dr. Brown uses this in her laboratory for various treatments, and she said upon purchasing this, she received explicit directions *not to look into the light* without a shade of some sort. One morning, however, in her haste, she accidentally gazed into the light, and temporary blindness resulted. Knowing that the sun will cause the same discomfort if one is unaccusomed to it, she decided that if Dr. Bates' method was right, this strong light would help rather than harm the eyes. She therefore made a practice of looking into the glare at regular intervals, prolonging the period a few moments each time. She is now able to look squarely into this without the least discomfort, and she says that she knows her eyes have been strengthened as a result.

The Question Mark

Dayton, Ohio.

QUESTION—Which is more beneficial, the short or the long swing? L. P.

ANSWER—The short swing, if you can maintain it.

Boulder, Col.

QUESTION—I find that when I imagine a period, and try to hold it, it causes discomfort. Why is this? A. S.

ANSWER—You are straining. Never *try* to hold anything. Imagine the period moving from left to right. This overcomes strain.

New York City.

QUESTION—I have great difficulty in seeing things move. W. M. M.

ANSWER—This is the cause of your defective vision. The normal eye sees things moving continually. Read the chapter on imagination.

Brooklyn, N. Y.

QUESTION—Are the movies harmful? T. E. B.

ANSWER—No. Quite the contrary. Send for the magazine on this subject.

East Orange, N. J.

QUESTION—Can the layman use the burning glass. J. S. P.

ANSWER—Yes. A great many of our readers use this with remarkable success. Directions are mailed with each glass.

PRESS OF
THOS. S. BROOKS, INC.
NEW YORK

Better Eyesight

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

Vol. VIII. SEPTEMBER, 1923 No. 3

$2.00 per year 20 cents per copy

Published by the CENTRAL FIXATION PUBLISHING COMPANY
383 MADISON AVENUE NEW YORK, N. Y.

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.

BETTER EYESIGHT

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Editor, W. H. BATES, M. D.
Publisher, CENTRAL FIXATION PUBLISHING COMPANY

Vol. VIII. SEPTEMBER, 1923 No. 3

Dodge It

By W. H. Bates, M.D.

WHENEVER your sight improves shift quickly to something else. Dodge your improved vision. Whenever you see things imperfectly shift your eyes quickly to something else. Dodge your imperfect sight. To stare always lowers the vision. Do not stare. Dodge it: It is interesting to demonstrate the great fact that perfect sight comes so quickly that you cannot avoid seeing things perfectly. The long swing is a great benefit as long as you dodge the improvement in your sight. The short swing requires more relaxation, and to dodge the improvement in your vision is more difficult. Practice the swing which gives you the best vision, or the vision that you are able to dodge. The eye should always be sufficiently relaxed so that you will be able to dodge. One patient was wearing very strong glasses concave 15 D. S. with which he obtained vision of only 20/70. Without his glasses he was able to remember a letter or a period perfectly as long as he did not try to see anything. With the retinoscope it was demonstrated that when his memory was perfect his eyes were normal, he had no nearsightedness. As soon as he tested his sight he lost his memory, the myopia or nearsightedness returned, and his vision be-

came very imperfect. By practicing most of the time out of doors, or in the house on ordinary objects he became able to dodge any improvement in his sight, but not enough in the beginning, or not quickly enough to avoid the fact that his vision in a moment became worse. He was unable to do much with the Snellen Test Card at first, and the temptation to stare and not dodge prevented him from shifting from one object to another, quickly enough to retain his perfect memory. He finally became able to dodge any improvement in his sight before his memory failed. At the end of a week he reported one day when he came in to see me that he was cured. I tested his ability to dodge any improvement in his sight and found it as good as that of the normal eye. He could not only dodge the improvement in his sight for ordinary objects, but had at last become able to do it when he looked at the Snellen Test Card.

I asked him, "Can you look at the bottom line at twenty feet for so short a time that you do not lose your perfect memory?"

"Yes," he answered.

"Can you read any letters on the bottom line?"

"I cannot help but read them."

Another patient whose vision had been equally as poor and who had nearsightedness as well was very much benefited by the memory of a short swing of her body, about one-quarter of an inch. She could maintain this swing continuously with her eyes closed, and almost as continuously when she would look at a blank wall where there was nothing to see. When she regarded the bottom edge of the card with a perfect memory of a short body swing, the letters became perfectly black but she could not at first shift her eyes, or dodge the improvement in her sight quick enough to maintain the memory of the body swing. By practicing at all times and in all places, in the house or on the street, her ability to dodge became better. It was such a shock to her to read the bottom line at six feet without glasses, that she

became panicky, and lost her mental control, failed to dodge, and lost her improved vision. Perfect dodging of improved vision can only be done perfectly by the normal eye. The normal eye does not have normal sight continuously unless it shifts or dodges what it sees at frequent intervals.

When dodging or shifting the shorter the shift the better provided one sees best where he is looking and sees worse all parts not regarded. One may shift to the right of the letter when the letter is to the left of the point regarded and then shift to the left of the letter when the letter is to the right of the point regarded. Every time the eyes move to the right the letter moves to the left, every time the eyes move to the left the letter moves to the right and by doing this a few times most people become able to imagine that when the eyes move the letter appears to move in the opposite direction. This is called the Swing and when one is able to imagine a letter moving or swinging from side to side the letter is not regarded directly, the stare is prevented by the shifting or dodging and the vision is improved. When one regards a small letter of the Snellen Test Card at a distance where it can be seen perfectly and continuously, most people can demonstrate that they do not see the right hand side best all the time or the left hand best all the time, but that they are shifting from one part of the letter to another, and this may all be done unconsciously. If one, however, stares at one part of the letter continuously the vision soon becomes blurred. It is necessary to keep dodging from one part of the letter to another. Every time the eyes move one can imagine the letter moves in the opposite direction. Staring at some point of the letter continuously always blurs the sight.

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. 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 as we do of the one object which is seen best. 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.

BLINKING

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.

Stories from the Clinic

By EMILY C. LIERMAN

CURED IN ONE VISIT

A COLORED mammy came to our clinic complaining of great pain in the back of her eyes. She had visited a doctor before she heard of Dr. Bates, and was told that her eye trouble came from indigestion and eating wrong food. After trying a diet for six months which was prescribed for her, with the result that the pain in her eyes still continued, she came to us with very little hope of being cured. After I had taken her record, name, and age which she said was 32, address and where she was born, I asked her if she had ever worn glasses.

"No mam," said she, "And you can never make me wear them. I hate them, I do."

She went off on a blue streak relating her family history.

"You know, mam, my mother had only one bad habit until she died, and thank the Lord it wasn't wearing glasses. She lived a good simple life, but my, how she did love her corn-cob pipe. But she never committed the sin of wearing glasses."

Well, this was a new one on me. I have been treating many colored patients for eye strain since my work began with Dr. Bates, but this was the first one who thought that wearing glasses was committing a sin. Most of her kind think it adds to their appearance to wear glasses and many times Doctor was asked to prescribe plain window glass so that they could wear glasses.

I tested mammy's sight with the test card which was 10/30 with each eye. I moved the card only one foot further away and this caused such a strain that she could only see the 40 line. Then I told her to palm and asked her to describe one of the letters she saw on the card. As she did not answer me right off I thought she had not heard me so I repeated it. She answered, "Do you know mam, for a minute I couldn't remember a single letter." I explained to her that such was often the case,

imperfect sight, imperfect memory. I pointed to the letter E and asked her to close her eyes and describe it. This she did by saying it had a straight line at the top, also to the left and bottom and that the right side was open. Before mammy opened her eyes I moved the card still further away, which was now fifteen feet to be exact. Mammy had been palming about five minutes, still remembering the letter E of the forty line of letters. I stood beside the card with my finger pointing to the first letter next to the bottom line, called the fifteen line. Then I said, "Before you open your eyes please remember that you must not try too hard to see the letter I am pointing at. If you do not see the letter immediately, do not worry about your failure to do so but close your eyes again and remember your E for a few minutes." Mammy opened her eyes and said the letter I was pointing at was an R, which was correct. We were both very happy at the result but I made her close her eyes again and remember the R better than she saw it. In less than five minutes she stopped palming and read all of the fifteen line correctly. I produced another card which she had not seen, and she was able to read the same line of letters as well. This meant that she had normal vision. Mammy thought she was all cured but I had my doubts as to her being able to read fine print. When I held one of Doctor's diamond type cards six inches from her eyes, one would have thought that I had intended to strike her, for she drew back her head suddenly as the little card came in view. She shook her head sadly and said, "I shall never be able to read that fine print for you. That is too much to ask."

I answered, smiling at her, "No, you don't need to read it for me, read it for yourself."

She said she was willing if I would show her how to do it. I told her to move the little card slowly from side to side flashing the white spaces between the lines of letters without trying to read. She kept this up for ten minutes or a little longer and then she screamed as the letters began to clear up and before Mammy left the Clinic she read the seven truths of normal sight.

Cataract Cure

By Herbert Parrish

Rector of Christ Church, New Brunswick, N. J.

An aged member of my congregation, nearly eighty, who had been accustomed to read the Bible every day of her life, and who could also read the newspaper and thread needles and sew, suddenly lost her sight early in February. She became increasingly blind and by the end of March was unable to do any reading whatever or to sew. Since there was little else that she could do, life seemed to have gone out for her, into darkness, and she was greatly distressed.

In April her daughter took her to one of the best eye specialists in this vicinity who made an examination of her eyes, said that nothing could be done at that time, charged her five dollars for the examination, and handed the daughter a slip of paper as she left the office. The daughter supposed that the paper was a receipt for the five dollars, but on reaching home and opening the paper she found that it contained a single word, "Cataract." The Doctor evidently hesitated to distress the old lady by telling her directly what was the matter. She had gone blind from cataracts.

Shortly after I visited the old lady at her home in order to administer the Sacrament. After the service I told her about the methods Dr. Bates used to cure cataract and I suggested that she should try palming her eyes three times a day and swinging. This she did very faithfully and before the end of the month she became able to read the larger print of the newspapers. Gradually she regained her sight and in the course of a month or two was able to resume her practice of reading the Bible daily and the ordinary print of the newspaper. She also was able again to thread needles and to sew.

She continues the palming and swinging. Her eyes have cleared up and are bright.

What is the Monetary Value of Your Eyes

By Minnie E. Marvin

DID you ever stop to think of just what cash value you would place upon your eyes? Would you take a thousand or a hundred thousand dollars for your sight? To the average person this is a great deal of money. One feels that with a hundred thousand dollars one could satisfy most any ambition, be absolutely independent; but *would* you, without your sight?

To the artist, this money would mean a finished education among the old masters of Europe; to the physician it would mean the power enabling him to experiment along the particular lines of his endeavor for the benefit of mankind, and to the mother it would mean luxuries for her babies. But, after all, without sight these things are negligible. The greatest joy comes to the artist in beholding his finished product, and noting the glances of admiration cast upon it by an appreciative throng. The physician is rewarded by the idolatrous and grateful smiles of his patient, whom he has grasped from death's door; and is there anything more wonderful to a mother than to notice the new little charms manifested each day by her young offspring?

No, truly, there is no greater gift than sight; still some thoughtless people hold it lightly. They abuse their eyes in every conceivable way, and then, to cap the climax, cover them with a pair of glasses, and expect them to get well. A great many people spend more time hunting bargains in eyeglasses, and in getting the kind of rims adapted to their particular style of beauty, than it would take to *cure* their eyes by following the method outlined along the lines of common sense.

In Dr. Bates' book, Perfect Sight Without Glasses, is the material explained in a simple, natural way whereby

every person having any form of defective vision can positively cure himself. All that is needed is a little backbone. Leave off the glasses. Allow your eyes to function naturally and see how they enjoy it. A baseball pitcher wouldn't think of binding up his pitching arm with splints weeks before a game is scheduled, would he? No, indeed; the results would certainly be disastrous to him. Neither would a marathon runner neglect his daily sprints that keep him in trim. The same principle applies to the eyes. When glasses are resorted to, the natural functioning powers of the eyes are curtailed, and as a matter of course become gradually weakened.

There has been a great deal of talk recently about some sort of organization which calls itself the Eyesight Conservation League. This League has been distributing pamphlets and circulars *anonymously* throughout the schools, byways and highways of the United States. The object of this League is to *prescribe glasses.* The reports of their representatives, submitted to headquarters at regular intervals, are merely records of the number of glasses prescribed. No mention is made of the number of children benefited.

According to their ideas, their object has been accomplished when the glasses are placed on the children, when as a matter of fact we all know that the sight will never become normal just so long as the glasses are worn. How often do you hear a person say, "Oh, my eyes are perfectly normal. Now, you see, I wore glasses for such and such a time, and the defect has been entirely cured." Have you *ever* heard it? I never have, and I doubt if anyone else has. Glasses *never* have cured defective vision.

We hope all our Better Eyesight League members and friends who know of Dr. Bates' method of curing defective sight will do all they can to put a stop to this sort of propaganda for "sight conservation." It *conserves* it, true enough; *preserves* it, might be the better word—preserves it in such a way that the normal vision is never manifested, so long as the glasses are worn.

A Talk to the League

By ANTOINETTE A. SAUNDERS

The following is an extract taken from a talk given by Miss Saunders before the members of the Better Eyesight League at the July Meeting, and deserves special mention.

PLAIN common sense and statistics tell us that glasses have not, cannot, and never will cure errors of refraction; if they could people would wear them for a short while only, and discard them when cured. Have you ever seen a person doing so? We all know that generally the strength of the artificial lenses must be steadily increased, and in many cases it leads to cataract and blindness—and there are still people who believe that they are saving their eyesight by wearing glasses. When, oh when, will they wake up?

I dare say that errors of refraction is an imaginary disease. Dr. Bates can tell you how many patients fitted with plain glasses and even with wrong lenses, are coming to his office daily. How can they see through these ill-fitted lenses?—autosuggestion. Most of these people claim that glasses are a great comfort and they say they cannot see without them—but sometimes we catch them forgetting themselves, their eyes and glasses, and find they can read with perfect vision, an interesting article in the paper or a lettre d'amour just received, until they remember their glasses, and presto the perfect vision is gone. Where has it gone to? You see this is the result of autosuggestion when used in a negative way.

I have suffered long enough to know what I am talking about. From birth up I was troubled with catarrh. My eyes were frequently bloodshot, the lids swollen, inflamed and sore from a discharge. There also was a film over my eyes so that I saw everything as through a cloud. I had worn glasses for twenty-eight years. Some I lost, others I gave away to very poor people believing, at that time, that I saved somebody's eyesight. All of them were fitted by the best eye specialists

here and abroad. They told me that it must be entirely my fault if I could not see with them as they were fitted most accurately and I should try to get used to them. Well, I tried hard for 28 years, but day by day in every way I got worse and worse. I was afraid to cross a street because I ran right into moving vehicles: I fell not only up and downstairs, but also over imaginary objects and was the joke of the day for my friends and acquaintances. One day I crossed Fifth Avenue at 24th Street and ran into a rope which hit me on the nose and broke the left lens. When I looked around to find out the cause of the trouble *I saw the rope with my naked eye, but could not see it with my right eye, which was still covered with the lens.* Then I woke up. I refused to wear glasses on the street, although the doctor warned me, prophesying that I surely would meet with a terrible accident. But after all the experience I had had with my collection of glasses I took the responsiblity on my own shoulders and stopped wearing them on the street. At work I had to use them until I met Dr. Bates, who not only improved my vision rapidly, but also cured in a couple of minutes a very severe headache of many years standing.

Today I can read fine print and some of the photographic reproduction print by good daylight. I consider myself cured—at least from the habit of wearing glasses.

I also wish to mention that my health in general has improved immensely at the same time. I have no nervous breakdowns any more. I forget what fatigue is although I am working strenuously from early morning till midnight and longer The rheumatism which accompanied me for 35 years has vanished completely. I must admit this has one drawback, namely—I lost the ability of forecasting the weather.

In conclusion I will try to answer two questions which I know are on your mind. First:—How did I improve my sight?—simply by following Dr. Bates' personal instructions and also practicing the various exercises out-

lined in his book. The long swing was most helpful to me.

Second:—How did I overcome the difficulties of working without glasses before my vision was improved?—I watched myself carefully, found out the particular way I used to strain and avoided that particular way of staring and straining. I tried to relax as well as I could and to stay relaxed during work. I gave full attention to my work and forgot my eyes. I do not ask you to kid yourselves by repeating a certain number of times, "I can see, I can see," and actually fail to see; but it is a fact whenever I thought I could see and was sure about it, I always did so without a single exception and whenever I was uncertain and thought "maybe I can see and maybe I cannot see," sure enough I could not see a single letter of any size and at any distance. So I advise you to think, expect, remember and imagine perfect vision and you shall have it at that very moment you need it. We all know that our physical body is not made of one big piece of something. It consists of many trillions of tiny little cells, each tiny little cell has its own tiny little brain, it knows its work and is only too willing to perform its duty if we do not interfere with it. To illustrate this statement I will tell you about an experiment which was made in one of our many laboratories.

A scientist took one single eye-cell of a chick's embryo and transplanted it to the back of the neck. The chick was hatched out with three perfect eyes. Two in its normal place and the third on the back of its neck. Now, if a chick's eye-cell knows enough and has the power to multiply so rapidly to make up for lost time and to build up a perfect eye, although out of its normal place, then I should think we need not worry about our eyes and how they can see without glasses. The human eye must be at least just as intelligent as a chick's eye, and if so then give your eyes a chance. Have faith and confidence in yourself and in your eyes.

Announcements

STORIES FROM THE CLINIC

ALTHOUGH the Clinic at the Harlem Hospital has been discontinued, the records of all the interesting and peculiar cases have been kept.

Doctor Bates and Mrs. Lierman visited the Clinic three days a week, the patients averaging fifty or more a day. Mrs. Lierman was always able to reach the human side of these patients, some of them in agony with various diseases of the eye, some blind with Cataract, and others terribly uncomfortable with minor defects. A brief synopsis of all these cases was kept, and we have pleasure in announcing that each issue of the Magazine will contain one of Mrs. Lierman's Stories for some time to come, selected from an unlimited amount of material.

BETTER EYESIGHT LEAGUE

READ the Minutes of the July Meeting of the League, and be sorry if you did not attend! So many different questions arise, are discussed and settled, and so many points in doubt, cleared up, that it is certainly to the members' advantage to attend.

It's worth while!

The Second Tuesday falls on the 11th, and we would like to see everybody at the September Meeting.

There will be a Grand Reunion of all the vacationists
at 383 Madison Avenue
8 o'Clock

BOUND VOLUMES

WE are taking orders for the Bound Copies of the Magazine, which is now at press. The volume contains every number from July, 1922, to June, 1923. It is attractively bound in limp leather, similar to that of the book, and is excellent for reference when used in conjunction with PERFECT SIGHT WITHOUT GLASSES.

Send for yours—Price $4.25.

Minutes of the Better Eyesight League

THE speaker scheduled for the evening was Mrs. Gordon, a patient of Doctor Ruiz Arnau. Being troubled with Presbyopia, and severe headaches, Dr. Arnau came to Dr. Bates for relief. Upon being cured, he took the course of treatment under Dr. Bates and is practicing this method with great success. The following reports of some of his patients were received with interest:

Mrs. Gordon could do nothing without her glasses, which she wore for three years. However, as they failed to improve either her vision or her sick headaches, she visited Dr. Arnau, whom, she heard, was using Dr. Bates' method. At the end of three weeks she was amazed to discover that she could not only leave off her glasses without the least discomfort, but her headaches had disappeared. She can now sew, read, thread needles and continue her work of teaching with ease. Mrs. Gordon explained that if she was cured in three weeks, children ought to make rapid progress and be cured permanently in less time.

The other patients who cited their experience with Dr. Bates' method, under Dr. Arnau, were two little girls, and a boy. The first child to speak said she had a very trying time with the doctor at school. He prescribed glasses for her, but when her parents saw she was no better they took her to Doctor Arnau. He immediately removed her glasses, and had her palm for a short time in his office. When he re-examined her eyes, he saw immediate improvement. The parents were greatly gratified, and sent her back to school without her glasses. However, the teacher was greatly perturbed at this breach of ancient custom, and requested the child to either resume the glasses or remain away from school entirely. The little one went home, and continued the treatment under Dr. Arnau for one week. At the end of that time she was pronounced cured by him, and returned to school *without her glasses.* She was again sent to the school doctor and examined. When he saw that she could read to the bottom line without discomfort, he told her to go back to her class, and the subject was dropped.

The next little girl was troubled with Myopia. While she could read with an effort, she could not see the little words, such as it, as an, etc. Dr. Arnau taught her how to think, see and remember black, by flashing the white spaces, and remembering the little period, she was able to imagine the little words, until they cleared up, and she could actually see them. In a few weeks' time she could read without an effort, and if she did revert to the unconscious strain, she received immediate relief and relaxation by remembering the black period.

The young man of twelve was next to tell of his experience. He explained that the swing helped him, and he demonstrated the various swings, shifts, including the movement of the eyes from left to right to make the objects swing in a slow, easy motion.

Another member gave a brief history of her case, and concluded by saying she receives the greatest benefit from reading the test card every night, before retiring. She has it always in her room, and takes it with her on her vacation.

It is a curious feature of the preceding reports that each speaker claimed a different exercise helped him. The memory of black helps some most, others like the palming, and still others become nervous when palming, and like the different swings. By trying each one, and noting the results obtained, the most beneficial can be adapted to each individual case.

The Question Mark

Newark, N. J.

QUESTION—Please state in detail why fine print is a benefit. L. G.

ANSWER—Send for detailed explanation. It requires more of an effort to accommodate the eye to large type than to small.

Wilmington, Del.

QUESTION—Is it *really* possible to cure oneself by reading the book, PERFECT SIGHT WITHOUT GLASSES? ANNA S.T.

ANSWER—*Yes.* Follow the instructions as outlined.

New York City.

QUESTION—Have had good results with Dr. Bates' book, but as yet cannot leave off my glasses with comfort. May I resume them when I do close work?

MRS. CLARKE.

ANSWER—No medicine is easy. Put up with the discomfort. Learn how to diminish and abolish this day by day. Leave off your glasses.

East Orange, N. J.

QUESTION—My husband has a fully developed Cataract. Can this be removed by Dr. Bates' method without operation? MARY S.

ANSWER—Yes.

Albany, N. Y.

QUESTION—If fine type is beneficial, why do they print Children's school books in large type?

JOHN H.—Teacher.

ANSWER—For the same reason that people wear glasses —Ignorance of the proper way.

Stamford, Conn.

QUESTION—Trying to make things move gives me a headache. Palming gives me more relief. Why?

EAS.

ANSWER—Making an effort to do a thing won't help you. When you are walking the street, the street should go in the opposite direction without effort on your part. Some people get more relief from palming, while swinging helps others best.

PRESS OF
THOS. B. BROOKS, INC.
NEW YORK

Better Eyesight

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

Vol. VIII. OCTOBER, 1923 No. 4

$2.00 per year 20 cents per copy

Published by the CENTRAL FIXATION PUBLISHING COMPANY
383 MADISON AVENUE NEW YORK, N. Y.

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.

BETTER EYESIGHT

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

Editor, W. H. BATES, M. D.
Publisher, CENTRAL FIXATION PUBLISHING COMPANY

Vol. VIII. OCTOBER, 1923 No. 4

Failures

By W. H. BATES, M.D.

MOST people with imperfect sight when they look at the Snellen Test Card at twenty feet believe that they see imperfectly without any effort or strain. Some people feel that to have perfect sight requires something of an effort. It is interesting to demonstrate that these two beliefs are very far from the truth. As a matter of fact it requires an effort to fail to see and it requires no effort to have normal sight.

In every case of imperfect sight whether due to nearsightedness or to an injury it can always be demonstrated that the nerves of the whole body are under a strain and in every case of perfect vision it can be demonstrated that no effort whatever is made.

1—Remember if you are able, a small letter O perfectly black with a white center, imagined to be as white as snow. When you succeed you will note that it comes easy, quickly and without any manifest effort on your part. You can choose to remember a letter O and you have it. This letter O, if it is perfect, you can always demonstrate or imagine, to be moving and the movement may be so slow, so short, so easy, that you would not

have imagined it without having your attention called to the letter. One can remember one perfect letter O or two letter O's, as in the word "good" and at the same time remember or imagine the whole page of letters to be perfectly black, clear and distinct although one is only able to see them best one at a time. Above all it can always be demonstrated that the memory of perfect sight, the imagination and ability to see things perfectly can only come easily, quickly and without effort. Remember a letter O again with a white center as white as snow and imagine on the right edge of it a little black period. Try and keep your attention fixed on that little black period. Try and remember it the blackest part of the O, try and imagine it stationary when not only is the period stationary but also the whole letter O. One can hold this period black for a few seconds or a part of a minute, but, after a short time it becomes monotonous or disagreeable or requires a strain and the period is lost and the O is lost momentarily although you can get it back again. You can demonstrate quite readily that it is impossible to retain in your mind a period or a letter O by trying to imagine it stationary; or by trying to get your attention fixed on one point, or by staring at one point or two points or more points on the letter O; and trying to see them all at once and stationary is trying to do the impossible. You are straining and the result of the strain is that the memory, imagination and vision fail.

We have two classes of patients. One who gets well quickly in a day or at one visit. We have a second class that take their own time about getting well. They are usually under treatment for weeks and months before they recover, if they ever do. Why should some people get well so much quicker than others? One succeeds, the other fails. The facts are that the patient cured in one treatment does at once what he is told to do. He does not think or argue about what he is told to do, at least he does not try to explain why he is asked to do certain things, but simply goes ahead and does it and soon obtains perfect sight. It is something like the belligerent

Irishman who did not know the meaning of the word "convinced," who publicly announced in a loud voice that he was willing to be convinced, but he would like to see the man who could do it. A great many patients are like the Irishman. They are willing to be convinced but they have their club. The club has engraved on it effort, strain, hard work.

When you have imperfect sight and look at the first letter of a line of letters on the Snellen Test Card which you cannot read you can always note that you do not see the first letter or any other letter better than the rest. Usually the whole line looks pretty much the same shade of gray. Why is it? Because you are trying to see the whole line at once. You may not know it but most people can unconsciously demonstrate that they are trying to see the whole line at once. If you hold the card up close where you can readily read the same line you will notice, or you can get somebody with good eyesight to show you, that when you distinguish a letter you do not see any of the other letters so well. To see one letter at a time is much easier than to see a whole line of letters, in fact to see a number of letters all perfectly at the same time is impossible and trying to do it is a strain. One can lift a lead pencil without any apparent effort. To lift a five pound weight requires something of an effort, but to lift ten tons of coal with one hand is impossible, and trying to do the impossible, trying to lift the ten tons of coal with one hand is an effort, a strain, and so it is with the eyesight. You can succeed oftentimes when you look at the Snellen Test Card without any effort to see one letter best at a time, but if you try to do the impossible, try to see the whole line of letters at once you will always fail, because you will have to make an effort. It is not an easy thing at all to fail, it is difficult, you have to try, or you make an effort to do the impossible in order to fail.

This can be demonstrated by nearsighted people who can read fine print close to their eyes. When you see a

line of letters you can see one letter better than all the other letters or you can even see part of one letter best while the rest of the letter is not good. Even persons with very good sight for the fine print close to the eyes can demonstrate that to make their sight worse or to see worse is not an easy thing to do. It requires a great effort. To prove that imperfect sight is more difficult and requires hard work, a great deal of trouble, and much effort, is a great benefit.

If you close your eyes and remember a letter or word easily, perfectly, continuously, you will find that to spoil the memory or your imagination is a difficult thing to do. Some people cannot read fine print readily, but they can read the Snellen Test Card at twenty feet with normal vision. To be able to look at the large letters on the card and to strain your eyes sufficiently to blot out the large letters is not an easy thing to do. It is difficult to remember, imagine or see imperfectly, to fail.

There are many patients who are convinced that they can remember or imagine with their eyes closed and oftentimes with their eyes open, letters of the Snellen Test Card perfectly black. Many of them can do it all right with their eyes closed, but fail to do it with their eyes open. When they are cured they become able to remember just as easily with their eyes open as they can with their eyes closed. This has suggested a method of treatment which has been highly successful. Many patients ask how long it will take to be cured. The answer is when you can remember or imagine as well with your eyes open as you are able to with your eyes closed.

The Story of Lillian

By EMILY C. LIERMAN

AT one time my work was confined to the Harlem Hospital. After awhile it was extended to other places at other times. Occasionally when I visited a department store to make a purchase, the girl who waited on me might be suffering from the results of eyestrain, pains in the eyes or with headaches. It always gave me great pleasure to give them immediate relief with the aid of palming, swinging or in some other way. I could write many stories about the help I gave these girls and their gratitude was something worth-while. I live in the suburbs and commute. The trainmen know me very well and always come to me to remove a cinder from their eyes or to help them when their sight is poor, or when they are suffering in any way with their eyes. Every day during the Fall, Winter and Spring I meet a cheerful group of girls at our station, who attend high school in another town. Some of them I have known since they were babies, and while I am in their company on the train, I forget sometimes that I am grown up and join them in their fun. Several of these girls wear glasses and I offered to cure them any time they were willing to discard their glasses. We said no more about the subject until one day just before school closed for the summer, one of the girls, named Lillian, age 16, who had a higher degree of myopia than any of the rest, appealed to me to help her get rid of her glasses. I insisted that she consult her parents first and if they were willing, and would also help me with her case, I would try my best to cure her before school opened again in the fall. Lillian was very much excited about it all, and begged the other girls to discard their glasses also. One girl said her mother feared that such a wonderful thing couldn't be done. Another girl thought she would wait awhile. I still feel in my heart that they did not believe in me. However, the day after school closed,

Lillian called at my home with her sister, Rose, age 13. She had a decided squint of her left eye. Lillian had not spoken of Rose or that she had a sister with squint. She was afraid of imposing upon me and for that reason did not mention that her sister also had trouble with her eyes. But when Lillian came to me, Rose made up her mind that she would be cured also and so she came along with her.

I fastened a test card to an oak tree outside of our house and placed my patients ten feet from the card. I started Lillian first because I wanted, above all else, to cure her as I had planned. With glasses on she read 10/15 and with glasses off 10/70. I taught her to palm and remember something perfectly while her eyes were closed, such as a white cloud, sunset or a little flower of some kind. She did this for a few minutes and then without a stop or making a single mistake her vision improved to 10/40, both eyes. Then I tested each eye separately. Her vision fortunately was the same in each eye, which made it easy to proceed with the treatment. By closing her eyes and remembering the last letter she was able to see on the card she became able to read another line, 10/30. When she made the slightest effort to read the smaller letters on the card the letters would disappear. I explained to her, that when she stared, she made her sight worse and that was her main trouble. I told her to keep her eyes fixed on one letter without blinking her eyes and see what happened. Immediately she began to frown, her eyelids became inflamed and she complained that her eyes hurt her. She said: "Now I know why I have headaches and pain in my eyes."

On her second visit her vision improved to 10/20 after I had taught her the long swing, moving her head slowly from side to side from left to right, looking over one shoulder and then the other. She had to be reminded, as all patients do, to stop staring and to blink her eyes often, just as the normal eye does. All through the summer, Lillian practiced faithfully getting a great deal of encouragement from her sister Rose and her loving

mother and father. She came to me for treatment about once a week and a few weeks before school opened we began treatment indoors with electric light instead of outdoors in the sunlight. I did this purposely because I knew that the light in school was not as bright as outdoors. Lillian became very nervous and frightened when she first read the test card by electric light. All she could see, was the large C called the 200 line letter, at ten feet. Palming for a few moments helped her to relax enough to read several lines, then with the aid of the swing, and looking at one letter and then shifting her eyes somewhere else and looking back again at the next letter, helped her to read 10/15. At each visit she improved and now reads 10/10 all the time. Before she began treatment, she had to hold a book while reading, at three inches from her eyes. This was with glasses on. Since she was seven years old she had worn glasses constantly and in all that time she suffered with headaches every day. She told me that from the day I removed her glasses and started the treatment she had not had a headache or pain in her eyes She is so grateful that I am almost swallowed up with caresses. Some friends whom she had not seen for a year, called to see her folks and to enjoy a day on their farm. Lillian had worn glasses for so many years that she was not at all surprised when her friends did not know her. She stood in the doorway ready to greet them, but they thought she was a stranger. Her whole facial expression had changed. The eyelids which were swollen from eyestrain were natural looking and her large brown eyes were quite different from the tiny marble looking eyes that tried to see through the horrible thick glasses she had worn previously. When her friends finally recognized her they had to hear all about the treatment and cure.

If Lillian had not been so faithful with the treatment I could not have made such rapid progress. There were many days during the summer when she became discouraged and worried for fear she would have to put on her glasses again. Her mother was a great help to

me in many ways. She was very careful to hide Lillian's glasses so that she could not possibly wear them again even if she wanted to.

Well the first day of school came along and of course I was a bit anxious. I met her with the usual group of girls on the train and as she passed me by she pressed my hand and said, "Wish me luck." I asked her to telephone me that evening, which she did. This is what she said:

"When my teachers saw me they were surprised at the great change in my appearance, so I told them all about it and all you did for me. But when I asked to be placed in the last row of seats in each classroom, they were amazed! You see I always had to sit in a front seat near the blackboard," she said, "when I wore my glasses. I was able to read every word on the blackboard in each class room, from the last row of seats where I was sitting. I also read from my readers at eight inches from my eyes without any discomfort whatever."

I praised Lillian and said that I was glad for her. I am more than happy to have given her my time evenings when I needed rest most of all after a day of hard but joyable work.

The interesting history of Rose, Lillian's sister, will appear in the November issue.

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 practising 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.

Minutes of the Better Eyesight League

August Meeting

THE meeting of the Better Eyesight League was very successful, although it came in the middle of the vacation season. The large Central Fixation office was filled to capacity.

The regular officers were still on their vacations, and Miss Saunders informally opened the meeting. Many questions were asked of Dr. Bates, the most important of which are answered on the question and answer page of this magazine.

Miss Gertrude Berdine was the speaker selected for the meeting. She told in a very interesting manner how she wore glasses for ten years, and was able to discard them by practicing Dr. Bates' method under Dr. Arnau. She accomplished reading her music in two weeks' time after leaving off her glasses. She was bothered with headaches and said the swing and sun helped her. She very rarely has a headache now.

Dr. Cornelia Browne of East Orange spoke of the recent post office investigation, and explained to the meeting how every member could help by stating in a letter to Mr. Keene, the benefits received from Dr. Bates' method. She said that this was the opportunity for the members to get together and turn the investigation into a boomerang.

Many of those present at the last few meetings were not regular members of the Better Eyesight League, but just came to find out more about Dr. Bates' method of treating imperfect sight. The regular members have probably told these new friends about the work, and invited them to come, but we want all the old members to attend the meetings and be kept up on the latest developments. Now that vacation time is over, we hope to continue with the good work, and have all the old members attend regularly.

The Post Office Incident

[EDITOR'S NOTE]—About two months ago the Post Office noticed that we were sending an increasing number of books through the mails. They did their duty and investigated the facts by writing to a number of purchasers of the book. The following is a partial list of letters written to the postmaster, duplicates of which were submitted to us, and are printed at this time for the encouragement of those who desire good vision without glasses. We are grateful to the writers of all letters sent to the Post Office.

"I WAS wearing spectacles for twenty-seven years. A friend of mine made me acquainted with the discovery of Dr. Bates. I bought the book, read it very carefully, and began the exercises and cured myself by following closely the directions stated in the book without consulting Dr. Bates; therefore, from the very day that I began the exercises prescribed in the book I discarded my spectacles and I never had the need of them any more. My eyes by the continual use of the spectacles had acquired a lifeless expression. They now look bright and have acquired their natural expression of my young days. I read, write and use them with remarkable comfort for anything that I must do. I recommended the same book to a friend of mine in Nassau, N. Y. Her children and husband, an architect by profession, were wearing spectacles, and they also cured themselves only with the knowledge of the book, and the application of the exercises, in a remarkably short time.

"I am living at ———— for more than fifteen years and therefore my testimonial can be O.Kd. by many persons and acquaintances. I consider a blessing for the future generation the marvelous discovery of Dr. Bates, and personally I will do all that is in my power to impress on my friends the scientific and accurate importance of such valuable work done with altruistic and humanitarian spirit by Dr. Bates.

"If anyone fails to have results it is only because they do not work it out accurately, continuously and conscientiously. The blame, therefore, is in their nature and not in the value of the theory. I hope my testimonial will help the future and present generation to get the just attitude and give support and value to such a remarkable discovery."

"I HAVE been interested in Dr. Bates' method of treatment for the eyes, for several years, and have known Dr. Bates personally for one year.

"From the results obtained by my patients through the use of his book and methods, I am convinced that he is right in his conclusions, and I have always found him thoroughly honest and reliable in his business methods and also in the sale and delivery of his books."

"I HAVE enjoyed considerable mental comfort and, I believe, considerable practical benefit from the work in following the instructions. The "palming" process and the mental suggestions connected with it have been followed with pleasure and profit. Dr. Bates' observation with regard to cataracts in some recorded instances having passed away was very encouraging. Believing to the fullest extent in the doctrine that what comes of its own volition should seemingly disappear either similarly or with care, I have been extracting considerable relief from the belief which amounts to a conviction.

"As I have been nearly forty-seven years a practicing attorney you can rest assured that I am neither an infant nor a neophyte, but like the man from Missouri I must be shown and convinced. Dr. Bates has presented certain lines of thought worthy at least of investigation and consideration. I can well understand how efforts may be made to thwart him but with me if his position is untenable it will soon be discovered and so proven. At the present time I can only speak in the most encouraging manner of the work and of his suggestions."

"IN reference to enclosed letter, I did write for 'Perfect Sight Without Glasses' and sent it on to my wife, as I thought it might interest her. I have not taken the treatment, but intend to do so the next time I take a vacation from business.

"My wife wore glasses for 29 years. Dr. Bates told her to take them off and since that time, over a year ago, she has not worn them, and can see better and longer than when she wore glasses. She is free from headaches she experienced when she wore glasses.

"I believe that Dr. Bates is sincere and that he is working on really scientific lines. I believe that he has been persecuted by narrow-minded physicians who resent any change in the fundamentals of their science. I was as skeptical as could be of Dr. Bates and investigated thoroughly before I allowed my wife to take the treatment, and I am now thoroughly convinced that his method is the correct one in the majority of cases.

"I should be very glad to be of any further assistance in protecting Dr. Bates or the Central Fixation Publishing Company, which, I understand, is his organization, from any interference by the Government.

"Please understand that I have no connection or interest in the Central Fixation Publishing Company. My only motive is that of gratitude because Dr. Bates did so much for my wife and made it possible for my little daughter to do without glasses."

"I HAVE heard the optometrists and the oculists "knocking" the system and have asked each one of the known knockers if they had tried the system. Each said "No." They are the ones who are jealous.

"I have known of very many who have been benefited beyond casual belief by Dr. Bates' system. Of course it is radical. All reforms seem radical till once adopted by the majority. As a rule the discoverer of anything good in the healing "art" has to be dead for about fifty years before he is given due credit for his work."

"I WAS treated for an acute condition of the left eye in the spring of 1922. I was suffering acute pain from the least ray of light, could not bandage my eye closely enough to walk on the street without agony because light would get in, had to ride in a closed taxi cab. Dr. Bates examined my eyes for over an hour, then prescribed immediate exercises which I took in the office, remaining another forty-five minutes to do it. My eye which had been in this inflamed painfully acute condition for five days, was relieved after fifteen minutes. I could see in twenty minutes without great pain, in forty-five minutes I could bear to look at light. I continued the exercises at home by his prescription and my eyes were normal in three or four days' time."

"THROUGH your 'Perfect Sight Without Glasses' I not only could throw mine away almost at once after I began to read your book last Thanksgiving, but the effects of your splendid relaxation system on my high-strung nerves is beyond words."

Announcement

The November issue will contain the minutes of the September and October meetings, and from then on the minutes will appear in the following month's issue.

The League will meet on the 9th of October, 383 Madison Avenue, 8 o'clock.

The Question Mark

Questions and Answers taken from The Better Eyesight League Meeting

QUESTION—Can anything be done for night blindness?

ANSWER—It can be cured by sun gazing.

QUESTION—What can be done for a man, blind for fifteen years who cannot tell light from darkness?

ANSWER—Same treatment as is used for myopia and other defects.

QUESTION—How can we see things moving without making an effort?

ANSWER—Things only move when one is relaxed. An effort always stops things from moving.

QUESTION—Why do "movies" hurt my eyes when they should benefit them?

ANSWER—Unconscious strain. Do not stare at the picture, but allow the eyes to roam over the whole picture, seeing one part best. Also keep things swinging.

QUESTION—Why do some people see better by partly closing their eyes?

ANSWER—People with poor sight can see better by partly closing their eyes, but when they have perfect sight, squinting makes it worse. This is a good test for the vision of ordinary objects.

QUESTION—When does the long swing fail to produce relaxation?

ANSWER—When one stares at objects moving.

PRESS OF
THOS. B. BROOKS, INC.
NEW YORK

Better Eyesight

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

Vol. VIII. NOVEMBER, 1923 No. 5

$2.00 per year 20 cents per copy

Published by the CENTRAL FIXATION PUBLISHING COMPANY
383 MADISON AVENUE NEW YORK, N. Y.

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.

BETTER EYESIGHT

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

Editor, W. H. BATES, M. D.
Publisher, CENTRAL FIXATION PUBLISHING COMPANY

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The Treatment of Myopia

By W. H. BATES, M.D.

MYOPIA or nearsightedness is usually acquired by school children and others at about the age of twelve, a period when the nervous system is naturally undergoing a change.

One can demonstrate that when the normal eye stares at one part of a letter of the Snellen Test Card continuously at twenty feet that it is a difficult thing to do; the eye tends to wander; and, to keep the eye fixed on one point requires an effort, a strain which lowers the vision and produces a temporary myopia. In all cases of myopia a stare or strain or effort to see at the distance can be demonstrated. When the vision is normal, as it may be for diamond type at six inches or further, one reads easily, readily, rapidly, without any effort or strain whatever. It can always be demonstrated that the white spaces between the lines, between the words or letters are whiter than the margin of the card. By covering over the black letters the white spaces between the lines are seen to have the same whiteness as the rest of the card or when one sees the white spaces between the lines whiter than the margin of the card one sees an illusion. An illusion is never seen, it is always imagined. We call the white spaces between the lines when whiter than they really are, Halos, which are really never seen but only imagined. The imagination of the Halos, how-

ever, may be so vivid that it is difficult for many people to realize the facts. It is most important that the patient should understand that the Halos are never seen, they are always imagined.

A great many cases of myopia have been cured by demonstrating this fact. All that was necessary to bring about a cure was to encourage the patient to imagine the Halos which is more easily done than to see the letters.

Patients who are nearsighted, when they regard the letters of the Snellen Test Card, see the black letters a shade of gray. When their attention is called to this fact they realize that they are imagining an illusion which lowers the vision and favors the increase of myopia. In some rare instances these facts have been understood by a few patients, who said to themselves: "I do not see these gray letters, I only imagine them gray. As a matter of fact it is easier for me to imagine the letters black than it is to imagine them gray." Then they went ahead and did it and were soon cured.

NO GLASSES

A person who has been wearing glasses to improve the sight of myopia and has worn these glasses for a number of years is quite dependent upon them. When the glasses are removed, the vision is much less than normal and it is a curious fact that the vision without glasses does not depend directly upon the amount of myopia. A person with two diopters of myopia may have just as poor vision without glasses as one who has six or more. When a myopic patient lays aside the glasses entirely for two weeks, when the vision is again tested it is often much improved. The facts demonstrate that wearing glasses always lowers the visual acuity much below what it is when the glasses are not worn at all. It is a matter of common knowledge that when the glasses are first worn that the patient does not always obtain a maximum amount of relief. Some eye doctors when asked to explain matters sometimes tell their patients that their eyes have to become adjusted to the glasses. It is not always easy to explain things satisfactorily, especially when some fault-finding patients complain that what they wanted was glasses to help their eyes and that they hardly expected to be called upon to adjust their eyes to fit the glasses.

When any progress is made in improving the vision of myopia, the wearing of glasses, even for emergencies, usually causes a relapse with loss of all the benefit gained by treatment. The use of opera glasses should be forbidden.

PALMING

One of the best methods of improving the sight of myopia is to cover the closed eyelids with one or both hands in such a way as to avoid pressure on the eyeballs. This is called palming. The patient is directed to rest his eyes and to forget them as much as possible by thinking of other things. When properly done the patient sees nothing but darkness or black. It is a failure when one sees red, blue, green, white or any other color. In such cases palming does not succeed in helping the sight. There are many cases in which palming may lower the vision and so one must keep in mind the fact that it can be done right or it can be done wrong. The length of time necessary to palm to obtain maximum results varies with individuals. Most persons can obtain improvement in fifteen minutes while others require a longer time, a half hour, an hour or even two or more hours of continuous palming to obtain any benefit. With improvement in the vision it usually follows that a shorter period of palming may obtain maximum results. The environment of the patient is an important factor to consider. When a patient is palming it is well to avoid all conversation or the presence of a quantity of people. Some patients like to be read to or they enjoy conversation with their friends. These cases seldom obtain any material benefit to their sight from palming. The im-

proved vision obtained by palming is seldom perfect. Other measures usually have to be employed to insure a lasting benefit.

BLINKING

The normal eye when it has normal sight, blinks quite frequently. By blinking is meant closing the eyelids and opening them so quickly that neither the patient nor his observers notice the fact. The moving pictures have shown that in some cases the eyes were closed and opened five times in one second. This is done unconsciously and is rather more than I can do consciously. Blinking is necessary in order to maintain normal vision continuously, because if one consciously prevents blinking the vision for distance or the ability to read fine print are modified. It is interesting to me how blinking, which is so necessary for good vision, has been so universally ignored by the writers of books on diseases of the eyes. Blinking is a rest, it prevents fatigue, and very important, it improves the sight in myopia, and helps to maintain good vision more continuously.

SWINGING

It has been my custom after a nearsighted patient has palmed for half an hour or longer, to have the patient stand with the feet about twelve inches apart and sway the body from side to side, looking alternately at each side of the room without paying any particular attention to objects in front of him. By a little practice, patients become able to imagine all distant objects not regarded, to be moving from side to side in the opposite direction to the movement of the eyes. When the eyes move a foot or more from one side of a letter to the other side, the letter appears to move in the opposite direction, very nearly to the same extent. This movement of the letter or object is an illusion; and being an illusion, it is not seen but only imagined. A swing of an inch or more might

be called the long swing, while a swing of a lesser degree might be called the short swing. When the long swing is practiced properly simultaneous retinoscopy indicates that the eyes are normal. When the short swing is practiced properly a greater improvement in vision usually follows, but the short swing stops from slight causes and the vision is then lowered. The short swing and long swing remembered with the eyes closed and remembered just as well with the eyes open, is a cure of myopia in many cases.

MEMORY

With the eyes closed, one may remember a small black period equally well as with the eyes open, while regarding the Snellen Test Card. When the period can be remembered perfectly at all times and in all places, the myopia is permanently cured.

Some people have difficulty in remembering a black period. They can, however, remember white, red, yellow, or some other color as well when regarding the Snellen Test Card or other objects with their eyes open, as they can with their eyes closed. After treating a girl aged fourteen suffering from a high degree of myopia, concave 15, she unexpectedly became able to remember white very well indeed. One day she announced that she was cured, after nine months of treatment. I tested her vision and found it normal for a familiar card. I then tried her with an unfamiliar card which she also read with normal sight. I asked her the question, "Explain the facts." She answered with one word: "Starch," meaning that the memory of the whiteness of starch with her eyes open as well as she could remember it with her eyes closed, had brought about a cure.

The memory of black and the memory of white seem to be more popular with patients than the memory of other colors.

IMAGINATION

The imagination has accomplished more in the cure of myopia than some other methods. Many people can imagine they see with their eyes open a known letter while looking at a blank wall as well as they can with their eyes closed; but when they regard the Snellen Test Card their ability to imagine that they see a known letter when regarding it, is not so good. Alternately imagining the known letter with the eyes open and accomplishing it better with the eyes closed, has been followed by a great benefit. I have never seen patients with considerable myopia imagine an end letter of each line of the Snellen Test Card with a little practice as well with their eyes open as with their eyes closed. Beginning with the large letters and gradually working down to the smallest letters they obtain normal vision entirely with the help of their imagination.

PREVENTION

The prevention of myopia in school children is very desirable. I recommend my published method because it always improves the vision of school children which means that automatically myopia is prevented.

The Snellen Test Card should be placed on the wall of the class room where all the children can see it from their seats. Once a day the chart should be read as well as possible with each eye, by the children from their seats. Every family interested in the good sight of their children should possess a Snellen Test Card to be read by each child at least once daily. Many adults acquire myopia. As a matter of safety and a benefit to the eyes the adults should read the card at twenty feet with each eye. They usually obtain not only benefit to the eyes but also an increased mental and physical efficiency. Some teachers have told me that palming for a few minutes occasionally during the day is followed by relaxation of the children's nerves which is of great capital value in preserving the health of the children. Each teacher should use the Snellen Test Card in her class room more or less frequently every day.

Stories from the Clinic

45: THE STORY OF ROSE

By EMILY C. LIERMAN

ROSE, aged 13, is the sister of Lillian whose case was reported in the October issue of Better Eyesight. While I was treating Lillian, Rose was present and listened attentively to everything that was said. Rose had convergent squint of the left eye and when she became excited or tried to see at the distance, her left eye would turn in so that only the sclera or white part of her left eye was visible. At the age of three, it was noticed that her left eye turned in, and when she was four years old, glasses were prescribed for her. I tested her sight with the test card and with both eyes she read 10/100. Then I told her to palm her eyes and to remember the last letter she saw on the test card. She kept her eyes closed for at least a half hour and when she again read the card her vision had improved to 10/20. Then I tested each eye separately. She read 10/20 with the right eye; and 10/40 with the left.

I thought the improvement in the vision of her eyes was wonderful and Rose was delighted with the results of her first treatment. Her sister Lillian was thrilled as she saw that left eye straighten as the vision improved. She came to me with Lillian once every week for treatment and carried out to the letter, everything I told her to do at home.

She was directed to wear a cloth patch over her good eye all day long and to do her usual duties for her mother as well as she could, with her squint eye. What a faithful child she was, and how she did hate that patch. I asked her every time she came how she got along with it. "Well, Mrs. Lierman," she said, "I don't like that black patch at all. I want to take it off many times every day. I don't like to have my good eye covered, but I know I must wear it if I want to be cured; and I do want to, so I just think of you and how much better my eye looks and then I don't mind a bit."

On her second visit her left eye improved to 10/20 and her right eye became normal, 10/10. Never did I have a more enthusiastic patient. On her third visit she gave me a package sent by her mother, who tried in her kind way to show her gratitude to me. The package contained delicious homemade sweet butter, my favorite dish. Rose continued her visits and in two months her sight became normal, and her eyes were perfectly straight continuously. She practiced faithfully and the result was that, one week before school started, she was able to remove the patch permanently, without any return of the squint.

Her first day at school was very exciting to her. She said her teacher did not recognize her, but when she smiled the teacher could not mistake her then. When Rose smiles you cannot help but know and love her. Her Aunt says a miracle was performed.

She had no trouble in reading the blackboard from the last seat of her classroom, where she asked to be placed, and she sees the book type much clearer than she ever did. Rose had been going to school for a week or so, when her teacher noticed that a pupil, aged 12, could not read the blackboard from the front seat where she was sitting. The teacher told her to have her eyes examined by an eye doctor and to be fitted for glasses. Rose heard the conversation and promptly met her school mate at the school door. Rose told her how she had been cured without glasses and that she would be willing to show her how to be cured also. The next day at recess instead of joining the class out-doors for exercise, Rose and her school mate went back to the class room and with the aid of a Snellen Test Card, which Rose had taken with her that day to school, she improved the sight of the little girl from 12/70 to 12/15, by palming, blinking and swinging. Every day the two little girls worked faithfully with great success and after less than a week, both children occupied rear seats in the back part of the room where they were able to read the writing on the blackboard without difficulty.

Seeing Without Glasses

By CAROLINE GUIGNARD

THERE are doubtless many men and women who have worn glasses for twelve or fifteen years, suffering annoyance and discomfort through imperfection of the substitute for normal eyesight, who feel that it would be discouraging to become personally interested in a method employed for the improvement of the eyesight of those who have used glasses a short time only or not at all. As I was one of these, but am not one of them now, I feel that I must say a word which may cause someone to read the book, "PERFECT SIGHT WITHOUT GLASSES," who might not otherwise do so.

After reading the book, I put aside my distance glasses and began palming. At the end of three days I could look at an unshaded lamp without pain, and at my fingers at a distance of six inches without pain or nausea, although I saw them very badly. I could see the hands of a watch and approximate the time without glasses. I then put away all glasses, including those I wore all the time for distance; those for reading, bi-focals; for painting, and the hand glass.

I think that I began reading a little at the end of three months familiar things in clear type, "Alice Through the Looking-Glass," "Æsop's Fables" and Kipling's verse, palming before each paragraph or often with each one.

Now at the end of eight months I read anything within reason in a good light, even a little diamond type, two or three chapters at a time of a Bible in pearl, which would be pleasanter if it were not yellowed with age. I can thread a fine needle with 150 thread in a good light. Instead of paining me my eyes feel better after using them.

For a time I think it is necessary to carry around with one the improvement of one's eyesight as an inveterate knitter carries her knitting, and a little of it always could only be a pleasure, to remind one of one's good fortune.

I palm six half-hours or longer daily. I did not at first discover that a half hour of palming the last thing at night left the vision clear the following morning.

The gesture with eyes closed of looking over one shoulder as far as possible, then over the other shoulder as far as possible, can be done for an instant or longer at almost any time.

I find a watch very useful. The one I am using has a white face one inch in diameter and the hands and figures are black. The diameter of the circle of the second hand is three-sixteenths of an inch. I glanced at the watch a great many times through the day and night as well as whenever I was awake. Almost immediately I could see which was the hour and which the minute hand and gradually began to read the figures, which slowly changed from gray to black. Now I read clearly the figures within the circle of the second hand.

Dealing cards rapidly and arranging the hands without trying to see the different cards helped me. Also reading at a glance the black and white numbers on automobiles and the black and white sign boards of filling stations and wholesale districts.

Recently I was ten days in an automobile seeing the mountains of North Carolina. Not having the "Snellen Test Card" with me, I found that reading it in my imagination at night, persisting until the figures became quite black and the card white, relaxed my eyes, as also did the swinging of the small o and period, recommended by Charlotte Robinson in the May magazine. After ten days of rapidly moving trees by the roadside my eyes were improved.

My eyes are not yet perfect, but they are infinitely more satisfactory than they were with glasses.

A Doctor's Story

By H. W. Woodward, M.D.

ABOUT two years ago I visited New York for the purpose of investigating the claims made by Dr. Bates relative to the cure of refractive errors and the restoration of diseased eyes without the use of glasses.

I visited his clinic at Harlem Hospital. Here I found most unusual methods practiced by the doctor and Mrs. Lierman in the treatment of disorders of the eye. I was surprised at the cheerfulness of the patients, particularly the children.

The doctor invited me to call at his office. I did so, and again I found his methods so different from the usual oculist that I was interested at once in finding out how he did his work. The first thing that impressed me was seeing so many patients working in his waiting room. They seemed to be engaged in steadfastly regarding the letters of test cards placed upon the wall.

After I had seen the doctor treat several patients he turned to me and inquired about the condition of my own eyes. I replied that I had reached the age where most people require glasses for reading, but was just beginning to be annoyed by a blurring of vision when I consulted a telephone directory in a dimly lighted room. I knew that this symptom means in the almost universal experience of mankind, glasses, and more glasses, until one becomes dependent upon them. While I was contemplating this prospect, Dr. Bates explained to me that he had been through this experience, having had to wear quite strong lens for reading and that he had cured himself.

He handed me one of his professional cards. On the back of this card was printed in small diamond type seven paragraphs stating seven fundamentals of perfect sight. He requested me to hold this card about six inches from my eyes, then close my eyes and form in

my imagination or memory a small letter "o" and to see it in my mind, very black with a white center. After doing this for a few seconds I was to open my eyes and look at the letters on the card. I did this, and to my surprise upon opening my eyes, the letters were jet black and remarkably distinct; but for only a moment did this clear vision last. The letters soon faded away into a blur.

This experience of getting a flash of clear vision, though evanescent in character, was encouraging to me, because it suggested the possibility of conquering this tendency to blurring. In other words, if I could learn to sustain this primary normal position that my eyes relaxed into just before opening them, I would certainly achieve perfect vision. Dr. Bates instructed me to practice what I had just done twice a day. I did as he advised. At first I could not hold this flash of clear vision more than a second or two. It was too subtle. I could not get a hold on it. I continued, however, practicing night and morning for several weeks with but slight improvement. At last, however, I became able to sustain the clear vision for about thirty seconds; but if I would wink my eyes while seeing clearly, my vision would fade into a blur. In time my patience was rewarded by more improvement, for now I am often able to read the whole card without a blur.

Dr. Bates deserves much credit for the pioneer work which he is doing and for the way he keeps on doing it in spite of the hostile criticism continually directed toward him. To know him is a privilege and I am thankful to have had this experience.

Minutes of the Better Eyesight League

SEPTEMBER MEETING

ON the evening of the eleventh Dr. J. M. Watters, an eye, ear, nose and throat specialist from Newark, addressed the meeting. It was an extremely impressive talk, for Dr. Watters brought with him a long and interesting list of cases for whom he had effected cures by Dr. Bates' method. He stated that when he first started this work the results actually astonished him. Eyes responded to the new treatment better than he had anticipated or dared to hope.

The histories included both old and young, men and women, with apparently all the different kinds of eye maladies. Myopia, hypermetropia, astigmatism, presbyopia and glaucoma all yielded to the eye exercises. A gentleman of 74 with cataract in both eyes, a young man who was hit in the eye with a golf ball who developed a detached retina, a patient with ruptured iris—these likewise were cured by learning and practicing the method.

Dr. Watters said that he believes best results are obtained if people practice when they feel like it. If they can enjoy it and if the exercises produce no feeling of nervousness, then the work is progressing along the right lines. There is no way of hurrying a cure and a patient must be willing to accept gradual improvement if it seems to come that way.

Dr. Bates himself gave a most valuable demonstration of the long swing. He recommended it as a help in other troubles besides eye ailments, since if done properly it produces relaxation and lack of tension throughout the whole body.

Dr. Watters announced his eye clinic at 2 Lombardy Street, Newark, on Monday and Friday evenings from 7 to 8. He invited the members of the League to send anyone in need of help.

OCTOBER MEETING

PERHAPS no speaker has brought greater encouragement to those endeavoring to gain better eyesight than Miss Florian Shepard, of Orange, N. J., who spoke to our League on October ninth. The special significance of her cure lies in the fact that it has been one of the unusually slow ones. Miss Shepard told the history of her case and related the gradual steps in her progress. At first nothing seemed to work. Palming, swinging, everything produced strain instead of relaxation. It was only by long perseverance that she was able to arrive at any real success. Again and again Miss Shepard spoke of the marvelous patience and understanding with which Dr. Bates helped her find a way out of all her difficulties. Her testimony proves that Dr. Bates can succeed not only with easy cases but also with hard and unresponsive ones.

Miss Shepard spoke of the trick of timing the swing with the thumb and finger, and Dr. Bates later discussed this point. Attention was called to the fact that the September magazine had an article on the subject.

At Dr. Bates' request Miss Mildred Shepard gave a short account of her cure. The most interesting part of all was perhaps the fact that since her eyes have become normal she is much less tense and consequently less nervous in all phases of her life. She spoke of herself as having become "happy-go-lucky."

LEAGUE BUSINESS

Miss May Secor, of 521 West 122nd Street, has been elected corresponding secretary.

The League has voted to amend the constitution to make the dues $1 a year instead of $3. The subscription to the magazine will not be included. Anyone wishing to join the League now will have paid up to January, 1925.

Of Special Interest

Throw Away Your Glasses

DOCTOR BATES' article in the September issue of Hearst's International Magazine awakened more interest in his method of treatment than any previous writings. Hundreds of letters were relayed from Norman Hapgood, Editor, to Dr. Bates and contained congratulations, inquiries and appointments for treatment. A special notice of this article was placed in the New York Times by the editor of Hearst's.

In view of this fact we have had reprints made of the article and will fill orders immediately upon receipt.

The title is THROW AWAY YOUR GLASSES, and it explains how this can be accomplished. Everyone interested in curing their own sight will be enlightened on many points by reading this reprint.

Don't wait until the initial supply is exhausted before placing your order. Price 35c.

Are You Nearsighted—Farsighted—Astigmatic? Have You Cataract—Glaucoma?

Then send for the number of the BETTER EYESIGHT MAGAZINE which deals with each of these defects individually. Dr. Bates explains the cause of each and how it can be cured by his treatment. These instructions can be followed by the layman.

ALL BACK NUMBERS 30c.

Bound Better Eyesight

July, 1922—June, 1923—Price $4.25

Bound in leather the same color as the book, and both together make an attractive set. This volume contains many helpful suggestions and instructions for the use of the various swings, shifting and palming. Progressive myopia, astigmatism and other defects are treated and their cause and cure explained. The cure of eye defects in children is described in various parts of the book.

The Question Mark

QUESTIONS AND ANSWERS

QUESTION—What is the cause of cataract?

ANSWER—Eyestrain is the cause of cataract, but some times cataract is produced from an injury such as a blow of some kind.

QUESTION—Is a hemorrhage on the outside of the eyeball fatal?

ANSWER—Rarely.

QUESTION—Can insomnia be cured by the method of palming?

ANSWER—Yes.

QUESTION—Can a patient while under treatment wear eye glasses?

ANSWER—No, this prevents a cure.

QUESTION—Can I overdo the swing?

ANSWER—No, not if it is done in the right way.

QUESTION—Does sunlight injure the eyes of children?

ANSWER—No.

QUESTION—Does wearing dark glasses injure the eyes?

ANSWER—Yes.

PRESS OF
THOS. B. BROOKS, INC.
NEW YORK

Better Eyesight

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

Vol. VIII. DECEMBER, 1923 No. 6

$2.00 per year 20 cents per copy

Published by the CENTRAL FIXATION PUBLISHING COMPANY
383 MADISON AVENUE NEW YORK, N. Y.

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.

BETTER EYESIGHT

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

Editor, W. H. BATES, M. D.
Publisher, CENTRAL FIXATION PUBLISHING COMPANY

Vol. VIII. DECEMBER, 1923 No. 6

The Cadet

By W. H. BATES, M.D.

WEST POINT is full of memories. Whenever we think of the military school at West Point most of us have a feeling of reverence. The students there are the pick of the young men of this country. They come from prominent families throughout the United States. Their scholarship is of the best. They excel not only in the arts of war, but are prominent in other things as well. When a young man graduates from West Point he is not only an expert in military drill, but he is also trained in the arts of diplomacy, in social life and knows not only how to deal with his enemies, but is also an expert at an afternoon tea.

It is very important, very necessary that a soldier should have good eyesight. He cannot very well handle his opponents properly in a fight unless he can see them. Although the men at West Point are selected for their physical and mental efficiency, they are liable to acquire nearsightedness, apparently just as much as other young men. I believe that such cases should be treated before glasses are prescribed.

Mr. L., aged 20, had normal sight before he entered West Point. After three years his vision began to fail. An oculist prescribed glasses. For a time the glasses gave him normal vision, but after a few months they

were increased in strength. The patient did not like to wear glasses. He felt depressed over the fact that his sight was imperfect. Against his physicians' orders he laid aside his glasses most of the time and only used them for emergencies. Someone told him that it was possible for him to be cured without glasses. Full of hope he wrote to me, and asked me what I could do for him. In his letter he wrote:

"My trouble is myopia, brought on, I presume, by the great amount of study I had to do."

I have frequently published that straining the eyes to see at the near point always lessens myopia; it does not cause it. Straining to see at the distance always produces myopia in the normal eye and increases it in the myopic eye.

All persons with imperfect sight are able to demonstrate that they are staring. The normal eye when it has normal sight, does not stare. It is a truth, that imperfect sight is always accompanied by a stare. It is a truth because there are no exceptions. When the stare can be corrected the vision always improves.

Mr. L. called Oct. 14, 1923. His vision without glasses was less than 20/40. By palming and practicing the swing, his vision in a half hour became normal in each eye. He was able to demonstrate that when he remembered a white cloud in the sky, dazzling white with the sun shining on it and moving slowly, blown by the wind, that he could imagine one letter of the alphabet perfectly. For example he could remember or imagine he saw, with his eyes closed, a letter O with a white center, as white as the whitest cloud he had ever seen, but it was always moving. He could remember this and other letters perfectly black. With his eyes closed he could imagine that he put a small black period with the aid of an imaginary pen, on the right edge of the O. At my suggestion he placed another period on the left edge of the O. When he looked to the right of the O, the O was to the left of where he was looking. When he looked to the left of the O, the O was to the right of where he was looking.

Every time his eyes moved to the right the O moved to the left in his imagination. Every time his eyes moved to the left the O moved to the right. With his eyes closed, imagining that he was looking alternately to the right and to the left, he could imagine the O was moving a short distance from side to side, not more than its own diameter. This he did easily, regularly and continuously.

He was asked to remember an imperfect O, one which had no white center, a gray letter covered by a cloud which made it so obscure that it might be anything. He found this required a great effort, an effort which was tiresome. Every once in a while he lost the memory of the imperfect O. He demonstrated that the memory, or the imagination of the imperfect O was difficult, very difficult, while the memory of the perfect O was quite easy.

He was a good patient. Possibly it was the training that he had received in school which gave him the wonderful ability to do just exactly what he was told, easily, quickly and without any difficulty whatever. It certainly was a great pleasure to me to observe that he obtained his improved vision so easily. Nine-tenths of my patients have never been so obedient. Some people talk about soldiers and speak more or less lightly of their discipline. I say lightly, because my conception of discipline was materially modified after my experience with this patient. He gave me a demonstration of discipline which I had not previously read in any book.

At one time I taught some of the simpler arts of military drill as an officer in a militia student company. At that time my conception of discipline was a popular one. I can recall how it annoyed me to have my soldiers do a lot of other things besides what they were ordered to do. This interfered very much with their ability to drill properly. In my private practice, when trying to benefit my patients I have been exceedingly annoyed by the arguments, questions and opinions indulged in by my patients, when I was trying to secure perfect rest or relaxation of their minds.

Stories from the Clinic

46: Our Last Christmas at the Harlem Hospital

By Emily C. Lierman

AS Christmas draws near, I keep wondering if my beloved kiddies, of the Harlem Hospital Clinic, will be taken care of this year, or whether they will be neglected. I am going to miss them so much. We expect to have a tree at our new clinic this year, distribute gifts to our Clinic patients and extend our good cheer as far as it will reach; but my heart goes out to the dear ones we had to leave behind, in that other clinic.

It is about them that I want to write, and try to give our readers a mental picture of our last Christmas with them.

First, I would like to tell of one little fellow, named Patrick, whose age was ten years. He had been coming to us for eight weeks or so before Christmas. His trouble was nearsightedness, and he had great difficulty in seeing the blackboard in school. His teacher had sent him for glasses and offered to pay for them herself. This was explained to me in a note which Patrick had with him. He was such a dear little fellow, and one of the best behaved boys in her class, she said. His family was very poor, but good people, so she wanted to pay for those glasses.

On his first visit, Doctor Bates examined his eyes, and then I started to treat him with the Test Card. His vision was 15/100 with both eyes, and also with each eye separately. He did not like to palm, but he kept his eyes closed as he was told, for over half an hour. His vision improved the first day to 15/20, which was very unusual. I told him to rest his eyes by closing them often every day.

The second week in December, just eight weeks since his first visit, he read 15/10 on the test card.

When he was told the day he would receive his Christmas gift and candies, he begged for permission to bring his baby sister and three brothers also. He did not mean to beg. I believe it was an unselfish thought on his part. He could not very well accept a gift when his sister and brothers had none. He was invited to bring his family to the Christmas party, and when I saw him that day he was radiant with smiles.

Our room surely looked as though Santa Claus had left his pack there. Three dozen dolls were arranged in one corner of the room, waiting with their arms outstretched for the little girls. An operating table came in very handy and was loaded with games and toys for our boys. Large Florida oranges, enough for every one, both young and old, filled another corner of the room. Cornucopias, decorated with tinsel, and filled with candies, were hung all about, and was a pretty sight to see. Doctor Bates himself arranged them on the windows and screens, and wherever they possibly could hang. He was very much excited about it all, and it was a great joy to see his face light up with smiles as the children and adults entered the room. He watched the faces of the little children, and his heart was filled with joy, because his clinic family was so happy.

For several years it had been our pleasure to greet Dr. Neuer, in our room at the Christmas party. It was his delight to take one of the dollies and go from room to room, displaying that doll with all the joy of giving. Children suffering with tuberculosis, of whom many were cured by him, were never forgotten at Christmas time. When his eyes began to trouble him he came to Doctor Bates, and was cured without glasses. He did not mind in the least standing with the rest of our clinic patients, and when Dr. Bates invited him to his office, he said the dispensary was good enough for him. Shortly after our last Christmas party he was taken seriously ill with pneumonia, and died. He was loved so much by the poor of the clinic, that we know they will miss him, as our family will miss us.

Discarding Glasses at 60

By Dr. Adolph Selige

ABOUT a year ago a friend of mine wanted to know what I could do for one of his employees, an old colored man, 72 years of age, who had gone nearly stone blind, and was unable to work.

I had the book and magazines of Dr. Bates, and was overjoyed to put his theories to a good test, and so I told them to send the old man over.

I am happy to say that old "uncle" went back to work after the most strenuous treatment he ever had gone through in his life, and which he would never had done, if it hadn't been for his niece, a colored woman of fair intelligence, and so trained that she knew how to carry out orders. She made the old man walk the "chalk line," in regards to all the rules and regulations I laid down in regards to palming and reading the test card, and all the other stunts.

But, as I am a Naturopath, and believe that diet plays a most important rôle in creating causes of abnormal physical conditions of all kinds, he had to live on a very strict diet too, but I had the satisfaction to see some very noticeable improvement after a few days, and was able to send him back to his employer ready to work, in less than a month's time.

I had been a victim of "Glass-o-Phobia," for something like 25 years, possibly more, for the beginning has escaped my memory entirely. My glasses were such a nuisance, my eyes smarted and pained and became sore in spite of them, and every once in a while I had to have my eyes refitted.

I was delighted with the new ray of light that filtered into the thick fog, permeating my brain in the region which is supposed to contain "good common sense in regards to eyesight," and I began to see more clearly, after I had studied the book of Dr. Bates.

I resolved to apply this new knowledge to myself, and hoped to be able to get such fine success with the old

negro uncle. There was an obstacle however, I was a busy man, and when I was not busy with my patients, I was either reading or writing, or using my eyes in some strenuous way, and of course, I could not possibly afford the time to put my glasses away and forego the pleasure of continuing the studies I was so interested in. So I kept on postponing the event and I promised myself to do it at the very first opportunity, until one Saturday night I found myself minus glasses, had forgotten to bring them, and instead of going back to the office, I just took the bull by the horn and decided to start "right now."

I sat and palmed and did the swing, and imagined and did all sorts of stunts and continued to do so on Sunday, nearly all day.

On Monday I just refused to be tempted to use my glasses, and put them on only in cases of the extremest emergency, such as when I had to sign my name to a letter, or when making an "Eye Diagnosis," which required effort more than a magnifying glass alone could afford me.

It was a torture for me to spend my leisure time between treatments, and my evenings and Sundays, without being able to pursue my studies, but I had resolved to stick it out and I did.

I found after a little while, that my sight began to get clearer, and sharper, and I did not miss my glasses so very much. I had carried them with me for emergency purposes, but used them only in very rare cases, finally I laid them away for good, when I went away on a four weeks' vacation.

During this time I took several Post Graduate Courses, made a lot of notes, and wrote under all sorts of conditions, and finally, got where I did not miss them at all.

I returned to my desk three weeks ago, and have not even looked for my glasses, and don't ever expect to.

It is now about three months since I began, I can read the smallest type of ill-printed newspapers at night, when

I have a good light to see by, but have no difficulty at all during the day time.

I can feel my sight getting better and clearer right along, and feel that eventually my eyes will see without glasses better than they ever did see with glasses on, even though I am nearing my 60th birthday.

One of the reasons why I have not many cures of eye troubles to my credit is, because people are too comfortable, and do not care to make any effort to regain their normal sight—they would rather wear glasses, because it is less of a personal sacrifice.

As I mentioned before, I am a Naturopath, and believe in the unity of disease and the unity of treatment. I should like to go into this a little deeper, as it is fundamental to health and also applies to cases of abnormal eyesight, but lack of space forbids.

I may say however, that I believe quicker and more permanent results can be secured for relieving eyestrain, and its results, when the entire body gets on a normal basis, in fact I have often found my patients to experience quite a relief for their eyes, even though I was not giving their eyes any special attention, but had merely worked towards a general adjustment of their entire physical and mental being, through diet, rest, exercise, neuropathic and other treatments, and a better mental attitude.

Minutes of the Better Eyesight League

It is our desire to publish the minutes of the Better Eyesight League in each issue of the Magazine. With this thought in mind we printed the September and October minutes in the November issue. We would also like to place the November report in the December Magazine, but, owing to the League meeting late, we are unable to withhold the manuscript from the press until that time.

The December meeting will be held on December 11th, at 383 Madison Avenue, at eight P.M.

The League of Orange, N. J.

AT the opening Fall meeting of the Better Eyesight League of the Oranges, held October 3, 1923, it was voted to hold open monthly meetings through the coming season, and the day decided on was the first Thursday of each month. At the suggestion of the President it was decided to hold clinics twice a week, so as to relieve the eye troubles of everyone possible. Dr. Browne kindly offered the use of her office on Wednesday and Saturday afternoons, and all were invited to come and help.

The Homemakers' Association also invited everyone to a meeting on the eighth, at which Mrs. Lierman was to demonstrate with children, how teachers and parents could prevent and cure eye troubles of children. Dr. Gore then suggested that the league be not only a "Better Eyesight League," but a "Better Health League of the Oranges," and cooperate with other organizations by inviting them to our meetings and having interesting speakers. He suggested several who would give talks, if invited. So the first step toward a sort of federation was a plan that most of our meetings this year, give attention to eyes the first part and then to other organs or general health, for the rest of the time, and also a motion that for the November meeting we have Dr. Philip Rice give a talk on "Normal Unfolding or Growing into Health," and invite federation members. There was a rising vote of appreciation, of the work done by Dr. Gore, and the Secretary was instructed to send him a testimonial letter. Several informal talks were given by members, who told how wonderfully their eyes had improved during the Summer, and the enthusiasm of each was very marked. The meeting closed with a social hour and refreshments. There were thirty-five present.

LEULA BURTON,
Recording Secretary.

The Passing of My Glasses

By MILDRED SHEPARD

[EDITOR'S NOTE]—It was at my earnest solicitation that Miss Shepard consented, after some time, to write a brief account of the mock ceremonies which took place when she formally discarded her glasses.

A SMALL, but impressive ceremony, was held a short time ago, along the shore of a certain lake in Massachusetts. The occasion was the interment or "Near" and "Far," the two pairs of spectacles once worn by one, now through with all glasses forever. This happy figure, posing in black robes, as the bereaved, was preceded in solemn procession by similarly black-gowned attendants. Four pall bearers bore the coffin, upon which rested the remains of "Near" and "Far," now passed all use in this life—God rest their tortoise shells. Sad, slow strains of the Funeral March, painfully drawn from a tissue-paper covered comb, mingled with those of "Mr. Gallagher and Mr. Sheehan."

With measured strides the little company moved along the lake shore, to the famous memorial boat-landing. There were gathered the chief mourners and friends, attracted thither from the turmoil of final examinations and arriving families, not so much out of sympathy for the bereaved, we fear, as by the promise of a funeral feast of ice-cream cones.

Already the Dumb-Boatman could be seen gliding toward the stone steps. Upon his arrival the coffin was lowered upon the pillows carefully, and in great determination the bereaved climbed into the gondola and dropped upon her knees. With bated breath, the onlookers waited while the tongue-tied man swung the boat out into deep water. A great, glad smile spread over the face of the Bereaved, as she laid to rest "Near" and "Far," her two steady, but now unnecessary companions of fifteen years. Closing words were pronounced by the Dumb Boatman.

"Unseeing Eyes"

By EMILY A. MEDER

WE mortals have been heaped with blessings by the Divine power, and, as wonderful and great as some of them are, the act of seeing is most wonderful. Sight is like a great river, with hundreds of small tributaries, and streams branching from it. One of the streams runs to the mind, another to the heart, and so on. We see something new and interesting, and immediately our mind registers this fact, and causes us to speculate, surmise, and investigate. Then, if it might be a sad sight, the heart is instantly awake. There is no doubt, however, that while the sight is the greatest of God's gifts, it is also the most abused.

When one is interested in seeing glasses removed, and perfect sight prevailing everywhere, incidents relative to the subject are more readily noted. Just as a person going to buy a new hat, glances at all the head-gear which comes to view. The same can be said of shoes, and other articles of apparel. We are at that time, more interested in that article, therefore more note is taken of it. This puts me in mind of a story my teacher used to tell us.

A professor desired to impress upon his young charges the value of observation, regardless of the fact that at that particular time they were not interested in the subject. He sent one half of his class looking for a certain herb, and the other half for a particular specimen of stone. When the first half returned they had gathered quite a bunch of the desired herb, and the second half had some of the quartz, for which they were sent. The professor asked some of the members of his "herb class," if they had noticed any of the quartz while looking for the herb. They replied that they saw none at all. The same answer was given by the second half of the class, when requested if they had seen any of the herbs. If the whole class had been sent for the stone and herbs together, they would probably have had good success,

but not being sent for it, they did not look for it or notice it.

This brings me back to the fact that being intensely interested in people with imperfect sight, who wear glasses, many unusual, and in some cases, humorous incidents are seen. One that was comical, if it had not been almost tragic, happened at Forty-Second street and Fifth avenue, just a few days back. A party of motorists was going west, but as the car neared Fifth avenue, the lights on the signal tower changed. The driver stopped, and screwed his face into a knot to try to see the colors. I immediately saw that the man was straining dreadfully, especially as he thought he was holding traffic up, not being able to see the signals. He moved his car nearer and nearer the curb to get a better look, until he was almost on top of the light. When he finally arrived at a point of vantage, where everything was visible to him, he discovered that the lights were yellow. He should have stayed where he was, as traffic was going north and south. In addition to extricating himself with difficulty, he was given a forceful opinion of himself by the angry traffic policeman.

Forty-second street also abounds in large optical stores. The pictures displayed in them are truly wonderful works of art. Some of them afford me great amusement, although they are worthy to be placed in an art gallery to be reviewed by the admiring public. How the artist must hate to spoil these by placing glasses on everyone of them. The most recent was a beautiful girl playing tennis. She had rosy cheeks, and a happy restful expression. In the first place, no one has that look of relaxation and happiness while wearing glasses. Secondly it must have been a dreadful strain to look happy, and balance them while running after the ball. Somewhat like a juggler balancing a feather on his nose!

Has it ever occurred to you that children are always in danger of being run over, by cars driven by people with defective vision? Just take note of the questions

the traffic policeman fires at a careless chauffeur, and draw your own conclusions. When they have been remonstrated with for doing something wrong, the officer doesn't ask for a sample of his driving ability. The first order is "Can't you see where you're going? Are you blind?" Another question might be, "Do you see those signals? Why did you go ahead?" While the driver looks sheepish, he is politely told, "better have your eyes examined."

The following incident is a peculiar one, and rather embarrassing to the young lady concerned. She is the office assistant of an optometrist, and helps him fit glasses, and take care of his patients. One of our circulars advertising Perfect Sight Without Glasses was sent to this doctor, who immediately threw it in the waste paper basket. The girl, having heard of Doctor Bates' work before, retrieved it, and sent for the book.

A few weeks later, the young lady wrote me, advising us that she not only discarded her glasses, but her eyes are feeling better than ever. Her enthusiasm, however, placed her in a difficult position. While the doctor was away for a few days' vacation, she was left in charge of the office. A middle aged woman came in, and wanted her glasses repaired. She said her eyes pained her terribly, and the glasses were absolutely necessary. The girl explained that the optometrist was out of town and would not return for a few days. The lady went away, but returned the next day, asking for the name of another doctor who could relieve her of her headaches. She was in a great deal of misery. Our enthusiast felt sorry for her, and showed her how to palm, swing and remember black. Now this is the trouble—the doctor mended the glasses, but the lady never came back for them.

The Use of the Burning Glass

By W. H. Bates, M.D.

THE normal eye needs light in order to maintain normal health and normal sight. People who do not see the sun always have eye trouble. Miners working in the dark all day long, and never seeing the sun, all have trouble with their eyes. Children living in dark tenement houses acquire a great sensitiveness to the light, and spend most of their time holding a cloth up to their eyes, or they bury their heads in a pillow, shutting out all light. They acquire many kinds of inflammation of the eyelids, and of the eyeball.

The burning glass has a very wonderful effect on some of these cases. I remember one man who had not been able to do any work because of the sensitiveness of his eyes to the light. He was very promptly cured by a few minutes exposure of the eyeball to the strong light of the burning glass.

In using the burning glass, it is well to prepare the eyes of the patient by having him sit in the sun with his eyes closed. 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 burning glass, the light on the outside of the eyeballs, 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 this can be done in such a way that the pupil is protected by the lower lid. It is not well to use the burning glass when the patient squeezes the eyelids shut. As long as the light is focused on the white of the eye, and is done quickly, all heat is avoided. The length of time devoted to focusing the light on the white part of the eye, is never longer than a few seconds, moving the light from side to side, up and down, or in various directions.

Announcements

REMOVAL NOTICE

DOCTOR BATES' has removed his office to 383 Madison Avenue.

The hours are from 9 to 6 by appointment.

BETTER EYESIGHT LEAGUE

The program committee is anxious for suggestions regarding meetings. If anyone has a helpful idea, please communicate with the chairman of the program committee, Miss Lillian Reicher, 108 West 115th Street.

CHANGE OF ADDRESS

It will help us considerably, and insure the prompt delivery of the Magazine, if our subscribers will inform us of their change of address.

If for any reason the Magazine is returned to us, we will not ship it again, until we are notified of its non-delivery, and receive correct address from the subscriber.

REPRINTS

Among the reprints that appeared in medical journals from time to time, are the following, which are very instructive:

SHIFTING

THE CAUSE OF MYOPIA

MYOPIA PREVENTION BY TEACHERS

PREVENTION OF MYOPIA IN SCHOOL CHILDREN

The Question Mark

QUESTIONS AND ANSWERS

QUESTION—Can people over fifty be cured without glasses?

ANSWER—Yes.

QUESTION—Is the treatment good for nervousness?

ANSWER—Yes. As a general rule the long swing is the most efficient.

QUESTION—Is Central Choroiditis curable and does it require much treatment?

ANSWER—Yes, Choroiditis is curable and requires a great deal of treatment in some cases.

QUESTION—Is conical cornea curable?

ANSWER—Yes, the variable swing has been a great benefit. This is described in "Better Eyesight," November, 1922.

QUESTION—Why do I squint when I am out in the sun?

ANSWER—You are not accustomed to the strong light. Read chapter on sun-gazing.

QUESTION—Why do my eyes water?

ANSWER—Strain.

Better Eyesight

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

Vol. XIV APRIL, 1930 No. 10

$2.00 per year 20 cents per copy Back numbers 30 cents

Published by the CENTRAL FIXATION PUBLISHING COMPANY
18 EAST 48th STREET NEW YORK, N. Y.

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"

BETTER EYESIGHT

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

Editor, W. H. Bates, M.D.

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Vision and Education

By W. H. BATES, M.D.

POOR sight is admitted to be one of the most fruitful causes of retardation in the schools. It is estimated 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 percent. 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.

A teacher whose letter was quoted in an early 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 reported 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 follows, 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 degres 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, the strain 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 AS 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 prevalence 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 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 eye, 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.

Suggestions for Myopic Patients

By EMILY A. BATES

IN THE morning when you awaken, before getting out of bed, sit up and palm. *Memory helps.* While palming, the memory of a flower or of the color of it, of a white cloud with the sun shining behind it, of the blue of the sky, or of any pleasant thing that you can remember perfectly, something that you have seen perfectly, helps. If nothing else can be remembered you can imagine part of the test card and when you imagine some of the letters with your eyes closed and imagine the form of each letter, not trying to remember any particular letter any length of time, because that is a strain, your mind will be relaxed when you get out of bed.

After arising, practice the sway. *Always blink while swaying.* After the sway do the long swing; let your head and eyes alone, allow your body to do the moving. Pay

no attention to stationary objects which appear to be moving as you swing. After practicing the long swing, keep up the blinking while dressing, but do not blink fast. The eyes move gently with every blink and that is a rest. You will notice that heretofore you have stared.

If the test cards can be used for practice before going to business, so much the better. Place the "C" card to the right of you, a little more than arm's length away. Place the black card to the left of you, also a little more than arm's length away. Then place the number card to the left six feet away, and the inverted "E" card to the right of you six feet away. Now start the sway. Pay no attention to anything, but just keep looking right ahead of you at the wall. Blink and keep up the sway. Notice that all cards appear to be moving opposite to the movement of your body. Blink. *Never stop blinking,* still noticing that the cards move opposite to the movement of the sway. *Do not sway too fast; take it easy.* Better vision comes without effort. Notice that when things become too blurred that you are staring, that you have forgotten to blink.

When it is noticed that the cards appear to be moving opposite to the movement of the body, then start the long swing, flashing a letter of the "C" card as you swing to the right, then noticing a letter on a line of the black card as you swing to the left. Be sure to move your body and not only your head and eyes. *Don't forget to blink.* Then while keeping up the long swing, flash a numeral on the number card to the left and then as you swing to the right, flash an inverted "E" on any line of that card. Every day see if you can flash a smaller numeral on one of the lower lines of the number card as well as an "E" pointing either to the right, left, up, or down on one of the lower lines of the "E" card.

The improvement in your vision all depends upon the time that you have to practice in the above way.

If sun treatment can be given the closed eyelids by placing yourself in the sun, raising your head, and letting the sun shine on the closed eyelids for five minutes or longer, it will help to improve the vision when doing the long swing.

If palming is irksome, just sit comfortably and close the eyes, remembering something pleasant every time the eyes are being rested in this way.

Alternate practicing with the distant cards by placing yourself at a desk. When writing for practice always place your small black card to the right or to the left of your desk and after writing a sentence or two, raise your head and look over to the card at any letter that you see easily without straining. It helps to close the eyes immediately afterward, remembering that letter. Write a few more sentences, again glancing at the card after raising your head in the direction of the letters and not trying hard to see any particular letter.

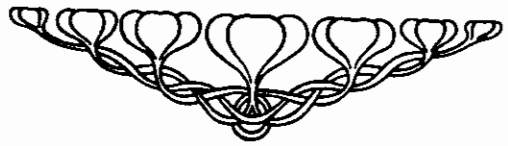
When large test cards are not used for practice, place two small cards on the window sill if possible and while swaying shift from one card to the other.

Announcements

It has come to our attention that certain parties not connected with Dr. Bates in any way are desirous of publishing a periodical called "Better Eyesight." We wish to say that any such use of this title is not with the permission of Dr. Bates or the Central Fixation Publishing Company and that any magazine issued under this title, other than the present one, is not published in the interests of the Bates Method. The title "Better Eyesight" is protected against illegal usage.

After June, it will be necessary to raise the price of bound volumes of "Better Eyesight." They are now listing at $3.00 per volume and begin with the year 1923. They contain much valuable information and we would suggest that subscribers secure any volume or volumes which they may desire before the price is raised.

We desire to inform our subscribers that the "Better Eyesight" magazine will be discontinued after the June, 1930, issue. This will enable Dr. Bates and Mrs. Bates to devote more time to the writing of new books on treatment alone for which there has been a very great demand during the past year. Subscriptions for the remaining months, however, are being received. We request that all those who desire to be notified upon the publication of new books kindly send us their names and addresses, which will be kept on file.



BETTER EYESIGHT MAGAZINE

Back numbers may be obtained here which contain articles on the cause and cure of the following defects:
Myopia, Squint, Glaucoma, Cataract, Pain, Blindness, Presbyopia, and Retinitis Pigmentosa.
These articles include instructions for treatment.

$2.00 per year. 20 cents each. Back No's 30 cents.

Bound Volumes

Each volume contains one year's issue of twelve magazines on all of above subjects and many others. Price, $3.00 postpaid.

Sun Glass

If you notice a strain on your eyes after emerging from a building into the sunlight, you need the Sun Glass. If the light feels uncomfortable, or if you cannot look up at the sun, the Sun Glass will help you. Instructions are issued on request.
If you need it, send for it today. $3.75 postpaid.

Fine Print for Relaxation

The Bible has been reduced from $2.50 to $2.00. Read what Dr. Bates says about fine and microscopic type, then get a Bible. This unique book measures only one by one and a half inches, and contains the Old and New Testaments.

The Booklet

of fine print contains three chapters from the small Bible, together with "The Seven Truths of Normal Sight" as discovered by Dr. Bates. Instructions are also printed in the front of the book. Price, 20c.

Test Cards

These prove invaluable in practicing Dr. Bates' method. Instructions issued. Can be used to test the eyes, follow progress, and improve sight.

10c—25c—50c

REPRINTS

By W. H. BATES, M.D.

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2—A Case of Myopic Refraction Relieved by Eye Education	.10
3—A Study of Images Reflected from the Cornea, Iris, and Sclera	.10
4—Memory as an Aid to Vision	.10
5—Shifting	.10
6—Improving the Sight of Soldiers and Sailors and Relieving Pain	.10
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11—Imagination and Vision	.10
12—The Imperfect Sight of the Normal Eye	.10
13—Throw Away Your Glasses	.10
14—A Study of Imagination	.10
15—New Ways to Normal Sight	.10
*Especially adapted to children.	$1.50

We are now selling this entire set in booklets, for 50 cents

The large "C" Snellen cards have been reduced from 50c to 25c each. All other Snellen cards reduced from 75c to 50c. The fundamental card, a small replica of all the larger cards, is now available. These can be purchased in the "C," Black "E," Inverted "E" and "numeral." The fifteen fundamental principles of Dr. Bates' treatment are on the back of each one. This is a handy pocket size and no one should be without one.
10c each, postpaid.

Can be purchased at

Central Fixation Publishing Company
18 East 48th Street, New York City
Telephone Wickersham 3672

Better Eyesight

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

Vol. XIV MAY, 1930 No. 11

$2.00 per year 20 cents per copy Back numbers 30 cents

Published by the CENTRAL FIXATION PUBLISHING COMPANY
10 MADISON AVENUE NEW YORK, N. Y.

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.

BETTER EYESIGHT

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

Editor, W. H. Bates, M.D.

Publisher, CENTRAL FIXATION PUBLISHING COMPANY

Vol. XIV MAY, 1930 No. 11

Presbyopia: Its Cause and Cure

By W. H. BATES, M.D.

PRESBYOPIA is the name given to the loss of power to use the eyes at the near point, without the aid of glasses, which usually occurs after the age of forty.

The text-books teach that this change is a normal one: but it is a noteworthy fact that many other eye troubles often date from the time of its appearance, or develop a litttle later. Many cases of glaucoma start about this time, and so do many cases of cataract and inflammation of the interior of the eye. Patients with presbyopia are very likely to have conjunctivitis. They are also subject to congestion and hemorrhages of the interior of the eye. One patient developed a lot of muscular trouble and a marked degree of double vision at the time he became presbyopic, and suffered three nervous breakdowns in quick succession. He was operated on for the muscular condition, and took prism exercises, but obtained very little relief. In another case a patient began to suffer, at the time she became unable to read without glasses, from a contraction of the muscles of the face, congestion of the conjunctiva and continual headaches. The strain was so great that she had to keep her eyes partly closed, and

glasses did nothing to relieve her discomfort. Up to the time when her presbyopia appeared she had had none of these troubles.

The accepted explanation for the loss of near vision with advancing years is that it is due to the hardening of the lens, but it is quite impossible to reconcile the facts with this theory; for not only does presbyopia occur much below the age of forty and even in childhood, but it is often delayed beyond the age of fifty, and sometimes does not occur at all. There are also cases in which near vision is restored after having been lost. We are told that presbyopia comes early in the hypermetropic (far-sighted) eye, and late in the myopic (nearsighted) eye; that premature hardening of the lens and weakness of the ciliary muscle (supposed to control the accommodation) may cause it to appear in youth; and that the swelling of the lens in incipient cataract may account for the restoration of near vision after it has been lost; but there are still many cases to which these explanations cannot be made to apply.

It is true that hypermetropia does hasten and myopia prevent or postpone the advent of presbyopia, and as myopia may exist in only one eye, without the patient's being aware of it, he may think that his vision is normal both for the near-point and the distance. There are cases, however, in which the vision has remained absolutely normal in both eyes long after the presbyopic age, and a considerable number of these cases have been brought to my attention. One of them, a man of sixty-five, examined in a moderate light indoors, was found to have a vision of 20/10. In other words he could see twice as far as the normal eye is expected to see. He also read diamond type at less than six inches, and at other distances, to more than eighteen inches. In reply to a query as to how he came to possess visual powers so unusual at his age, or, indeed, at any age, he said that when he was

about forty he began to experience difficulty, at times, in reading. He consulted an optician who advised glasses. He could not believe, however, that the glasses were necessary, because at times he could read perfectly without them. The matter interested him so much that he began to observe facts, a thing that people seldom do. He noted, first, that when he tried hard to see either at the near-point or at the distance, his vision invariably became worse, and the harder he tried the worse it became. Evidently something was wrong with this method of using the eyes. Then he tried looking at things without effort, without trying to see them. He also tried resting his eyes by closing them for five minutes or longer, or by looking away from the page that he wished to read, or the distant object he wished to see. These practices always improved his sight, and by keeping them up he not only regained normal vision but retained it for twenty-five years.

"Doctor," he said, in concluding his story, "when my eyes are at rest and comfortable, my vision is always good and I forget all about them. When they do not feel comfortable I never see so well, and then I always proceed to rest them until they feel all right again."

The fact is that presbyopia is due to a strain. It is a strain similar to the one that produces hypermetropia, but differs from it in the fact that it affects chiefly vision at the near-point. This can be demonstrated with the retinoscope. When a person with presbyopia tries to read, the retinoscope will show that he has hypermetropia, but when he looks at a distant object the retinoscope will show either that his eyes are normal, or that the hypermetropia is less. Simultaneous retinoscopy is difficult in the case of a reading patient, for not only is the pupil small, but in order to find the shadow it is necessary for the patient to look in one general direction all the time, and this is not easy. It is also difficult to hold a glass at one side of the eye for the measurement of the refraction

in such a way that the observer can look through it while the patient does not. With a sufficient zeal for the truth, however, these difficulties can be overcome.

The strain which produces presbyopia is accompanied by a strain, more or less pronounced, of all the other nerves of the body. Hence the many distressing symptoms from which presbyopic patients suffer. Glasses, by neutralizing the effect of the imperfect action of the muscles, may enable the patient to read; but they cannot relieve any of these strains. On the contrary they usually make them worse, and it is a matter of common experience that the vision declines rapidly after the patient begins to wear them. When people put on glasses because they cannot read fine print they often find that in a couple of weeks they cannot, without them, read the coarse print that was perfectly plain to them before. Occasionally the eye resists the artificial conditions imposed upon them by glasses to an astonishing degree, as in the case of a woman of seventy who had worn glasses for twenty years, in spite of the fact that they tired her eyes and blurred her vision, but was still able to read diamond type without them. This however is very unusual. As a rule the eyes go from bad to worse, and, if the patient lives long enough, he is almost certain to develop some serious disease which ends so frequently in blindness that nearly half of our blind population at the present time is believed to be over sixty years of age. Persons with presbyopia who are satisfied with the relief given to them by glasses should bear this fact in mind.

Presbyopia is cured just as any other error of refraction is cured, by rest. But there is a great difference in the way patients respond to this treatment. Some are cured very quickly, even in as short a time as fifteen minutes; others are very slow; but as a rule relief is obtained within a reasonable time.

One of my earliest cures of presbyopia was accomplished in less than fifteen minutes by the aid of the imagination. The patient had worn glasses for reading for ten years. When I showed him a specimen of diamond type and asked him to read it without glasses he said he knew the letters were black but they looked grey.

"If you know they are black, and yet see them grey," I said, "you must imagine that they are grey. Suppose you imagine that they are black. Can you do that?"

"Yes," he said, "I can imagine that they are black," and immediately he proceeded to read them.

In another case a patient was cured simply by closing his eyes for half an hour. His wife was cured in the same way, and when I saw the couple six months later they had had no relapse. Both had worn reading glasses for more than five years.

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 whatever should have been paid to his advice, but that we should have been 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 in the compass of a half-dime, whether the Psalms or the Gospels, or the Psalms and the Gospels, I won't be positive."

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, 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.

Test Card Practice

By EMILY A. BATES

Editor's Note—The following is taken from Mrs. Bates' 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.

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.

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.

Questions and Answers

Question.—It is difficult for me to find time enough to gain perfect relaxation. What would you suggest?

Answer.—You have just as much time to relax as you have to strain. Practice relaxation all day long. Whenever you move your head or eyes, notice that stationary objects move in the direction opposite to the movement of your head or eyes. When walking about the room or on the street, the floor or pavement appears to come toward you, while objects on either side of you move in the direction opposite to the movement of your body. Remember to blink frequently just as the normal eye does. Constantly shift your eyes from one point to another seeing the point regarded more clearly than all other parts. When talking with anyone, do not stare. Look first at one eye and then the other, remembering to blink. Shift from the eyes to the nose, to one cheek and then to the other, then to the mouth, the chin, and back to the forehead.

Question.—Why is it that I have perfect vision only in flashes? Can these flashes become permanent?

Answer.—You have not yet lost your unconscious habit of straining. When relaxation methods are practiced faithfully at all times, the flashes of improved vision become more frequent and last longer until the vision becomes continuously good.

Question.—What causes twitching eyelids?

Answer.—Strain causes twitching eyelids and this is relieved by rest and relaxation. Palming, sun treatment, swinging, blinking are very beneficial.

Question.—Can you explain why I see yellow and blue spots after looking at the sun?

Answer.—You are straining. Do not look directly at the sun until your eyes are more accustomed to it. Practice the sun treatment—sit in the sun with the eyes closed. Allow the sun to shine directly upon your closed eyelids, as you slowly move your head a short distance from side to side. Do this for half an hour or longer as often as possible whenever the sun is shining.

Question.—Is working or reading under electric light harmful? Should a shade be worn?

Answer.—It is not harmful to read by electric light if the eyes are used properly. Do not wear a shade or any other protection for the eyes. Practice sun treatment.

Question.—When remembering a black period, I see a bright disk with a small black center. Is this seeing a period?

Answer.—No, you are straining. The period that you imagine is very imperfect, because to remember the period and at the same time a very bright disk, is an unconscious strain. You cannot strain and remember the bright disk, and simultaneously relax and remember a black period. When your bright disk is prominent, everything else is remembered under a strain. You cannot strain and relax at the same time.

Announcements

We take pleasure in announcing that the following have recently completed courses of instruction at Dr. Bates' office and are qualified to practice the Bates Method:

Dr. Paul J. Dodge,
911 New Industrial Trust Building, Providence, R. I.

Dr. med. E. Schlüter (prominent eye specialist),
Hamburg, Mundsburgerdamm 11, Germany

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devote more time to the writing of new books on treatment alone for which there has been a very great demand during the past year. We request that all those who desire to be notified upon the publication of new books kindly send us their names and addresses, which will be kept on file.

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 eyelids to cause some people a great deal of discomfort at first, but after a few hours' exposure in this way, they become able gradually to 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.

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Better Eyesight

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

Vol. XIV **JUNE, 1930** **No. 12**

$2.00 per year **20 cents per copy** **Back numbers 30 cents**

Published by the CENTRAL FIXATION PUBLISHING COMPANY
210 MADISON AVENUE **NEW YORK, N. Y.**

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.

BETTER EYESIGHT

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

Editor, W. H. Bates, M.D.

Publisher, CENTRAL FIXATION PUBLISHING COMPANY

Vol. XIV JUNE, 1930 No. 12

Imagination Essential to Sight

By W. H. BATES, M.D.

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

When the vision is imperfect the imagination is also imperfect. The mind, in short, adds imperfections to the imperfect retinal image. A great part of the phenomena of imperfect sight are, therefore, imaginary and not in any way to be accounted for by the derangement of the visual apparatus. The color, size, form, position and number of objects regarded are altered, and non-existent objects may be seen. Some persons with imperfect sight literally see ghosts. A boy, or a grown person either, in a

dark cellar, is often under such a strain that he thinks he sees sheeted figures, and one of my patients, in broad daylight, used to see little devils dancing on the tops of high buildings.

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

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

the letter becomes more blurred, or by the impossibility of imagining that it has a slow, easy swing of not more than a quarter of an inch. This fact makes it possible to find out what the letter is without seeing it.

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

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

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

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

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

A school girl of sixteen with such a high degree of myopic astigmatism that she could see only the large letter at ten feet became able in four or five visits, by the aid of her imagination, to read 20/20 temporarily, and at her last visit she read 20/15 temporarily. A college student twenty-five years old, with compound hypermetropic astigmatism (four diopters in each eye), could read only 20/100 with his right eye and 14/200 with his left, and had been compelled to stop his studies because of the pain and fatigue resulting from the use of his eyes at the near-point. In four visits his vision was improved by the aid of his imagination to 20/30 and he became able to read

diamond type at six inches without glasses and without discomfort.

These and many other cases of the same kind have demonstrated that imagination is necessary to normal sight.

A PATIENT'S REPORT

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

In spite of these precautions my sight became steadily worse, and for the last ten years I have spent my time and money going from one specialist to another both in this county and in Europe. Three of the most famous specialists in Switzerland told me that I had retinitis pigmentosa, a condition in which pigment is deposited in the retina, and which, I was told, always ended in complete blindness if the patient lived long enough. Nothing could be done to prevent this outcome, they said, but they advised me to wear dark glasses when I went out of doors on bright days, because by exposing my eyes to strong light I was spending my capital. For the last three years I did this, and for the last year, on very sunny days, I often wore dark glasses in the house also, because my eyes had become so sensitive to the light that I could sometimes find relief only by going into a darkened room. Even with dark glasses and drawn blinds, there was a kind of razzle-dazzle before my eyes which was so maddening that I almost longed for the blindness with which I had been threatened, so that I might be free from such distresses. When I looked out of a window onto a sunny street and then back into the room again, everything became perfectly black for a minute. For the last two years

and a half I have not been able to go out alone in the city.

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

My friends have now been converted, but, in spite of the fact that I am able to report substantial improvement in my vision, I still meet with much scepticism in other quarters. A doctor to whom my progress was reported by a friend wrote to her that if my trouble were imaginary Dr. Bates might help me through hypnotism or mind cure, but that if there were anything really the matter with my eyes he could do nothing by his methods. One who had met some of Dr. Bates' cured patients and, was inclined to believe in him, said, when, told that I was being treated for retinitis pigmentosa:

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

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

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

The improvement in my vision since I have been under treatment has been indisputable. After two weeks the intangible suffering caused by light left me, and it has never returned. I can go out in the brightest sunlight without glasses of any kind, and, although my eyes feel weak and I squint a little, there is no real distress. I can look out of a window onto a sunny street, and when I turn

back again into the room there is no blindness. When I first took off my glasses I had to bend over close to my plate when I was eating, in order to see what was on it. Now I sit in an almost normal position, with such a slight bend that I don't think anyone would notice it. I also operate a typewriter while sitting in a normal position. For three years it has been very difficult for me to read or sew, with or without glasses. Now I do both without glasses, and instead of the distress which these activities formerly caused me, I experience a delightful feeling of freedom. And not only can I read ordinary print, but I can read diamond type and photographic reductions. About a year ago I began to lose my color perception, and up to two weeks ago I was unable to distinguish the rug from the floor in the doctor's office. Now I can see that the floor is red and the rug blue, tan and black. At the present writing I have just become able to observe that a couch cover in my apartment, which had always appeared blue to me, is green. I am still unable to see very much at the distance. But I am beginning to make out the features of the people around me and to read signs in the streets and street-cars, and when I look out of the windows on the Subway I see the people on the platforms. My field is still very limited, but I am conscious that it is slowly enlarging. The other day I pinned a piece of paper three inches from the test card, and was able to see it while looking at the card. After such improvement, in the brief period of five weeks, I do not feel inclined to credit the prediction of my medical friend that I am going to regain my sight only with limitations. I hope I am going to get normal vision.

Along with the improvement in my sight there has come also a remarkable improvement in my physical condition, the natural result of freedom from suffering. I used to be a very restless sleeper, and when I woke in the morning I was greatly fatigued. Now the bed is as

smooth in the morning as if I had never stirred all night, and I am much more refreshed than I used to be, although not so much so as I hope to be later. Formerly I had to force myself to write a letter. Now it is a pleasure to do so, and I am clearing off all my correspondence. I could not attend to my accounts. Now I have them all straightened out. If I could receive nothing more from the treatment than this physical comfort and increased ability to do things, it would be worth while.

Suggestions

By EMILY A. BATES

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 refraction, 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 unconsciouly 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.

Questions and Answers

Question.—(1) Should a house be brightly lighted by a direct electric light or a reflected white light? (2) In many homes colored shades are used on the lights. Does that impair the sight? C. I. I.

Answer.—(1) The more brightly the house is lighted the better for the sight. (2) Yes.

Question.—(1) Is it advisable to use specimens of diamond type other than the "Seven Truths of Normal sight?" Would it be well to get a New Testament in diamond type? (2) I have thus far found the flashing method the most helpful. However, after closing the eyes, I have difficulty in opening them. The lids seem to stick together, as it were. What is the cause of such stickiness and the remedy? (3) I was trying to read the "Seven Truths" lately by the flashing method, and for about twenty minutes obtained very little results. Then, of a sudden, upon closing my eyes, I saw the blackest object I have ever seen with closed eyes. I was startled, it seemed so real, and on opening my eyes I was surprised to find that I could read practically all of the "Seven Truths" clearly, at thirteen inches, without closing my eyes. I think the black object was probably the black rubber key of the electric socket in the fixture which I had unconsciously looked at from time to time during the exercise. I have not been able to do just this since. What is the probable reason for my failure? (4) I find I see any reading matter more clearly in a bright light—sunlight or electric light—than in a dim or less bright light. Why is this? (5) Today in trying to read the "Seven Truths" I found that I could do it at six or seven inches with few alternate closings of the eyes; but I found in accomplishing this I was partially closing my eyelids, so that I must have looked much like the Patagonians in

Fig. I in Dr. Bates' book, said to be probably myopic when the picture was taken. I found that I could not keep my eyes thus partly closed without some strain, but I could not see the print clearly when they were wide open. Often the print would look quite blurred when I first looked at it, but it cleared perceptibly and became quite black as I continued to look. I also found myself reading today twenty pages of fairly small print at about eight or nine inches in much the same way. W. C. C.

Answer.—(1) Yes, if you wish to. The "Testament" would be a good thing to have. (2) Difficulty in closing or opening the eyes is a common symptom of strain, and may be relieved by any method that relieves strain. (3) Such intervals of relaxation are a very common phenomenon. They will come more frequently and last longer if you continue to practice. (4) In a bright light the contrast between black letters and their white background is more marked than in a dim light. Persons differ greatly, however, in the amount of light they require for maximum vision. Some people see better in a dim light, because they think that condition a favorable one. (5) It is a bad one.

Announcements

Space does not permit us to print the entire list of Dr. Bates' authorized representatives in the United States, Canada and Europe, which we should like to do for the benefit of our subscribers. The following, however, is a list of those who have taken courses of instruction in the Bates Method within the past few months. Those subscribers who wish to know if there is an authorized representative in their city may obtain this information by writing direct to Dr. Bates at 210 Madison Avenue, New York City.

Miss Clara M. Brewster,
Studio 6, Aquila Court,
Omaha, Nebraska.

Miss Mary E. Wilson,
2538 Channing Way,
Berkeley, Calif.

Dr. Paul J. Dodge,
911 New Industrial Trust
Bldg., Providence, R. I.

Mrs. D. L. Corbett,
1712½ Fifth Ave.,
Los Angeles, Calif.

Miss Jane Button,
249 Harvey St.,
Germantown, Pa.

Mr. Fred Baechtold,
572 12th St.,
West New York, N. J.
Tel.—Palisade 6-7735

Mr. Harold E. Ensley,
112 West 104th St.,
New York City.

Dr. Med. E. Schluter,
Hamburg, Mundsburger-
damm 11, Germany.

Mrs. R. Norman Jolliffe,
171 West 71st St.,
New York City.

It has come to our attention that certain parties not connected with Dr. Bates in any way are desirous of publishing a periodical called "Better Eyesight". We wish to say that any such use of this title is not with the permission of Dr. Bates or the Central Fixation Publishing

Company and that any magazine issued under this title, other than the present one, is not published in the interest of the Bates Method. The title, "Better Eyesight", is protected against illegal usage.

As we have already notified our subscribers, "Better Eyesight" is being discontinued with this issue. This will enable Dr. Bates and Mrs. Bates to devote more time to the writing of new books on treatment alone for which there has been a very great demand. We request that all those who desire to be notified upon the publication of new books kindly send us their names and addresses which will be kept on file.

Bound volumes of "Better Eyesight" containing the issues from July, 1929 to June, 1930, inclusive, will be ready about July 15th. Those subscribers wishing to have their own magazines bound may send them to us before July 10th and they will be bound at the same time our issues are being bound. The price for binding will be $1.00.

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 eyelids to cause some people a great deal of discomfort at first, but after a few hours' exposure in this way, they become able gradually to 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.

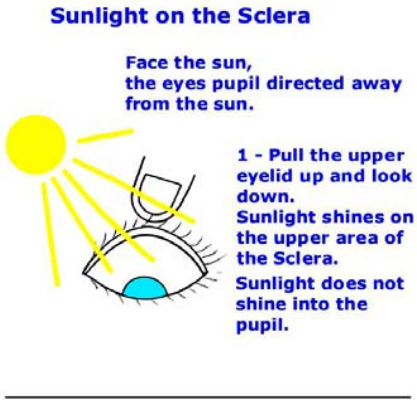
DR. BATES SUNLIGHT TREATMENTS
(As described in Better Eyesight Magazine)

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 can 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 thick 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.

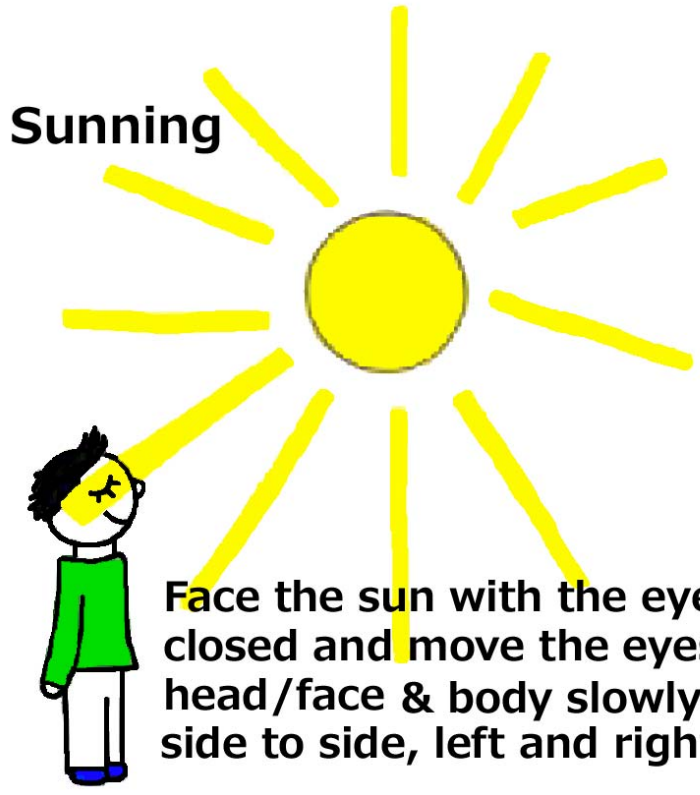
5. SUN TREATMENT. The eyes need sunlight. People who work in mines, where there is no sun, sooner or later develop inflammations of the interior of the eyes. The cloudiness of the lens from cataract is lessened by exposing the eye to the direct rays of the sun. When using the sun treatment, it is best 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.

Sunning



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Illustrated With 500 Pictures

By

Ophthalmologist William H. Bates

July, 1919 to June, 1930 - 132 Issues

Better Eyesight

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

Vol. I JULY, 1919 No. 1

$2.00 per year 20 cents per copy

Published by the CENTRAL FIXATION PUBLISHING COMPANY

39-45 EAST 42nd STREET NEW YORK, N. Y.

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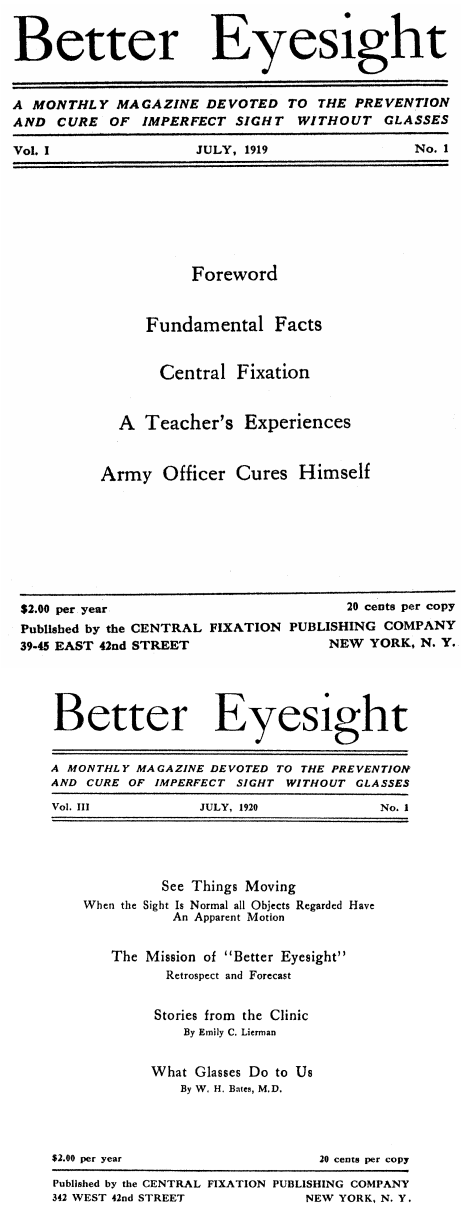
Ophthalmologist - M.D.
Eye, Ear, Nose & Throat.
Discovered the Principles of Eye Function-Natural Eyesight Improvement.



Better Eyesight

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

Vol. I JULY, 1919 No. 1

Foreword

Fundamental Facts

Central Fixation

A Teacher's Experiences

Army Officer Cures Himself

$2.00 per year 20 cents per copy
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39-45 EAST 42nd STREET NEW YORK, N. Y.

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Vol. III JULY, 1920 No. 1

See Things Moving
When the Sight Is Normal all Objects Regarded Have An Apparent Motion

The Mission of "Better Eyesight"
Retrospect and Forecast

Stories from the Clinic
By Emily C. Lierman

What Glasses Do to Us
By W. H. Bates, M.D.

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Natural Eyesight Improvement

Original and Modern Bates Method

This book contains Doctor Bates Better Eyesight Magazine. Every Year, Month, Page from July, 1919 to June, 1930 - Unedited. The Origin of Natural Eyesight Improvement. Safe, Natural Treatments for Clear Close, and Distant Vision, Astigmatism, Cataract, Glaucoma and other Eye Conditions.

Illustrated with 500 Pictures. All of his Original Treatments and Modern Versions of Older Treatments & New Treatments.

Pictures with directions are placed in the book to help the reader quickly understand each activity Dr. Bates describes. Learn, apply & obtain Natural Eyesight Improvement, clear vision easy and fast.

Remembering, imagining, creating clear mental/visual pictures is a main Natural Eyesight Improvement Treatment. The Brain, Memory, Imagination, Visual System work with the eyes to produce clear Eyesight (Vision).

Books that contain entertaining, interesting pictures improve the brain, visual systems memory, imagination of clear pictures, clear mental, visual images of objects the eyes look at. This improves eye function with the brain, relaxation and clarity of Eyesight.

12 Natural Eyesight Improvement E-books, Eyecharts, Videos, Audio Training and the Original Antique Print Pages of Better Eyesight Magazine included.

Clearsight Publishing Co., www.cleareyesight.info preserves Ophthalmologist Bates work free and low cost to the public. mclearsight@aol.com

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

Ophthalmologist - Eye, Ear, Nose & Throat

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

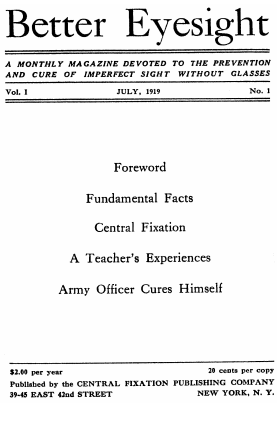

Ophthalmologist
William H. Bates


Emily C. Lierman, Bates

Do It Yourself - Natural Eyesight Improvement - Original and Modern Bates Method & Better Eyesight Magazine Illustrated with 500 Pictures by Ophthalmologist William H. Bates. Based on the Method, Treatments of Dr. Bates, the Eye Doctor that discovered The Bates Method of Natural Eyesight, (Vision) Improvement.

This Book contains Better Eyesight Magazine; a PDF text version of the magazines Illustrated with 500 pictures & additional Modern Natural Eyesight Improvement Training, Activities and a copy of the Original Magazine Pages. Better Eyesight Magazine contains all 132 Monthly Magazine Issues, 11 years-July, 1919 to June, 1930.

Stories From The Clinic included; 123 True Stories of Dr. Bates and Emily C.A. Lierman Bates patients varied treatments, eyesight improvement. Written and published by Ophthalmologist William Horatio Bates and his assistant, wife Emily C. A. Lierman, Bates. Eyecharts, Videos, Audio Lessons & 12 E-Books included by Dr. Bates and other Bates Teachers, Doctors. Learn the Modern Treatments and the Original Method, Treatments, Activities from Dr. Bates.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Introduction

Dr. Bates discovered the natural principles, true function of the eyes and applied relaxation, natural methods to return the eyes, eye muscles, nerves, mind/brain, thought patterns, body (entire visual system) to normal function with healthy eyes and clear vision. 'The Bates Method of Natural Eyesight Improvement.'

Dr. Bates Better Eyesight Magazine stories, articles describe how Dr. Bates & Emily Lierman Bates, other Doctors, School Teachers, Bates Method Students/Teachers, Children and Parents used Natural Treatments to remove, correct, prevent many different eye problems without use of eyeglasses, surgery, drugs.

The natural treatments they applied removed/prevented; unclear close and distant vision, astigmatism, cataracts, glaucoma, conical cornea, cornea scars, wandering/crossed eyes (strabismus) and other conditions. Hundreds of Natural Treatments are listed.

Read more in Dr. Bates Dedication.

The 8 Correct, Relaxed, Vision Habits (natural, normal, relaxed eye, visual system function); Shifting, Central-fixation, Relaxation, Movement, Blinking, Abdominal Breathing, Switching Close and Far, Long Swing, Sway (Rock), Familiar Eyecharts, Memory and Imagination, Sunning, Palming, Reading Fine Print and other activities described on the Author's website www.cleareyesight.info and in this book are derived from Dr. Bates treatments, method and are listed in his Better Eyesight Magazine and books. The Natural Eyesight Improvement Student practices, imitates this normal eye function to gently coax, return the eyes (visual system) to normal, natural function and clear vision.

Dr. Bates Better Eyesight Magazines, books, Medical Articles are included in this E-Book to enable the Natural Eyesight Improvement student to learn directly from Ophthalmologist Bates, the original eye doctor that discovered Natural Eyesight Improvement, to provide the reader with access to Dr. Bates treatments,

teaching method, true Natural Eyesight Improvement. The reader can avoid fraudulent teachers, harmful methods.

The Author, Clark Night is a Natural Eyesight Improvement Graduated Student and Self Trained Teacher that has maintained clear eyesight, freedom from eyeglasses for 37 years. Completed 5 different Natural Eyesight (Vision) Improvement Courses, Trained by Teachers in Person and Home School, studied many Bates and other Natural Vision Improvement books) Improved her close and distant vision to 20/20 and clearer at age 17. Age 54, can read fine print clear at 3 ft.+ and to 30 to 1 to 1/4 inches from the eyes. Teaches friends, family, public how to obtain clear vision without eyeglasses. http://www.cleareyesight.info

This Book Teaches a Variety of Natural Vision Improvement Treatments, Activities

Shifting; (Natural Eye movements), Central-fixation, Relaxation of the Mind/brain, body, eye muscles, eyes, Blinking, Memory and Imagination, Switching Close, Middle, Far for Perfect, Equally Clear Vision, Convergence, Accommodation, Divergence, Un-Accommodation in the Left and Right Eyes at all Distances, Left and Right Brain Hemisphere Activation and Integration, Color Treatment, Visualization, Alpha, Theta, Delta Brain Wave Frequency Deep Relaxation, Palming, Long Swing, Short Swing/Rock and Figure Eight Infinity Swings, Astigmatism Removal Swings, Positive Thinking, Constructive Thoughts, Emotions, Correct Posture, Neck, Shoulder Relaxation, Coordinated Body Movement Exercises, Physical Therapy, Abdominal Deep Breathing, Energy Circulation/Strengthening, Sunning, Saccadic Sunning, Reading, Seeing Fine Print and Eyecharts Clear, EFT, Acupressure, Headache Treatments, Nutrition Chapter-Eye, body Nutrition and other Activities for Clear Close, Distant, Day and Night Vision and Healthy Eyes. Treatments to reverse, remove, prevent: Myopia, Presbyopia (Unclear Distant & Close Vision), Astigmatism, Strabismus, Cataracts, Glaucoma and other eye/vision conditions.

Eyeglass Strength Reduction & Freedom From Glasses - Learn how to work with a Bates Method Behavioral Optometrist or Ophthalmologist for a complete eye exam and be prescribed reduced, weaker and weaker eyeglass lenses (if needed for driving, work safety...) temporarily as vision is improving. Gain complete freedom from eyeglasses.

Treatments are Derived from Dr. Bates Better Eyesight Magazines and Books

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.

Sight Dr. W. H. Bates F. 28 1924

PAGE TWO

BETTER EYESIGHT

A Magazine devoted to the prevention and cure of imperfect sight without glasses

Copyright, 1919, by the Central Fixation Publishing Company
Editor—W. H. BATES, M.D.
Publisher—CENTRAL FIXATION PUBLISHING CO.

Vol. I JULY, 1919 No. 1

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 in 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.

1Havard: Manual of Military Hygiene for the Military services of the United States, third revised edition 1917, p. 195.

2Report of the Provost Marshal General to the Secretary of War on the First Draft under the Selective Service Act, 1917.

3Standards 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.

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Vol. I **JULY, 1919** **No. 1**

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39-45 EAST 42nd STREET **NEW YORK, N. Y.**

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Imperfect Sight Can be Cured ***Without Glasses***
You Can Cure **Yourself**
You Can Cure **Others**

Better Eyesight

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

Vol. III SEPTEMBER, 1920 No. 3

Make Your Sight Worse
This is an excellent method of improving it

Experiences with Central Fixation
By M. H. Stuart, M.D.

How I Improved My Eyesight
By Pamela Speyer

Sleepiness and Eyestrain
By W. H. Bates, M.D.

Stories from the Clinic
By Emily C. Lierman

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Ophthalmologist
William H. Bates

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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

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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 Eyesight 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

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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.

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.

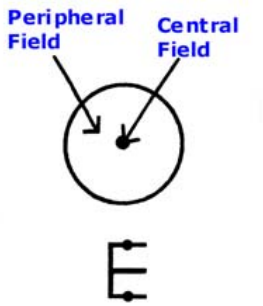
This condition is sometimes so extreme that the patient may look as far away from an object as it is possible to see it and yet see it just as well as when looking directly at it. In one case it had gone so far that the patient could see only with the edge of the retina on the nasal side. In other words, 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. 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 Eyesight Improvement returns perfect clear central vision and brings the peripheral to its maximum possible clarity.



**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.**

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.

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:

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 at the top and see the bottom worse. With practice she became able to look at the smaller letters in the same way, and 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, 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 gonorrhoea, 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.

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.

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 ear-marks 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.

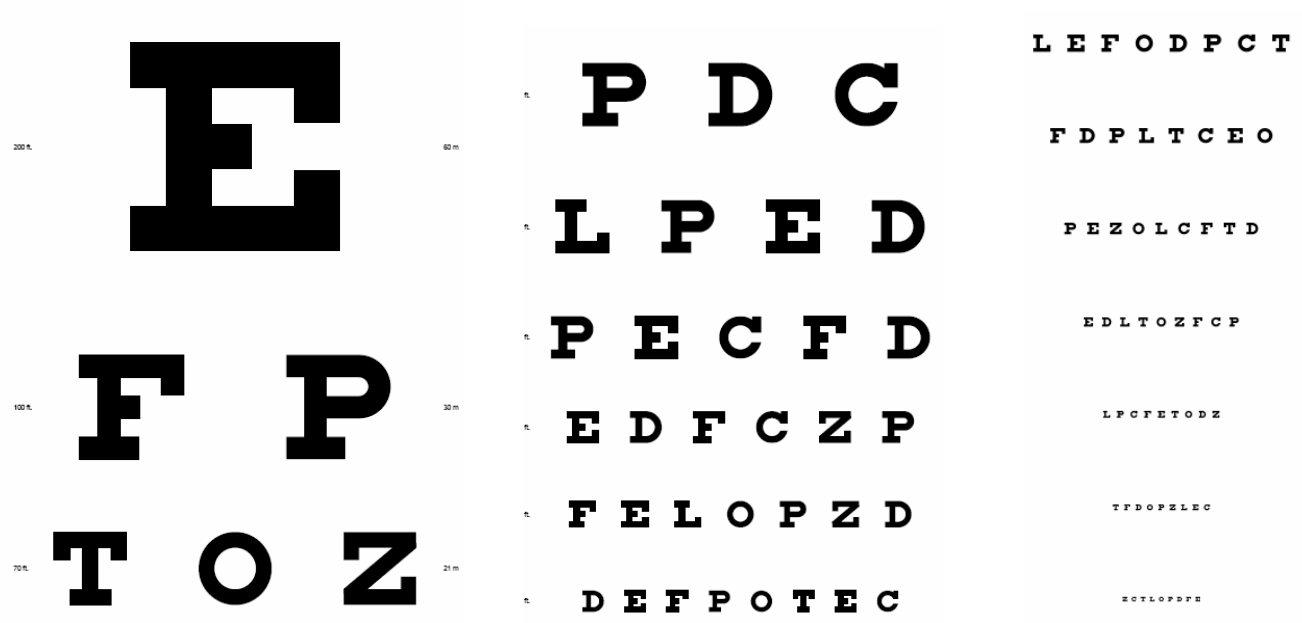
John Smith, 11, Jan. 1, 1919.
R. V. 20/30.
L. V. 20/15.

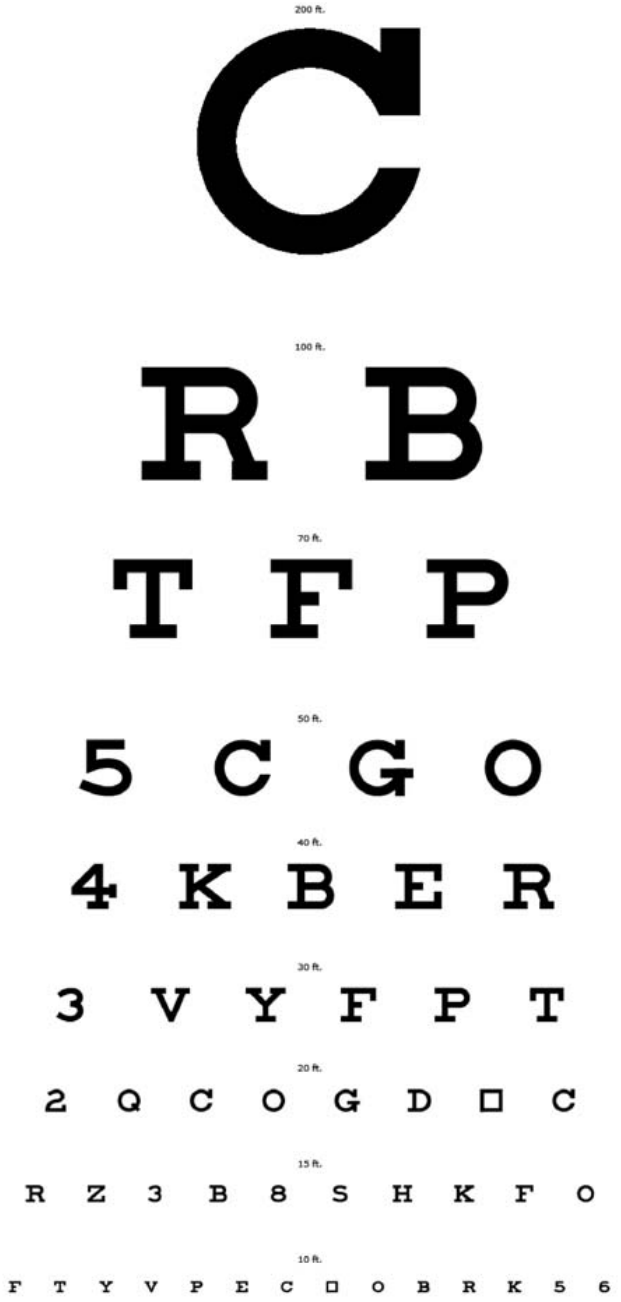
20/20

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.




200 ft.
C
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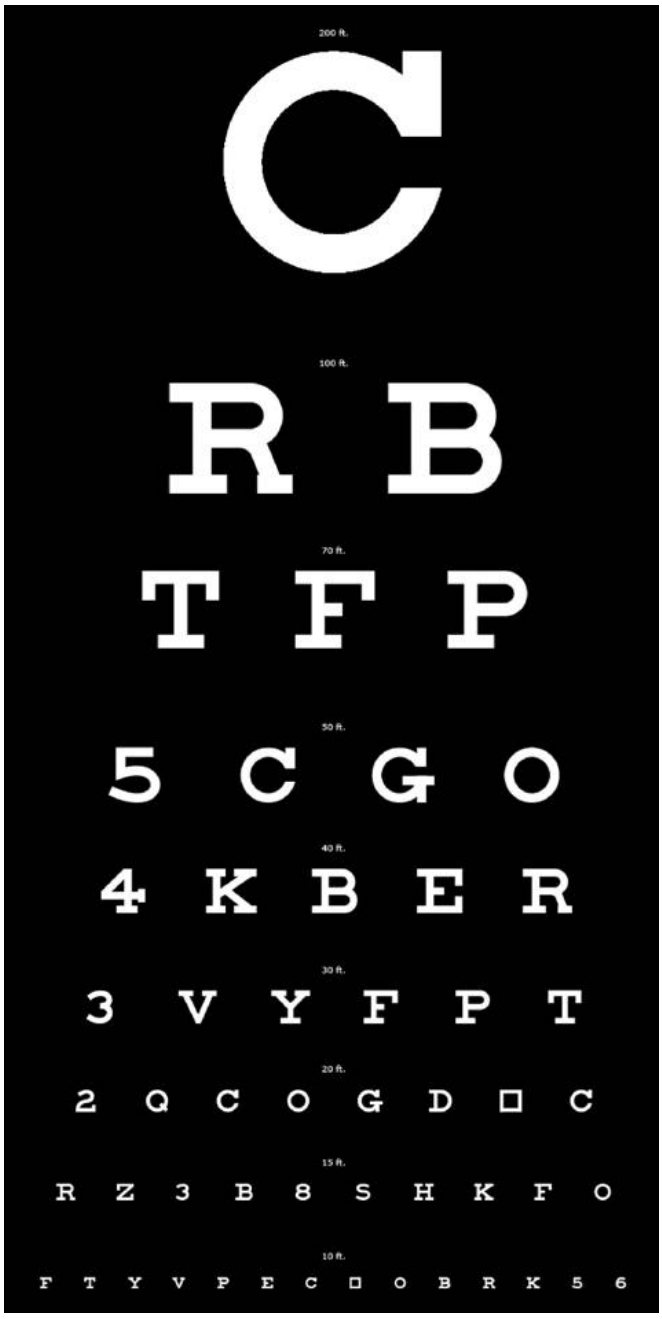
R B
70 ft.
T F P
50 ft.
5 C G O
40 ft.
4 K B E R
30 ft.
3 V Y F P T
20 ft.
2 Q C O G D □ C
15 ft.
R Z 3 B 8 S H K F O
10 ft.
F T Y V P E C □ O B R K 5 6


200 ft.
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3 V Y F P T
20 ft.
2 Q C O G D □ C
15 ft.
R Z 3 B 8 S H K F O
10 ft.
F T Y V P E C □ O B R K 5 6

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.

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.

Fig. 43

Patient with atrophy of the optic nerve gets flashes of improved vision after palming.

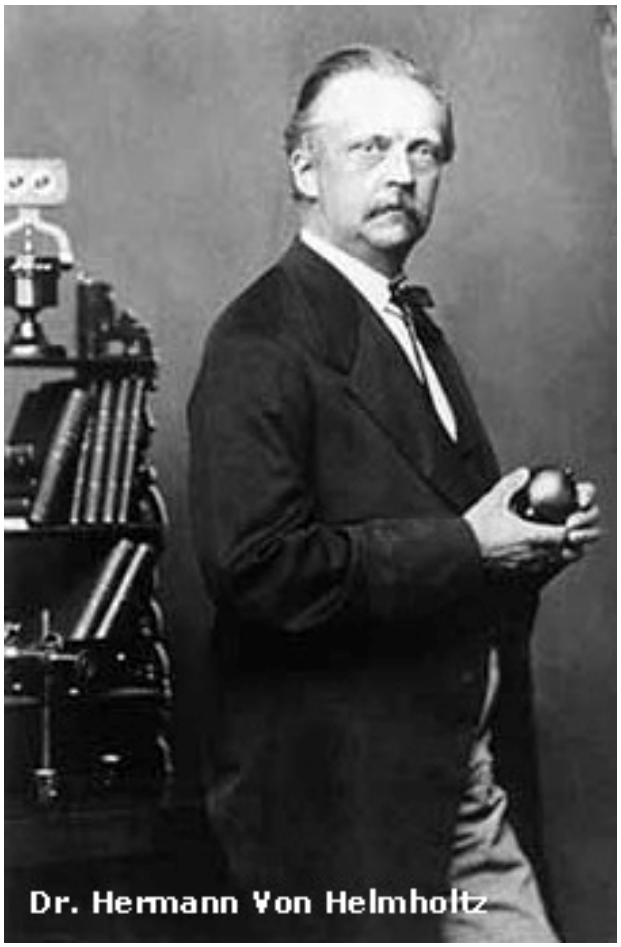
Fig. 39. A Family Group Strikingly Illustrating the Effect of the Mind Upon the Vision

No. 1.—Girl of four with normal eyes. No. 2.—The child's mother with myopia. No. 3—The same girl at nine with myopia. Note that her expression has completely changed, and is now exactly like her mother's. Nos. 4, 5 and 6.—The girl's brother at two, six and eight. His eyes are normal in all three pictures. The girl has either inherited her mother's disposition to take things hard, or has been injuriously effected by her personality of strain. The boy has escaped both influences. In view of the prevailing theories about the relation of heredity to myopia, this picture is particularly interesting.

These old pictures are from Dr. Bates original book 'The Cure of Imperfect Sight by Treatment Without Glasses'. More pictures in that book and Medical Articles. Books are included free in E-Book form with this book. Contact www.cleareyesight.info mclearsight@aol.com

Dr. Hermann Von Helmholtz

Inventor of the Ophthalmoscope



Hermann Von Helmholtz (1821–1894) A German Physician, Physicist

Dr. Helmholtz studied and contributed to developments in mechanics, physics, science, mathematics, energy conservation, electrodynamics, fluid dynamics, thermodynamics, chemical thermodynamics, chemistry, electricity, magnetism, meteorology, philosophy, fine arts, physiology of the eye and the ear, hearing, acoustics, motion perception, physiological optics, mathematics of the eye, theories of vision, visual perception of space, color vision, color blindness, dioptrics (study of the refraction of light, especially by lenses) of the eye and many other areas of science.
He studied electrodynamics by Michael Faraday and James Clerk Maxwell, began the revolution in wireless communication, wrote the 'Handbook of Physiological Optics'.

He invented the Ophthalmoscope to examine/inspect the interior of the eye/retinal blood vessels, detect high blood pressure and arterial disease… He also invented the Ophthalmometer to measure the eyes accommodation/the eye's curvature.

Dr. Helmholtz created the 'Theory of Accommodation' – which states that the human eyes lens changes shape due to the action of the Ciliary Muscle to produce accommodation in the eye for clear vision when looking at close distances.

For years the Optical Industry, Eye Doctors stated Helmholtz's Theory as an absolute fact and stated that due to this fact, unclear vision cannot be cured, that only glasses, surgery, drugs can correct unclear vision and other eye problems.

Dr. William H. Bates, Ophthalmologist, eye, ear… doctor proved that the outer eye muscles (Oblique, Recti) can change the shape of the eye, produce accommodation and affect the clarity of vision. Relaxed, normally functioning outer eye muscles produced clear vision. Bates stated the lens does not produce accommodation. Dr. Bates proved as fact that unclear vision and a variety of other eye problems can be corrected, cured by natural methods of relaxing the mind, body, eye muscles, returning mind, body, eye muscles, eyes to normal function without eyeglasses, surgery, drugs. The Bates Method.

Modern day Ophthalmologists state that: with new technology, they have proven that the lens does change shape and can produce accommodation.

Some Scientists, Ophthalmologists state that Helmholtz and Bates were correct, that the eye and lens change shape, work together (and the lens might also move) to produce accommodation.

The Bates Method relaxes, improves function, health of the entire visual system, eyes, mind, body and relaxes, improves function of all the eye muscles; outer (Oblique, Recti & other outer muscles), inner (ciliary/lens, iris…) and continues to produce clear vision for over 100 years. Even before Bates time, the Bates Method was used naturally by the human eye.

Third Monthly Meeting
BETTER EYESIGHT LEAGUE
8:00 P. M., JUNE 13th
Room 504
300 MADISON AVENUE NEW YORK CITY

Doctors are needed all over the world to cure people without glasses.

Snellen Test Cards

THERE should be a Snellen test card in every family and in every school classroom. When properly used it always improves the sight even when sight is already normal. Children or adults with errors of refraction, if they have never worn glasses, are cured simply by reading every day the smallest letters they can see at a distance of ten, fifteen, or twenty feet.

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Reprints of articles by Dr. Bates in other medical journals: a limited number for sale. Send for list.

For Sale By
Central Fixation Publishing Company
383 Madison Avenue, New York City

The Snellen Test Card

OWING to the many inquiries requesting information for the use of the Snellen Test Card, we have had little booklets printed explaining its value and how to use it in relation with Dr. Bates' method of treating imperfect sight. We shall be glad to send one of these on request.
In addition to the Snellens, we have what we call the Various Cards. These were made especially for those who have memorized the Snellen, and think that their good sight is due to the fact that they know what letter is coming. This is proof positive of one of Dr. Bates' statements that familiar things are more readily seen.

Children's Cards

CARDS for children's use, particularly, are printed with pictures of animals, and everyday objects. Many "games" can be played with these, much to the children's benefit.
The Various Cards cost one dollar each.

Better Eyesight
(Back Numbers)

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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 hook on *Spherical Refraction*, bears witness, after a comprehensive survey of the whole question, to the "absolutely negative results of school hygiene,"[6] and Dr. Sidler-Huguenin reports[7] 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.

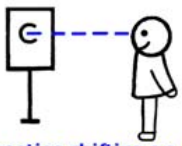
THE PREVENTION AND CURE OF MYOPIA AND OTHER ERRORS OF REFRACTION

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.



Practice shifting on a familiar object - letters on a test card daily with;
Both eyes together, one eye at a time, both eyes together again.

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 hand up to eye causes the muscles in 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 City[10] 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. I—"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.

Shift left and right, top and bottom and in any direction 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 estimated[1] 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.

Central Fixation- Look directly at the dot on the left and see it clear. Look away from it and see it less clear in the peripheral field.

Remember and shift on a small black period.

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.

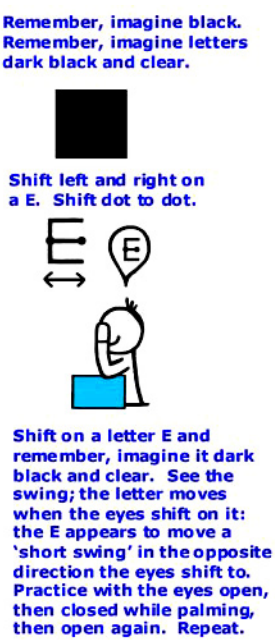
When he looked at the Snellen test card the letters appeared grey to him instead of black. He was told that they were black, and the fact was demonstrated by bringing the card close to him. His attention was also called to the fact that the small letters were just as black as the large ones. He was then 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.

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.

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 astigmatism[1] 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 Eyesight 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 reported[3] 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.**

Diet must also be healthy. No prescription, non-prescription drugs, including sinus sprays, cough/cold medicines...

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 hypermetropia[3] (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, Risley[4] 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

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 opthalmoscope[5] 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.

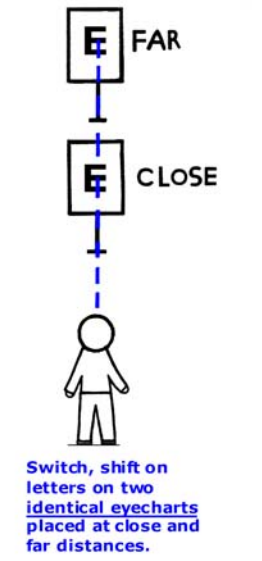
HOME TREATMENT

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.

BETTER EYESIGHT

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

January, 1920

THE PALMING CURE

Palm and remember, imagine a pleasant object, scenery and shift throughout the scene; from object to object, part to part on objects. See objects in motion, action like a real life movie in the mind, in color, clear.

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.

When palming - remember, imagine a happy scene, objects, people in motion, color, clear like a real life movie in the mind.

Shift on objects in the imagination and remember, imagine they are clear. Relax; dynamic and deep relaxation. Famous scientists, artists, and others use this method when awake and before they drift off to sleep, working with the conscious and subconscious mind to visualize, work on a goal; art, science creation, invention, formula, health improvement, new home, job, business…

(Shift part to part on the flower on the right. Shift on the green dots: top and bottom, left and right, middle and in any direction.)

Shift part to part on the object to remember, imagine, see the object clear with the eyes open and in the mind with eyes closed.

THE VARIABILITY OF THE REFRACTION OF THE EYE

The theory that errors of refraction are due to permanent deformations of the eyeball leads naturally to the conclusion, not only that errors of refraction are permanent states, but that normal refraction is also a continuous condition. As this theory is almost universally accepted as a fact, therefore, it is not surprising to find that the normal eye is generally regarded as a perfect machine which is always in good working order. No matter whether the object regarded is strange or familiar, whether the light is good or imperfect, whether the surroundings are pleasant or disagreeable, even under conditions of nerve strain or bodily disease, the normal eye is expected to have normal refraction and normal sight all the time. It is true that the facts do not harmonize with this view, but they are conveniently attributed to the perversity of the ciliary muscle. This muscle is believed to control the shape of the lens, and is credited with a capacity for interfering with the refraction in some very curious ways. In hypermetropia (farsight), it is believed to alter the shape of the lens sufficiently to compensate, in whole or in part, for the shortness of the eyeball. In myopia, or nearsight, on the contrary, we are told that it actually goes out of its way to produce the condition, or to make an existing condition worse. In other words, the muscle is believed to get into a more or less continuous state of contraction, thus keeping the lens continuously in a state of convexity, which, according to accepted theories, it ought to assume only for vision at the near-point. This theory serves the purpose of explaining to the satisfaction of most eye specialists why persons who at times appear to have myopia, or hypermetropia, appear at other times not to have them. After people have reached the age at which the lens is not supposed to change it does not work so well, while in astigmatism it is available only to a limited extent even at the earlier ages; but these facts are quietly ignored.

When we understand how the shape of the eyeball is controlled by the external muscles, and how it responds instantaneously to their action, it is easy to see that no refractive state, whether it is normal or abnormal, can be permanent. This conclusion is confirmed by the retinoscope, and I had observed the facts long before my experiments upon the eye muscles of animals, reported in 1915[1] and to be described again in my forthcoming book, had offered a satisfactory explanation for them. During thirty years devoted to the study of refraction, I have found few people who could maintain perfect sight for more than a few minutes at a time, even under the most favorable conditions; and often I have seen the refraction change half a dozen times or more in a second, the variations ranging all the way from twenty diopters of myopia to normal.

Similarly I have found no eyes with continuous or unchanging errors of refraction, all persons with errors of refraction having, at frequent intervals during the day and night, moments of normal vision, when their myopia, hypermetropia, or astigmatism, wholly disappears. The form of the error also changes, myopia even changing into hypermetropia and one form of astigmatism into another.

Of twenty thousand school children examined in one year more than half had normal eyes, with sight which was perfect at times; but not one of them had perfect sight in each eye at all times of the day. Their sight might be good in the morning and imperfect in the afternoon, or imperfect in the morning and perfect in the afternoon. Many children could read one Snellen test card with perfect sight, while unable to see a different one perfectly. Many could also read some letters of the alphabet perfectly, while unable to distinguish other letters of the same size under similar conditions. The degree of this imperfect sight varied within wide limits, from one-third to one-tenth, or less. Its duration was also variable. Under some conditions it might continue for only a few minutes, or less; under others it might prevent the subject from seeing the blackboard for days, weeks, or even longer. Frequently all the pupils in a classroom were affected to this extent.

Among babies a similar condition was noted. Most investigators have found babies hypermetropic. A few have found them myopic. My own observations indicate that the refraction of infants is continually changing. One child was examined under atropine on four successive days, beginning two hours after birth. A three per cent solution of atropine was instilled into both eyes, the pupil was dilated to the maximum, and other physiological symptoms of the use of atropine were noted. The first examination showed a condition of mixed astigmatism. On the second day there was compound hypermetropic astigmatism, and on the third compound myopic astigmatism.[2] On the fourth one eye was normal and the other showed simple myopia. Similar variations were noted in many other cases.

What is true of children and infants is equally true of adults of all ages. Persons over seventy years of age have suffered losses of vision of variable degree and intensity, and in such cases the retinoscope always indicated an error of refraction. A man eighty years old, with normal eyes and ordinarily normal sight, had periods of imperfect sight which would last from a few minutes to half an hour or longer. Retinoscopy at such times always indicated myopia of four diopters or more.

During sleep the refractive condition of the eye is rarely, if ever, normal. Persons whose refraction is normal when they are awake will produce myopia, hypermetropia and astigmatism when they are asleep, or, if they have errors of refraction when they are awake, they will be increased during sleep. This is why people waken in the morning with eyes more tired than at any other time, or even with severe headaches. When the subject is under ether or chloroform, or unconscious from any other cause, errors of refraction are also produced or increased.

When the eye regards an unfamiliar object an error of refraction is always produced. Hence the proverbial fatigue caused by viewing pictures, or other objects, in a museum. Children with normal eyes who can read perfectly small letters a quarter of an inch high at ten feet always have trouble in reading strange writing on the blackboard, although the letters may be two inches high. A strange map, or any map, has the same effect. I have never seen a child, or a teacher, who could look at a map at the distance without becoming nearsighted. German type has been accused of being responsible for much of the poor sight once supposed to be peculiarly a German malady; but if a German child attempts to read Roman print, it will at once become temporarily myopic. German print, or Greek or Chinese characters will have the same effect on a child, or other person, accustomed to Roman letters. Cohn repudiated the idea that German lettering was trying to the eyes.[3] On the contrary, he always found it "pleasant, after a long reading of the monotonous Roman print, to return to 'our beloved German'." Because the German characters were more familiar to him than any others he found them restful to his eyes. "Use," as he truly observed, "has much to do with the matter." Children learning to read, write, draw, or sew, always suffer from defective vision, because of the unfamiliarity of the lines or objects with which they are working.

[2]In astigmatism the eye is lopsided. In simple hypermetropic astigmatism one principal meridian is normal, and the other, at right angles to it, is flatter; hence the eye is farsighted in one curvature and normal in another. In simple myopic astigmatism the contrary is the case, one principal meridian is normal and the other, at right angles to it, more convex, making the refraction normal in one curvature and shortsighted in another. In mixed astigmatism one principal meridian is too flat, the other too convex. In compound hypermetropic astigmatism, both principal meridians are flatter than normal, one more so than the other. In compound myopic astigmatism both are more convex than normal, one more so than the other.

This is one of footnotes on the bottom page of Better Eyesight Magazine.
All footnotes have been typed into this book.

A sudden exposure to strong light, or rapid or sudden changes of light, are likely to produce Imperfect sight in the normal eye, continuing in some cases for weeks and months.

Noise is also a frequent cause of defective vision in the normal eye. All persons see imperfectly when they hear an unexpected loud noise. Familiar sounds do not lower the vision, but unfamiliar ones always do. Country children from quiet schools may suffer from defective vision for a long time after moving to a noisy city. In school they cannot do well with their work, because their sight is impaired. It is, of course, a gross injustice for teachers and others to scold, punish, or humiliate, such children.

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.

The variability of the refraction of the eye is responsible for many otherwise unaccountable accidents. When people are struck down in the street by automobiles or trolley cars, it is often due to the fact that they were suffering from temporary loss of sight. Collisions on railroads or at sea, disasters in military operations, aviation accidents, etc., often occur because some responsible person suffered temporary loss of sight.

HOW LONG WILL IT TAKE?

This question is asked so constantly by persons who wish to be cured of Imperfect sight that it seems worth while to devote a little space to its consideration. It is impossible, of course, to answer the question definitely. Cure is a question of the mind, and people's minds are different.

While patients who have worn glasses are usually harder to cure than those who have not, elderly persons who have worn them for the better part of a lifetime are sometimes cured as quickly as children under twelve who have never worn them. These cases are very rare, but they do occur. Some patients can look at the letters on the test card, or in a paragraph of fine print, and imagine them at once to be perfectly black, with the result that they immediately become able to read them. Some patients are able to palm almost perfectly from the start, and nearly all can do it well enough to improve their sight; some never become able to do it until

their sight has been improved by other means.

Most patients, when they look from one side of a large letter to another, or from one side of the card to another, can imagine that the letter, or the card, is moving in a direction opposite to the movement of the eye. Others, whose condition may be no worse, take a week, or a month, or longer, to do the same thing. A patient recently treated was able to do almost everything I asked her to at the first visit. I began, as I always do, by directing her to close and rest her eyes, and, as in the case of most other patients, she was able to improve her sight materially by this method. Then she went on to do a lot of other things, some of which very few patients can do at the first visit, while no one but herself, so far as I can remember, was ever able to do all of them. She was able to stare at a letter and make her sight worse, and she was able to look from one side of it to another and imagine that it was moving in a direction opposite to the movement of the eye. If the letter was seen perfectly, the movement was short, rhythmical and easy; if it was seen imperfectly, it was longer, and irregular. She could not imagine a letter stationary, and if she tried to imagine it so, it blurred. When she looked at a line of letters that she could read, she realized at once that one letter was seen best and the adjoining ones worse; and when she looked at a line that she could not read, she noted that they were seen all alike. She demonstrated at once-which was very remarkable-that a perfect memory is quick and easy, and an imperfect memory slow, difficult and even impossible; that the first relieves fatigue and the second induces discomfort. She also demonstrated that while it was easy to imagine that a letter remembered perfectly was swinging, she either could not imagine such a swing in the case of an imperfectly remembered letter, or else the swing was longer and irregular. It is hardly necessary to say that this patient became able at once to read the whole card, even in a dim light. It was only when she came to fine print that she failed. She could not imagine that the letters of diamond type were swinging. She could imagine the universal swing[4] when she looked two inches away from the letters, but she could not imagine it when she looked between the lines.

Shift dot to dot on the E - left and right, top and bottom and see the E move: oppositional movement.

These peculiarities of the mind cannot be known in advance, and therefore it is seldom possible, in any given case, to make predictions as to the length of time that will be required for a cure. This much can be stated, however: that marked improvement is always obtained in a few weeks and that all patients obtain some benefit at the first visit. If there are any exceptions to this rule, they are so rare that I do not remember them.

As more facts are accumulated and better ways of presenting things learned, it becomes possible to cure people more quickly. I can cure people more quickly today than I did a year ago, and I expect to cure them next year more quickly than I do today. In the last three months, seven or eight patients have been cured in one visit, with a little additional help over the telephone.

When patients can give considerable time to the treatment they naturally get on faster than those who cannot or will not do this. When they follow instructions and do not waste time in discussion, or in carrying out theories of their own, they also get on faster. One of the advantages that children have over adults is that there heads are not so full of erroneous ideas, and that they are accustomed to doing as they are told.

The chief cause of delay seems to be that people will not believe the truth after it is demonstrated to them. You can demonstrate to anyone in a few minutes that rest improves the vision, but the idea that everything worth while must be gained by effort is so deeply ingrained in the average mind that you may not in a year be able to get it out, and so long as the patient believes that his sight can be improved by effort, be will make little progress.

In most cases it is necessary, in order to retain what has been gained, to continue the treatment for a few minutes every day. When a cure is complete it is always permanent. The patient need never think of the matter again, and may even forget how he was cured. But **complete cures**, which mean the attainment, not of what is ordinarily called normal sight, but of a measure of **telescopic and microscopic vision**, are very rare; and even in these cases the treatment may be continued with benefit, for it is impossible to set limits to the visual powers of man, and no matter how good the sight, it is always possible to improve it.

RELIEF AFTER TWENTY-FIVE YEARS

While many persons are benefited by the accepted methods of treating defects of vision, there is a minority of cases, known to every eye specialist, which gets little or no help from them. These patients sometimes give up the search for relief in despair, and sometimes continue it with surprising pertinacity, never being able to abandon the belief, in spite of the testimony of experience, that somewhere in the world there must be some one with sufficient skill to fit them with the right glasses. The rapidity with which these patients respond to treatment by relaxation is often very dramatic, and affords a startling illustration of the superiority of this method to treatment by glasses and muscles cutting. In the following case relaxation did in twenty-four hours what the old methods, as practiced by a succession of eminent specialists, had not been able to do in twenty five years.

The patient was a man of forty-nine, and his imperfect sight was accompanied by continual pain and misery, culminating twenty years before I saw him, in a complete nervous breakdown. As he was a writer, dependent upon his pen for a living, his condition was a serious economic handicap, and he consulted many specialists in the vain hope of obtaining relief. Glasses did little, either to improve his sight, or to relieve his discomfort, and the eye specialists talked vaguely about disease of the optic nerve and brain as a possible cause of his troubles. The nerve specialists, however, were unable to do anything to relieve him. One specialist diagnosed his case as muscular, and gave him prisms, which helped him a little. Later, the same specialist, finding that all of the apparent muscular trouble was not corrected by glasses, cut the external muscles of both eyes. This also brought some relief, but not much. At the age of twenty-nine the patient suffered the nervous breakdown already mentioned. For this he was treated unsuccessfully by various specialists, and for nine years he was compelled to live out of doors. This life, although it benefited him, failed to restore his health, and when he came to me on September 13, 1919, he was still suffering from neurasthenia. His distant vision was less than 20/40, and could not be improved by glasses. He was able to read with glasses, but could not do so without discomfort. I could find no symptom of disease of the brain or of the interior of the eye. When he tried to palm he saw grey and yellow instead of black; but he was able to rest his eyes simply by closing them, and by this means alone he became able, in twenty-four hours, to read diamond type and to make out most of the letters on the twenty line of the test card at twenty feet. At the same time his discomfort was materially relieved.

He was under treatment for about six weeks, and then he left the city.

On October 25 he wrote as follows:

"I saw you last on October 6, and at the end of the week, the 11th, I started off on a ten-day motor trip as one of the officials of the Cavalry Endurance Test for horses. The last touch of eyestrain which affected me nervously at all I experienced on the 8th and 9th. On the trip, though I averaged but five hours sleep, rode all day in an open motor without goggles and wrote reports at night by

bad lights, I had no trouble. After the third day the universal slow swing seemed to establish itself, and I have never had a moment's discomfort since. I stood fatigue and excitement better than I have ever done and went with less sleep. My practicing on the trip was necessarily somewhat curtailed, yet there was noticeable improvement in my vision. Since returning I have spent a couple of hours a day in practice, and have at the same time done a lot of writing.

Fine print - Directions

"Yesterday, the 24th, I made a test with diamond type, and found that after twenty minutes' practice I could get the lines distinct, and make out the capital letters and bits of the text at a scant three inches. At seven I could read it readily, though I could not see it perfectly. This was by an average daylight-no sun. In a good daylight I can read the newspaper almost perfectly at a normal reading distance, say fifteen inches. I seem able now to read ordinary print at a little distance from my eyes without straining; but **I practice bringing it so close that it is not quite clear, and after closing and opening my eyes and thinking of the text as clear and black, or of a perfect black letter, it clears up. I am confident now that in a few weeks I shall be able to read the fine print at three inches. Now that the swing has established itself so well I seem to get the best results on close work by consciously relaxing as much as I can, avoiding all conscious effort to see better, and imagining words or letters perfectly clear and black.** All soreness has gone from the eyeballs, but there are little muscle twitches that catch me when consciously opening or closing the lids. The last few days these almost ceased at the end of twenty minutes practice, and my sight was better.

"I feel now that I am really out of the woods. I have done night work without suffering for it, a thing I have not done in twenty-five years, and I have worked steadily for more hours than I have been able to work at a time since my breakdown in 1899, all without sense of strain or nervous fatigue. You can imagine my gratitude to you. Not only for my own sake, but for yours, I shall leave no stone unturned to make the cure complete and get back the child eyes which seem perfectly possible in the light of progress I have made in the eight weeks since I first went to you.

"I have just been trying the big card for distance in the out-of-door light of an overcast day at two in the afternoon. At twenty feet I get all the bottom line, but the "5" and "6." The "B" also is black. But I think I have done a little better than this. The halos (5) begin to come out spontaneously both on the fine print and on the big card at a distance. I am sure that I only have to keep on to win."

See the Halos, 'White Glow' on the white paper near/ around the edge of the ink of the black letters. Imagining and seeing this brings clear vision.

FACTS VERSUS THEORIES

Reading fine print is commonly supposed to be an extremely dangerous practice, and reading print of any kind upon a moving vehicle is thought to be even worse. Looking away to the distance, however, and not seeing anything in particular is believed to be very beneficial to the eyes. In the light of these superstitions the facts contained in the following letter are particularly interesting:

"On reaching home Monday morning I was surprised and pleased at the comments of my family regarding the appearance of my eyes. They all thought they looked so much brighter and rested, and that after two days of railroading. I didn't spare my eyes in the least on the way home. I read magazines and newspapers, looked at the scenery; in fact, used my eyes all the time. My sight for the near-point splendid. Can read for hours without tiring my eyes. . . . I went downtown today and my eyes were very tired when I got home. The fine print on the card (diamond type) helps me so. . . I would like to have your little Bible (a photographic reduction of the Bible with type much smaller than diamond). I'm sure the very fine print has a soothing effect on one's eyes, regardless of what my previous ideas on the subject were."

It will be observed that the eyes of this patient were not tired by her two days railroad journey, during which she read constantly;—they were not tired by hours of reading after her return; they were rested by reading extremely fine print; but they were very much tired by a trip downtown during which they were not called upon to focus upon small objects. Later a leaf from the Bible was sent to her, and she wrote:

"The effect even of the first effort to read it was wonderful. If you will believe it, I haven't been troubled having my eyes feel 'crossed' since, and while my actual vision does not seem to be any better, my eyes feel a great deal better.

January, 1920

1 - Bates: The Cure of Defective Eyesight by Treatment Without Glasses, N. Y. Med. Jour., May 8, 1915.
2 – In astigmatism the eyes is lopsided. In simple hypermetropic astigmatism one principle meridian is normal, and the other, at right angles to it, is flatter; hence the eye is farsighted in one curvature and normal in another. In simple myopic astigmatism the contrary is the case, one principal meridian is normal and the other, at right angles to it, more convex, making the refraction normal in one curvature and shortsighted in another. In mixed astigmatism one principal meridian is too flat, the other too convex. In compound hypermetropic astigmatism, both principal meridians are flatter than normal, one more so than the other. In compound myopic astigmatism both are more convex than normal, one more so than the other.
3 - Eyes and School-Books, Pop. Sci. Monthly, May, 1881, translated from Deutsche Rundschau.
4 - When the patient becomes able to imagine that the letters on the test card are swinging, everything else thought of also seems to be swinging. This is the universal swing.
5 - When the sight is normal, the margins and openings of letters appear whiter than the rest of the background, and the lines of fine print seem to be separated by white streaks.

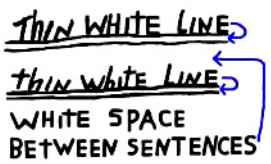
BETTER EYESIGHT

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

February, 1920

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.



NEW EYES FOR OLD

By GRACE ELLERY CHANNING

EDITOR'S NOTE.—*We are constantly hearing of patients who have been able to improve their sight by the aid of information contained in this magazine, or in other publications on the same subject, without personal assistance. The following is a very remarkable example of these cases, as the improvement was made while the patient was handicapped by having to wear her glasses a great part of the time.*

There was once a gentleman who attempted to sell new lamps for old ones. And another who tried to exchange, on Waterloo Bridge, perfectly good new shillings for sixpence. In both cases the wares were as advertised, but both fell under suspicion.

It is perhaps, then, not to be wondered at that an offer of new eyes for old should meet with a similar fate at the hands of a public early trained to suspect the worst—in a world where few things are as represented and nothing is to be had for nothing.

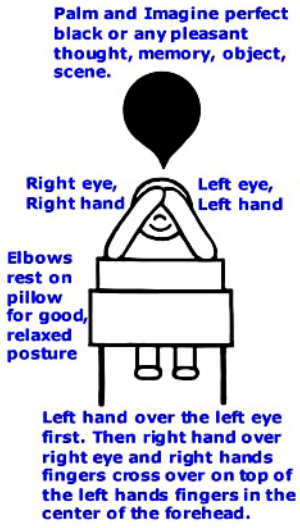
In no other way, at least, can I account for the fact that so much of the world is still in glasses, after a brief experience of my own. This is the story:

Something over a year ago, in one of those periodic fits of dejection common to those who abuse their eyes and then wonder at their failure. I chanced to take up a copy of the *New York Tribune*, open exactly at an article on Eyes, in the column devoted to scientifico-medical truth.

I may as well confess at once that I read this column chiefly to scoff: it is a privilege reserved to those born in doctor's families. Moreover the condition of my own eyes at the moment, after years of oculists and opticians, was one to make me particularly from Missouri in my mental attitude towards anything calling itself a new "cure." Still—I ran through the article.

It was brief, a mere review of another which had appeared in the *Scientific American*, and I grasped but a fragment of the principle—that defects of vision were not necessarily integral, but might result from defectively controlled muscles distorting the eyeball-pulling it out of shape. Hence nearsight, farsight, astigmatism, etc., might be curable through muscle-control. The treatment consisted in relaxation and re-education, intelligently applied.

As I grasped it, not being hampered by scientific pre-possesions, the thing appeared so simple that I exclaimed to myself: "How sensible!"—hastily qualifying it with, "How much too good to be true!" For here was something rational—something you could do for yourself without either being cut up or poisoned. The article mentioned that patients went home and taught their families—it was so simple. There was nothing to prevent one's at least trying it on oneself.



The only detail of treatment set forth—or which I grasped—was that the eyes could be relaxed most conveniently by looking at black, and that by covering the eyes with the palms of the hands ("palming") black could be retained as a mental vision, or memory, during which the eye was at rest. By practice, one could learn to "remember black" with the eyes opened, at will, and when it was not there. Thus muscular control could be re-established.

It was at least worth trying, and I tried. (Here it is interesting to remark that the moment you look at a black thing, you realize it isn't. A really black object is hard to find, but not necessary to success; the approximate will serve. Later I discovered that a black period—of printer's ink—was sufficient, but I am giving by preference the tale of my first blundering efforts.)

My first discovery was one which anyone may make for himself; it contains the crux of the whole. This is, that after looking at black, "palming," and seeing black with the eyes shut (at first one may see grey or red), and then opening the eyes, there is an appreciable instant of clear vision, in which letters or images previously blurred and hazy come out sharp and definite. For that brief instant I could read clearly; then immediately the old habit of muscular strain set in again and vision lapsed. But *that instant was enough*. For, if for any fraction of time at all vision could be reconquered, clearly the organ of vision was intact; the trouble was extraneous, functional, might be removable. All that was needed was to *make that instant permanent*, and that, evidently, was a mere matter of reeducating the exterior muscles of the eye and fixing a habit.

So far as I was concerned that first experiment was final. I was as convinced then as I am convinced now that I, or anyone else in my case, can recover vision virtually whole, with time, patience and training. The demonstration was, for me, complete. Nobody had proved it to me, I had, proved it to myself. Relaxed, eyes could return to the normal and see without glasses.

How to take advantage of my discovery was another matter. My days are largely spent in typing; my nights (too largely) in reading, both in glasses, which of course are framed to perpetuate the errors they confirm, so that every pair of glasses has to be farther from the normal than the one before. With a war on, I could neither stop working nor reading newspapers. Yet the first requisite for the new cure I assumed to be the abandonment of the glasses. (I have since heard of cases cured even while in glasses.)

I postponed, then, all hope of my own cure to some date "after Peace." But I was too interested and fascinated to quite let the matter drop. Accordingly I began to play with the small fragment of theory I had assimilated (very inaccurately, I now realize), in the scant leisure of my daily outings. I practiced "seeing black" on the coat-backs of pedestrians, and "central fixation" (which means seeing what you look at *where* you look at it, and not its edges instead,) on the street signs and advertising bill-boards. My companions began to recognize my "seeing black" expression. As a skeptic, I am something of a trial to them and they enjoyed, perhaps, seeing the biter bit. But I was getting results-undoubing the long-doubled stars, making one moon grow where the proverbial two had grown before. Blurred letters of fantastic height I was reducing to neat, clear rows, half as high; I who had not read a headline, with just *eyes*, for years, was reading them all. Thence I passed to the higher literature; probably nobody has ever been so stirred by the genius of Mr. Shonts as I, when first I could untangle his lines. Next came the gems of verse in street-car advertisements. Now I read them all alike, indifferently, negligently, as being no great thing, down to the quite fine ones, if the vehicle is moderately light.

The first really startling intimation of gain, however, came to me one hurried morning when, taking my mail from the box, I read my letters one after another, on the way to the bus, and only realized later, as I was rolling downtown, that I had read them all without glasses—and without noticing it. It was fully ten years since I had been able to read a line of a letter without glasses, frequently to my extreme inconvenience.

This is as far as I have gone—except that I am still going. Month by month, I recover a little and a little more of my ability to see normally, and meanwhile, as a most important by-product of the gain, I lose the old fatigue and ache which, with its accompanying depression, made my hours without glasses periods of strain. Here I should explain that my eyes are always under a twofold strain—for I listen with them. Only the partly deaf will fully understand this, but it makes the importance of this new treatment, for them, incalculable. And the deaf are as the sands of the sea.

Now, if gains so real and so appreciable can be made in quarter-hour and casual applications of a partially-grasped theory, and while with both hands one is engaged in undoing for the remainder of the hours what one has done in the quarters, is it not fair to believe that a proper, steadfast, continuous application of the theory would work miracles for those multitudes of mankind who suffer every form of disability and handicap now covered by the term "eyestrain"? We are told that pretty much everything from flat feet to baldness can proceed from eyestrain, and for my part I believe it; I know what earstrain can do. We are also assured that children in our schools suffer, by tens of thousands, from defective vision, and are turned into truants, invalids and criminals. Almost the largest percentage of physical disqualifications in our Army were optical-and that under an incredibly low standard. Eyes, then, are not an academic but a vital issue. How is it possible that we fail to investigate to the last point any and every possible means of relief from an evil well-nigh universal?

This is the question I have naturally been asking, north, south, east and west, for a year past. It seems time now to ask it out loud—in print. Of course I have found excellent people to tell me that my discovery "isn't so," and other excellent people to tell me that "everybody has always known it" anyway, which does not explain to me why "everybody" is still wearing glasses. I was sufficiently interested myself to go and talk with a few of the cured enthusiasts; their attitude is about what mine would be in their case—that of those who were present at the Pool Bethesda and *saw* the miracle effected. I also had the curiosity to go and talk with the author of the revolutionary theory that eyes can be cured without glasses, himself—Dr. Wm. H. Bates.

I went to Dr. Bates through streets filled with people wearing glasses, and punctuated at intervals by the signs of oculists, opticians, and makers of optical devices for the near-blind. My own oculist's and optician's offices are usually thronged with a waiting list; it occurred to me that I might find cordons of troops keeping order about Dr. Bates'. I found neither the cordon nor the crowds. Why?

Here is a man who is either an absolute benefactor of humanity, or who makes an unfounded claim. He should be given, not for his own sake but for ours, the widest opportunity and the heartiest encouragement to prove or disprove his theory, past all possibility of question. It is indeed so extraordinary that he has not been forcibly summoned to do this before now, by an impatient public, that it can only be accounted for by that ancient disability of the human mind to accept new things if strange—new lamps for old, real shillings sold for sixpence, or truth that is as simple as a lie. Yet, actually, of course, truth is always simple-the only simple thing there is.

New eyes for old, ladies and gentlemen! Who wants them?

STORIES FROM THE CLINIC

1. Joey and Patsy

By EMILY C. LIERMAN

EDITOR'S NOTE.—*Mrs. Lierman wore glasses for thirteen years. She was cured six years ago, and has since acted as a very enthusiastic assistant in the laboratory and clinic of the editor. She is not a physician, but obtains results, having never failed to improve the sight of any patient whom she has treated—a wonderful record.*

Joey is a little Italian boy who was struck on the head a few months ago in an automobile accident, and injured in such a way that he became almost totally blind in the left eye. Patsy is Joey's brother, and from him it was learned that when the accident occurred Joey was at the head of his troops, conducting a strategic retreat after a fierce conflict in which he had been obliged to yield to adverse fortune. His face was to the foe and the automobile was behind him. Hence the catastrophe.

A week later he was brought to the clinic of the Harlem Hospital by his aunt. Dr. Bates examined him and found that he was suffering from optic neuritis and retinal hemorrhages of the left eye, as a result of which the vision of this eye had been reduced to mere light perception.

The child was now brought to me for treatment, and never have I seen a more forlorn little specimen of humanity. I did not know then that a gang of street boys had once looked up to him as their leader, and I never should have suspected it. There was not the shadow of a smile upon his face, and he had not a word to say. Both his face and his clothes were dirty. The latter were also ragged,

while his shoes were full of holes. His teeth were wonderful, however, and beneath the grime on his small countenance one could catch glimpses of the complexion of perfect health. I told him to rest his eyes by closing and covering with the palms of his hands, and after a few minutes he was able to see the largest letter on the test card with his blind eye. I told him to do this six times a day for five minutes at a time, and to come back on the next clinic day.

The next time I saw him he not only had made no progress, but was as blind as he had been at the beginning. His aunt said:

"You scold him. Tell him you will keep him here, because he will not palm or do anything he is told to do at home."

I answered: "You do not wish me to lie to him, do you?" Joey looked up into my face, so sad and worried, waiting for me to defend him again, as his aunt replied: "Well, I will leave him here and not take him home again."

"All right," I said. "I live in the country, and perhaps Joey would like to go home with me and play in the fields, and watch the birds build their nests, and learn how to smile as little boys should."

Well now, you should have seen that dirty little face flush up with excitement and pleasure.

"Joey," I said, "you are going to love me a whole lot, because I love you already; but you must mind what I say, because if you don't you will go blind."

Joey then consented to palm for a few minutes, and his sight improved so that he was able to see the large letter of the test card three feet away. He now made an effort to see the next line of two letters, but not only did he fail to do so, but he also lost the large letter. The strain had made him blind again.

How I wish I had more time to spend on a case like this I But the room was full of patients, and more were coming continually. I had to attend to them. So I asked Joey, very gently, to palm and not take his hands from his eyes until I came back. After ten minutes I returned and asked what he could see. To my surprise he read five lines of the test card with the blind eye. Much encouraged I sent him home, and he promised to palm six times a day. He stayed away almost a week and I worried about him, for I knew he would forget what I had told him to do. Then one day he turned up with his brother Patsy, who, I believe, is twelve years old. My, how Patsy did talk! Joey had not a word to say, and did not smile until I asked him to. Patsy said that Joey did not practice, and that his father hit him on the head and threatened him with all sorts of things to make him do so. It was quite evident that he had not practiced. When I asked him to read the card, all he could see was the big letter at the top at three feet.

Poor little Joey! I gathered him in my arms, patted his dirty face, and told him that if he would count six fingers for me and practice palming as many times a day I was sure Santa Claus would have some toys for him at Christmas time. Joey was all smiles, and stood with his eyes covered for a long time. When he again looked at the card he read the fifth line. Meantime Patsy was telling me all about the accident in which Joey had been injured, and also all about the rest of the family. His big brother was going to be married, he said, but not until another brother, eighteen years old, was out of prison. Patsy talked like a man and his voice sounded like a foghorn; but I saw that he had a gentle nature and I enlisted him as my little assistant. I asked him if he would not try to get Joey to palm more, and told him that he must always, speak kindly to him. I also asked him to ask his father not to hit Joey on the head again, because that made the hemorrhages worse and Joey would go blind. Bless Patsy's heart! He promised to help me all he could, and I am sure he deserves much of the credit for what I was afterward able to do for Joey.

After this Joey's progress was steady. He responded to kindness as a flower responds to the sun. But if I ever forgot myself and spoke to him without the utmost gentleness—if I even raised my voice a little—he would at once become nervous and begin to strain. One day I remonstrated with him because he had not done what I had told him, and a few moments later when I asked him to read the test card with his left eye, he said, "I can only see the large letter." I began to pet him, telling him what a great man he might be some day and how important it was for him to see with both eyes. He smiled and palmed, and in a short time he again read five lines of the card.

At a recent visit he was very conspicuous because he had had his face washed. I could see that he wanted me to notice this, which of course I did, giving him high praise for his improved appearance. He smiled and started to palm without being told to, and his sight improved more rapidly than at any previous visit.

His last visit was a happy one. He saw all of the bottom line at ten feet without palming.

One day Patsy appeared at the clinic wearing spectacles. "Patsy, for heaven's sake, what are you wearing those things for?" I asked.

"The nurse in school said I needed glasses and my father paid four dollars for them—but I can see without them."

His vision without glasses was 20/100. After palming five minutes it improved considerably.

"Do you want to be cured without glasses?" he was asked.

"Sure, I don't want to wear them."

"Well, you ask father's permission and I will cure you." Fortunately, father had no objection, and now Patsy sees much better without glasses than he ever did with them. He says that the blackboard looks blacker than it used to, and that his lessons do not seem so hard. His vision is not normal yet, but after he has rested his eyes for part of a minute, simply by closing them, he can read the bottom line of the test card easily at ten feet.

SEEKING A MYOPIA CURE

By L. MEHLER

When the *Lusitania* was sunk I knew that the United States was going to get into trouble, and I wanted to be in a position to join the Army. But I was suffering from a high degree of myopia, and I knew they wouldn't take me with glasses. Later on they took almost anyone who wasn't blind, but at that time I couldn't possibly have measured up to the standard. So I began to look about for a cure.

I tried osteopathy, but didn't go very far with it. I asked the optician who had been fitting me with glasses for advice, but he said that myopia was incurable. I dismissed the matter for a time, but I didn't stop thinking about it. I am a farmer, and I knew from the experience of outdoor life that health is the normal condition of living beings. I knew that when health is lost it can often be regained. I knew that when I first tried to lift a barrel of apples onto a wagon I could not do so, but that after a little practice I became able to do it easily, and I did not see why, if one part of the body could be strengthened by exercise, others could not be strengthened also. I could remember a time when I was not myopic, and it seemed to me that if a normal eye could become myopic, it ought to be possible for a myopic eye to regain normality. After a while I went back to the optician and told him that I was convinced that there must be some cure for my condition. He replied that this was quite impossible, as everyone knew that myopia was incurable. The assurance with which he made this statement had an effect upon me quite the opposite of what he intended, for

when he said that the cure of myopia was impossible I knew that it was not, and I resolved never to give up the search for a cure until I found it. Shortly after I had the good fortune to hear of the editor of this magazine, and lost no time in going to see him. At the first visit I was able, just by closing and resting my eyes, to improve my sight considerably for the Snellen test card, and in a short time I was able to make out most of the letters on the bottom line at ten feet. I am still improving, and when I can see a little better I mean to go back to that optician and tell him what I think of his ophthalmological learning.

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?"

BETTER EYESIGHT

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

March, 1920

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.

EDITOR'S NOTE.—*The writer of this article, a young man of twenty, was wearing, when first seen, the following glasses, prescribed three years earlier: both eyes, concave 6.50 D. S. combined with concave 3.00 D. C. 180 degrees. He also brought with him, from the Mayo Clinic, a later prescription—right eye, concave 9.00 D. S. combined with 4.50 D. C. 180 degrees; left eye, concave 8.00 D. S. combined with concave 3.00 D. C.—which indicated that there had been a very rapid advance in his myopia. The progress he made in the brief period of six weeks was very unusual.*

PROGRESSIVE MYOPIA RELIEVED

By E. E. AGRANOVE

I was only eight years old when the teacher told me that I couldn't come to school if I didn't get glasses. So, of course; I had to get them, and of course, I hated them. They kept me out of all the games that a boy really likes, such as baseball, and they made me terribly self-conscious.

Every little while I had to get new and stronger glasses. They were changed eight times in the course of the next nine years, by the end of which time I had what the specialists pronounced to be a very bad case of progressive myopia. After that I refused to make any more changes, for I had lost faith in glasses and wasn't interested in trying new ones.

Although my eyes kept getting worse all the time, and the specialists said there wasn't a chance of a cure, I always felt sure that sometime I would find a cure, and I tried and investigated everything that seemed to offer any hope of relief. One specialist said that while I couldn't be cured, it would help me to live out of doors. So I gave up my job as a telegrapher, went west and got work in the open air. It didn't do me a bit of good. Then I went in for physical culture; but, while this improved my general health, it didn't help my eyes. I tried osteopathy and chiropractic, but they didn't help either. I read all the literature on the subject that I could find, and the invariable assertion of the authorities that my condition was hopeless did not shake my conviction to the contrary. I even made a trip to Rochester, Minnesota, for the sake of visiting the famous Mayo Clinic, where I expected to find all medical wisdom concentrated. All I got was a prescription for a stronger pair of glasses and a confirmation of the statements of my previous medical advisors, and of the medical books, that myopia was incurable. I remained unconvinced, however.

I now happened to run across an article in the *Literary Digest* about a method of curing shortsight by squeezing the eyeball, said to have been used successfully in Paris. I wrote for further information but was told that the article was merely a reprint from *La Nature* and that the office knew nothing more about it. The editor suggested, however, that I write to Dr. Bates who was making a special study of this problem. I had already heard of Dr. Bates through another source, and I lost no time in following this advice. He assured me that my condition was curable, and as I did not want to go to the expense of going to New York I asked him if he could treat me by correspondence. He replied that while he had cured many patients by correspondence, such treatment was slow and at a little uncertain, and in a case as serious as mine had better not be relied upon. As soon as I was able, therefore, I gathered together all the money that I had and went to New York, in spite of a tremendous amount of opposition and no encouragement whatever. Every doctor and every layman to whom I mentioned my purpose said I was crazy to suppose that shortsight could be cured, when all the books said it was incurable. My brother, who is an optician, was so strong in his opposition that I don't think I should ever have got to New York if I hadn't pretended that I was going for some purpose other than the real one-and even after I got there and was able to write to him that my sight was improving, he kept urging me to come home, telling me that any man who pretended to cure shortsight must be a quack, and that if I imagined I was getting any benefit it was because I had been hypnotized.

I arrived in New York on December 17, 1919, and went at once to Dr. Bates. When my eyes were tested with the Snellen test card, I found that at twenty feet I could see only the large letter at the top. I could read large print at five and a half inches, but could not read it any nearer or any farther, and could not see diamond type distinctly at any point.

I put in six hours a day at the office, practicing constantly with the Snellen test card, and at first found it rather discouraging and tiresome. When I tried to palm I saw all the colors of the rainbow instead of black. As I could not see anything perfectly, either at the near-point or the distance, I could not remember anything I saw perfectly. Even my own signature I was unable to visualize. Neither could I imagine that the letters on the card were moving when I shifted from one to another, or from one side of a letter to another.

At the end of a week, however, I succeeded in getting the swing, becoming able to imagine not only that the letters on the card were swinging, but that my body and everything that I thought of was swinging also. This **universal swing** soon established itself so thoroughly that I was unable to stop it and the Doctor had to tell me how. I did it by staring at a letter of fine print for a few seconds. After this things began, to go better. As long as I imagined the universal swing I could see black when I palmed and remember it with my eyes open. When I imagined it on the street it was as if a fog had lifted, or the sun had come out from behind a cloud. My sight improved rapidly, and I began to find the practice extremely interesting. I never got bored or sleepy, and, in fact, never had such a good time in my life.

Besides improving my sight the swing did many other things for me. I had never done any running before coming to New York, but I now began to experiment with that form of exercise, not expecting in the least to distinguish myself. In a week, however, I was **able to run eleven miles, without fatigue or loss of breath, and without even feeling sore or stiff afterward. This I attributed to the swing, which I kept up all the time I was running. When I did not do this, I quickly became tired.** One day I had to visit a chiropodist to have an ingrowing nail treated. The first touch was excruciatingly painful. Then the chiropodist turned away to get an instrument, and I began to swing. When he resumed work I felt no pain, and the operation was finished painlessly. Even loneliness seemed to flee before this imaginary rhythmical movement, and it has now become so necessary to my existence that I would even be willing to go back to the hated glasses rather than be without it.

When I left New York on December 31 I was able to make out some of the letters on the bottom line of the test card at twenty feet and to read diamond type at from four to eighteen inches, while my eyes, which had previously been inflamed and partly closed, were clear and wide open. Incidentally my memory, which had previously been so poor as to cause me great inconvenience, and for which I had taken several memory courses in vain, had improved as much as my eyesight.

STORIES FROM THE CLINIC

2. A Case of Cataract

By EMILY C. LIERMAN

One day as I entered the clinic I found a little white haired woman waiting patiently to be treated. I had not seen her before, and did not know what her trouble was. The usual crowd of patients was waiting for Dr. Bates and myself, so when he said to me, "See what you can do for this woman," I did not ask any questions, for I knew that whatever the condition of her eyes relaxation would help her.

I placed her four feet from the test card, at which distance she read the forty line (read by the eye with normal vision at forty feet), and told her how to rest her eyes by palming and how to avoid staring by shifting from one side of a letter to another. These practices helped her so much that before she left she was able to read the thirty line.

Later I learned that she had first seen Dr. Bates in March, 1919, and that she had incipient cataract of both eyes. In October, 1916, she had visited another dispensary where an operation was advised when the cataracts were ripe. I also learned that in spite of her seventy-three years she worked hard every day for her living, being employed in an orphan asylum where she mended the children's clothes. The fact that she was very deaf I saw for myself, of course, at the first interview, for I had to scream to make her hear. Her courage and cheerfulness under circumstances that might have daunted the bravest spirit were amazing. Her face was always radiant with smiles, and she was so witty, and so appreciative of everything that was done for her, that each one of her visits to the clinic was a pleasure to me.

"I have so much to be thankful for," she said one day. "I know I will see all right again. They are waiting to operate at the other dispensary, and I am waiting to fool them."

The orphanage is about two miles from the clinic, and often she walks the entire distance rather than bother waiting for a car. She insists after these feats that she isn't a bit tired. One day there were no cars running and the walking was so bad that a friend urged her not to go out unless she was prepared to swim. She came just as usual, however. Why should she stay in, she asked, because other people were afraid to go out. She wasn't tired either, and she hadn't even got her feet wet. She just dodged the snowdrifts.

Most patients frown when they cannot see a letter, but my little cataract patient smiles instead and remarks cheerfully, "That's the time you got me."

One day she did not do as well as usual, and I found that the people in the place where she worked had been saying unpleasant things. I told her she must try not to let things of this sort disturb her, because that made her strain and made the cataracts worse.

"Well," she said, "it is mighty hard not to worry; but I'll try not to."

At a recent visit she explained that she wouldn't he able to do very well because she hadn't had time to practice.

"Never mind," I said. "Just do as well as you can." Without her knowing it I placed her two feet farther from the card than usual. Then I told her to palm, and after a short time I pointed to a small letter on the bottom line and asked her if she could see it. She recognized it immediately. Then I pointed to another, but she was so eager to see it that she tried too hard and failed. She closed her eyes for a few minutes without palming, and when she opened them she read the whole line. I then told her that she was two feet farther away from the card than she usually was. She was very happy about this and said, "That's the time you fooled me."

She has since become able to read the bottom line at ten feet, and one day she read it at eleven feet, without knowing it and without having done any practicing at home. On sunshiny days she can read the "W. H. Bates, M.D." on Dr. Bates' card, and for over a month she has done all her sewing without glasses. There is no doubt that she is going to fool them at the other dispensary.

Along with the improvement in her eyes has gone a considerable improvement in her hearing. Noises in her ears which she describes as a "ringing and a singing" are promptly relieved by palming, and she says that the relief, which at first was only temporary, is now becoming more constant. She also says that she hears conversation better than she used to.

HOW I WAS CURED

By VICTORIA COOLIDGE

EDITOR'S NOTE.—*This is the first of a series of articles by the same author. Next month she will tell us how she cured other people. Owing to her high degree of hypermetropia, her own cure is particularly interesting.*

When I went to see Dr. Bates I had been wearing glasses for twenty-six years. A prescription for glasses given to me in 1899 read: right eye, convex 5.00 D. S. combined with convex 0.50 D. C. 180 degrees; left eye, convex 5.00 D. S. combined with convex 1.00 D. C. 180 degrees. Another given to me in 1917 read nearly the same. I had consulted five different eye specialists, some of them several times, and they all told me the same thing—very poor sight caused by malformation of the eyeball and no possibility of cure.

Fortunately, I was only a child when I first put on glasses, and these statements, instead of discouraging me, made me feel that I was very important and should be the envy of all my schoolmates. As I grew older, however, I began to have headaches; so I had my glasses changed and my home study was reduced to one hour. As the changing of my glasses meant, at that time, a trip out of town, both parts of the treatment were very pleasant-more pleasant than effective, for the headaches continued.

Each time the eye specialist gave me stronger glasses, and gradually my vision for distant objects became worse and worse. When I went to the theatre I could not see the faces of the actors distinctly unless I sat as near as the fifth or sixth row from the stage; and when I discussed the play with the persons who accompanied me, the accuracy with which they could describe the features and expressions of the actors, without the aid of eyeglasses or opera-glasses, seemed unbelievable. The feeling of depression which I experienced on these occasions, however, was only momentary, and on the whole I was resigned to my fate.

But resignation was not so complete as to dull entirely my sense of ocular deformity; and, especially when I had had some fresh reminder of it in the shape of a headache, or inability to finish a book because of tired eyes, I searched the magazines eagerly for discoveries about the eye. I felt sure that science had not said the last word about that subject. In January, 1915, my attention was called to an article entitled *New Light Upon Our Eyes*, in the *Scientific American*, and I lost no time in reading it. you may be sure the article stated that Dr. Bates, who was already well known to the scientific world as the discoverer of adrenalin, had made a series of experiments on animals, the results of which struck at the very foundations of the present method of treating errors of refraction. They indicated, in short, that the **lens is not a factor in accommodation, and that the deviations from the normal in the**

shape of the eyeball which produce errors of refraction are caused by a strain of the extrinsic muscles. As soon as the strain is removed, by perfect relaxation, the eyeball resumes its normal shape and there is no error of refraction. The remedy, therefore, was not to put glasses before the eyes, but to remove the strain which caused the abnormal action of the outside muscles.

The morning after reading the article I took off my glasses, and tried to knit, but put them on more quickly than I had taken them off, for my sight was so poor without them that I made several mistakes and experienced a feeling of nausea. I believe that I had never until that moment realized how very poor my sight had become. I began to leave off my glasses whenever I had no close work to do, in spite of the fact that I had been warned by one eye specialist never to let them leave my nose during waking hours, and I determined to see Dr. Bates the very next time I came to New York.

The following August I called on Dr. Bates. I was prepared to make any sacrifice, or to spend any amount of time—five years, ten years—it didn't matter, if my eyes were only getting better all the time instead of worse. The only thing that troubled me was the fear that he might tell me that my case was hopeless. This thought was so prominent in my mind, in fact, that I told him at once that I was afraid he could do nothing for me. I wanted him to know that I was prepared, so that if I must hear my doom I might hear it without delay.

After making a careful examination of my eyes, Dr. Bates asked me what was the lowest line that I could read on the test card. I found that I could read the thirty line at a distance of fourteen feet. Then he asked me if I could see anything on the line below. I said I could see the hollow square. Then he directed me to close my eyes, remembering how the square looked, I was able to do that, and he next directed me to look at the blank wall, still remembering the square; while I was doing so, he examined my eyes again with a retinoscope and found them normal. When the strain was removed from my eyes by remembering the square perfectly and looking at the blank wall without trying to see anything, my vision became normal. The impossible had evidently been accomplished. For a few moments, at least, the lopsided eyeballs with their consequent errors of refraction had been miraculously rounded out. Dr. Bates now asked me to close my eyes, and then left me for about fifteen minutes. When he returned, he handed me one of his professional cards and asked me if I could read anything on it. It seemed to me, I remember, a very foolish question because I had previously told him that I could read nothing without glasses. A newspaper looked like a big gray blur, and the harder I tried to see it the more blurred it became. However, I took the card and tried to read it, but, as I expected, without success. So he asked me to close my eyes again, this time covering them with the palms of my hands, and thinking of the blackest thing I could remember, which happened to be black paint. I did this for perhaps twenty minutes. After this he gave me the same card again, and directed me to hold it close to my eyes, about six inches, and to look alternately at the top and bottom of the letters. Much to my amazement and joy, a "B" came out clearly enough for me to recognize it. I kept on in this way, occasionally closing my eyes, until I could see "Bates," "Dr. W. H. Bates." and finally the telephone numbers printed in small type. I felt as if I were in a dream, or as if I must be some one else. I lived in the clouds for the rest of the day, but somehow managed to get in some palming and some practice with the Snellen card.

The next day I did better, and I have kept on improving ever since. The best of it is that every gain is permanent. Dr. Bates told me that I would never have to wear glasses again, but I kept them near me for two or three weeks in case of emergency, just as Dr. Manette, in Dickens' *Tale of Two Cities*, used to keep his shoemaking tools and bench at hand in the event of his relapsing into his disordered state of mind. I never had to use them, however, and about six months ago I sold them for old gold. My vision is now 20/20 in a good light and 20/30 in any light, and I can read diamond type at six inches.

AFTER GLASSES FAILED

By Florence Miller

I began to wear glasses when I was fifteen years old, and wore them unchanged for seven years. Then I went to another specialist who gave me new ones—stronger, I suppose. I wore these for a year, and then, not feeling quite comfortable in them, I consulted a third specialist, who changed them again. These lenses I wore for four years, by the end of which time I had begun to have constant though not severe **headaches**. I went back to the third specialist a second time, but he said he could not improve upon the lenses I was wearing, and I went on having the headaches, which gradually became worse until sometimes I had to go to bed with them.

One day my son, ten years old, came home and said that the teacher had told him that he needed glasses. Naturally I did not wish to see him wearing spectacles if there was any way of avoiding it, and as my husband, who is a physician, had recently heard Dr. Bates read a paper at a medical society on his method of curing errors of refraction without glasses. I took my boy to see him. Dr. Bates not only assured me that the child could be cured, but improved his sight markedly at the first visit. Then he turned to me and said:

"I can cure you, too."

"But I couldn't possibly go without glasses," I said; "I get such awful headaches when I do."

"Do you want to be cured very much?" he asked.

"I would do anything in this world," I said, "to be cured."

"If so," he answered, "I can cure you, and you will be able to go without your glasses without getting headaches."

"What do you want me to do?" I asked.

"I want you to take off your glasses," he said, "and come and see me every day for a while."

I took the glasses off, and have never worn or wanted them since. Just what became of them I don't know. My impression is that I gave them to the doctor and that he put them in a cabinet where he deposits treasures of that kind. He says he told me to throw them in the ash-can, and that I afterwards said I had done so. At any rate I am sure that I never put them or any other glasses before my eyes since that day.

This was on July 14, 1914, and my vision, as tested by the Snellen test card without glasses, was 20/200 in each eye. The doctor said I had compound myopic astigmatism and that my glasses were concave 0.50 D. S. combined with concave 1.50 D. C. 180 degrees. It was troublesome and tedious learning to see. For two months I went to see Dr. Bates nearly every day, and he spent half an hour or more with me. For another two months I went twice a week. Since then I have continued to practice more or less regularly with the test card. But the results have been worth all the trouble.

Most of the practice time I spent simply resting my eyes by closing them, or by covering them with the palms of my hands, then looking at the test card for a moment and resting again. The doctor told me that when I looked at a letter on the test card and did not see one part of it better than the rest I was immediately to look away and rest my eyes. He also recommended me to imagine that I saw one part of a letter best with the eyes open and closed alternately. In this way I finally became able to look at each and every letter on the card and see one part of it best, when my vision became normal, and even double what is ordinarily considered normal.

On July 20, less than a week after I began to take the treatment, I was able to read most of the letters on the bottom line of the test card at twenty feet (20/10), and in two weeks I could read all of them. At first I was able to do this only temporarily, but gradually I became able to hold the letters longer. On August 12 I was able to report that for the first time in years I had not had a headache for a whole week. By September 2 I was able to read and sew as much as I liked without any discomfort in my eyes. When I wore glasses the theatre and movies had always hurt my eyes terribly, but instead of advising me to stay away from these places, Dr. Bates urged me to go to the movies and look at them just as I did at the test card—that is, by alternating vision with rest. I was to look first at the corner of the screen, then off to the dark, then a little nearer the center, and so forth. In this way I soon became able to look directly at the pictures without discomfort.

For the last five years my sight has steadily improved. My form of astigmatism was such as to positively obliterate all horizontal lines. To see such lines at all I had to turn my head, or the object. Lines of music would hold only a minute or less. I have gradually become able to hold these lines longer and longer, and now I never lose them unless very tired. As for headaches I have had none at all during these years that could not be accounted for by indigestion or neuralgia, and very few even of these.

Last Spring I went to see Dr. Bates about an ulcer on my cornea. He tested my sight and found it, even under these conditions, better than normal.

In later issues of Better Eyesight Magazine Dr. Bates states that glasses can be worn, only if necessary for emergencies and the vision can still improve, but glasses will slow and can block, reverse vision improvement.

Modern teachers state; if eyeglasses are necessary for work, driving… wear reduced weaker lenses, continually reducing the eyeglass strength until the vision is clear enough to discontinue use of the glasses. Wear only when necessary.

Continue shifting, central fixation, Bates Method bas when wearing the glasses and when without glasses.

BETTER EYESIGHT

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

April, 1920

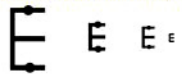
REST

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. Different treatments are needed for certain individuals. Each person has their own thoughts, experiences. Certain treatments work best that match the personality, mind of the patient.

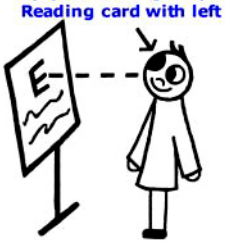
Shift on letters to see them clear -
Top and bottom, left and right, diagonally, middle, to any part, direction. Blink.



Shift on fine print letters.
Shift on a period.

Shift on letters on the Snellen Test Card with:
+Both eyes together.
+One eye at a time.
+Both eyes together.

Eyepatch on right eye.
Reading card with left eye.



HOW I HELPED OTHERS

By VICTORIA COOLIDGE

When I had become able to read without glasses, and my headaches had become less and less frequent, and less severe each time, I was so enthusiastic over my experience that I was anxious to help others. My brother was my first patient. He was so much interested in what had been done for me that he wanted to try it himself; but I never dreamed of being able to help him, because his eyes were almost as bad as my own had been, his glasses being: right eye convex 3.25 D.S.; left eye, convex 3.75 D.S. combined with 0.50 D.C., 180 degrees. However, I knew the treatment could do no harm, so I decided that I would try to show him as nearly as I could what Dr. Bates had done for me. Imagine my surprise, then, when I found that he, too, by holding the fine print six inches from his eyes and looking alternately at the top and bottom of the letters, became able to read it just as I had become able to do so. He proved to be a model pupil as soon as he had demonstrated to his own satisfaction that he must leave off his glasses all the time if he wanted to make any appreciable progress. He has now done without them for about a year, and has made remarkable progress in that time, the secret of his success being a great desire to be cured, an intelligent grasp of the idea of central fixation, and perseverance in practicing central fixation at every possible opportunity.

The next person I was able to help was a friend who, while visiting me, happened to notice the Snellen test card hanging on the

wall. She asked me what I was doing with it, and I explained, adding that she was very fortunate in having normal vision. "I thought I had," she said, "but I have had so many headaches that I consulted an eye specialist the other day and he gave me glasses." She was so displeased to think she had to wear them, and had found it so difficult to get used to seeing with them, that I asked her if she would like to try Dr. Bates' treatment without glasses. She said that she would jump at the chance. I told her to read the card every day at ten, fifteen, and twenty feet, and to palm whenever she had a headache. That was in August. On December 19 she telephoned that she had practiced reading the card every day, that she had had no trouble with headaches, and that she was reading 20/10 easily with the better eye, and fairly well with the other. Shortly after she began the treatment herself, she was able to improve the vision of a child nine years old from 20/50 to 20/20.

It has been many times pointed out in this magazine that children under twelve years of age who have never worn glasses are easily cured; and so for the past month I have been trying to see what I could do for such children, and for some who were older—including two who had worn glasses, one some time previously and the other up to the time I began to treat her. I have worked with six and they have all improved. One girl, fifteen, who had worn glasses a few years ago for imperfect sight in one eye, but who had discarded them, improved in a half hour from 20/70 to 20/50, by alternating palming, or sometimes just closing her eyes, and then reading the Snellen test card. This improvement was permanent.

Another girl, sixteen, had worn glasses for a year, chiefly for headache, she said, although her vision in both eyes was but 20/200. As she could read without her glasses without much difficulty, she was only too glad to take them off, as most girls of that age are, but she was afraid of the headaches. I asked her to try it, and she has done so for about three weeks, during which time her vision improved to 20/70 and she had no headaches.

The following is the record of four little girls who have improved by reading the Snellen test card daily, and palming:

Name	Age	Vision Sept., 1919 Phys. Rec. Card	Dec. 11	Dec. 31
Catherine	10	R. 20/50	20/40	20/40
		L. 20/50	20/40	20/40
Blanche	10	R. 4/50	6/40	6/30
		L. 4/50	6/40	6/30
Vinnie	9	R. 20/50	20/40	
		L. 20/40	20/30	absent
Sylvia	10	R. 20/40	20/15	20/10
		L. 20/40	20/15	20/10

Catherine's vision afterwards (January 22) improved to 20/20. The case of Sylvia was so interesting that it will be treated in more detail next month.

Catherine's vision afterwards (January 22) improved to 20/20. The case of Sylvia was so interesting that it will be treated in more detail next month.

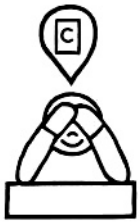
STORIES FROM THE CLINIC
3. Retinitis Pigmentosa
By EMILY C. LIERMAN

I am not a physician, and I know very little about the disease of the eyes known as *retinitis pigmentosa* except how to relieve it. I have been told that in this condition spots of black pigment are deposited in the retina, that parts of the retina are destroyed, and that the nerve of sight is diseased. Eye books which describe the disease say that it usually begins in childhood, and progresses very slowly until it ends in complete blindness. The field of vision is contracted, and, because they cannot see objects on either side of them, patients frequently stumble against such objects. In most cases the vision is much worse at night than in the daytime. The books say further that no treatment is known which helps these cases. Nevertheless Dr. Bates reported, in the *New York Medical Journal* of February 3, 1917, a case of retinitis pigmentosa which had been materially benefited through treatment by relaxation, and by the use of the same methods, I have been able to greatly improve the sight in several cases of the same kind.

My first case of retinitis pigmentosa was Pauline, a little girl of twelve who came to the clinic in October, 1917. At five feet from the card she could read only the seventy line, and her eyes vibrated continually from side to side, a condition known as *nystagmus*. She was very shy and extremely nervous, and appealed to me pathetically for glasses, so that she could see the blackboard, and the teacher would not think her stupid and make fun of her. I have noticed that eye patients often suffer from extreme nervousness; but this poor child had the worst case of nerves I ever saw, and the slightest agitation made her sight worse. If, in asking her to read a line on the test card, I raised my voice and spoke a little peremptorily, her face would flush, and she would say, "I cannot see anything now." But just as soon as I lowered my voice and took pains to speak gently, her sight cleared up.

I began her treatment by telling her to cover her eyes with the palms of her hands and remember the letters she had seen on the card. This improved her sight so much that before she left she was able to see all the fifty line at five feet, and—what thrilled me most of all—the dreadful movement of her eyes had stopped. She came quite steadily to the clinic, and every time she came I was able to improve her sight, so that at last she became able to read the writing on the blackboard at school.

Palm and remember the letters on the test card. Shift on the letters in the mind. Imagine the letters dark black, clear.



Then I did not see her again for six months. When she came back she told me that she had been working in a laundry during the summer because she hated school. She had also been ill during the summer, and her mother had taken her to a hospital for treatment. While she was there an eye specialist had looked at her eyes, and this made her so nervous that they had started to vibrate from side to side. He said to her:

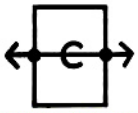
"You ought to have your eyes treated; they are very bad."

"I am having them treated at the Harlem Hospital Clinic," she answered. "I know how to stop that vibration."

Then she palmed for a while and when she uncovered and opened her eyes the doctor looked at them again.

"Why they seem all right now," he said. "You had better go to that doctor until you are cured. He can do more for you than I can."

I was very much pleased to find that in spite of having stayed away so long, she had not forgotten what I had told her, and was able to stop her nystagmus. I tested her sight, and found that it was no worse than when I had last seen her. In fact, in some ways, it was better. She was not so nervous, and she said that her family and friends noticed that her eyes looked better. She herself was now very enthusiastic and anxious to have me help her. I told her to palm as usual, and left her to treat other patients. Five minutes later she read the thirty line at thirteen feet. I now told her to look first to the right of the card and then to the left, and to note that it appeared to move in a direction opposite to the movement of her eyes, then to close her eyes and remember this movement. She did this, and when she opened her eyes she read two letters on the twenty line. At a later visit she read the whole of the twenty line at thirteen feet.



Shift to the right and left of the card (dot to dot) and see the card move opposite the movement of the eyes. Then, close the eyes/palm and remember the card, imagine shifting right and left on the card and remember/imagine the movement: Oppositional Movement, 'The Swing'. Open the eyes and read the card with clear vision. Repeat.

The last patient I treated for this dreadful disease was an old man of seventy. He came to the clinic on January 14, 1920, and when I first saw him, he was standing with many others, waiting patiently for Dr. Bates to speak to him. Our work has to be done very rapidly, because of the very short time we have to treat so many patients, and I very seldom have time to observe individuals as I would like to do. But because of his unusual appearance, I at once singled this dear old man out from the crowd. Most men of his age who come to our clinic are unkempt, dirty and ragged—pitiable objects generally. But this man was well groomed. His clothes, though worn and old, were well brushed; his shoes were polished, his collar clean, his tie neatly adjusted. He had a great abundance of snow-white hair, neatly parted and brushed, and his skin was like a baby's, "pink and white."

Dr. Bates asked me to treat him with the usual remark, "See what you can do for this man," and I placed him four feet from the card, asking him to read what he could.

"I'm afraid I can't see so well, ma'am," he said; "my eyes bother me a good deal."

"I'm going to show you how to rest your eyes so that they won't bother you," I answered.

The best he could do at this distance was to read the fifty line. I told him to palm, and in less than five minutes he saw a number of letters on the forty line. The next time he came I put him nine feet from the card, and at this distance he read all the letters on the thirty line. He was so happy and excited over this that I became excited too. I forgot that I had other patients waiting for me and encouraged him to talk, a thing which I am seldom able to do with the patients. I was glad afterward that I did so for he had a wonderful story to tell.

"Do you know, ma'am," he said, "for two nights I palmed and rested my eyes for a long time before I went to bed—and what do you think?—I slept all the night through without waking up once. Now I think that's great, ma'am, because for years I have had insomnia. I would sleep only a little while; then I would get up and smoke my pipe to pass the time."

At a later visit I put him twelve feet from the card, and at this distance also he was able to read the thirty line. When I told him what he had done he was again greatly pleased and excited.

"You know I'm so much better," he said, "that I didn't even notice that I was further away than usual. Thank you, ma'am. God bless you, ma'am."

During the practice, when he failed to see a letter I was pointing to, I said:

"Close your eyes and tell me the color of your grandchild's eyes."

"Blue. ma'am." he said.

"Keep your eyes covered, keep remembering the color of baby's eyes."

He did this, and after a few minutes his sight cleared up and he saw the letter. After we had finished the practice I again encouraged him to talk, and he told me more about his insomnia.

"Do you know, ma'am," he said, "after I had had two night's sleep without waking up I didn't dare tell any of my family about it, for fear that it wouldn't last and I would only disappoint them. So I waited. Now, do you know, ma'am, it is just two weeks that I have slept the night through without waking up once, and so I told my wife about it. She is so happy, ma'am, I just can't tell you, for it has been many years since I was able to do that."

I wish I could have a picture of his face when he is telling of the improvement in his eyesight and general health. It would be a picture of gentleness, love, kindness and gratitude.

Recently he looked up into my face and said: "I am seeing you better now, ma'am. You look younger."

In two months his vision improved from 10/200 to 10/30. As he made but eight visits in this time, I feel that this record is remarkable. I also feel that the statements in the books about the impossibility of doing anything for patients with retinitis pigmentosa are in need of modification.

PERFECT SIGHT WITHOUT GLASSES

By EVELYN CUSHING CAMPBELL

EDITOR'S NOTE.—*The author of the following article is engaged in literary work which compels her to use her eyes constantly for reading and writing. When first seen she was wearing the following glasses: right eyes, convex 1.50 D.S.; left eye, convex 1.25 D.C.*

One of several problems which long disturbed my mind, both consciously and subconsciously, was whether the distressing condition of my eyes was caused by bodily ailments, or my general state of ever-present weariness was due to trouble with the eyes. Without glasses, my eyes felt blurred and strained; after wearing them for a time, the immediate relief was succeeded by increased weariness and a desire to throw them far away. Often I thought, "How happy would I be if I never again had to put on my glasses!"

My problem has now been solved. The haunting spectre of anxiety which stalked ever at my side has vanished, and I have entered upon a state of beatific bliss and satisfaction with life in general. I have acquired perfect vision without glasses, and at the same time a relaxed state of once over-strained nerves which gives me a glimpse of what heaven may hold in store for world-weary mortals.

A visit to Dr. Bates wrought this seeming miracle, so far beyond any hope or expectations in which I had ever dared to indulge that I now confess, as an article of faith, that hereafter I shall always believe that everything is possible.

The first treatment occupied not more than half an hour, but in that brief time I passed from inability to read type of medium size, except at arm's length, to reading type less than half the size and at a proximity to the eye which formerly had made the letters absolutely illegible.

My recollections of the entire treatment are by no means consecutive nor complete, but the results were more than conclusive that the basic principle must be sound.

After some preliminary tests with charts, Dr. Bates informed me that there was nothing wrong with my eyes. This in itself was a tremendous relief, as it immediately suggested the possibility of benefit by means other than the wearing of nerve-racking eyeglasses.

"Close your eyes and rest them," I was told.

The closing was at once accomplished, but the resting process proved to be more elusive. Almost at once the eyelids began to twitch so constantly that only with great difficulty was I able to keep the eyes closed at all. Upon opening them, the letters on the test card were very much blurred, and suggestive of little dancing figures.

Instructions followed to close the eyes again and, first, to remember the white of starch; then the black of coal. When the eyes were reopened from the blackness, they felt distinctly rested and it was possible to read lines upon the card which previously had been very unclear.

"Now close your eyes and remember an agreeable color—the green of trees, of grass, the color of flowers."

This I did, seeing the green leaves of oak trees with sunlight upon them, the blue of a river glimmering beyond; brighter green of grass on a hillside; yellow flowers with fine-fringed petals upon which had alighted a butterfly of deeper yellow; reddish-yellow tiger-lilies; pink roses, red roses, yellow roses; blue sky with cumulus cloud masses.

Upon opening my eyes, the first line of printing on a card which had been much blurred at a distance of, say nine inches, could now be read with ease. The card was then brought three inches nearer, with the result that the printing once more became indistinct.

Directions now followed to close the eyes and again remember a color. After some hesitation, I brought to my mind yellow, but the eyes did not feel rested, as on the former occasion. This I thought might be due to the effort to concentrate upon an object of that color - a curtain of yellow hanging in my apartment. My comment to this effect met the response that I must not make any effort, that all effort was bad for the eyes.

Palm and remember a black period. Shift on it left and right and see it swing left and right like a pendulum.

Another instruction was to close the eyes, covering them with the cupped palm, fingers crossed lightly upon the brow, with no pressure upon the eye itself, and to remember black. This is called "palming." The blackness at first was filled with swirling, grayish, elongated globules, and the eyelids twitched. No other color was visible, and these swirling particles gradually became less apparent.

"Now remember a black point, or period, and imagine it swinging like a pendulum."

My first attempt was a failure, but I finally succeeded and, to my amazement, found upon opening the eyes that I was able to read diamond type on a small card held at a distance of six inches from the eyes. This really surpassed everything else, for formerly the person who held anything before my eyes at this close range had inflicted positive suffering upon me, and was usually greeted with an expression of ill-suppressed irritation, for the attempt to focus the eyes at this point produced at once a feeling of nausea.

A peep into the mirror showed my eyes much clearer and less filled with weariness than I had been accustomed to see them after hours of sleep. Completely convinced of the uselessness of wearing aids to eyes that did not aid but only irritated, I went home to consign the hated glasses to the darkest and deepest corner of my "Botany Bay" trunk. They have lain there undisturbed for over a year. I have never since that day felt the need of them, and my eyes have performed without fatigue tasks which would have been quite beyond them in the days when I depended on eye-crutches. One day recently when I had to finish a piece of work in a limited time, I worked at my typewriter from nine in the morning until four the following morning, only stopping for meals, and my eyes were just as fresh when I finished as when I began.

"BETTER EYESIGHT" APPRECIATED

The testimony of the following letter to the value of the experiences of patients recently published in this magazine is very interesting. The statements about the effect of central fixation upon the desire for sleep are also significant, and the facts have been duplicated in many other cases.

I am keenly interested in this medium through which your discoveries and the experiences of your patients are made known to the public. My eyesight is improving steadily, and I find that I am grasping and applying the principles set forth in your magazine more intelligently every day.

I have improved physically and mentally since I started the exercises. Ever since I can remember, I have had the greatest difficulty in rousing myself from a very heavy sleep in the morning into which I seem to fall after a night of constant dreaming. As a

result, I feel heavy with fatigue and positively stupid mentally. One doctor whom I consulted said that these nocturnal disturbances were due to indigestion, or a bad conscience! I told him I guessed it was both!

As soon as I awaken in the morning now, I start my exercises and after palming, flashing and swinging, I feel as if a fog had lifted and as if I were suddenly released from a weight that had held me down. I start the day with a clear mind and a buoyant energy that enables me to accomplish twice as much as I used to. This has been a very interesting experience to me, and a very curious one. I suppose some mental scientists would say that I forget my fatigue because I focus my attention and interest on something else, which may be true to a certain extent, but not wholly, because it does not explain the sudden clear vision and physical freedom of which I immediately become conscious.

BETTER EYESIGHT

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

May, 1920

Fine Print a Benefit to the Eye

Its Effect the Exact Contrary of What Has been Supposed

Seven Truths of Normal Sight

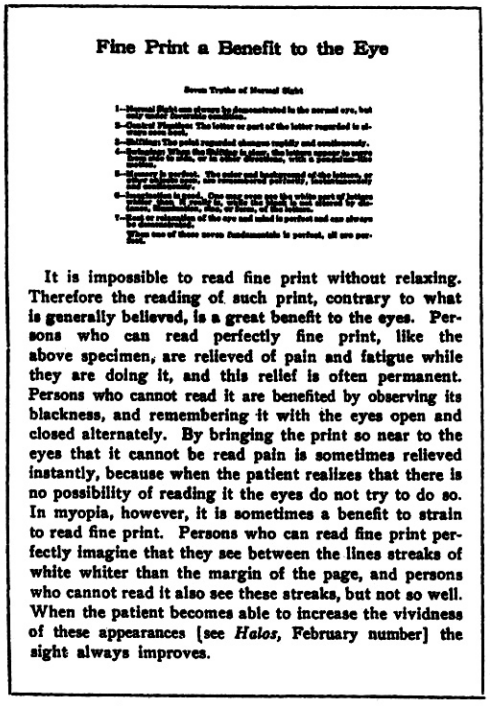
1—Normal Sight can always be demonstrated in the normal eye, but only under favorable condition.
2—Central Fixation: The letter or part of the letter regarded is always seen best.
3—Shifting: The point regarded changes rapidly and continuously.
4—Swinging: When the shifting is slow, the letters appear 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.

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.



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MY HEADACHES

By R. Ruiz Arnau, M.D.

Migraine Headache causes Zig-Zag patterns of flashing, moving lights with temporary partial blind spots in the visual field and impaired memory.

From my childhood until about three years ago—I am now forty-six—I suffered from headaches, periods of intense supraorbital pain lasting from twenty-four to thirty-six hours, unless relieved by repeated doses of some derivative of antipyrin. A notable feature of these attacks was their regularity; every six days—seven at the most—I would awake with a feeling of discomfort near the right temple, the forerunner of immediate torment. Unless relieved by the use of a sedative, varying according to the time and also the results or lack of results obtained from previous doses, the painful paroxysm, with all its train of nausea, eructation, polyuria, excessive sensitiveness to light and noise, and complete incapacity for physical or mental activity, would run its course, producing a condition truly unbearable for one or two days. In the intervals between the attacks I was absolutely normal, and even accomplished more, perhaps, than the ordinary person, thus compensating for the time lost by headache. Under these conditions I went through my studies at the high school and took my medical course. Thereafter, for a period of about twenty years, I followed the profession of an active general practitioner, wrote many articles and several books, always subject to the terrible prospect of the period of **migraine**, which unfailingly appeared with invariable regularity.

As I enjoyed, or thought I enjoyed, perfect vision, I lived to the age of thirty-three accepting the idea of hereditary rheumatic migraine; my mother suffered from similar headaches all her life, and so also did my sisters. I had been told that if the headaches were due to such a cause, they would be modified, or disappear, after thirty years of age, some other indisposition, perhaps, taking their place. With that hope I almost wished the years to pass quickly, so that I might not only be free from an excessively painful malady, but be able to devote myself to the intense mental labor to which my vocation and tastes had always inclined me. My thirtieth birthday came and went, however, with no cessation of the headaches and no diminution in their severity.

With the passing of the years, too, came a desire to cultivate a specialty requiring deep, constant and careful theoretical and practical work. For this purpose it was necessary for me to read a number of books printed in small type, and as my professional work, then very arduous, left me but little free time, I had to read them at all hours and in all places, often in moving vehicles. In the space of a few months, my age being then thirty-four, I found my sight ruined, constituting a new factor in my (supposedly) inherited disorders. Immediately on beginning to read I would experience ocular fatigue and a feeling of discomfort in the eyeballs, and this aggravated the headaches, although I was now in the fourth decade of my life, the period at which I had hoped for relief.

I had recourse, naturally, to an oculist, a friend of mine to whom I was accustomed to send special cases, and with whose aptness and efficiency I had always been satisfied. He examined my eyes with great care, and concluded that I had a slight hypermetropic error in both, with a slight degree of astigmatism in one. He prescribed lenses to correct only half my defect, as is customary in such cases, and after several changes, owing to the difficulty of fitting the astigmatic eye, I secured a pair of glasses which I was able to endure for a year.

Their use convinced me that the head troubles from which I had suffered during my whole life, in spite of their mathematical regularity and their supposedly rheumatic origin, had never been anything but an eloquent expression of what Anglo-Saxons term "eyestrain." As soon as I began to wear the glasses all the features of the old pains were radically modified. Their regularity ceased, and they were converted into painful disturbances of irregular occurrence, connected with work requiring use of the eyes at the near-point and completely independent of other causes. If I did not read, I would be all right indefinitely; if I used my eyes for close work for even a short time, I knew that I would suffer for it, some hours later, with a period of ocular pain or headache. In a word, the trouble became a necessary consequence of visual activity and lost its old appearance of a syndrome, established, recurrent, classical, only remotely connected with the use of the eyes. Glasses can change a headache into other types of headaches.

But the fact remained that the wearing of glasses had not cured my malady. I had, it is true, got rid of the old periodical migraine, but I was left with perpetual attacks of ocular and supraorbital pain, almost continuous, though never very intense. This change I almost regretted; for when I suffered from periodical headaches I had had five good consecutive days, during which it was possible for me to do sustained intellectual work. Now prolonged application was impossible, and I feared that an ailment resulting in almost continuous pain would, in time, lead to a serious state of neurasthenia.

At thirty-eight years of age my trouble began to be complicated with presbyopia; and here began, if I may say so, the second Odyssey of my ocular problem. In order to read I had to increase the strength of my glasses, and this involved the use of hideous bifocals. With three different pairs of glasses in my pocket and one on my nose—one for distance, one for reading, a tinted pair to moderate the intense sunlight of the tropics where I lived, and bifocals for special occasions—I found my troubles daily increasing. I could not escape from the optician, who was continually changing the refractive power of the lenses, as none of them ever suited me, and I did not cease to annoy my good friend, the oculist, who, with singular patience, listened to my complaints and tried to help me.

Once during this time I had occasion to visit New York, and while there I consulted a famous eye specialist. In no way was he able to mitigate my sufferings, and I returned, more confused than ever, to my country, Porto Rico, and almost decided, in view of the increasing difficulty of keeping up the struggle, to give up professional life and devote myself to some work of a rural nature which would not require of my poor eyes the insupportable effort of reading the small print of periodicals and medical books.

I must add that at this time I suffered from several attacks of **swelling of the upper eyelid of one or the other eye**, lasting for four or five days and having no appreciable cause; that on two occasions I had an inflammation of the margins of the lids, followed the second time by a combined inflammation of both eyes and lids; while the last condition left after it a **little ulcer of the right cornea**, near the pupil, which required more than two months treatment on the part of my patient and capable oculist.

Another detail which I do not wish to forget is that during the whole time that I wore glasses, about nine years, and even for some months after discarding them, I frequently noticed the phenomenon known as "**floating specks**." These I never noticed before wearing glasses. Glasses cause all these eye problems!

I had reached a state bordering on desperation when, in September, 1916, professional work took me again to New York, accompanying one of my patients to whom I had recommended X-ray treatment by a well-known specialist of the great city. On the occasion of our visits the old doctor and I used to discuss the latest advances in electrotherapy, and he called my attention to some notable cases of cure brought about by this means. One day it occurred to me to say to him:

"Well, friend doctor, all that is very fine, but the wonder that is to cure my particular ill has not yet been discovered."

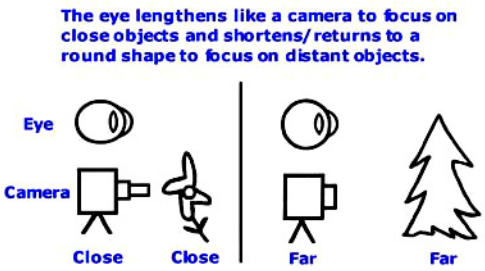
"What do you mean? What is the matter with you?"

I recounted at great length the history of my eyes.

The doctor laughed, left his office for a few minutes, and on returning said to me:

"Why, yes, it has been discovered. Read this pamphlet, take my card, and go to see the author."

It was an article by Dr. William H. Bates, of New York, published a few months previously in the *New York Medical Journal*, and entitled: *The Cure of Defective Sight by Treatment Without Glasses, or Radical Cure of Errors of Refraction by Means of Central Fixation*. The reader can understand the eagerness with which I read this pamphlet, but I must confess that it caused me both surprise and disappointment. The author affirmed, as the readers of this magazine already know, that errors of refraction—myopia, hypermetropia, and astigmatism—so far from being permanent conditions due to deformities of the eyeball, congenital or acquired, and only to be corrected by glasses, are caused by a vicious contraction of the outside muscles of the ocular globe and may be cured by treatment leading to the relaxation of these muscles. In a word the eyeball is not inextensible, and the lens is not a factor in accommodation. Thus two fundamental dogmas of the doctrine established by Helmholtz and others fall to the ground. This, I reflected, could only be the work of an unbalanced mind or of a genius, and unbalanced minds are so abundant and geniuses so rare, nowadays, that the latter did not seem probable. Imbued, like all doctors, with the idea that accommodation is brought about by a change in the curvature of the crystalline lens, I felt, as I read, the tremendous influence of the old school of physiological optics, with all the authority of its founders, and all the weight of things long established, accepted by the great majority and sustained by the immense mass of vested interests developed under their shadow; and I said to myself: "All this seems to me anatomically impossible."



And yet it inspired me with hope. After all, I thought, why should things not be accomplished in the eye as they are in the photographic camera, in which, in order to obtain pictures at different distances, the distance between the lens and the sensitive plate is shortened or lengthened. If, in a kodak, one were to imitate that which, according to the accepted theory, occurs in the eye, it would be necessary to put in a new lens every time one desired to change the focus, since there is no known device that can modify the power of a lens. Leaving the accepted theories out of consideration for the moment, it seemed to me more logical to conceive of accommodation as Bates described it than as it had appeared to Helmholtz. After some hesitation, therefore, I decided to consult the author of the revolutionary pamphlet.

I gave him a detailed account of my ailment, begging him, on finishing the tale, to tell me frankly if he considered it incurable, as in that case I would give up my career definitely, and live in the country. I expected that my case, which I supposed to be exceptional, would present to him a most difficult clinical problem, and I was astonished when he said:

"Is that all?"

"What! You don't think that is much, Dr. Bates?" I replied, somewhat provoked, as I remembered my long years of suffering.

"You will be cured, and soon," was his reply; a reply firm, decided, categorical, which for the moment increased my confusion.

Dr. Bates then explained to me that my eyes were in no way abnormal, except for having lost the power of central fixation many years before. Mental strain had brought with it ocular strain. I had contracted the muscles of the eyeball abnormally in doing close work, and with the commencement of the presbyopic age the trouble had been considerably accentuated.

It required only a few treatments by means of rest, practice with the Snellen test card, and the cultivation of the memory of a black period with the eyes alternately closed and open (glasses having, of course, been discarded), to convince me of the truth of this diagnosis, and naturally, of its logical basis. By a continuation of the same treatment my headaches were soon cured, and after many months of practice my lost power of central fixation was restored and I regained the normal vision I have since enjoyed. I can now read diamond type at six inches, and can devote to reading or writing as much time as I wish. The intense rays of electric light, which formerly were unbearable to me, no longer cause me any inconvenience, and I even enjoy looking at them for long periods. I can also look at the sun itself for some seconds without the least discomfort, to the great admiration of my friends, who, although they believe their sight to be normal, cannot do this.

I have, in short, learned to look at things without staring, so that every object seen seems to have a slight movement, caused by the unconscious shifting of the eye, a phenomenon discovered by Bates and by virtue of which the point regarded changes rapidly and continuously.

I have been able to demonstrate in myself the seven truths of normal sight, formulated by Bates; truths in the light of which the old ideas of the refraction of the eye crumble irremediably; truths completely verifiable by every truly impartial and scientific mind which is emancipated from the tendency to persist in error solely because it is supported by authority, even such an authority as the immortal Helmholtz; truths demonstrated by careful, repeated and varied observations—by scientific experiments upon animals, and above all by the study of images, obtained, after much labor and many failures, from the lens, cornea, iris and sclera. The powerful electric light employed for the latter purpose is evidently more adequate than the candle used by Purkinje for the study of the celebrated images to which his name has been given, and it suffices to compare—with an open mind—two photographs of images upon the lens, obtained with the eye focused, respectively, at the distance and the near-point, to become convinced that accommodation is accomplished by the lengthening of the eyeball—through the unmistakable action of the oblique muscles—and that we have here one of the most beautiful and significant achievements of the century.

And not only have I demonstrated these truths in myself, but I have cured some patients and improved many. Among the former was the very notable case of a young printer, who, although only slightly hypermetropic, was easily fatigued by the close work demanded by his calling. Half an hour of such work brought on a severe frontal headache, growing in intensity up to midday, when he was obliged to suspend his labors. After only three weeks of treatment by the methods described his troubles completely disappeared. To-day he not only works all day without inconvenience, but even works overtime, with great economic advantage to himself.

Another case was that of a lady, a lawyer, who had been told that the sight of one eye was almost lost, and who could practically do no continuous work without severe headaches. She wore a pair of large dark-tinted lenses constantly, in order to protect her eyes from the tropical sunlight, and these were so disfiguring that they made her very conspicuous and, naturally, caused her much annoyance. Treatment by relaxation soon cured her headaches and other ailments, and she became able to fulfill her duties efficiently as secretary to a high judicial officer in Porto Rico. At present she occupies an important position as a lecturer in one of the Y. W. C. A.'s of the United States, and according to recent advices her sight and general health continue very satisfactory.

Many of my friends who witnessed and sympathized with my sufferings and saw me wear numerous spectacles, are now for the

most part presbyopic, and use glasses for reading. Overcome by the evidence of my case, they only await a period of leisure in order to take the treatment, in which they believe, but which they erroneously suppose to demand effort and time. They find their problems solved temporarily by glasses and continue to wear them. But the patients who never find a pair of lenses satisfactory, and who pass half their lives in the optician's office, who suffer from troublesome ailments of various kinds resulting from their eye troubles; these have no choice but to have recourse to the new truth and the new methods, which are certain to solve their problems, not temporarily but permanently. It is they, above all, who will publish the glad tidings—they and the school children under twelve, who having, as a rule, not accustomed their eyes to glasses, and being free from the misconceptions that handicap older patients, respond with incredible rapidity to the new methods—methods as simple as they are effective, and both preventative and curative of visual defects.

In spite of indifference, in spite of the coldness with which new truths are received—the great majority not deigning even to discuss them—I have absolute confidence in the early acceptance of this wonderful discovery, so simple, and, in its practical application, so fruitful. There will not be lacking dispassionate and impartial minds to verify and propagate it. The number of the cured, constantly increasing, will become at last like a tidal wave, overwhelming all opposition. Truth must conquer in the end, removing the mountains of error and prejudice.

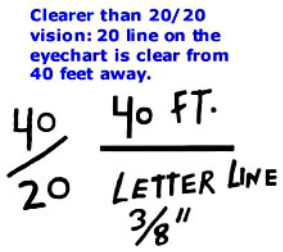
THE STORY OF SYLVIA

By Victoria Coolidge

Sylvia is a little girl, ten years old, in the fourth grade in school. She has a good brain and is an energetic worker, but until she learned to see with central fixation, she was handicapped by defective eyesight. According to her physical record card, her vision in September, 1919, was 20/40 in each eye. On November 4, 1919, I tested her eyes and found that 20/40 was the best that she could see with either eye at that time.

On this day I gave her the first lesson in central fixation. By alternately reading the Snellen card and closing her eyes to rest them, she improved to 20/30. When she had demonstrated what an improvement she could make by resting her eyes in this way, I showed her how she could rest them even more by palming, that is, covering her eyes with the palms of her hands laid gently over them, excluding all light, but not pressing on the eyeballs. I asked her to do this as many times as she could during the day, five minutes at a time, and I gave her a piece of paper on which to write her name, the date, and the number of times she palmed each day for a week.

The next week I went to visit Sylvia's school, and she showed me her paper. She had palmed about eight times each day, except Saturday and Sunday, when she had palmed fourteen times. I could see by the expression on her face that she had a surprise in store for me, but I was not prepared for such a surprise as followed. I had her stand six feet from the Snellen card, and she read every letter on it perfectly. Then she stood ten feet away and read it just as well. "Now stand back here," I said, pointing to a line twenty feet from the card. Nothing daunted, and with the triumphant expression still lighting up her face, she walked to the twenty-foot mark and read every letter correctly through the fifteen line and some letters on the ten line. I looked at Sylvia and then at her teacher; "Is this Sylvia?" I asked, thinking I had been teaching the wrong child. The teacher assured me that it was. Still skeptical, I looked up her physical record card, and my own record, to be sure that I had read the figures correctly. There they were, 20/40 on both.



At my next visit, December 18, Sylvia scorned to stand at ten feet, and instead, walked immediately to the twenty-foot mark with all the confidence in the world. This time she was able to read all the letters so quickly and so confidently that her teacher began to suspect that she had memorized them, and I must confess that I began to think so, too. Therefore, I hung up the Snellen card which belonged to the school and which had entirely different letters. Sylvia had not seen this card since September when her eyes were tested. She read the twenty line, which happened to be the last line on the card, at twenty, twenty-six, and thirty-two feet. Another day I took her out into the hall and she read the twenty line on the same card, at forty feet, in a dim light, with only two errors. In addition to this, she read diamond type, first at nine inches, the nearest distance at which she could see it clearly, and at fifteen inches, the farthest; and later at six and at twenty inches. She also read writing on the blackboard from the back of the room without any difficulty.

To sum up Sylvia's case, then, she was able in two weeks' time to improve her vision from 20/40, which is only half what is ordinarily considered normal, to 20/10, which is double this standard. In five weeks she was able to read a card having unfamiliar letters with a vision of 40/20, and to read diamond type clearly at six inches and also at twenty inches. The remarkable cure had been accomplished through resting the eyes by palming for five minutes at a time about nine times a day, by reading the Snellen test card every day from her seat in the schoolroom, and from a point twenty feet from the card.

Sylvia, now looking for more worlds to conquer, has undertaken, with characteristic energy, the cure of one of her schoolmates. She has already succeeded in improving this child's vision from 20/30 to 20/20.

BETTER EYESIGHT

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

June, 1920

SUN-GAZING

In all abnormal eye conditions sunlight is beneficial

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.

No Sunglasses, tinted, UV blocking lenses.
Dark glasses block healthy full spectrum sunlight resulting in unclear vision, eye disease.

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.

Dr. Bates states to: shift/move the eyes, head continually to the left and right sides, top and bottom… of the sun and blink to move the light evenly upon/fully activate all areas of the eyes: cornea, lens, retina. Moving the eyes, head is done to prevent too strong a concentration of the suns light on one area of the eye. Staring, eyes immobile at the sun must be avoided.
Staring strains the eyes, activates abnormal eye function, results in uncomfortable effects from the sunlight and a too strong concentration of the light onto one area of the eye. This can result in a colored spot of light (scatoma) that lasts for days, weeks…
Due to depletion of the ozone layer other eye problems might develop from staring directly into the sun.
Modern teachers advise only closed eyes sunning and to keep the head/eyes moving side to side, up, down… when facing the sun.

A person that is blind or definitely going blind might regain his/her vision by short term open eyed sun-gazing when done correct. For this reason I keep this older information in this book.
Never look into the sun or near it during a Eclipse.

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

Fig. 46.—Woman With Normal Vision Looking Directly at the Sun. Note That the Eyes are Wide Open and That There Is No Sign of Discomfort.

has always occurred; while prompt relief of all the symptoms mentioned has always followed the relief of eye-strain, showing that the conditions are the result, not of the light, but of the strain. Some persons who have

Fig. 47. Woman Aged 37, Child Aged 4, Both Looking Directly at Sun Without Discomfort

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

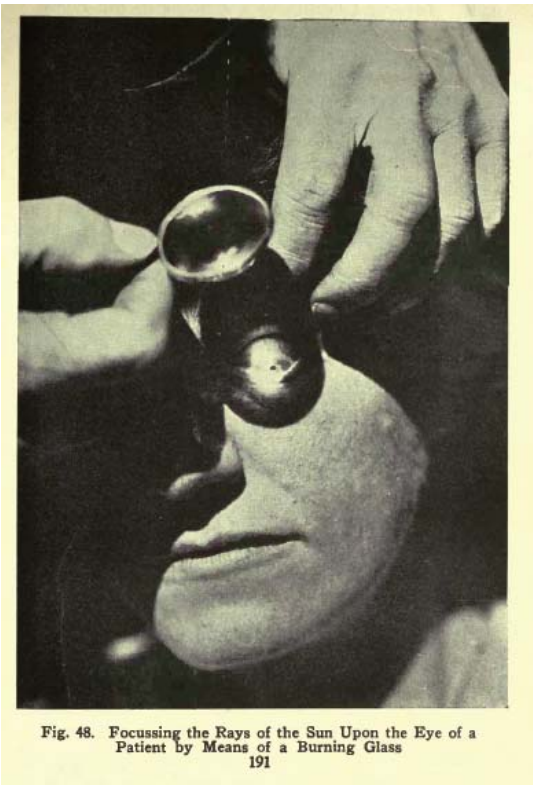


Fig. 48. Focussing the Rays of the Sun Upon the Eye of a Patient by Means of a Burning Glass
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A LESSON FROM THE GREEKS

By W. H. BATES, M.D.

The failure of the muscles of the eyes to function normally under the conditions of civilization is not an isolated phenomenon. As Diana Watts, in her remarkable book, *The Renaissance of the Greek Ideal* (Frederick A. Stokes Company, New York), points out, the entire muscular system of modern civilized peoples works under such a condition of jar and strain that all muscular labor is accomplished with a maximum of effort. So far, indeed, have we drifted from our normal physical possibilities that the positions of the ancient statues seem impossible to us, and we have been forced to attribute many descriptions of the feats of heroes in the Iliad and Odyssey to poetic license. Mrs. Watts, by reproducing the positions of these statues, and doing other things that are beyond the power of even the strongest gymnasts and dancers trained under present methods, has fairly established her claim to have discovered the secret of Greek physical supremacy.

Greek athletics, according to Mrs. Watts, was very far from being a matter of mere muscle development. Its aim was to produce a condition in which all the muscles worked harmoniously together and responded instantly to the mind's desire, thus securing a maximum of activity with a minimum expenditure of energy.

The secret she found to be very simple. It consists in each a perfect balancing of the body that whether it is at rest or in motion its centre of gravity is always kept exactly over its base. This perfect equilibrium involves in turn a condition of the muscles in which they are transformed from a dead weight to a living force. In this condition there is said to be a complete connection of all the muscles with the center of gravity; independent motions and independent reactions are eliminated, and a combined force is instantly brought to bear upon whatever work is required. The spine is perfectly straight, the waist muscles firm, and the weight, in the standing posture, is supported upon the balls of the feet. Extraordinary precision and beauty of movement results, and all sense of fatigue is said to be abolished.

To attain this equilibrium in its perfection requires much study and practice, but it can be approximated simply by keeping the spine straight and the weight over the balls of the feet, or upon the thighs, if seated. By this means a large degree of relaxation is often obtained, and the effect upon the eyesight has, in several cases, been most marked.

A patient suffering from **retinitis pigmentosa** found that when he **straightened his spine**, in walking or sitting, **his field at once became normal**, remaining so as long as the erect position was maintained. His field had already improved considerably by other methods, but was still very far from normal. **In the evening the position had the further effect of relieving his night blindness**.

Another patient who had been under treatment for some time for a high degree of myopia without having become able to read the bottom line of the test card, read it for the first time when her body was in the position described. She was able, moreover, to maintain the position for a considerable length of time, whereas ordinarily she was extremely restless, and could not remain still for more than a moment. A third patient, who could not rest her eyes by closing them or by palming, was relieved at once by this means, as was shown, not only by her own feelings, but by the expression of her face.

Sleeping with a straight spine has also been found to be a very effective method of improving the vision and relieving fatigue. The patient with retinitis pigmentosa whose case has just been referred to, suffered continual relapses in the morning. No matter how well he saw in the afternoon, or in the evening, he would wake up unable to distinguish the big C and with his memory so impaired that it would take him the whole morning to get it back. After **sleeping on his back, with his lower limbs completely extended and his arms lying straight by his sides**, he was able to see the fifty line at ten feet when he woke and

his memory was much better than usual at that time. Further improvement resulted from further sleeping in this posture. The patient with myopia had been in the habit of waking up tired after ten or twelve hours' sleep. One night she shared her bed with a guest, and in order not to disturb the latter she tried to keep her body straight. Although she had staid up until a very late hour talking, she awoke feeling perfectly refreshed. Another myopic patient who had been at a standstill for six months, gained two lines after sleeping on his back for one night.

SAVED FROM BLINDNESS

By Patricia Palmer

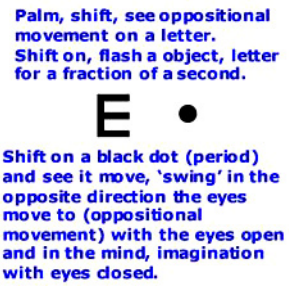
It is very hard for an active young girl to suddenly learn that in a short time she may lose her eyesight. I had always felt a great deal of pity for blind people, but I never stopped to realize how many beautiful things they missed until I knew that I was going blind myself. I only wore glasses for three years, but in that short time I developed a very bad case of progressive myopia. In the summer of 1918 my sight became so poor that I had to stop reading altogether and even a moderately bright day hurt my eyes so much that I kept them bandaged a great part of the time. Finally I had to put on a dark Krux lens, and the goggle-like glasses that I wore shut out all light. In the fall I started school, but as I could not see to read I was working under great difficulties. Then, through an article published some months before in the *Scientific American*, we learned of Dr. Bate's work and it seemed the last possible hope. I declared that there was no use in taking the trip to New York, because I knew he could do nothing for me, but in the end I went.

The first time I looked at the test card I could not see the big "C" until I stood within four feet of it, but in two hours I was able to flash all the letters of the third line and part of the fourth at ten feet. In four weeks I had 10/10 vision and my hearing, which had been bad, was normal.

Some weeks after I returned home a friend, who was calling, complained of a bad headache. I persuaded him to take off his glasses and showed him how to palm and swing the letters on the chart. A short time later he discovered, to his surprise, that his headache was entirely gone.

This incident made me realize that if I showed others what Dr. Bates had shown me I could relieve, if not cure, their troubles. The next person that I worked with was a little girl with progressive myopia which had not become very serious. She worked very conscientiously, and about a month after we started, when she visited Dr. Bates, her sight was nearly perfect.

I have helped a number of people, some successfully, others not so successfully. One of my most interesting cases was a chauffeur who thought that he was unusually farsighted, but who could not see to read the paper. When I tested his eyes I found that he had only 10/20 vision. In a short time, however, he attained normal sight by palming and swinging the letters. I then told him to close his eyes and count ten, then open them for a fraction of a second. I held a book in front of him and in a short time, by closing his eyes and then glancing at it, he read parts of it. He practices on signboards, automobile licenses, or anything that he sees, and now he reads the entire paper every evening. He has noticed, too, that he is not blinded by bright lights at night as he used to be.



As to the value of swinging the little black period I am very decided. I find it my best friend, especially in a test. One time in a French examination, in the excitement of the moment, I could not think of a certain word which I knew well enough and which was very important to me. I closed my eyes and palmed for a second and remembered the period. In a flash my self-control returned to me and with it the word. I have tried this several times since, usually with success.

I often wonder now how I could possibly have managed without my eyes, even with glasses. It is such a joy to be able to read from morning to night if I want to. Reading music is supposed to be a terrible thing for the eyes, but I do an endless amount of it and never know the difference. I find, too, that since my eyes have been well I memorize remarkably quickly, and that when I study I can grasp the contents of the text more easily than before. In the old days of glasses I had to read my history assignment two or three times before I knew what it was about, while now once is quite enough.

My greatest regret is that so few people know how to prevent eye troubles, or how to care for them after they develop. Perhaps, however, if the movement to establish Snellen test cards in the schools grows, thousands of children may be saved the agony which I and many others suffered with headaches as well as being freed from the inconvenience of glasses.

STORIES FROM THE CLINIC

4. Three of a Kind.

By Emily C. Lierman.

George, Gladys and Charlie are three children who came to the eye clinic of the Harlem Hospital at about the same time. They were all of the same age, nine years; they were all suffering from about the same degree of defective sight; they all had headaches; and they got into a very interesting three-cornered contest in which each one tried to beat the others at getting cured. George and Gladys are colored, and Charlie is a white boy of a most pronounced blonde type, with fair curls and blue eyes.

George was the first of the trio to visit us. He had been sent from his school to get glasses because of his headaches, and it was easy to see from his half-shut eyes and the expression of his face that he was in continual misery. My first impulse was to try to make him smile, but my efforts in that direction did not meet with much success.

"Won't you let me help you?" I asked.

"Maybe you can and maybe you can't," was his discouraging reply.

"But you are going to let me try, aren't you?" I persisted, stroking his woolly head.

He refused to unbend, but did consent to let me test his vision, which I found to be 20/70, and to show him how to palm and rest his eyes. He also continued to come to the clinic, but for three weeks I never saw him smile, and he complained constantly of the pain in his head.

Then came Gladys, accompanied by her mother who gave me a history of her case very similar to that of George. Her vision was 20/100, and in a very short time I improved it to 20/40. At her next visit it became temporarily normal, and this fact made a great impression upon George. I saw him roll his black eyes and watch Gladys while I was treating her, and later, when he thought I was

not looking, I saw him walk over to her, and heard him say:

"You ain't going to get ahead of me. I came before you. I wanna get cured first. See?"

I separated the two children very quickly, for I foresaw trouble; but all the time I was very grateful to Gladys for having, however unintentionally, stirred George up.

Next week Charlie came. He looked very sad, and his mother, who came with him, was sad also. His headaches were worse than those of the other children had been, and were actually preventing him from going on with his studies. Promotion time was near, and both mother and child were very anxious for fear the latter would be left behind. They hoped that by the aid of glasses this tragedy would be averted. Of course I explained to the mother that we never gave glasses at this clinic, but cured people so they did not need them. Then I tested Charlie's sight, and found it to be 20/100. Next I told him to close his eyes and remember a letter perfectly black, just as he saw it on the test card. He shook his head in dismay, and said:

"I can't remember anything, the pain is so bad."

"Close your eyes for part of a minute," I said, "then open them just a second and look at the letter I am pointing at, then quickly close them again. Do this for a few minutes, and see what happens."

What happened was that in a few minutes Charlie began to smile, and said:

"The pain is gone."

I now showed him how to palm, and left him for a while. When I came back his sight had improved to 20/70. I was very happy about this, and so was Charlie's mother. She was also very happy to think that he did not have to wear glasses.

Charlie continued to come regularly, and was an apt pupil. One day he told me that he had been out sleigh-riding with the boys, and that the sun had been shining so brightly upon the snow that he couldn't open his eyes, and, his head ached so that he had to go home and go to bed.

"Why didn't you palm for a while and remember one of those letters on the card?" I asked.

"That's right," he said. "I wonder why I didn't think of it."

The next time he came there had been another snowstorm, and he could hardly wait to tell me what had happened.

"I went sleigh-riding some more with the boys," he said, as soon as he could get my ear, "and the pain came back while I was having fun. But this time I didn't go home and go to bed. I remembered what you said, covered my eyes with the palms of my hands right in the street, and in a little while the pain all went away, I could look right at the snow with the sun shining on it, and I didn't mind it a bit."

From the start, the two colored children were greatly interested in Charlie, and thinking that a little more of the competition that had proved so effective in George's case would do no harm, I said, "See who beats." They needed no urging from me, however. Every clinic day, an hour before the appointed time, the black and white trio was at the hospital door. If there was a crowd there, the children forced their way through without much ceremony, and then started on a dead run for the eye room. There they practiced diligently until Dr. Bates and I arrived, and I fear they also squabbled considerably. There was no lack of smiles now in the case of any of the children, and as for George, he had a grin on his face all the time.

Charlie was the first to be cured. In just a month from the time of his first visit his vision had improved to 20/10. Usually patients do not come back after they are cured, but this boy kept on with the practice at home, and returned to show me, and incidentally his two rivals, what progress he had made. We had a visiting physician at the clinic that day, and I rather suspected Charlie of trying to show off when he walked to the very end of the room, a distance of thirty feet from the card. To my astonishment, and the great annoyance of George and Gladys, he read all the letters on the bottom line correctly. The colored children made haste to suggest that he had probably memorized the letters; so I hung up a card with pothooks on it, such as we use for the illiterate patients, and asked him to tell me the direction in which those of the bottom line were turned. He did not make a single mistake. There seemed no room for doubt that his vision had actually improved to 30/10, three times the accepted standard of normality. Not more than one other patient at the clinic has ever become able to read the card at this distance. Charlie returned several times after this, not from the best of motives, I fear, and I took great pleasure in exhibiting, his powers to the nurses and to visitors.

George and Gladys were cured very soon after Charlie, both of them becoming able to read 20/10. I was sorry that they could not have done as well as Charlie, but since their vision is now twice what is ordinarily considered normal, I think they ought to be satisfied.

A CASE OF CATARACT

By VICTORIA COOLIDGE

After I had made one visit to Dr. Bates, I was so much encouraged that I asked him if he could do anything for my father, **eighty-one years old, who had cataract in each eye**. He said he could, provided the patient had all his faculties and would follow directions. I replied that he was not only in full possession of his faculties but that he was blest with vigorous health besides, and I felt sure that he would be willing to do anything to restore his sight.

When I went home, I told my father what Dr. Bates had said, but the treatment seemed so simple for such a difficult case, and his mind was so thoroughly imbued with the idea that nothing but an operation would help him, that he did not make up his mind to see Dr. Bates until four months later.

He remembered having had remarkably keen vision as a young man, and in 1862 passed as normal the **army eye test**, which was very strict at the beginning of the **Civil War**. When he was about fifty years old, however, he began to have trouble in reading and other near work, so he put on glasses to correct this difficulty, and seems to have had the same experience that so many people have—they were nearly, but not quite right. He went from one doctor to another, but the result was always the same. Finally, in 1907, he consulted a well-known specialist in Albany, who, in 1919, at his request, sent him the following record of his case as it was at the time of that visit:

R. V.—20/200 corrected by glasses to 20/50
L. V.—20/50 corrected by glasses to 20/30

Ophthalmoscopic examination showed in each eye incipient cataractous changes, which were more marked in the right eye. Otherwise the interior of the eye appeared normal. Nothing was said to him personally regarding this condition, for frequently it remains unchanged for years.

He was well pleased with the glasses obtained at this time, and for a few years had more comfort with them than with any he had

ever worn; but after a while he began to have trouble with his right eye again. In 1917 he noticed that there seemed to be hard deposits in his eyes. He consulted a prominent specialist in his own locality and learned from him that he had a fairly well developed cataract in the left eye, and an incipient cataract in the other. The doctor prescribed glasses for him, and asked him to visit him once a month so that he might watch the progress of the cataracts. He said that nothing but an operation would help the left eye, but he would advise an operation only in the event of a loss of sight in both eyes, as would be the case if the cataract in the right eye should also progress, because unless both eyes were operated on at approximately the same time, they would not focus together. He called on the doctor faithfully every month for about a year and a half, when he finally became tired of hearing the same discouraging story: the left cataract was rapidly developing, but the doctor would not operate unless both cataracts were ripe. And so he discontinued his visits.

It was about six or seven months after his last visit to this doctor that he called on Dr. Bates. The sight in the left eye had become so dim by this time that he could not recognize the members of his family across the table. He could see that there were people there, but he could not distinguish them. Dr. Bates made the following report of his condition at the time of his first visit:

January 1, 1918:
R. V.—20/100
L. V.—Perception of light—unable to count his fingers.

At subsequent visits the following records were made:

January 2.
R. V.—20/200, artificial light.
L. V.—Counted fingers at six inches.
Improved by shifting, swing, rest, palming (best).
January 4.
R. V.—14/30.
L. V.—14/200.
Reads large print.
January 8.
R. V.—14/15.
L. V.—14/200+.
Reads some words fine print continuously.
January 13.
R. V.—14/10.
L. V.—14/40.
He reads in flashes the fine print with the right eye and some larger print with the left. His improved sight helps his hearing at times.
January 18.
R. V.—14/10.
L. V.—14/20 in more continuous flashes.
He is reading large print more continuously with the left eye.
April 30.
Obtains flashes of the fine print with the left eye better than with the right.

Cataract Cure

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.

BETTER EYESIGHT

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

July, 1920

SEE THINGS MOVING

When the Sight Is Normal all Objects Regarded Have An Apparent Motion

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.

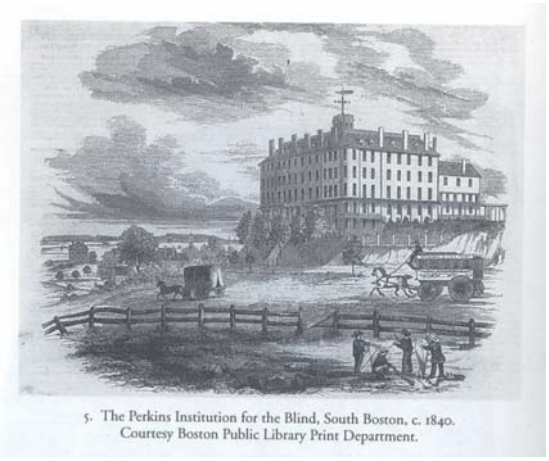
The world moves. Let it move. All objects move if you let them. Do not interfere with this movement, or try to stop it. This cannot be done without an effort which impairs the efficiency of the eye and mind.

THE MISSION OF "BETTER EYESIGHT"

With this number *Better Eyesight* enters upon its second year. It was started in July, 1919, for the purpose of diffusing a knowledge of the truth about central fixation, and it has accomplished all that was hoped for it. It has carried the message that errors of refraction are curable to thousands of people, and many of these people have been able to cure these conditions in themselves and others solely by means of the information which it has contained.

The magazine is modest in its appearance. One can get many times the amount of reading matter which it contains at any newsstand for the same money, but the value of truth cannot be estimated by the number of words required to state it, and it is the object of the editor to give the public the truth about central fixation as briefly and simple as possible. The truth can usually be stated briefly and simply. It is error which is hard to understand and which requires a multitude of words for its presentation.

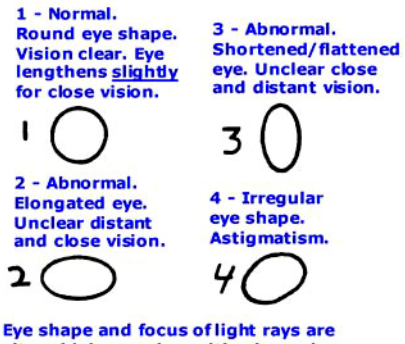
The editor believes that no one who values his or her eyesight can afford to be without this magazine. It has a message not only for those whose sight is imperfect, but for those whose sight is normal. No one, however good his sight may ordinarily be, has perfect sight all the time.


5. The Perkins Institution for the Blind, South Boston, c. 1840.
Courtesy Boston Public Library Print Department.

No one has as good sight as he might have. Therefore everyone can be benefited by practicing the principles presented in this magazine. While persons with imperfect sight may thus gain normal vision, persons with so-called normal sight can always improve it, and may even double the accepted standard of normality, or gain a measure of **telescopic or microscopic vision**. It is not a good thing to be satisfied with just normal sight. Not only is keen sight a great convenience, but it reflects a condition of mind which reacts favorably upon all the other senses, upon the general health and upon the mental faculties.

Even the blind can get some help from *Better Eyesight*. Not all blind persons are curable, but the editor believes that an increasing number of blind persons may expect help from **central fixation**, for already it has been found possible to relieve or cure such conditions as **cataract, glaucoma, conical cornea, retinitis pigmentosa, cyclitis, opacities of the cornea,** and **atrophy of the optic nerve.**
(Photo – Perkins Institute for the blind.)

The magazine will continue to publish during the coming year, as it has in the past, the latest discoveries of the editor, the experiences of cured patients—which have proven to be very valuable—and practical instructions for the improvement of the eyesight. On page 2 of each issue we will continue to give specific directions for self-treatment in language as simple as possible, so that persons who are not physicians can understand it. We have had much testimony to the value of this page, and the editor strongly urges every subscriber, no matter what the condition of his or her eyesight, to demonstrate these truths as they appear.



Better Eyesight stands for a revolution in the treatment of eye troubles, and has had to meet the difficulties that always beset the path of the revolutionist. For seventy-five years we have believed that errors of refraction—by which is meant the inability of the eye to focus light rays accurately upon the retina—were due to organic and irremediable causes. The editor of *Better Eyesight* has proved that these troubles are functional and curable, that the elongated eyeball of myopia (shortsight) the flattened eyeball of hypermetropia (farsight), and the lopsided eyeball of astigmatism, can he made to resume their normal shape, temporarily in a few minutes, and more continuously by further treatment. The world has been slow to receive this message.

The editor is practically alone in advocating central fixation. A small number of physicians, including a few eye specialists, who have been cured or seen members of their families cured of eye troubles, without glasses, operations, or medication, have been convinced that the old theories about the eye and the treatment of defects of vision are wrong; but very few have had courage to endorse the new treatment publicly.

This is not to be wondered at, and is not a cause for discouragement. The editor now wonders at his own slowness in seeing the truth. The facts conquered his conservatism at last only because they were irresistible, and for the same reason they must ultimately conquer all conservatism. Physicians and others who refuse to accept them, or even to investigate them, will be swept aside to make room for those of more open mind.

In the meantime, *Better Eyesight* needs friends, it needs encouragement, it needs subscribers. The editor appeals to present subscribers to continue their support, and to advertise whenever and wherever they have an opportunity the good news that the eye is not a blunder of nature, as the textbooks teach, but an instrument as perfectly adapted to the needs of civilized man as to those of the savage. Persons who have cured themselves should utilize every opportunity to improve the sight of relatives and friends. All parents should be told that they have it in their power to prevent and cure defects of vision in their children and at the same time to improve their health and increase their mental efficiency. The same message should be carried to teachers and school boards. The blind should be told of this new hope for the sightless, and societies for the blind should be urged to investigate it. If everyone who has demonstrated the truth of central fixation does his or her duty in the matter, defective eyesight will soon cease to be, as it has so long been, the curse of civilization.

STORIES FROM THE CLINIC

5. The Jewish Woman

By EMILY C. LIERMAN

Just before the war a Jewish woman, sixty-three years of age, came to the clinic and begged me to help her just a little.

"Please don't bother trying to cure me," she said. "That is too much to expect, and anyhow I am an old lady, so what does it matter?"

Her eyes were half shut, because the light bothered her and she felt more comfortable with the lids lowered. She told me that she was suffering great pain both in her eyes and head, and when I had her look at the test card at ten feet it was all a blur to her. I showed her how to palm, but the position tired her, and she said she was not accustomed to praying so long—she was quite a sinner. As she weighed over two hundred pounds and was sick in both mind and body, I asked her how much she ate every day.

"Oh, I don't eat much—nothing to speak of at all," she said. "In the morning I eat eggs, or something like that, and rolls and butter and coffee. Then about ten I have a few slices of bread with more butter and more coffee. At noon I have soup, bread and butter and more coffee. For supper I have bread, butter, meat, vegetables and more coffee. That's all."

She took more food in one day than I did in three, and when I told her she ate too much, it appeared to frighten her, for she staid away for two weeks. Eating, no doubt, was one of the few pleasures she had in life, and she did not wish to be deprived of it.

When she returned I had her palm again, and this improved her sight from 20/100 to 20/50. It also relieved her pain markedly, and when I told her that she would get still more help, both for her eyes and her body generally, if she would eat less, she agreed to do so.

In spite of her pain and misery, my patient had always been full of humor, and her witty remarks had been a source of much amusement to me; but one day, just after the declaration of war, I found her in a corner weeping. When I asked her to read the test card for me, she said with tears:

"Please, nurse, I can't see anything today. My two sons have enlisted, one as a marine, and the other as an aviator, and they are never coming back, I am afraid. I cannot sleep. I am suffering great pain all over my body. My heart is breaking."

From the beginning I had felt that she had been a devoted mother, and as I am always drawn to good mothers, I now felt a great pity for her grief. In order to get her mind off her pain, I encouraged her to talk about her boys.

"How proud you must be to have two sons to fight for your country, and for you!" I said. "I wish I had ten sons I would give them all for my country."

These remarks were not very consoling, I admit, in the presence of a sorrow like this, and the stricken mother refused to he comforted. But when I said, "You wouldn't be proud of them if they were cowards, and Uncle Sam wouldn't want them if they were criminals in a jail," she straightened up and said:

"You are right. They are brave boys all right, and I am proud of them."

I now tested her sight with the card, and found it better than ever before.

"You have the right medicine," she said, "I am coming again. I do not understand why I can see so well now after being so blind a few minutes ago."

I squeezed her arm above the elbow and asked:

"Do you feel that?"

"Yes," she replied.

"Well, that is just what you are doing to the muscles of your eyes, and the strain blinded you. When you relaxed, the pressure was relieved and your sight improved. It was the pressure that lowered the vision."

Positive emotions, thoughts=relaxed mind, eyes=clear vision.

At a later visit she brought a package for me, explaining that she had no money and wanted to express her gratitude. I took the package home, and when I opened it I found a loaf of delicious real bread—not Hoover bread. My neighbors were very envious of me, because the only bread they could obtain had a flavor like that of sawdust. At the time I appreciated that bread more than a five dollar bill.

Every time the patient came to the clinic we talked about her boys for a few minutes, and it certainly had a good effect upon her eyesight. When the war ended and the boy came home, every one who would listen heard of the great things they had done "over there." One would have thought one was attending an annual convention of some sort instead of an eye clinic.

During the war and up to about six months ago, the patient came more or less regularly to the clinic. Palming always helped her, but as she complained that it made her arms ache to hold her hands over her eyes, I had her simply close her eyes without palming. This also helped her. One day I placed her two feet further from the card than usual, and asked her how much she could see. She replied:

"Now, you know I am an old woman, and I guess my eyes are getting old too. I cannot see so far."

I told her to close her eyes and rest them, forget that she had eyes, and think of black velvet, or her black hat. Ten minutes later she read 10/20, and her eyes had a natural appearance. She became very much excited and asked me what I did to her.

Dieting also helped her eyesight and nerves very much, but she could not always bring herself to forego the pleasure of eating what she wanted. She forgot most of the things I told her to do at home, but I don't think she ever forgot a meal, nor did she realize the quantity of food she consumed when she gave free rein to her appetite. If she had always done as she was told, I am sure she would have been completely cured long ago. As it was, her improvement was very remarkable. Not only did she become able to read 10/20, but at the time she stopped coming to the clinic she said that the pain and discomfort in her eyes had entirely ceased. She was sleeping better, and her general physical condition was greatly improved.

Her case made me realize more clearly than ever the **relation of mental strain to defective vision**. I could not help her until I found out what she had on her heart, and when by means of a little sympathy—I could give her nothing else—I was able to get her **mind off her trouble, or make it seem less to her, her nerves always relaxed**. It was very remarkable the way a pleasant conversation, without further treatment, would improve her sight. The experience was afterward a great help to me in treating other patients. In the rush of work at the dispensary it has often seemed that I could not take the time to talk to the patients, to get acquainted with them, to let them tell me about their troubles. I know now that this is not a waste of time, but a very necessary part of the treatment.

WHAT GLASSES DO TO US

By W. H. Bates, M. D.

On a tomb in the Church of Santa Maria Maggiore in Florence was found the following inscription: "Here lies Salvino degli Armati, Inventor of Spectacles. May God pardon him his sins."[1]

The Florentines were doubtless mistaken in supposing that their fellow citizen was the inventor of the lenses now so commonly worn to correct errors of refraction. There has been much discussion as to the origin of these devices, but they are generally believed to have been known at a period much earlier than that of Salvino degli Armati. The **Romans** at least must have known something of the art of supplementing the powers of the eye, for Pliny tells us that **Nero used to watch the games in the Colosseum through a concave gem set in a ring for that purpose**. If, however, his contemporaries believed that Salvino of the Armati was the first to produce these aids to vision, they might well pray for the pardon of his sins; for while it is true that eyeglasses have brought to some people improved vision and relief from pain and discomfort, they have been to others simply an added torture, they always do more or less harm, and at their best they never improve the vision to normal.

That glasses cannot improve the sight to normal can be very simply demonstrated by looking at any color through a strong convex or concave glass. It will be noted that the color is always less intense than when seen with the naked eye; and since the perception of form depends upon the perception of color, it follows that both color and form must be less distinctly seen with glasses than without them. **Even plane glass lowers the vision both for color and form, as everyone knows who has ever looked out of a window.** All glass, plain and colored disrupts the healthy full spectrum light of the of sun.

That glasses must injure the eye is evident from the fact that one cannot see through them unless one produces the degree of refractive error which they are designed to correct. But refractive errors, in the eye which is left to itself, are never constant.[2] If one secures good vision by the aid of concave, or convex, or astigmatic lenses, therefore, it means that one is maintaining constantly a degree of refractive error which otherwise would not be maintained constantly. It is only to be expected that this should make the conditions worse, and it is a matter of common experience that it does. **After people once begin to wear glasses their strength, in most cases, has to be steadily increased in order to maintain the degree of visual acuity secured by the aid of the first pair.**

That the human eye resents glasses is a fact which no one would attempt to deny. Every oculist knows that patients have to "get used" to them, and that sometimes they never succeed in doing so. Patients with high degrees of myopia and hypermetropia have great difficulty in accustoming themselves to the full correction, and often are never able to do so. **The strong concave glasses required by myopes of high degree make all objects seem much smaller than they really are while convex glasses enlarge them.** These are unpleasantnesses that cannot be overcome. Patients with high degrees of astigmatism suffer some very disagreeable sensations when they first put on glasses, for which reason they are warned by one of the *Conservation of Vision* leaflets published by the Council on Health and Public Instruction of the American Medical Association to "get used to them at home before venturing where a misstep might cause a serious accident."[3]

All glasses contract the field of vision to a greater or less degree. Even with very weak glasses patients are unable to see distinctly unless they look through the center of the lenses, with the frames at right angles to the line of vision; and not only is their vision lowered if they fail to do this, but annoying nervous symptoms, such as dizziness and headache, are sometimes produced. Therefore **they are unable to turn their eyes freely in different directions**.
This results in eye, neck, head, body muscle tension, immobility, impaired eye shifting, central fixation and other functions of the visual system.

It is true that glasses are now ground in such a way that it is theoretically possible to look through them at any angle, but practically they seldom accomplish the desired result.

The difficulty of keeping the glass clear is one of the minor discomforts of glasses, but nevertheless a most annoying one. On damp and rainy days the atmosphere clouds them. On hot days the perspiration from the body may have a similar effect. On cold days they are often clouded by the moisture of the breath. Every day they are so subject to contamination by dust and moisture and the touch of the fingers incident to unavoidable handling that it is seldom they afford an absolutely unobstructed view of the objects regarded.

Reflections of strong light from eyeglasses are often very annoying, and in the street may be very dangerous. Soldiers, sailors, athletes, workmen and children have great difficulty with glasses because of the activity of their lives, which not only leads to the breaking of the lenses, but often throws them out of focus, particularly in the case of eyeglasses worn for astigmatism.

The fact that glasses are very disfiguring may seem a matter unworthy of consideration in a medical publication; but mental discomfort does not improve either the general health or the vision, and while we have gone so far toward making a virtue of what we conceive to be necessity that some of us have actually come to consider glasses becoming, huge round lenses in ugly tortoise-shell frames being positively fashionable at the present time, there are still some unperverted minds to which the wearing of glasses

is mental torture and the sight of them upon others far from agreeable. Most human beings are, unfortunately, ugly enough without putting glasses upon them, and to disfigure any of the really beautiful faces that we have with such contrivances is surely as bad as putting an import tax upon art. As for putting glasses upon a child it is enough to make the angels weep.

Up to about a generation ago glasses were used only as an aid to defective sight, but they are now prescribed for large numbers of persons who can see as well or better without them. The hypermetropic eye is believed to be capable of correcting its own difficulties to some extent by altering the curvature of the lens, through the activity of the ciliary muscle. The eye with simple myopia is not credited with this capacity, because an increase in the convexity of the lens, which is supposed to be all that is accomplished by accommodative effort, would only increase the difficulty, and this, it is believed, can be overcome, in part, by alterations in the curvature of the Lens. Thus we are led by the theory to the conclusion that an eye in which any error of refraction exists is practically never free, while open, from abnormal accommodative efforts. In other words, it is assumed that the supposed muscle of accommodation has to bear, not only the normal burden of changing the focus of the eye for vision at different distances, but the additional burden of compensating for refractive errors. Such adjustments, if they actually took place, would naturally impose a severe strain upon the nervous system, and it is to relieve this strain—which is believed to be the cause of a host of functional nervous troubles—quite as much as to improve the sight, that glasses are prescribed.

It has been demonstrated, however, that the lens is not a factor, either in the production of accommodation, or in the correction of errors of refraction. Therefore under no circumstances can there be a strain of the ciliary muscle to be relieved. It has also been demonstrated that when the vision is normal no error of refraction is present, and the extrinsic muscles of the eyeball are at rest. Therefore there can be no strain of the extrinsic muscles to be relieved in these cases. When a strain of these muscles does exist, glasses may correct its effects upon the refraction, but the strain itself they cannot relieve. On the contrary, as has been shown, they must make it worse. Nevertheless persons with normal vision who wear glasses for the relief of a supposed muscular strain are often benefited by them. This is a striking illustration of the effect of mental suggestion, and plane glass, if it could inspire the same faith, would produce the same result. In fact, many patients have told me that they had been relieved of various discomforts by glasses which I found to be simply plane glass. One of these patients was an optician who had fitted the glasses himself and was under no illusions whatever about them; yet he assured me that when he didn't wear them he got headaches.

When glasses do not relieve headaches and other nervous symptoms it is assumed to be because they were not properly fitted, and some practitioners and their patients exhibit an astounding degree of patience and perseverance in their joint attempts to arrive at the proper prescription. A patient who suffered from **severe pains in the base of his brain** was **fitted sixty times by one specialist alone, and had besides visited many other eye and nerve specialists in this country and in Europe. He was relieved of the pain in five minutes by the methods recommended by this magazine, while his vision at the same time became temporarily normal.**

As refractive abnormalities are continually changing, not only from day to day and from hour to hour, but from minute to minute, even under the influence of atropine, the accurate fitting of glasses is, of course, impossible. In some cases these fluctuations are so extreme, or the patient so unresponsive to mental suggestion, that no relief whatever is obtained from correcting lenses, which necessarily become, under such circumstances, an added discomfort. At their best it cannot be maintained that glasses are anything more than a very unsatisfactory substitute for normal vision.

July, 1920

1 - Nuova Encyclopedia Italiana, sixth edition.
2 - Bates: The Imperfect Sight of the Normal Eye. N. Y. Med. Jour., Sept 8, 1917.
3 - Lancaster: Wearing Glasses, p. 15.

School Number
BETTER EYESIGHT

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

August, 1920

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.

SAVE THE CHILDRENS' EYES

Editorial

With this issue of BETTER EYESIGHT we are again urging measures to prevent and cure imperfect sight in school children. A very simple method by which this can be done was discovered by the author while studying the vision of the school children of Grand Forks, N. D., and tested over a period of eight years in the schools of this city. It consists merely, as has been frequently stated in this magazine, of exposing a Snellen test card in each classroom, and having the children read the lowest line they can see from their seats once a day, or oftener.

Six or seven years ago this system was tried in some of the public schools of New York City with the most gratifying results. In every case in which the card was used properly the vision of the children improved, regardless of whether the classroom was well or poorly lighted; and in every case in which it was not used the vision declined, being worse at the end of the year than it was at the beginning, regardless also of the lighting of the room. Not only was myopia (shortsight) prevented and cured by this method, but hypermetropia (farsight), a much greater curse than myopia and one the prevention of which had not previously been seriously considered, was also prevented and cured. So also was astigmatism, while the sight of those children whose sight had been normal to begin with was improved. Headaches and fatigue were relieved. The mentality of the children improved. Truants and incorrigibles were reformed. The teachers were enthusiastic about the results. So also were the children.

But unfortunately the method was contrary to the teachings of a hundred years, and hence was condemned without trial by every eye specialist consulted by the Board of Education. And thus the children, not only of New York, but of the whole country, have been deprived for years of the blessing of perfect sight, for if New York had led the way, the whole country would have followed.

Through the efforts of this magazine, however, a few schools here and there have introduced the system, and we hope that before another year has elapsed there will be many more of them. An interesting report from one of these schools appears on page 14.

IMPERFECT SIGHT CONTAGIOUS

By W. H. BATES, M. D.

The question of whether or not errors of refraction are hereditary is one about which the medical profession has exercised itself greatly. An immense amount of work has been done for the purpose of throwing light upon it, and all the time the very plain fact that these conditions are contagious has escaped observation. **For an error of refraction is simply a nervous condition,** and there is **nothing more contagious than nervousness**. A person with myopia, hypermetropia, or astigmatism, is a person under a strain. This strain shows in his voice, his walk, his manner, and makes the people with whom he comes in contact nervous. These people then develop errors of refraction, temporarily if the influence is temporary, and permanently if the influence is permanent, as in the case of **children who cannot escape from their nervous teachers and parents**. Endless illustrations of this fact could be given. A few must suffice.

A very nervous woman wearing glasses for astigmatism brought me her very nervous child who had been wearing glasses for six months, also for astigmatism, three diopters in one eye and three and a half in the other. The child's eyes were red, strained, and partly closed, and it was quite evident that the glasses did not make her comfortable. I talked to her pleasantly for a while so as to disarm any fears of the doctor that she might entertain, and then told her to close her eyes and rest them for fifteen minutes. When she opened them she had perfect sight for the Snellen test card in both eyes, and she read diamond type at from six inches to eighteen. I said to the mother:

"There is nothing wrong with your child's eyes. When they were tested she must have been nervous."

The mother answered that this was true. She had been trying to play a duet with her sister, and got so nervous that she could not see the notes. The family was so alarmed at this sudden failure of sight that she was taken immediately to an oculist, and the result was glasses for astigmatism. As children have an astonishing power of adapting their eyes to different kinds of lenses, she had adapted her eyes to these very strong glasses sufficiently so that she could see through them, but was not able to be comfortable in them, nor in any of the others that were subsequently given to her.

Mother and child left the office in a very happy frame of mind, but a few days later the mother returned, very much discouraged and somewhat incensed. The child was just as bad as ever, she said. She couldn't read half the card.

"The reason she can't read the card," I said, "is because you test her. Let her younger sister test her, and you will find that she will read it perfectly. The strain in your eyes is reflected in your voice and walk, in everything about you; you make the child nervous, and when you try to test her sight she becomes astigmatic. If you want her to get cured and stay cured, you should get cured yourself."

She took my advice, and is now under treatment.

In my studies of the eyesight of school children this experience was frequently repeated. When I went into a classroom where the teacher wore glasses I knew I would always find a large percentage of imperfect sight. When the teacher did not wear glasses I knew the percentage would be below the average. When the teacher tested the sight of a child it was often found to he very imperfect, but when I tested it, it might be perfect. In one case a teacher wearing glasses told me that a certain boy was very nearsighted. He could not read writing on the blackboard, he could not tell the time by the clock, and he could not recognize people across the street. I tested his sight and found it normal. The teacher was incredulous and suggested that he must have memorized the letters. Then I wrote letters and words on the blackboard which he read just as well as he had read the letters on the card.

One day my own children came home from school with a note to the effect that they could not read the writing on the blackboard and needed glasses, and later a nurse called to reinforce the message. I tested their sight and found it normal. Then I called on the principal, told him that I was an eye specialist, and after testing the sight of the children I could find nothing wrong with it. I asked if there would be any objection to their having a test card in their classrooms so that they could read it frequently. He said he could see no reason why this should not be done, and it was. But soon after the younger child, a little girl, came home from school in tears. The teacher and the nurse and the other children had made fun of the card, and said it was absurd to suppose that such a simple thing as reading it every day could keep one from having trouble with one's eyes. Of course I knew it could do her no good to read the card under these conditions, and so I had her read it at home. The sight of both children has remained perfect, but I have no doubt that if the circumstances had been different they would have been wearing glasses today.

Children are very sensitive to nervous influences, these influences often produce temporary imperfect sight, and unfortunately they are often, in these states, fitted with glasses. Fortunately most children hate to wear glasses, and after trying them for a while

frequently discard them. They also break and lose them. Thus they are saved much injury. But if the teacher or parent is conscientious and insists on the wearing of the glasses, and on their renewal when lost or broken, the temporary error of refraction becomes a permanent one.

The atmosphere of the average schoolroom is extremely irritating. It makes the children nearsighted, farsighted and astigmatic. But if they have a familiar Snellen test card which they can read every day they are always able to overcome this adverse influence. When they can read the letters on the test card which they know by heart, they are also able to read the writing on the blackboard and see other strange objects at the distance or the near-point with normal sight.

STORIES FROM THE CLINIC

6. The School Children

BY EMILY C. LIERMAN

A great many children visit our clinic. Some are sent by their teachers or the school nurse. Others hear from their friends that we cure people without glasses and come of their own accord. They are a most interesting class of patients; for they respond so quickly to treatment that one's work becomes a succession of thrills, and as a rule they are very grateful for what we do for them.

Grown people are often annoyed when they find that we do not prescribe glasses, but the children, with rare exceptions, are delighted, for they usually hate to wear glasses. Only occasionally do they insist that they must have them, because the teacher or the nurse said so. Before they leave the clinic, however, they are always convinced that whoever told them they needed glasses made a mistake.

One day a colored girl tried to work me for a pair of glasses. Dr. Bates, after examining her eyes, turned her over to me with the remark that she would be an easy case. I placed her at ten feet from the card and asked her to read what she could. She said she could not read anything. I brought her to within one foot of it, and she still insisted that she could not see a letter. It occurred to me that perhaps she did not know the letters, but she said she did. I told her to palm for a while, and then I tried her again at ten feet. She looked very mournful, and said, "I can't see." Then I realized at last what was the matter with her.

"Well, if you want glasses," I said, "you will have to go elsewhere, we do not give glasses here."

I never saw a patient's sight improve as quickly as hers did now. She started at once to read the test card, and went right down to the bottom, missing only two letters on the last line.

In most cases the children, after they are cured, prove to be enthusiastic missionaries in the cause of better eyesight. On the same day that I cured the case just mentioned another colored girl, ten years old, who was as anxious to be cured as the other one had been to avoid it, came to the clinic. The school nurse had sent her to get glasses, but she said:

"I just hate glasses and I won't wear them."

I improved her sight in ten minutes from 15/70 to 15/30, and the next clinic day she brought with her fourteen other children and the school nurse, all colored, including the nurse, who was a mulatto. That was a thrilling day at the clinic. The nurse was thrilled and I was thrilled, for in an hour's time I improved the sight of every one of those children from about 15/50 to 15/20.

The first child I treated, was very cross, and did not wish to be annoyed by palming or anything else. The nurse explained to me that she was a very nervous child and never still a minute.

"That doesn't matter," I said; "I'm not going to make her nervous,"

I then asked the child what her name was, and she told me that it was Helen.

"Now Helen," I said, "the first thing you are going to do for me is to smile," which she did.

"Now I wonder if you can read that test card for me?" I asked.

"Oh, sure," she replied. "I'm not a baby!"

She read 15/50.

"Be a nice girl now and cover your closed eyes with your palms," and I showed her how to do it.

She followed my instructions, and by alternately flashing the letters and palming, her vision rapidly improved to 15/20.

The next girl was one of the prettiest mulattos I have ever seen. She had closely watched Helen, and from the look on her face I could see that she would be more ready to do as I wished her to do than Helen had been. Her name was Clarice, and her vision was about the same as Helen's, namely 15/50. I told her to palm, and while she was doing this I went to the next patient, a girl who reminded me of Topsy in *Uncle Tom's Cabin*, for her head was just covered with pigtails. After I had started her to palming, I went back to Clarice, and found that she could now read 15/20. And so it went through the whole fourteen. The nurse asked me a great many questions about the treatment, and said she would treat the children the same way at school. At a later date she came to me again for more instructions, and said that so far she had been getting such good results that she had not found it necessary to send any more of her charges to the clinic. She studied BETTER EYESIGHT very carefully and found that it enabled her to give the treatment correctly. Clarice and Helen also came back, not because it was necessary, since they and the other children were doing so well under the instructions of the nurse, but because they liked to come. After palming for a short time both of them became able to read 15/10.

The influence of the school in producing imperfect sight is sometimes startlingly illustrated by these child patients. A dear little blue-eyed girl of twelve who came to us because she had severe headaches seemed to be suffering mainly from fear of her teacher. In the morning before school she felt perfectly well; after playing in the street with the other children she also felt well; but when she went into her classroom and began work her head began to ache. It also ached when she was doing her home work, but not so badly. I asked her to read the test card at twelve feet, and unconsciously I raised my voice a little. Immediately I saw her start as if someone had scared the very life out of her. I guessed at once just what was the matter, and lowering my voice I told her as gently as possible that there was nothing to be frightened about.

"What you are not able to read on that card today, you will read next time," I said.

Then I showed her how to palm and left her for a time, as there were many other children waiting to he treated. Coming back in fifteen minutes I told her to take her hands down and tell me what she could read; and I made my voice as low as I could, not much above a whisper. At once, with each eye she read 15/10, more than normal vision, and she said she had no pain. I asked her if she could guess how many children there were in her class.

"Yes, about sixty," she replied.

"My," I said, "if your poor mother had sixty children, wouldn't she be nervous and worried! And wouldn't you want to help her all you could! Suppose you make believe the teacher is your mother, and try to help her all you can."

This had a great effect on her. The next time she came her attitude toward her teacher seemed to have completely changed, and at every subsequent visit she always had something to say about her wonderful teacher. I feel sure that her fear of her teacher had been unnecessary, and also that it had had much to do with her condition. She had little trouble with the headaches after her first visit, for when she felt one coming on, as sometimes happened when she had a hard example to do, she was able to get quick relief simply by closing her eyes.

While the work with the children is always thrilling, we sometimes have a case that is so wonderful that it stands out from all the others. A boy of ten came to us one day in a very had condition. He did not want to look at anyone, and did not even want to raise his head, because the light bothered him so. After testing his sight and finding it to be about 15/70 I placed him on a stool, which, by the way, is a very precious piece of furniture in the clinic. All our poor patients have to stand while they palm and practice with the test card. No comfortable chairs for them. But most of them are willing to do anything so that they may not need glasses, and they do not complain. For this boy, however, I was able to find a stool on which he could sit while he palmed. I told him not to open his eyes for a moment, and after I had attended to a few patients I came back and asked him to take his hands from his eyes. What happened then seemed like a miracle. He didn't look like the same boy. His formerly half-shut eyes were wide open, and without any trouble he read the bottom line of the test card at fifteen feet. When I praised him for what he had done he smiled and said:

"When shall I come again?"

At the next visit he read 20/10 with both eyes, and he told me that when the light bothered him he closed his eyes and covered them with the palms of his hands, and in a few minutes he was all right.

This boy brought a friend, aged twelve, who had been wearing glasses for two years or more. When he came into the room he did not wait for his turn (I guess he never thought about it in his eagerness), but placed himself right in front of me, took off his glasses, and said:

"You cured Jimmie's eyes. Will you cure me, too?"

"Surely," I said, "if you wait your turn," and as soon as I could I tested his sight.

I found that he could see just as well without his glasses as with them—15/20. So I asked Dr. Bates to examine him and his glasses, and it turned out that he was wearing far-sighted glasses for near-sight. I told him to palm, and before he left the clinic that day he saw distinctly some of the letters on the bottom line at fifteen feet. This was an even more remarkable cure than Jimmie's, for patients who have worn glasses are usually much harder to cure than those who have never worn them.

Sometimes the mothers come with the children, and then I always try to enlist them as my assistants, and if they wear glasses I try to persuade them to cure themselves, so that the children will not copy their bad visual habits, and will not be subjected to the influence of people who strain. Not long ago a mother who had trouble with her eyes brought a child for treatment, and said that she would help the latter at home. I said that would be fine, and then I asked the child to help me cure her mother.

"After mother has given you a treatment," I said, "tell her to close her eyes and cover them with the palms of her hands, and to stay so until everything is black. Be very quiet so that she will not he disturbed, and when she opens her eyes you will surely find that she can see better."

Both mother and child made rapid progress. At the first visit the child's vision, which had been 15/50, improved to 15/30, and in six weeks it became 20/15. The mother now exhibits to her friends, with much pride, her ability to thread a needle without glasses.

Only one thing about this work with the children makes me sad and that is, we can do so little of it. Many children come from other districts, and are, of course, turned away by the dispensary clerk. But even if the hospital rules did not require him to do this, we could not admit all who come. There is a limit to the number we can treat, and there is so little space in our little eye room that already we are obliged to treat the overflow in the outside general waiting room. I wish that there could be such clinics in every hospital, and that the teachers and the nurses in the schools could be instructed in the very simple art of preserving the eyesight of the coming generation.

THE SNELLEN TEST CARD IN NEWTON

By U. G. WHEELER

Superintendent School Department, Newton, Mass.

We are greatly indebted to Superintendent Wheeler for sending us the following report of the use of the Snellen test card in one of the public schools of Newton, and we hope that the success which attended his experiment will encourage other schools to try this method of preventing and curing imperfect sight in school children.

Last fall we purchased several copies of the school number of BETTER EYESIGHT, and have been trying the suggested method for the prevention and cure of imperfect sight in one building in the city. The following is a copy of the report I received at the end of the school year from the principal of that school regarding the result of this trial:

In the fourth grade the teacher began using the Snellen eye chart last October. There was one case where the child tested very low in one eye. One of the children in the grade worked with her four times a day as was suggested in the booklet. The child lost the fear of using her eye, and after some time could read the card fifteen feet away. At that time her mother requested that we do no more work with her, as the oculist was afraid that she might strain her eyes.

The class as a whole used the card for months. Their eyes seem to be strengthened by the constant use of it.

In the fifth grade the teacher used the card with her class and gained definite results. One interesting case was that of a girl who had trouble with her eyes. It seemed to be hereditary, as the father had the same trouble. The girl used the Snellen test card and finally was able to read it across the room. If she neglected to practice for a few days, she found it necessary to begin all over again. There was no chance for memorizing the card, as the teacher cut letters from newspapers and used them while testing her, and found that she had been helped a great deal. It is thought the children's eyes were really strengthened.

In the other grades—I, II, VI, VII and VIII—the card was used, and in some cases it helped; in others the eye defects were too serious. However, the teachers believe that if the card is put to the right use wonderful results may be reaped.

BETTER EYESIGHT

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

September, 1920

MAKE YOUR SIGHT WORSE

This is an excellent method of improving it

Learn how to cure/avoid unclear vision by experiencing how strain and unclear vision are caused.

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 clouds 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.

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.

Palming corrects crossed/wandering eyes.

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.

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.

Palming

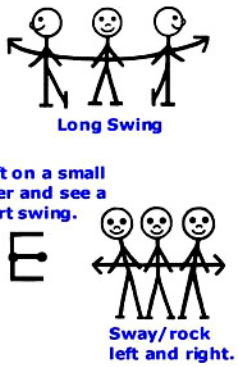
Treatment steps

+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.

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.

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. 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.

SLEEPINESS AND EYESTRAIN

By W. H. Bates, M.D.

How much sleep is necessary to maintain health? This is a question which has never been satisfactorily answered. Theoretically, mental or physical work should increase the need for sleep, but it is a matter of common knowledge that many inactive persons seem to need just as much sleep as those who work, or even more.

Much time has been devoted to the investigation of the symptoms of fatigue. Analyses have been made of the blood of fatigued subjects; the action of the muscles, nerves and brain, the changes in the structure of the cells, under the influence of fatigue, the changes following sleep, have all been carefully studied. But so far very little light has been thrown upon the nature of either fatigue or sleep.

This is a fact, however: that eyestrain has always been demonstrated when fatigue was present, and that fatigue has always been relieved when eyestrain was relieved. Perfect sight is perfect rest, and cannot coexist with fatigue. Even the memory or imagination of fatigue is accompanied by the production of eyestrain and imperfect sight, while the memory of perfect sight will relieve both eyestrain and fatigue. Sleepiness is a common symptom of habitual eyestrain, and when the sight improves the need for sleep is often markedly reduced.

One patient reports that after gaining normal sight without glasses she was able to get on comfortably with seven hours sleep, whereas she had formerly not been able to avoid continual sleepiness and yawning even on nine and ten hours. The inclination to yawn on all occasions had been so overpowering, she stated, that it often subjected her to great embarrassment. On one occasion she yawned so incessantly during a call made in the early evening that the visitor concluded, not unnaturally, that her presence was a burden and departed in high dudgeon, no explanations sufficing to convince her that the yawning was not the result of boredom. The patient was made very unhappy by this condition, but finally became reconciled to it in a measure, thinking that what could not be cured must be endured. Great was her surprise and delight, therefore, when, after discarding her glasses and beginning to practice central fixation, she found herself sleeping less and not yawning so much. She made no conscious effort, she said, to check the yawning, and had indeed almost forgotten about it. She now gets sleepy only at bedtime.

Another patient, although he never had any desire to sleep in the daytime, found it very difficult to keep awake in the evening. At the opera or theatre, at lectures and social gatherings, and at church, he was always sleepy and often went to sleep. It was naturally more difficult for him to keep awake when he was not interested, but whether he was interested or not he was sure to become more or less sleepy. He never went to a lecture without going to sleep, and the world's most famous song-birds were not always able to keep him awake at the opera. In the case of dull papers or sermons, it did no good to think of something else, for the sound of the speaker's voice acted like an opiate. When he learned how to **relax by the aid of the memory, imagination, shifting, swinging and palming** the trouble gradually became less, and now he can stay awake at all times and in all places where people are supposed to stay awake.

STORIES FROM THE CLINIC

The Woman with Asthma

By Emily C. Lierman

*When eyestrain is relieved all other strain is relieved, and therefore patients relieved of eyestrain are often relieved of many other symptoms. **Asthma** belongs to a large class of diseases with symptoms which may result from nervous disturbances instead of from organic changes. They have been called functional neuroses. It was not strange, therefore, that this patient should note an immediate improvement in her breathing after palming, and that this treatment, in combination with hygienic measures, should have permanently relieved the trouble. Many similar cases could be reported, and even when organic disease has been present, the subjective symptoms have been relieved.*

One day during the summer of 1919, a woman suffering from asthma came to the clinic. She was only forty years of age, but looked fifty, and it was evident, from the wrinkles in her forehead and her half-shut eyes, that her vision was very poor. She told me

that she suffered from continual pain, and I could see that she had great difficulty in breathing; but her spirit was unbroken, and her exuberance was something of a problem to me. She talked continually as long as she could find anyone to listen to her, and in order to preserve any order in the clinic I had to keep her as much as possible by herself. I was sorry to do this, because her good humor was contagious, and made the patients forget their pain and other troubles, but I could not have the work brought to a standstill, even for such a desirable end as this.

The state of her eyesight did not seem to trouble her.

It was her asthma about which she was concerned. When I asked her to read the test card she said:

"Please ma'am, help me to breathe first; never mind my eyes."

"You are in the wrong room for asthma", I replied, "just let me do something for your eyes, and then I will send you to another room where a good doctor will treat you for the asthma."

She smiled, evidently pleased that I had not sent her away, and proceeded to read the card, as I had asked her to do. Her vision was 20/30 in each eye. I told her to palm and on no account to remove her hands from her eyes until I came back. It was fully half an hour before I was able to do this, and when I told her to uncover her eyes, she asked:

"What makes me breathe so easy?"

"The palming has helped you", I replied.

Her vision was now 15/20, and she said the pain in her chest and back had gone. I gave her some advice about her diet, told her to drink plenty of water, and asked her to come to the clinic three days a week.

On the next clinic day, to my great disappointment, I did not see her. I concluded that she did not care to bother about her eyes, and was not willing to give up the foods and drinks I had told her not to take, including meats, pastry, strong tea and other liquids much stronger than tea. Other patients were continually coming in, however, so the poor woman with asthma went completely out of my mind until two months later when she rushed into the clinic like a cyclone. Most of these poor people do not think about waiting for their turn, and are so anxious to tell me about their relief from eyestrain and other troubles that I have to forgive them when they break the rules. This woman not only did not wait her turn but did not think it necessary to wait till I had finished with the patient I was attending to. As soon as she saw me she yelled in a loud excited voice:

"Please, ma'am. I didn't forget you. I didn't forget myself either. I felt so good after you treated me, I just palmed and palmed, and I began to breathe so much better I went out and got a job right away. During the day my madam allowed me to rest my eyes, and I ate very sparingly. Sure, ma'am, it was no joke either, for I just love to eat good and lots of it; but I remembered what you said, and so I behaved myself. I must have starved the asthma all away."

"I am very glad to hear all this" I said. "Now let me see what the palming did for your eyes."

Her vision had improved to 15/10. And it had all happened in two months. She did it and not I. When I told her this and praised her for it, she replied:

"God bless you! You don't know how happy I am. I am working and supporting myself now for the first time in four years. But what surprises me the most is that I have not been drowned by this time with all the water I have been drinking."

QUESTIONS AND ANSWERS.

The editor has received so many questions from the readers of BETTER EYESIGHT that he feels it sufficiently important to open a new department which will start next month. All persons are invited to send in questions which will be answered as promptly as possible by mail or the questions and answers will be published in the magazine. Kindly enclose a stamped, self-addressed envelope.

BETTER EYESIGHT

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

October, 1920

GO TO THE MOVIES

This can help you to improve your sight

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.

THE PROBLEM OF IMPERFECT SIGHT

By W. H. Bates, M. D.

The problem of imperfect sight is such a tremendous one that few, even of those who specialize in such matters, realize its proportions, while outside this circle there is not the remotest conception of what it means.

The literature of the subject is very confusing and contradictory; but from the facts available there can be no doubt that the great majority of school children suffer from some degree of imperfect sight, while among adults normal vision is a rare exception.

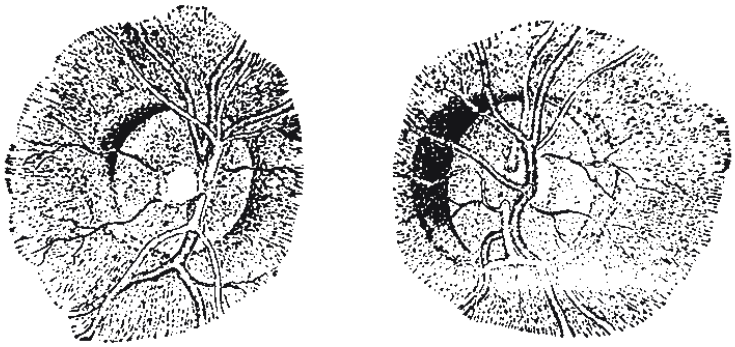
The very careful investigation of Risley showed that in the public schools of Philadelphia, among children between eight and a half and seventeen and a half, the proportion of imperfect sight was about ninety per cent,[1] other investigators report lower figures, but in many cases this simply means a lower standard. The findings of Risley agree with those obtained by myself in a study of 100,000 children made under all sorts of conditions in both city and country schools.

As to the sight of the adult population the operation of the draft law has supplied us with some unimpeachable data. It was found impossible to raise an army with even half normal vision in one eye, and in order to get the number of soldiers required it was necessary to accept for general service men whose vision could be brought up to half normal with glasses.[2]

Such figures as the foregoing, terrible as they are, by no means exhaust the subject. In fact they are only the beginning.

Errors of refraction are so common that we have learned to take them lightly. They are usually reckoned among minor physical defects, and the average lay person has no idea of their real character. It is well known, of course, that they sometimes produce very serious nervous conditions, but the fact that they also lead to all sorts of eye diseases is known only to specialists, and not fully appreciated even by them. The complications of myopia (nearsight) constitute a large and melancholy chapter in the science of the eye, but most eye specialists say that no organic changes occur in hypermetropia (farsight). That this is very far from being the case was proven by Risley in the investigation alluded to above, and it is strange that his report on the subject has attracted so little attention. His studies also showed that these organic changes occurring in all states of refraction, are very common among children and have often progressed to an extent that would be expected only after long years of eyestrain.

In the case of myopic astigmatism the percentage of diseased eyes among all the children examined ran as high as eighty-seven per cent, and in the secondary schools not a single myopic eye was found with a healthy eyeground. The condition known as *conus* in which the choroid, or middle coat of the eye, is destroyed in the neighborhood of the optic nerve exposing the white outer coat (sclera) and forming first a crescent and later even a complete circle is commonly regarded as one of the symptoms of myopia and attributed to the tension resulting from the lengthening of the globe, but Risley's statistics show that while it is somewhat more common in this state of refraction than in hypermetropia it is by no means peculiar to it. In hypermetropia it was found in twenty per cent of the cases, and in hypermetropic astigmatism in forty-five per cent. In simple myopia it was present in forty-one per cent of the cases, and in myopic astigmatism it reached sixty per cent. It is a terrible thing to think that the eyes of our children should show a symptom of this character in such a large proportion of cases.



CONUS IN HYPERMETROPIA

The eyegrounds of a brother and sister aged respectively ten and twelve years. Both had hypemetropic astigmatism. "The conditions here represented," says Risley, "were repeated in scores of their fellows at school."

My own experience is that errors of refraction are always accompanied by some organic change. It may be only a slight congestion, but this may be sufficient to lower the vision.

By wearing glasses, avoiding poor lights and limiting the use of the eyes for near work, it is supposed that we can do something to prevent the development of these organic diseases and to check their progress; but for none of the traditional methods of treatment is it even claimed that they can be depended upon to preserve the sight as long as it may be needed, and Sidler Huguenin, in a paper several times referred to in this magazine, has stated that in the thousands of cases of myopia that have come under his observation they never were of any material benefit.[3]

That imperfect sight is a fruitful cause of retardation in school is well known. According to the New York City Board of Health it is responsible for a quarter of the habitually left backs.[4] But that this condition cannot be remedied by glasses has not been generally observed. By making the patient more comfortable glasses do often improve his mental condition, but since they cannot relieve the mental strain that underlies the visual one, they cannot improve it to normal and by confirming it in a bad habit they may make it worse.

From the foregoing facts it will be seen that in the condition of the eyesight of our people we have a health problem, an educational problem, and a military problem, of the first magnitude, and one would think that if any method of either prevention or cure that was even tolerably successful had been found it would immediately be put into general use.

STORIES FROM THE CLINIC

8: Atrophy of the Optic Nerve

By Emily C. Lierman

About twenty-five years ago a patient came to the New York Eye Infirmary with well-marked atrophy of the optic nerve. According to all that we know of the laws of pathology he should have been totally blind; yet his vision was normal. The case was considered so remarkable that it was exhibited before a number of medical societies, but it was by no means an isolated one. On February 8, 1917, the editor published in the "New York Medical Journal," under the title, "Blindness Relieved By a New Method of Treatment," a report of a case in which the vision was improved from perception of light to normal. He has had quite a number of such cases.

Some time ago a colored woman was led into the clinic by a friend. She had heard of Dr. Bates, and had come to him in the hope that he might be able to restore her sight. The doctor examined her eyes, and found that she had atrophy of the optic nerve complicated with other troubles. She could not count her fingers, nor had she any perception of light whatever. The doctor turned her over to me saying:

"Help her, will you?"

"She was the real "mammy" type of negro, very good-natured and motherly. She greeted me with a smile and said:

"May de good Lor' bless you, ma'am, of you can gives me again de light ob day."

The words came from a very humble heart, and were very hopeful. When I heard them I can tell you that I lost some of my courage. It might turn out that I could do nothing for her, and I dreaded to disappoint her. My work is not always easy; yet I like the hard cases to come my way, because when I can help them I feel that I have done something worth while.

"Won't you tell me how long you have been blind?" I asked.

"Yes, ma'am," she replied. "I's hasn't seed nothin' for two years, I's been in the hospital all dat time an' de doctors says dat mebbe I's nebber see again. Some friend ob mine says to me, `You jes goes to de Harlem Hospital Clinic. Dere you find de doctor what makes you see.' So I jes come; dat's all."

I told her to cover her eyes with the palms of her hands and asked if she could remember anything black.
She replied:

"Yes, ma'am, I 'member stove polish black, all right."

"That's fine," I said. "Now, keep remembering the black stove polish, and that will stop the strain in your eyes. When your eyes first began to trouble you, you strained to see, and every time you did that your eyes became worse. Now let us see what will happen when you stop the strain."

I stood her against the wall to make things easier for her, for we have few chairs at the clinic, and left her to treat other patients, telling her not to open her eyes, nor to remove her palms from them, not for a moment, till I came back. Presently I became aware of a strange sound, a sort of mumbling. I was greatly puzzled, but tried not to show it for fear I would disturb the patients. All of a sudden, as I approached my blind patient, I discovered where the sound came from. She was saying in a low tone, "Black polish, black polish," just as fast as she could. I now held a test card covered with E's of various sizes turned in different directions a foot away from her eyes, and told her to take her hands down and look at it. The doctor, the other patients and myself were quite scared at the outburst that followed.

"Ma'am, dat's a E; dat's a sure-nough E. I's sure dat's a black E on some white paper."

This was a large letter on the first line, read by the normal eye at two hundred feet.

But the next moment it faded from her eyes. That was my fault. I was not quick enough. What I should have done was to have her close her eyes and palm again the moment she saw the E. But I was greatly encouraged, not only because the patient had had a flash of vision, but because Dr. Bates had said he was sure I would help her to see again. I again told her to palm and remember black, and when, in a few moments, I asked her to take down her hands and look at the card, she again saw the E, and blacker than the first time. I now told her to close her eyes for a minute and open them for just a second, alternately, remembering the stove polish as she did so. She did this for a time, and was able to see the E each time she opened her eyes.

"Now," I said, as I raised my hand and held it one foot from her eyes, "how many fingers can you see?"

"Three," she replied, which was correct.

I told her to rest her eyes by palming many times a day, and to come and see me three times a week. I also gave her some advice about her diet, and told her that enemas were quite necessary to relieve her constipation.

Next clinic day she saw the seventy line of letters at one foot, and they did not fade away as did the E the first time she saw it. I told her to palm some more, and in a few minutes she counted my fingers correctly every time I asked her to, with only one exception.

"If dis here seein' keeps up, ma'am," she remarked, "I sure will be able to earn mar livin' again. De Lor' bless you ma'am."

She continued to come and made slow but sure progress for a time. Then came a time when she stayed away for several months. As I was very anxious to cure her, I worried about her considerably during this time. Then one day she turned up again. She seemed to be very much frightened about something, but her eyes looked much better. I was so glad to see her, and she seemed so much upset, that I refrained from scolding her, as I felt like doing, and in course of time I discovered the reason for her absence. She had been under treatment for some other troubles, and some doctor or nurse had scared her into discontinuing her visits to our clinic. She had, however, continued to palm several hours a day with most gratifying results.

"Do you know, ma'am," she said, "I's can see every house number as I go visitin', an' I goes out to a day's work once in a while."

She continued to come quite regularly, and her improvement continued. Sometimes I would find that she did not see as well as at her previous visit, but immediate improvement always followed palming. Her gratitude was pathetic, and every little while she would bring a bundle, saying:

"Dis here is fo' you, ma'am. You sabe me from blindness. Yes, you did, an' I's mighty grateful."

These bundles contained gifts of various kinds—a cocoanut from the West Indies at one time, grapefruit and cucumbers at another, and a third a necklace made of tropical beans of various colors.

The greatest day of her life came a few weeks ago when she washed a full set of Dresden china for her employer, without breaking a single piece, and earned four dollars and twenty cents by her day's work. If she continues to practice the palming, which she now forgets sometimes, I have no doubt that she will, in time, obtain normal vision. She now sees the largest letter on the card twenty feet away, and reads the headlines in the newspapers. Recently Dr. Bates examined her eyes with the ophthalmoscope, and found the appearance of the optic nerve very much improved, more blood-vessels being visible in the papilla, or head of the nerve.

HOW I LEARNED TO SEE

By Irma Meyers

This patient was fourteen years old when first seen, and was wearing the following glasses: Right eye, concave 3.12 D. S. combined with concave 0.75 D. C., 90 degrees; left eye, concave 3.25 D. S. combined with concave 0.50 D. C., 90 degrees. At the second treatment her sight had improved temporarily to 20/20, and at the third she had a flash of perfect sight.

The time had come for me to consult an oculist again. I had been wearing glasses for over a year, and they had always been a torment to my parents.

We were discussing the question of oculists at table. My father contended that if there were physicians who could correct defective sight with glasses, there must be those who could cure such defects so that glasses would not be necessary. He had heard of a Dr. Bates who had cured people so that they no longer had to wear glasses.

So instead of going to an eye specialist who would probably have prescribed new glasses, father and I went to see Dr. Bates. While waiting for admission to his private office a number of questions came to my mind. Could he cure me? Would I be able to get along without glasses for the rest of my life? It seemed too good to be true. My eyesight had been so poor that I had given up hope of ever leaving off my glasses.

Finally we were ushered into Dr. Bates' office. He examined my eyes. I could just barely read the second line of letters on the Snellen chart—which shows how defective my eyesight was. The doctor impressed upon me that to improve my sight depended largely upon myself, and I determined to follow his directions conscientiously. I must never wear my glasses again, I was told, and that day, in the doctor's office, was the last time I did wear those hated glasses.

Then the doctor told me to palm—that is, to put my hands over my eyes in such a way as to exclude all the light from them. In this way my eyes became rested. I was not looking at anything, and therefore my eyes were not undergoing any strain. Next the doctor showed me some fine print on a card and called my attention to the fact that while these letters looked perfectly black to me, those on the Snellen chart, at a distance of ten feet, were gray. The difference was due to my imagination, he said, and proved that my eyesight was not normal, because the letters on the test card were just as black as those on the small card in my hand. Then he told me how to improve my imagination. In reading letters like O, D, and S, which had open spaces in them, I was to imagine the white openings (the card is white, the letters black) whiter than the margin of the card, which is the way the normal eye sees them. When I became able to do this the black letters stood out more clearly.

Besides my imagination I had also to exercise my memory. This was accomplished in this way: I looked at a certain letter on the chart. Then I closed my eyes and remembered it better than I saw it. I could not do this very well at first, but my memory improved with practice.

These and many other methods of improving the sight I learned from Dr. Bates. I visited him three times each week, and soon began to read much more on the chart than I had at my first visit. At the same time I noticed that stores, signs, houses, cars, all material objects, began to come out more clearly than before. I discovered, too, that I was not so shaky on my feet as I had been when I first discarded my eyeglasses. I felt then as if I would fall at every step I took. In school I did not have to go up to the blackboard to read what was on it, and did not have to sit as near the front as I formerly did.

After six or seven months I began to enjoy the movies. I no longer had to sit and view a picture that I could not see. (I never, as I said before, used my glasses after my first visit to Dr. Bates.) I began to enjoy the pictures as much as the people around me who had never worn glasses. In school I could sit in the last rows and read the blackboard without any trouble.

I have now been under treatment about a year, with some interruptions, and my eyesight is considered normal. At a recent test by the visiting physician at school I stood second among forty pupils. The girl who was first read just one letter more than I did, and I am sure that if I had had an opportunity to palm I would have been able to do better than she did.

I cannot express in words what I owe to Dr. Bates. I shall always be grateful to him, and I wish I could show my appreciation for his work.

At a recent visit Dr. Bates told me that my cure was not yet permanent, but I shall continue to follow his instructions and teachings implicitly until it is permanent. I sincerely hope that I shall never go back to wearing glasses, and that this recital of my experiences may help others similarly afflicted.

QUESTIONS AND ANSWERS

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

Q - 1 When objects at a distance clear up they are double. Can you suggest a remedy for this double vision?
2. When I open my eyes after palming my sight gradually clears, but an intense pain often comes in my eyes, so that they close. The pain always starts with very clear vision. Is this eyestrain?—H. M.

A - 1 If the objects are double when they clear up, relaxation is not complete, and the only remedy is to secure a greater degree of relaxation. This may be done in many ways. Use the method you have found most effective.
2. Yes. Your sight should be best when you open your eyes. If it clears up afterward, it is because you are making an effort to see. This produces the pain.

Q - 1 How long should one palm and how often?
2. How young a patient can you treat by this method, and up to what age can you expect results? How would you handle a child that did not know its letters?
3. Is astigmatism curable by this method?
4. How long has the method?—J. H. W.

A - 1 As often and as long as possible.
2. The age is immaterial. It is a matter of intelligence. Patients as old as eighty-two have been relieved. Children can be treated as soon as they are able to talk. Any small object can be used for eye training, and in the case of children who do not know their letters, kindergarten and Montessori equipment is often useful.
3. Yes.
4. Its evolution began thirty-five years ago. It has improved as experience was gained, and is still improving.

October, 1920

1 - School Hygiene, System of Diseases of the Eye, edited by Norris and Oliver.
2 - Report of the Provost Marshal General to the Secretary of War on the First Draft under the Selective Service Act, 1917.
Second Report of the Provost Marshal General to the Secretary of War on the Operations of the Selective Service System to December 20, 1918.
3 - School Health News, February, 1919.
4 - Archiv. f. Augenh, vol. IXXIX, 1915, translated in Arch. Ophth., vol. XLV, Nov. 1916.

Squint Number
BETTER EYESIGHT
A MONTHLY MAGAZINE DEVOTED TO THE PREVENTION AND CURE OF IMPERFECT SIGHT WITHOUT GLASSES
November, 1920

MAKE YOUR SQUINT WORSE
This will help you to cure it

Crossed, Wandering Eyes, Strabismus Cures

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.

Fig. 55
No. 1.—Convergent squint of the right eye.
No. 2.—The patient is temporarily cured by the memory of a black period.

SQUINT AND AMBLYOPIA: THEIR CURE

By W. H. BATES, M. D.

Squint, or strabismus, is that condition of the eyes in which both are not directed to the same point at the same time. One eye may turn out more or less persistently while the other is normal (divergent squint), or it may turn in (convergent squint), or it may look too high or too low while deviating at the same time in an outward or inward direction (vertical squint). Sometimes these conditions change from one eye to another (alternating squint), and sometimes the character of the squint changes in the same eye, divergent squint becoming convergent and vice versa. Sometimes the patient is conscious of seeing two images of the object regarded, and sometimes he is not. Usually there is a lowering of vision in the deviating eye which cannot be improved by glasses, and for which no apparent or sufficient cause can be found. This condition is known as ***amblyopi****a*, literally ***dim-sightedness***, and is supposed to be incurable after a very early age, even though the squint may be corrected.

Operations, which are now seldom advised, are admitted to be a gamble. According to Fuchs,[1] "their results are as a rule simply cosmetic. The sight of the squinting eye is not influenced by the operation, and only in a few instances is even binocular vision restored." This is an understatement rather than the reverse, for a desirable cosmetic effect cannot be counted upon, and in not a few cases the **condition is made worse**. Sometimes the affected eye becomes straight and remains straight permanently, but often, after it has remained straight for a shorter or a longer time, it suddenly turns, in the opposite direction.

I myself have had both failures and successes from operations. In one case the eyes not only became straight, but binocular single vision—that is, the power of fusing the two visual images into one—was restored, and when I last saw the patient, thirty years after the operation, there had been no change in these conditions. Yet when I reported to the ophthalmological section of the New

York Academy of Medicine that I had cut away a quarter of an inch from the tendon of the internal rectus of each eye, the members were unanimous in their opinion that the eyes would certainly turn in the opposite direction in a very short time. In other cases the eyes, after remaining straight for a time, have reverted to their old condition, or turned in the opposite direction. The latter happened once after an apparently perfect result, including the restoration of binocular single vision, which had been permanent for five years. The consequent deformity was terrible. Sometimes I tried to undo the harm resulting from operations, my own and those of others, but invariably I failed.

Glasses, prescribed on the theory that the existence of errors of refraction is responsible for the failure of the two eyes to act together, sometimes appear to do good; but exceptions are numerous, and in many cases they fail even to prevent the condition from becoming steadily worse.

The fusion training of Worth is not believed to be of much use after the age of five or six, and often fails even then, in which case Worth recommends operations.

Fortunately for the victims of this distressing condition, their **eyes often become straight spontaneously, regardless of what is or is not done to them**. More rarely the vision of the squinting eye is restored. If the sight of the good eye is destroyed, the amblyopic eye is very likely to recover normal vision, often in an incredibly short space of time. In spite of the fact that the text-books agree in assuring us that amblyopia is incurable, many cases of the latter class are on record.

The fact is that both **squint and amblyopia, like errors of refraction, are functional troubles, originating entirely in the mind**. **Both can be produced in normal eyes by a strain to see, and both are immediately relieved when the patient looks at a blank surface and remembers something perfectly.** A permanent cure is a mere matter of making this temporary relaxation permanent.

Permanent relaxation can be obtained by any of the methods used in the cure of errors of refraction, but in the case of young children who do not know their letters these methods have to be modified. Such children can be cured by encouraging them to **use their eyes on any small objects that interest them**. There are many ways in which this can be done, and it is important to devise a variety of exercises so that the child will not weary of them. For the same reason the presence of other children is at times desirable. **There must be no compulsion and no harshness, for as soon as any exercise ceases to be pleasant it ceases to be beneficial.**

The needle, the brush, the pencil, kindergarten and Montessori material, picture books, playing cards, etc., may all be utilized for purposes of eye training. At first it will be necessary to use rather large objects and forms, but as the sight improves the size must be reduced. A child may begin to sew, for instance, with a coarse needle and thread, and will naturally take large stitches. As its sight improves a finer needle should be provided, and the stitches will naturally be smaller. Painting the openings of letters in different colors is an excellent practice, and as the sight improves the size of the letters can be reduced. Map drawing and the study of maps is a good thing, and can be easily adapted to the state of the vision. With a map of the United States a child can begin by picking out all the states of a particular color, and as its sight improves it can pick out the rivers and cities. In drawing maps it can proceed in the same way, beginning with the outlines of countries or states, and with improved vision putting in the details. A paper covered with spots in various colors is another useful thing, as the child gets much amusement and benefit from picking out all the spots of the same color. With improved vision the size of the spots can be reduced and their number increased.

Many interesting games can be devised with playing cards. "**Slap Jack**" is a good one, as it awakens intense interest and great quickness of vision is required to slap the Jack with the hand the moment its face appears on the table.

These ideas are only suggestions, and any intelligent parent will be able to add to them.

Both children and adults are greatly benefited by making their squint worse or producing new kinds of squint (see page 2). The voluntary production of squint is a favorite amusement with children, and if they show an inclination to indulge in it, they should be encouraged. Most parents fear that the temporary squint will become permanent, but the fact is just the contrary. Anyone who can squint voluntarily will never squint involuntarily.

Avoid using effort, force to keep a squint eye straight. This leads to more strain, eye muscle tension, abnormal eye movement. Use relaxation.

HOW I CURED MY CHILD OF SQUINT

By Mrs. B. F. Glienke

The following remarkable story is published in the hope that it may help other parents in the treatment of squinting children. The patient was first seen on April 24, 1920, her age being four years. When her sight was tested with pothooks her eyes were straight and her vision normal. When tested with the letters of the Snellen test card, which she could not read, or with figures, which she did not know, her eyes turned, and the retinoscope showed that she had compound myopic astigmatism. When she looked at a blank wall without trying to see, her eyes were again straight and her vision normal.

When my little daughter was quite young I noticed that her eyes were crossed at times, while at others they were perfectly straight. Later the squint became more continuous, and when she was four years old she was taken to Dr. Bates. **He said the trouble was entirely a nervous one**, and called my attention to the fact that **when the child was comfortable and happy her eyes were straight, and when she was nervous they turned.** He said that she should be **encouraged to use her eyes as much as possible on objects that interested her**, and that she **must never be scolded or punished**. He also recommended a cold sponge bath and **massage** first thing in the morning, for the purpose of quieting and strengthening her nerves and improving her general health.

Shift on the moon.

As I had been a teacher of drawing before my marriage and understood something of kindergarten methods, I did not find it difficult to follow his instructions. I drew pictures of animals, and asked Marie to tell me if they were running, walking, or standing still, whether they were looking at her, or facing in some other direction, whether they had four legs or two. I showed her a picture of the moon, and asked her to tell me whether the horns were pointing upward, downward, or sideways. We played that the moon was full of water and had to be held right side up so that the water would not run out. She became very much interested in these pictures, and as long as the interest lasted her eyes were straight. When they ceased to interest her the squint returned.

Sometimes I would ask her to look at the windows and tell me whether they were open at the top or bottom, whether the shades

were partly down, or all the way down. Then we would look at the windows across the street and do the same thing. We also watched the passing motors, and I asked her to tell me how many people there were in them and whether these people were men, women or children. We studied the patterns of the wall paper, and when visitors came I asked her after they had gone to tell me what kind of clothes they had on. **I taught her to sew and paint, to match colors, and braid mats, to thread beads, and do things with building blocks. Her father, who is a printer, showed her specimens of diamond type, and of minion which is even smaller than diamond. She enjoyed picking out the smallest letters, and when she did so her eyes were straight.**

Threading beads was the most beneficial work undertaken, its tediousness being overcome by the fact that the child's doll and all her stuffed animals, Teddy bear, bunny, dog, etc., each received its own particular necklace of beads. The cold baths and massage were also a great help.

The combined results of the treatment were wonderful. Her eyes began to be straight all the time. Her nervous condition and her appetite improved, and she slept better. Then we had some set-backs. First she had an attack of grippe with cough, headaches and fever. The squint came back and stayed with her for several weeks, until she was well. Then her eyes became straight again.

Later on when she was playing with her little brother they disagreed about something, and Marie got so nervous that her eyes became worse than on any previous occasion since she had been under treatment. The squint alternated from one eye to the other, the left eye being the worse, and next day we were very much worried when we found that the left eye was practically blind. But we went on encouraging her to use her eyes, and in ten days she was as well as ever.

STORIES FROM THE CLINIC

9: Three Cases of Squint

By EMILY C. LIERMAN

One day as I entered the clinic I saw two mothers standing side by side, each holding a little boy by the hand. The children were both about the same age, five years, and both were cross-eyed; but there the resemblance ceased. One seemed happy and contented, and it was quite evident that he was much loved and well cared for. Although cheap and plain, the clothes of both mother and child were clean and neat, and often the boy would look at the mother for a smile, which was always there. The other boy was plainly unhappy and neglected. I could read the mind of the mother, who was anything but clean, as she stood there grasping his hand a little too tightly, and even without her frequent whispered threats of dire things to happen if the child did not keep still, I would have known that she considered him a nuisance, and not a precious possession as boy No. 1 plainly was to his mother.

I was at a loss to know which child to treat first, but decided upon Nathan, the clean one, and tried to keep the other interested while he waited. Nathan had beautiful black curls, and should have been pretty, but for the convergent squint of his right eye, which gave him a very peculiar appearance. His vision was very poor. With both eyes together he could read at ten feet only the fifty line of the test card, and with the squinting eye he read only the seventy line. I showed him how to palm, and while he was doing so I had time to talk to his mother. She said that his right eye had turned in since he was two years old and that all the doctors she had taken him to had prescribed glasses. These, however, had not helped him. I now asked Nathan to read the card again, and was delighted to find that the vision of the bad eye had become equal to that of the good one, namely 10/50. I had difficulty in keeping his head straight while I was testing him, for **like most children with squint, he tried to improve his sight by looking at the object of vision from all sorts of angles. After he had palmed for a sufficient length of time, however, he became able to correct this habit.** The extraordinary sympathy which existed between mother and child came out again during the treatment, for no matter what I said or did, the child would not smile until the mother did.

Nathan came to the clinic very regularly for a year, and for the first six months he always wore a **black patch** over his better eye, the left, while atropine was also used in this eye to prevent its use in case the patch was not worn constantly. Nathan did not like the patch, and his mother had to promise all sorts of things to keep it on. After it was removed the atropine was continued. Dr. Bates had told me what to expect when the patch was removed, and so I was not shocked to see the eye turn in. I knew the condition would be temporary, and that in time both eyes would be straight. Treatment was continued for six months, and now the boy reads at times 10/15 with both eyes, and always with a smile.

The dirty little boy, to whom we must now go back, was called George, and his condition was worse than that of Nathan, for he had squint in both eyes. At ten feet he read the fifty line, but complained that he saw double. I showed him how to palm, and while he was doing so his mother told me how very bad he was, adding that I must spank him if he did not mind me.

"I think he gets enough of that already," I said, but I was careful to say it with a smile, fearing that she might lose her temper and say more than I would like.

George had now been palming five minutes, and I asked him to uncover his eyes and look at the card. He was much surprised to find that he could read the forty line without seeing the letters double. I asked his mother very quietly to be a little patient with him and help him at home, and I gave her a test card for him to practice with.

"Madam," she replied, "I am the mother of six, and I haven't time to fuss with him."

"No wonder the kiddy is cross-eyed," I thought, and seeing I could get no help in that quarter, I appealed to George.

When I revealed to him the possibility of a Christmas present if he came to the clinic regularly and did what I told him he became interested. I did not know how much could be done for his eyes in the eight weeks that remained before the holidays, but I felt sure that with his co-operation we could at least make a good start. This he gave me in full measure. Never did I have a more enthusiastic patient. He came to the clinic regularly three days a week, and often when I came late I would find him waiting for me on the hospital steps and yelling:

"Here she is. I saw her first."

After he had been practicing faithfully for two weeks—**palming six times a day**, and perhaps more, according to his own report—he was able to keep his eyes straight while he read the test card at twelve feet.

After he had done this I asked him to spell a word with four letters, and instantly his eyes turned. I had him palm again, and then I asked him to count up to twenty. **His eyes remained straight, because he could do this without strain.**

Two days before. Christmas I brought my bundle of presents for the children. George was there bright and early, and with him had come three of his brothers, to get their share too, "if there was any," as George explained. Fortunately a little fairy had prepared me for this, and I had gifts for everyone. That day George was able to keep his eyes straight both before and after his treatment,

and to read 15/10 with each eye separately. I have never seen him since, and can only hope that he kept up the treatment until permanently cured.

When little Ruth, aged three, first came to us Dr. Bates suggested to her mother, who was nearsighted, that she should have her own eyes cured, because her condition had a bad effect on the child. She consented, and now has nearly normal vision. Ruth had squint and was so tiny that I had to put her on a table to treat her. As she could not, of course, read the letters on the test card, I held before her a card covered with E's of various sizes turned in different directions. Her mother was quite positive that she couldn't understand what I wanted her to do, but Ruth, as often happens in such cases, had more intelligence than her mother gave her credit for. I asked her to tell me whether a certain E pointed upward, or to the right or left, by merely indicating the direction with her finger, and it did not take an instant for her to show Mother how bright she was. I showed her how to palm, and in a little while she indicated correctly the direction of the letters on several lines. When the letters became indistinct, as I moved the card further away, she became excited and wanted to cry, and her left eye turned in markedly. She palmed again and while she was doing so, I asked her all about her dolly, whether her eyes were blue, or some other color, what kind of clothes she wore, and so on. When she removed her hands from her eyes both were straight. Her mother was instructed to practice with her many times a day at short intervals, so that she would not tire of it, and in three months her eyes were straight every time I tested her sight. I was much interested to learn from her mother that if Ruth's daddy raised his voice in the slightest degree when he spoke to her, her eyes were sure to turn in. This merely confirmed my own experience that it is necessary to treat children who have defects of vision with the utmost gentleness if one wants to cure them. Ruth is not cured yet, but she hopes to be before Christmas, because Santa Claus is sure to visit Room 6, Harlem Hospital Clinic, and he does not like to see children squinting.

QUESTIONS AND ANSWERS

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

Q - Can opacity of the cornea be cured?—E. B.
A - Yes. A patient with opacity of the cornea came to the eye clinic of the Harlem Hospital with a vision of 20/70, and in half an hour became able to read 20/40. Later his vision became normal, much to my surprise. Other cases have also been cured.

Q - Is retinitis pigmentosa curable?—R. V.
A - Yes. See *Better Eyesight*, for April, 1920.

Q - My eyes are weak, and cannot stand the light. Can anything be done for them?—Mrs. W. T
Close vision cure
Q - Is it possible to regain the ability to read without glasses when it fails after the age of forty, the sight at the distance being perfect? If so how can this be done?—H. C.
A - The failure of the sight at the near-point after forty is due to the same cause as its failure at any other point and at any other age, namely strain. The sight can be restored by practicing at the near-point the same methods used to improve the vision at the distance—palming, shifting, swinging, etc. The sight is never perfect at the distance when imperfect at the near-point, but will become so when the sight at the near point has become normal.
A - Yes. Stop wearing dark glasses, and go out into the bright sunshine. As they get stronger accustom them to the direct light of the sun. Let the sun shine on the closed eyelids. Then gradually open them until able to keep them wide open while the sun shines directly into them. Be careful not to overdo this, as much discomfort and lowered vision might result temporarily from a premature exposure of the eyes to strong light. See *Better Eyesight* for November, 1919.

November, 1920

1 -Textbook of Ophthalmology, authorized translation from the twelfth German edition by Duane, p. 795.

Glaucoma Number
BETTER EYESIGHT
A MONTHLY MAGAZINE DEVOTED TO THE PREVENTION AND CURE OF IMPERFECT SIGHT WITHOUT GLASSES
December, 1920

VOLUNTARY PRODUCTION OF EYE TENSION A SAFEGUARD AGAINST GLAUCOMA

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

+ Put the fingers on the upper part of the eyeball while looking downward, and note its softness. Then do any one of the following things:
+ Try to see a letter, or other object, imperfectly, or (with the eyes either closed or open) to imagine it imperfectly.
+ Try to see a letter, or a number of letters, all alike at one time, or to imagine them in this way.
+ Try to imagine that a letter, or mental picture of a letter, is stationary.
+ Try to see a letter, or other object, double, or to imagine it double.

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

GLAUCOMA: ITS CAUSE AND CURE

By W. H. BATES, M. D.

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

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

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

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

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

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

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

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

Palming helps cure Glaucoma

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

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

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

On March 2, after swinging and palming, the vision of the right eye was 20/20w—while that of the left was 20/100 in the eccentric field. On March 4, the field of the left eye had improved, and by alternating the universal swing with palming he became able, for short periods, to read diamond type with the right eye at six inches. This was twelve days after he had begun the treatment. On March 7, he flashed 20/40 with the left eye, and by the aid of the universal swing read fine print at five inches with the right, while the field of both eyes was normal. For the first time in several years he became able to see the food on his plate. Previously he had had to be fed, which was very humiliating to him. He also became able to go about without an attendant, to attend to his

correspondence at the office, and to read his letters without glasses. At this point he stopped the treatment against my advice, and I have not seen him since. He was **greatly helped by the universal swing,** which he **practiced all day**.

The truth about glaucoma is that it is a functional neurosis caused by strain, and as such is curable. You can produce hardness in a normal eye by having the patient strain to see (see page 2), and you can soften a glaucomatous eyeball by relief of strain. These changes are so rapid that no change in the contents of the eyeball could account for them. I therefore concluded, before I had any experimental evidence of the fact, that they were due to muscular action. Later I was able to produce glaucoma in a rabbit's eye by operations upon the muscles. I shortened the superior rectus by tucking, and thereby produced a tension of plus 1. I repeated the operation upon the superior oblique, and the tension increased to plus 2. I did the same to the inferior oblique, and the tension increased to the maximum, plus 3. All this time the tension of the other eyeball remained normal.

GETTING CURED OF GLAUCOMA

By F. C. STEWART

This patient when first seen was able to read 20/50 with each eye, but the right eye was absolutely blind on the nasal side, a vertical line dividing the seeing from the blind area. The tension of the right eye was usually greater than that of the left, but at times the reverse was the case, and for short periods the tension of both eyes was normal. He had been using myotics (drops which contract the pupil) for some time, but had obtained no benefit from them. His age was fifty-eight, and he was wearing the following glasses: distance, both eyes, convex 2.75 D.S.; reading, both eyes, convex 5.00 DS. The improvement in his field since he has been under treatment has been very remarkable, as the accepted methods of treatment, even when the results are most favorable are not expected to enlarge the field, or even to prevent a further loss.

In the summer of 1917 1 had the first symptoms of glaucoma in the form of an attack of rainbow vision. I did not know what the symptoms meant, and was not alarmed; but I went to an optician and had my glasses changed, thinking the trouble was the consequence of eyestrain. The symptoms continued, however, and I went to another optician and had the glasses changed again. Still I was no better. Then I went to a succession of oculists, some six or seven, all of them being men of considerable eminence in the profession. The first two put drops in my eyes and examined my field, but did not tell me that I had glaucoma. It was only from the third, about a year and a half after the first symptoms appeared, that I learned what was the matter with me. The last began to talk operation, but I let him talk. I think I may claim to be as game as anyone about operations. When the doctors told me that they wanted to take my stomach out and put it back again, I said, "Go ahead." If they had told me that they wanted to take off my leg, I would probably have said the same thing. But when it came to letting anyone cut into my eye it was a different matter. About the first of last July the oculist in whose care I then was told me that my field was getting less. He asked me to come back in October, and said if the field continued to contract he would talk operation again.

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

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

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

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

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

The boy's mother made an appointment with me for the next day and an hour's treatment was given him in the bright sunlight. Two treatments were all that were necessary to give him permanent relief and he had no more discomfort or signs of strain or tension while he played basketball or baseball with the rest of the boys.

Another one of this group had i**rritated eyelids,** the appearance of which was worse than the discomfort or pain that the boy experienced. He blinked more rapidly than the normal eye does unconsciously. Sun treatment was given to him also. When the mother saw that he had obtained a noticeable amount of relief from the first treatment, she purchased a **sunglass** and under my supervision she learned how to **use the glass on his closed eyelids** and in this way all he needed was the one treatment.

The rest of the boys in my class were soon relieved of their eyestrain, which was due to straining while reading at the near point and trying hard to see objects at the distance. By shifting from the white space between two lines of microscope type and looking at a test card placed ten feet from where they were sitting and then at a test card placed twenty feet away, they were relieved during the one treatment. It was not easy to make them understand that it was not a game that I was playing, but I became as one of them because it is the only way that I can be successful in my work. It is always good while treating boys of their age to be interested in their work or in those things which interest them especially.

As I explained in previous articles it does not take long for a boy who is interested in baseball to obtain normal vision if it is only near-sightedness or far-sightedness which troubles him. While they are palming they can always imagine the size of a baseball and the color of it. They can always imagine that they are pitching the ball and that they are running to first, second and third base. In this way **their minds become relaxed during the palming** period or while their eyes are closed without being covered with the palms of their hands. This method always improves their vision for the test card and for big type.

With girls who are of school age, I find out, while they have their eyes closed and covered, what special study they like best. If it is arithmetic, for example, I have them give me an example and purposely I make a mistake in answering, which they correct. In their minds they are doing the example correctly and **their minds become relaxed because there is no cause for strain**. I have tried having a child do an example when arithmetic is not a favorite study with her, and I have not at any time found such a child who could get the answer correctly within a reasonable length of time because I produced mind strain, which in turn produced eyestrain and imperfect vision. This demonstrates that Dr. Bates is again right in saying that when the mind is under a strain, the eyes cannot have normal vision.

+Mind strain = imperfect memory, imagination, eye muscles tense – abnormal eye shape – incorrect focus of light rays in the eye – brain not function correct with light, eyes, retina, eye muscles, nerves = unclear vision.

+Mind relaxed = memory and imagination perfect, eye muscles relaxed, function correct – normal eye shape – correct focus of light rays on retina, brain functions correct with incoming light, eyes, retina, eye muscles, nerves = clear vision.

Case Report

Military Story

Man Experiences Blindness - How He Returned to Clear Vision

By Joseph Ouimet

So many are the testimonial letters from satisfied clients that are published by manufacturers of specifics in newspapers and magazines, who pay so much per line for their insertion, that this means for expressing one's appreciation has been abused and discredited to such an extent that when a client desires to show his gratitude for a certain and specific cure, he is in danger of being disbelieved.

Nevertheless, at such a risk, I shall relate my own experience during a period of utter darkness, during which time the light did not penetrate into my eyes. In my soul reposed uncertainty, due to the assurance of a doctor that I would never recover my eyesight. Those were times of sorrow very difficult to forget, and now that light once again penetrates into my eyes, showing me the greatness of a world full of colors and infinite harmony, it is my desire to express in these few lines my appreciation to the man who brought me out of the world of darkness. I also wish that my experience may serve as a guide to all those who are endeavoring in vain, through erroneous means, to regain their eyesight or who have resigned themselves to live in a world of total darkness, after tiring of trying out experiments without results.

To begin my story, it is necessary that we go back to the year I9I7. At this time, from all cities of the United States, men in the prime of life were leaving for Europe, some never to return but to remain on the battlefields of France as a testimony of the heroism and sacrifice of a nation who willingly sent millions of soldiers to fight for a principle.

I was one of the many who, from the shadows of night to daylight, was converted from a peaceful citizen to a war soldier and who received the baptism of fire on French soil. There I slept in muddy trenches, suffered hunger and cold, fought in defense of my life. One afternoon while repelling a counter-attack, I was enveloped in a cloud of poison gases. Tears came to my eyes, which were inflamed to such an extent that I was unable to distinguish the objects which were located two feet in front of me. In despair I rubbed my eyes with my hands and almost crazy with pain I started to run without knowing where, until I stumbled and fell, a blow mercifully relieving me of all pain and making me lose consciousness.

Upon regaining my senses, I found myself in a hospital bed, where started many tedious and ineffective treatments designed to bring me out of the world of darkness to which the poison gases had doomed me. Days like a long endless night passed in the hospital, during which my eyes endeavored to form images and visions of things that in former times were so pleasing to my eyes. Only within my soul and as memories, such images took shape as though it were a new irony of life looking with delight at my loneliness and showing me the treasures that I had lost.

One day the doctor under whose care I was, being tired of making trials and seeing that his efforts were in vain, gave me up as incurable. When I was so informed, when the doctor's words shattered the only rays of hope that I still had, it seemed as though the world was sinking from under my feet. It seemed as though the world had come to an end as far as I was concerned. I had no further hopes or ambitions, but resigned myself to my fate and to wait for death to visit me as soon as possible so that I might take my trip to the infinite.

I thus returned to my native land, discouraged at heart, without being able to see anything, not even the ocean that was murmuring under me, nor the sun that shone upon my body, nor the faces of my comrades who happily commented about the proximity to their happy homes. When the boat sirens, the jubilant screams of my comrades; when the distant voices of the multitude who were anxiously awaiting the arrival of the steamer, made me aware of our arrival at the port of debarkation, I

experienced the most bitter moments of my life, especially when, at the dock, with eyes filled with tears I embraced my dear beloved ones, holding them strongly in my arms, so as to behold with my sense of feeling those whom my eyes could not see.

Then, little by little, by resigning to my fate I was able to drive out bitterness from my soul, until one day I was told about the Clinic of Dr. W. H. Bates, which I visited for the purpose of simply trying out one more cure but without having hopes of any kind. A few days after visiting the clinic and without receiving any other treatment but **sun baths** and **relaxation treatment** under the electric light, I observed a rare change. It seemed to me as though the darkness were becoming less dense and at times it seemed to me that I could see small objects which would appear from time to time, to disappear again rapidly, until one day a miracle took place.

A ray of light penetrated my eyes; it was like a shadow which I could distinguish vaguely in the shape of a bundle, without being able to determine exactly what it was. Although I could see so very little, my soul was filled with joy. From then on I dismissed from my mind all lack of confidence, and practicing faithfully the methods recommended, the bundles that my eyes vaguely could make out, gradually took a shape of reality until I was able to distinguish objects in their true form. Once again a return to life after having been for several years in the worst of all human jails and now that my sufferings have come to an end almost entirely, I am in a very good position to appreciate this treasure that God has given us so that we may behold the infinite wonders of his creation.

I wish that my knowledge were more extensive so as to describe in detail the methods that Doctor Bates employs in his clinic so as to bring about similar miracles, details which although very simple, inasmuch as the methods are not tedious nor difficult, involve certain technicalities which only through the lips of a man of science can be made sufficiently clear for the layman to understand in all its details. It is not the technician who is writing these few lines but a grateful person who desires to pay with the only available means for a good service.

The results in my case I do not hesitate to call miraculous, in view of the fact that I had been considered as incurable by other doctors who, by using antiquated methods, made me lose time and money, and endure years of suffering. In view of these circumstances, any praise that I may give Dr. Bates, will not be enough and if I have refrained from using more appealing terms in my narrative, it is because I would not want my sincerity and good faith to be doubted in any way. Should it be necessary, I have not only one witness but several, as well as friends, acquaintances and persons of reliability who have known me for a long time and who would not hesitate to corroborate every word of my statement.

Today my satisfaction is complete on account of being almost entirely cured, and I think that in this world there must be many unfortunate ones who, not being as fortunate as I, have been unable to obtain relief from such a terrible malady. How much would I like to have this message reach their hands! Were I one of the sons of fortune who from birth has been showered with wealth, I would be glad to devote part of my money so that everyone who may have any eye affliction may receive these good tidings, but inasmuch as my limited resources do not permit me this pleasure, I hope that these few lines will serve as a sincere testimony of one who is very thankful for the services obtained in the Clinic of Doctor Bates.

There is a movie telling the true story of a man blind since childhood from cataract and retinitis pigmentosa. When he was a adult he had a cataract operation and regained his sight. After about one year he became blind again. None of the doctors treated him with the Bates method which could have cured the cataract and retinitis pigmentosa without operation. They did not teach him how to use the memory and imagination to learn to identify objects and get his eyes working with the brain. His eyes, brain had not seen anything for years, he had very few mental pictures so all objects when first seen were unfamiliar. This was very frightening, confusing for him. Imagine never seeing a car, street, house…
If the Bates Method would have been applied the man may have obtained clear vision naturally and maintained the vision.

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, neck. 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.

Military, Pilots

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, (this will cause strain, blur) but a stare or strain to see it with a white center as white as snow may require much effort, time and trouble. (this will also cause strain, blur) 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 – See pictures on right)** 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?

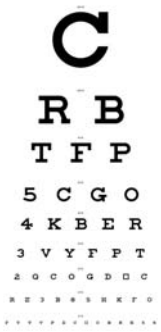
Control is necessary.

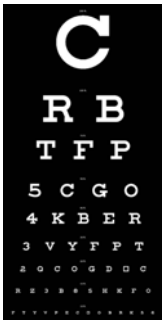
How can it be obtained? Very easily. First demonstrate that doing the wrong thing - like staring, straining or making an effort to remember, imagine or see - requires an effort, while resting the eyes or mind is easy and requires no effort.

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.

Amelia Earhart - Pilot

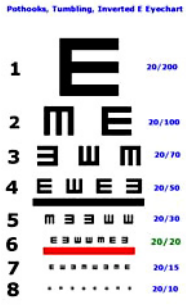




Test Card Practice

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.

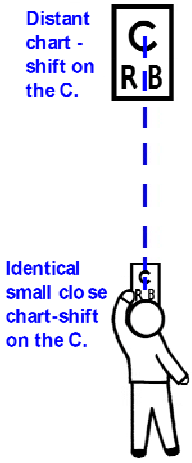
There is a small black card with white letters for those who are partially blind, which is of great benefit to them. Such a patient is placed with his back to the sunlight and while the sun is shining on the black card, the white letters appear more clear and white and by closing the eyes often, avoiding 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.

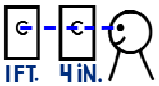
For those who do close work, more than one small test card is used. During work hours two cards can be placed on the desk, for instance, or near to their work. One is placed to the left and the other to the right at an even distance of about two or three feet, or a little closer. The shifting, which 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.



Shift on letters on two identical eyecharts placed at close and far distances. Use the memory, imagination; Shift on and remember, imagine the letters clear with the eyes open, closed, open.



Shift on letters on two identical eyecharts placed at two different close distances to improve: accommodation, un-accommodation, convergence, divergence and clarity of vision at all close distances.

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.

Questions And Answers

Q – (1) How long should one palm and how often?
(2) How young a patient can you treat by this method, and up to what age can you expect results?
(3) Is astigmatism curable by this method?
A – (1) As often and as long as long as possible.
(2) Age is not a factor in the cure of imperfect sight without glasses. Patients as old as eighty-two have been relieved. Children can be treated as soon as they are able to talk. Babies, children can be rocked, swung in their mothers arms, cradle…, different objects moved in front of the eyes to prevent staring, to get the eyes shifting, activate relaxation.
(3) Yes.

Q – How long has the method been known?
A – Its evolution began thirty-five years ago. It has improved as experience has been gained and is still improving.
The Modern Bates Method consists of many new, improved versions of the original treatments and new methods; Left and right Brain Hemisphere activation, integration, color treatment, Infinity swing, posture, movement, positive thoughts/emotions are a few examples.
Q – Why is it a rest to read fine print? I should think it would be more of a strain.
A – Fine print is a relaxation, large print a menace. The December, 1919, issue of this magazine explains this in detail.
Fine print activates perfect central fixation, tiny shifting eye movements, short swing, fine tuned detailed vision. The mind, eyes become perfectly relaxed when reading fine print because that is the only way it can be read.
Q – Must the body be at rest before the eyes can be cured?
A – When the eyes are relaxed, the whole body is relaxed.

Q – Which is more beneficial, the short or the long swing?
A – The short swing, if you can maintain it.
Short Swing Example: Shift on a small fine print letter or period and see it show oppositional movement.

Q - Trying to make things move (oppositional movement) gives me a headache. Palming gives me more relief. Why?
A – Making an effort to do a thing will not help you. When you are walking on the street, the street should go in the opposite direction without effort on your part. Some people get more relief from palming, while swinging helps others more.

Q – Are the "movies" harmful?
A – No. Quite the contrary. Send for the magazine on this subject.

Q – Why do "movies" hurt my eyes when they should benefit them?
A - Unconscious strain. Do not stare at the pictures, but allow the eyes to roam over the whole picture, seeing one part best. Also keep things swinging.

Q – Is a hemorrhage on the outside of the eyeball fatal?
A – Rarely.

Q – Is central choroiditis curable and does it require much treatment?
A – Yes, choroiditis is curable. It requires a great deal of treatment in some cases.

Q - Should one imagine a thin white line along the top of a word or sentence or just at the bottom?
A - If you can imagine it at the top as easily as you can at the bottom, do so, otherwise imagine it only at the bottom.

Q - If the lens is not a factor in accommodation, what is its purpose?
A - The lens is for protective purposes, just as fat is a protection to the bones of the body.
The lens also bends/refracts light rays, focuses the rays onto the retina. The cornea also refracts/focuses light rays. The cornea and lens also control the amount of light that enters the eye. Most eye professionals state the lens also changes shape to produce accommodation, adjust light rays from close objects to focus on the retina.
Light rays from close objects diverge; this is why the lens/eye must change shape to bring the rays onto the retina for clear close vision.
Light rays from distant objects are basically parallel, focus perfectly on the retina so the lens/eye do not need to change shape to focus light rays from distant objects onto the retina. The round eye shape is set perfect for focus of parallel light rays.
Dr. Bates stated that the lens does not produce accommodation. He states that the outer eye muscles (oblique) slightly lengthen the eye (as a camera works) to focus on close objects.
Q - If strain is the cause of imperfect sight, why are not all affected in the same way? Why is it that some have myopia, others astigmatism, etc.?
A - **Different people react in different ways to strain. Some have mind strain, some nerve strain, some physical strain, etc. All these tend to cause various ailments. One's temperament also has a great deal to do with it.**
One strain can lead to secondary, and third…strain, all which increase each other. Example: A persons uses incorrect posture and experiences neck tension which results in some eye muscle tension and slight blur. This is the first type of strain. Then the person squints, stares, uses effort to see. This causes a new secondary type of strain and increased blur. The person begins to worry about the blur, eyestrain and a new third strain (worry) occurs, and more blur. The person starts wearing eyeglasses which is a forth strain and greatly increases all four strains. Four different types of strain are now in the visual system, mind.
The Natural Eyesight Improvement teacher shows the student how to identify and remove all types of strain.
Left and right brain hemisphere imbalance, dominance, suppression, negative thoughts, emotions, using effort to see at close and far distances, squinting, staring can cause different types of strain, unclear vision at certain distances, other abnormal eye conditions.

Q – When doing the swing, what does one move, the head or eyes?
A – The eyes are moved in the same direction as the head is moved.

Q – Does massaging benefit the eyes?
A – No, because it does not relieve the mental strain which caused the eye trouble.
Modern teachers know that; Body, shoulder, neck, face acupressure point activation and muscle massage does improve the sight, health of the eyes by relaxing the eye muscles, improving eye movement, blood, oxygen, lymph, nerve flow/circulation to the brain, eyes. Joint, vertebrae alignment, muscle massage, relaxation in many different areas of the body has a direct affect on the eyes and improves the clarity of vision.
Improving the state of the body, its relaxation helps remove mental, visual strain.
Appling Bates method also removes strain in the mind, eyes, body, muscles, nerves.

Q – Is practicing under a strong electric light as beneficial as practicing in the sun?
A - If the sun is not shining, the strong electric light can be used with benefit, although more benefit is derived from direct sun treatment.

Q – Can one remember perfectly and see imperfectly?
A – It is impossible to remember perfectly and see imperfectly at the same time. Perfect sight can only be obtained with the aid of a perfect memory. When the memory is perfect, the mind is relaxed and the vision is normal. Imperfect memory requires a strain of the eye which produces imperfect vision.

Q - Can one blink too quickly and too often?
A - The normal eye blinks quickly, easily and frequently. Blinking can be done correctly or incorrectly. Some people, when they are told to blink, squeeze their eyes shut, or close them too slowly and then open them spasmodically, which is wrong. When the normal eye blinks, things are seen continuously.

Announcement

Dr. Bates wishes to announce to his patients that he is moving his offices from 383 Madison Avenue, New York City, to 18 East 48th Street and will be treating patients at the new offices after October 1st.
The Central Fixation Publishing Company will also be located in the same building, 18 East 48 Street, New York City.

BETTER EYESIGHT
A MONTHLY MAGAZINE DEVOTED TO THE PREVENTION AND CURE OF IMPERFECT SIGHT WITHOUT GLASSES
OCTOBER, 1928

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.
Modern teachers allow the use of reduced, weaker, 20/40 eyeglass lenses if necessary for driving, safety until the Bates Method brings the vision to a level of clarity where eyeglasses are not needed. The strength of the lenses are repeatedly reduced as the vision passes through clearer and clearer levels of clarity. Reduced lenses do block natural eye function, produce strain, eye muscle tension, slow vision improvement but not as much as 20/20 and stronger eyeglass lenses. Reduced lenses allow the eyes, vision to improve, reverse back to a normal state. The lenses are worn as little as possible and a further reduced pair is kept ready since the Bates Method can bring a sudden, sometimes unexpected increase in vision improvement. As vision improves, stronger lenses will not provide adequate clarity.

Nystagmus

By W. H. Bates, M.D.

When the eyes move conspicuously from side to side, regularly or continuously, the condition is called nystagmus. These movements occur so frequently in connection with serious diseases of the eyes that the presence of this symptom is an indication that the cure of the eye disease will usually require much time and attention. So seldom are eye diseases with nystagmus cured that many physicians believe that most cases with nystagmus are incurable. I have found that many of these so-called incurable cases

will recover by treatment.

We have observed that many eyes with imperfect sight do not have nystagmus but acquire it at almost any age. It has been produced repeatedly by a conscious stare or effort to see. **It has been relieved by conscious relaxation with the aid of palming.** When the patient is reminded that the stare or an effort to see is injurious, he becomes better able to lessen or relieve the eyestrain which is usually very harmful. Patients with nystagmus have less control of the movements of their eyes and for this reason require more supervision and help before they become able to use their eyes properly without strain.

All patients with nystagmus cannot be treated in the same way because I have not found two alike. The treatment which is helpful in one case may not be of any benefit to any other.

One patient, a woman aged twenty-five, who was born with a very bad case of **nystagmus** and who also had **mixed astigmatism,** with **retinitis pigmentosa**, was under my observation at different times for a number of years. In the beginning her vision without glasses was 10/200 in each eye. She obtained a vision of 10/70 in each eye with the aid of the glasses which corrected her mixed astigmatism. Without glasses her vision improved to the normal temporarily with the aid of **palming, shifting, and swinging**. She also became able to read without glasses. The nystagmus was also benefited at the same time. The patient was encouraged and practiced the relaxation exercises more continuously.

In her case, palming was the most beneficial treatment of her eyes, both for the nystagmus and vision. This may have been due to the fact that when she palmed with both eyes closed, she was able to remember black letters on a white card more perfectly with her eyes closed than with her eyes open. She was also able to remember or imagine white letters on a black card better with her eyes closed than with her eyes open. **When she remembered letters perfectly, her eyes became relaxed and her vision for trees, flowers, the colors of the spectrum, red, green and blue as well as other objects and other colors was perfect** without any effort or strain whatever. Her memory seemed perfect to her because she could remember letters and other objects as well at twenty feet or farther as she could at two feet or nearer. **Palming helped her to remember things better. The longer she palmed the better became her memory. With an improved memory her sight became much improved and the nystagmus became less.** The palming improved her memory of the notes of her music. Many of the black notes had a white center which she remembered better by the aid of palming.

It is important to mention that the **sun treatment** also lessened the nystagmus and improved the sight because the eyes became relaxed. This improved her sight and lessened the nystagmus. In the beginning the sun treatment was not so beneficial as it became later, after palming. **The sun treatment was employed with the aid of a strong magnifying glass which focused the light of the sun on the outside of the upper lids, the glass being moved rapidly from side to side for short periods of time.** For several weeks this treatment was given daily whenever there was sun, and the nystagmus and vision decidedly improved.

(There have been cases of nystagmus treated which failed to improve by the sun treatment. Other methods were then employed.)

With the improvement of the nystagmus, this patient's vision for distant objects and her ability to read also improved. The inflammation of the retina at the same time improved remarkably. In the beginning of her treatment a large part of the retina of both eyes was covered with black pigment spots. The ophthalmoscope was used each time she came. **It was noted that these black specks became less numerous and finally disappeared. The fields of each eye were improved and the night blindness from which she suffered became less.**

Her visits to the office were very irregular and uncertain, with the result that the improvement which she obtained during this time was not continuous. She earned her living as a music teacher. When she neglected to practice the treatment which I recommended to correct the tension, stare, and strain, her vision became worse and she lost her occupation. Having to depend upon her family for support was embarrassing to her. She came again for treatment after an absence of over a year. She told me that she was ready to come at regular intervals whenever I advised her to come.

While she was away she had a relapse but did not lose all the improvement that she had gained; there was an improvement in the nystagmus, but it was not rapid or conspicuous. This patient was examined with the aid of a moving picture camera. She was able to lessen the movement of her eyes and was able to show on the screen how it was done. When these pictures were taken by an expert, the doctors who were invited to be present testified that when the nystagmus became less or disappeared and the vision improved it was because the stare, strain, or effort to see was corrected. What I have been unable to prove in my publications, the moving picture (movie) screen proves.

My patient gradually and steadily improved until she became able to see well enough to resume her work. Her vision for distant and near objects improved so that she could see better without glasses than she had formerly seen with them.

While the moving picture work was in progress, this patient offered her services to show how the nystagmus could be produced by an effort. The condition of her eyes was so much improved that I doubted that she had the ability or the courage to strain or produce the amount of tension necessary to show her nystagmus condition on the screen. While the camera was running I was amazed to see the nystagmus return. I thought that I had met my Waterloo. Now that I had improved a case that I had at one time deemed impossible to help, I feared that in order for her to strain sufficiently to cause the nystagmus to return would be a calamity. My fears were relieved when the camera again registered a picture of her while she remembered perfect sight by reciting for me all the letters of the Snellen test card which she had committed to memory.

This picture showed plainly no evidence of effort or strain and the nystagmus had stopped. Later the patient told me about the pain and discomfort she suffered in order to produce the nystagmus for the picture. Her sacrifice was worthwhile because others since then have been benefited.

Some patients with nystagmus do not know that they have it. **The first step in their cure is to teach them to feel the eyes move when the closed upper lids are lightly touched with the finger tips.**

Boy creates and cures nystagmus

One day some years ago a boy about twelve years of age came to my office. He was ushered in by his mother, a middle aged woman who just pointed to his eyes, and then sat down and waited. The patient had nystagmus. His vision was about one-half of the normal. With the ophthalmoscope no disease of the retina, optic nerve or any other part of the eyes could be found. The nystagmus was variable. He was able to lessen it until his vision improved very much and even became normal, 20/20 for short periods of time. By straining to see, the nystagmus became worse and his vision less. His mother became more interested. Her eyes were full of questions but she remained silent.

I asked the boy; "Can you move your eyes more rapidly?" "Yes," he answered. Then he was asked: "How is your sight?" "Very poor," he replied, "and growing worse." "Can you stop the movement of your eyes?" He answered: "Yes." "How do you do it?" "I

do not know," was the reply.

He was told to palm or to cover his closed eyes with the palms of his hands. He said this felt restful and when he opened his eyes his vision was improved and the nystagmus had stopped. For some minutes he was able to demonstrate that he could stop the nystagmus and that his sight for a short time was better. He was also able to produce or increase the nystagmus by making an effort to try to see. All this time his mother watched the proceedings. By the way she acted one could read her mind. The nodding of her head, the frequent moistening of her lips, the satisfied look in her face showed that she believed that the **boy produced the nystagmus consciously for his own amusement,** which was the truth. It was not necessary for me to explain. She now understood what was the matter with him and she also knew what to do. After thanking me she grabbed the boy's arm none too gently and disappeared from my office quicker than she came in.

There is another story of a child that created crossed, wandering eyes as a joke. The child's eyes normally did not cross, wander. Dr. Bates cured many cases of crossed, wandering eyes by teaching the person how to create it. Once the person knows how it is produced (using strain, tension, incorrect eye function), the person can prevent, cure it by avoiding the strain… and by appling relaxation, shifting, central fixation… Nystagmus can also be caused by a medical condition in the body, brain. Check with a medical doctor for more treatments.

Case Reports

By Emily A. Bates

Emily C. Lierman married Dr. William H. Bates. Her name is now written as: Emily A. Bates

It is encouraging to meet people who have become able to discard their glasses by the benefit they obtained just from reading Dr. Bates' book. There are those also who write to us and complain that they have not received any benefit whatever after reading it. But the latter are in the minority.

Sometimes I feel that I would have been one of the complaining kind if I had not been fortunate enough to meet Dr. Bates before his book was written. I agree with some people that parts of his book are too technical for the layman to understand. But the principal part of his book is not technical and is so carefully written that even school children have been benefited and cured by practicing the methods recommended. While I was in California I met a number of children who came to see me for one visit only and brought Dr. Bates' book with them. Dr. Bates' himself would have felt honored if he could have seen so many of his books so worn out that the pages had to be pasted together again, while others were very much soiled from handling.

These children wanted to be sure that their relief from eyestrain was complete. I appointed the oldest one to test the sight of each eye of all the pupils. According to the tests made, the vision of all the pupils was normal with the Snellen test card and other objects. They all read correctly the captions on the moving picture screen, thirty feet away. A question was asked as to whether the moving pictures (movies) caused more or less eyestrain and I replied that the facts were quite the contrary, but that one must become accustomed to the strong light of the sun. Most children out West are accustomed to the sun and for that reason there are fewer children wearing glasses than the children of city schools here in the East. Doctors and instructors from various schools came to learn the Bates Method so that they could teach others how to use their eyes correctly.

A young woman came to me for the relief of her eyestrain. While visiting in New York, one of the professors of the University of Southern California had been treated and cured of presbyopia by Dr. Bates. This woman was one of the professor's students at the University and he recommended her to come to me for treatment. She had myopia, or shortsight, (nearsighted) and at times suffered a great deal of pain, especially at night after her studies were over. It was impossible for her to read at night no matter how strong an electric light was used. The stronger the light was, the more discomfort she had in her eyes. This made her unhappy because she was a lover of books. The temptation was very strong to obtain suitable glasses so that she could enjoy reading her books at night, when the instructor advised her to try the Bates Method for the relief of her eyestrain.

I began treating her by placing her fifteen feet from the test card which was fastened to a stand. With much straining on her part she read the seventy line with her right eye and only saw the largest letter on the card, which is called the two hundred line letter, with her left eye. I immediately decided to draw the test card up to ten feet, where she would not strain so hard to see. Again she read the letters, reading with the right eye and then with the left. Her facial expression became more natural, less strained, and without her telling me so, I knew that she felt more like going on with the treatment.

Her disposition was directly opposite to that of her friend and classmate who came with her. Her friend was so determined not to wear glasses that there was no doubt at all in her mind about receiving some benefit from me. But not so with my patient. She was willing enough to have me try to help her but she did not have much faith in me. I was not Dr. Bates and that made a difference with her. She felt that I could not possibly understand her case. She told me later that I had read her mind correctly but was glad that she tried and won out.

At ten feet she read the forty line with her right eye with the evidence of strain decidedly less. With her left eye she read one letter correctly of the one hundred line, or the second line from the top of the card, which is an "R." The other letter on that line is a "B" which she thought was an "R" also. I did not correct her but told her to close her eyes and forget about the test. I asked her about the subject she was most interested in at college and she seemed eager to tell me about it. She was studying art and the correct combination of colors for interior decorating. Some patients, when asked to close their eyes and remember something perfectly cannot do so without help from the doctor or instructor. This patient did so immediately. She did not have her eyes closed for more than ten minutes when she became able to read the whole test card as well with the right eye as with the left, at ten feet.

The memory of colors, describing them to me while her eyes were closed, was all she needed to give her relaxation of mind and body, and temporarily improve her sight to normal. I told her to close her eyes again and describe her ideas of colors for different rooms of a home she had in mind. While she was doing this I

again placed the test card fifteen feet away and with both eyes she read 15/20. She complained of a sharp pain over both eyes, the pain being more over the left eye.

I placed her chair in the sun and while her eyes were closed I used the sun glass very rapidly for five minutes on her closed eyelids. This not only relieved her pain but it improved her sight to 15/10. She read microscopic type just as well in an ordinary light as she did in the sunlight. Because she had been nearsighted it was not difficult for her to read it. She was told to read the fine type several times every day after sitting in the sun with her eyes closed.

Having worn a green shield over her eyes while in her classroom every day for two years, it was not easy for her to take the sun treatment. However, the results she obtained during her first treatment encouraged her to continue the practice. She purchased a sun glass and I taught her friend how to use it on her eyes. My patient in turn also learned how to give the sun treatment which not only benefited her friend but also others at the University. My patient returned for two more treatments a month apart and after that she reported over the telephone to me that she had had no relapse to imperfect sight.

Questions And Answers

Q – Will it still be necessary to continue practicing the methods of swinging and shifting after my eyes are cured?
A – No, when you are cured of eyestrain you will not be conscious of your eyes. However, if you strain them you will know what to do to relieve the strain.

Q – If one's arms become tired while palming, will a black silk handkerchief covering the eyes produce the same amount of relaxation one gets from palming?
A – No. Palming is the best method for relaxation and improvement in vision. When tired of palming, the hands can be removed and the eyes kept closed until one feels relaxed.

Q – How can one look at the sun without injury?
A - While looking toward the sun it is best to **blink the eyes and to look to the right and to the left of the sun**. (shift) This will help you to look directly at the sun without discomfort or pain. One cannot look directly at the sun without normal vision.

Q – If I improve the vision of the poor eye will there not be a confusion of images?
A – Not necessarily.

Q – Is it possible to cure a three-year old child of squint without an operation?
A – Yes. I have had many such cases that were cured by my method of treatment.

Q – When the pupils become dilated, is that an indication of eyestrain?
A - No. A great many people who have dilated pupils have no trouble at all with their eyes.

Q – I am practicing the methods in your book to cure myopia and astigmatism. Sometimes for short periods, I see perfectly, then things fade away. Can you explain this?
A – This is what we call getting flashes of perfect sight. With continued practice these flashes will come more frequently and eventually will become permanent. Then you are cured.

Q – Can the vision be improved without glasses after the lens has been removed for cataract?
A – Yes.

Q – Does Dr. Bates approve of dark glasses to protect the eyes from the glare of the sun at the seashore?
A – No. Dark glasses are injurious to the eyes. The strong light of the sun is beneficial to the eyes, although it may be temporarily painful and blinding.

Q – By following instructions in the book, can cataract be benefited without consulting a physician?
A – Yes.

Q – Are memory and imagination the same? When we remember an object do we have to visualize it?
A- A perfect memory cannot be obtained unless you are able to imagine that you see or visualize what you remember.

Q – When I try to imagine a black period, it blurs and I get all colors but black.
A – When you fail to remember a period with your eyes closed, open your eyes and see it, then close your eyes and remember it as well as you can for a moment. Alternate.
Shift on the period with eyes and mind and a clear mental, visual image will be seen and imagined.

Q – I enjoy palming, but it makes me drowsy after ten or fifteen minutes. Is this helpful?
A- When palming is done properly it does not make you drowsy.

Q – I find conscious blinking a strain because I close my eyes temporarily and seem to hold the eyeball stationary. If I shut my eyes for a longer period would that be blinking? Stationary eyes=muscle tension, strain, blur.
A – No. The normal eye blinks consciously or unconsciously without effort, without strain, and quickly.

Q – My little daughter has temporary perfect sight while palming, but her eyes turn in when she plays excitedly or strenuously. I thought play was relaxing.
A – Play may be relaxing and should be beneficial but like other things, it can be done wrong with a great effort without benefit.

Q – While palming, is it necessary to close the eyes?
A- Yes.

Q – How long is it necessary to read the test card before obtaining benefit?
A- Some patients, by palming and resting their eyes, have obtained benefit in a few minutes.

Q - What is most helpful when one is dreadfully nearsighted and finds it almost impossible to see without glasses?
A- Practice palming as frequently as possible every day. Keeping the eyes closed whenever convenient for five minutes, ten times a day, is also helpful.

Q – Why is fine print beneficial?
A- Fine print is beneficial because it cannot be read by a strain or effort. The eyes must be relaxed.
Fine print also activates perfect central fixation, with eye movement/shifting, including tiny shifts.
When the mind, eyes are relaxed, vision is clear.
Perfect relaxation must occur for fine print to be seen. Reading fine print brings the mind, body, eyes to perfect relaxation.

Q – I have noticed when I palm that my eyeballs hurt from the pressure. When I loosen this tension the light filters in.
A - Palming is done correctly with the fingers closed and laid gently over each eye, using the palms like a cup. If this is done properly there is no pressure and the light is shut out.
It is ok if a little light shines thorough.
The hands must stay relaxed. No pressure on the eyeballs, eyes.

Q – Are floating specks serious? Sometimes they just flood my eyes like clouds of dust and greatly frighten me.
A- Floating specks are not serious. They are always imagined and never seen.

Q – I have improved my sight by palming, but when I read for any length of time the pain returns.
A – When you read and your eyes pain you, it means that you are straining your eyes. More frequent palming may help you to read more continuously.

Q – If type can be seen more distinctly with the eyes partly closed, (squinting) is it advisable to read that way?
A - No, it is not advisable to read that way because it is a strain, causes eye muscle tension and alters the shape of the eyeball and leads to increased blur.

Q – I have attained normal vision, but after reading for a while, my eyes feel strained. Would you still consider I had normal sight?
A – If your eyes feel strained you are not reading with normal vision.

Q – When I look at an object and blink, it appears to jump with each blink. Would this be considered the short swing?
A – Yes. You unconsciously look from one side to the other of the object when blinking. (Oppositional Movement)

Q – Some days, I can read the Snellen card to the 15 line, others only to the 30 or 20.
A- When the eyestrain is less the vision is always better.

BETTER EYESIGHT

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

NOVEMBER, 1928

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. Shift relaxed, easy, continually from object to object and part to part on objects.

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. A faster shift produces faster oppositional movement.

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

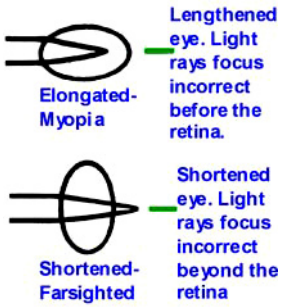
Memory: When the vision is perfect, it is impossible for the memory to be imperfect. One can improve the memory by alternately remembering a letter with the eyes open and closed. This should be practiced for half an hour twice daily.

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.

Hypermetropia

By W. H. Bates, M.D.



NEAR-SIGHT or myopia (unclear distant vision) is acquired in schools. The statistics of many observers show that myopia may increase in frequency. This increase may be slight or it may be considerable.

HYPERMETROPIA (farsight, unclear close vision) is the opposite of myopia. The optic axis is shortened instead of being elongated as in myopia.

Most writers attach very little importance to hypermetropia. They publish that the hypermetropia eye is usually congenital and not acquired. Risley examined many eyes with hypermetropia. He believed that hypermetropia caused headache, pain, fatigue, dizziness and other symptoms to a greater degree than did myopia. Many statistics showed that in the eyes of school children about 80 percent had hypermetropia, about 10 percent had myopia, and about 10 percent had good eyes. It is well that the objections to hypermetropia should be studied and published. It is more necessary to relieve the symptoms of hypermetropia than those of myopia if for no other reason than the fact that hypermetropia is more injurious to the eyes.

The old methods recommended for hypermetropic eyes are insufficient to obtain the best vision, and to relieve or cure pain, fatigue, dizziness, double vision or other nervous troubles. Hypermetropia of low degree is quite often as difficult to improve without glasses as many cases of hypermetropia of a high degree.

What are the limits of improved or cured vision in most cases of hypermetropia? There is no limit. A hypermetropia of 15 D.00 or 30 D.00 can obtain as good sight by relaxation treatment as a hypermetropia of 1 D.00 or less. Such claims are open to criticism. They can all be demonstrated by different operations on different cases.

What is the percentage of cured cases or what is the percentage of failures? A physician in charge of a physiological laboratory many years ago requested a report on the production or cure of hypermetropia in animals or in human beings. The report submitted to him stated that 100 percent of all rabbits, dogs, turtles, cats, fish, and other animals acquired hypermetropia after the recti were advanced or strengthened, while the obliques were divided or weakened.

The director of the laboratory asked: "Why do you not publish the facts?'' The answer was: "Because no failures have been observed.'' He then added that he felt that when successful results occurred in 60 percent of his cases he should publish the results because they were of scientific value.

A failure was desired before a correct conclusion could be stated, that is, a case in which hypermetropia was not produced by some form of operation but could be obtained by another operation. In order to produce nearsightedness in a cat it is necessary to strengthen the oblique muscles with the aid of sutures or silk thread.
Now when the recti muscles on the outside of the eyeball are strengthened by the advancement of these muscles, hypermetropia is produced.

In the early days of scientific medicine the facts connected with the changes that might take place in the hypermetropic eye were studied and they might have been a benefit if the facts were understood, but these men did not realize the importance of many truths which they demonstrated. In those days, as in our own, science was not governed by ordinary rules. For example, Donders published in his book the claims of some ophthalmologists that hypermetropia was not curable because they had never seen any such cases cured. Yet most eye doctors in the early days reported the truth correctly.

After extraction of cataract, the amount of hypermetropia is about 10 D.00. In most cases they admitted that the hypermetropia became less without any treatment, and that the eye, after extraction of cataract, had been observed to become normal without any hypermetropia, when the patients were able to not only obtain perfect sight for the distance but also were able to read fine print or diamond type at six inches from their eyes without any difficulty.

One doctor stated the changes which took place in eyes which had considerable hypermetropia. It is difficult to understand why it is that this doctor published that an effort to see always increased the amount of hypermetropia and for that reason no treatment could be expected to help these cases. One physician, whose scientific attainments were unusual, published statements like this: "I have never cured hypermetropia and because I have never cured hypermetropia nobody else can." Another so-called authority, after testing results obtained from massage of the muscles of the eyelids, could see no benefit from this treatment. He was asked by a friend: "Are you still using massage?" He answered: "Yes." Then his friend said: "Does it do any good?" The doctor answered "No." "Why do you do it then?" "Because there is nothing else to do."

An effort always increased the hypermetropia and makes the sight worse. This is a fact so universally true that it is unfortunate that the physicians who found that a strain was bad did not try the opposite of strain - relaxation. Those people who become able to read at a distance of less than twelve inches are unable to read by an effort. With a vision lowered by hypermetropia at twenty feet or farther it is very easy to demonstrate that a strain to see by concentration or some other effort always increases the hypermetropia. A strain to see at the near point produces hypermetropia, while a strain to see at the distance produces myopia.

Rest when properly employed cures all forms of imperfect sight. The great difficulty is that all people are not able to rest their eyes properly.

It has been found that the tendency of most people is to concentrate or stare. Concentration or an effort to concentrate is a strain which produces almost all cases of imperfect sight. When one letter of the Snellen test card is regarded continuously, without blinking, shifting, or a part of one letter of the Snellen test card is regarded continuously, without blinking, shifting, imperfect sight is produced. Trying to keep the eye immovable causes imperfect sight. The normal eye when it is at rest is always moving and sight becomes imperfect when an effort is made to imagine the letters or other objects stationary. It is not possible to keep the eye stationary without an effort. It is impossible to move the eye and keep it under a strain at the same time.
When the eye moves 'shifts' relaxation and clear vision result.

If the patient stands with his feet about one foot apart and sways the body, head, and eyes from side to side, it is possible to obtain a movement of the eyes which is a rest to the eyes and a benefit to the vision. **When the sight is good continuously, the movement of the eyes is slow, short, easy, and continuous.** (Saccadic - very fast, high frequency shifting also occurs automatically.) When things are seen wrong or when the vision does not immediately improve, one can by touching the upper lid with the forefinger lightly, feel all kinds of movements of the lid muscles and this movement effects the eye itself. The proper movement which is beneficial can only be obtained when stationary objects are imagined to be moving.

Some patients obtain benefit from moving the eyes in a circular direction because when the eyes move continuously, there is no stoppage of the swing and no opportunity to stare. (Infinity Swing)

For years it has been observed that many cases of hypermetropia changed to myopia. The number of theories as to how this was brought about were numerous and not one of them would stand criticism for any length of time. One of the most important theories that was published was by Risley, who mentioned that a large number of cases of hypermetropia became changed to mixed astigmatism in which one meridian of the eyeball was more fixed than any of the others. This astigmatism was changed at first into mixed astigmatism. Later on it became a retraction of myopia. It was a very attractive theory which lost its value when it was found that no one case was observed continuously until the hypermetropia became changed to mixed astigmatism and finally myopia.

Experiments on Outer Eye Muscles and Clarity of Vision

One day the physician in charge of the physiological laboratory made a tour of inspection. He asked for information or for statistics of the experimental work that was performed on a rabbit to find the cause of accommodation. He desired to know why results of experimental work on the rabbits which were 100 percent successful were not offered for publication before. He was told that these had not been published because there had not been a failure. A few days later a failure came. Electrical stimulation did not produce myopia in the rabbit with hypermetropia. Here was the failure that we had been waiting for. There was much excitement when we failed to obtain myopic refraction. However, it was found that the rabbit was born without any inferior oblique. When the function of the inferior oblique was obtained with the use of sutures, with the aid of the retinoscope myopic refraction was obtained as readily as in eyes which had nothing wrong. The director told us that when his experiments were 60 percent of the truth that they could be considered a contribution to the science of medicine and should be consequently published. The director was told about the failure and he agreed with us that the publication of the failure was a very necessary thing to do. It might have ended here perhaps but it was believed that the 100 percent of successful operations were worthy of investigation, but so far as is known no one else has performed similar experiments to determine the truth of the results claimed.

There are some facts which ought to be emphasized. In the first place, hypermetropia is the most frequent cause of discomfort, pain, or imperfect sight. The medical men of the last century tried to prevent the harm done by hypermetropia just as they are still trying to prevent the harm that comes from near-sightedness or myopia. The younger men of today are not encouraged to work in this field, when some of the authorities can stand up and say: "If I fail no one else can succeed; I know all there is to know about the eye."

There are a number of people at the present time who are studying hypermetropia, but it is not being studied as much as it should be. I believe that every school, public and private, should devote a short time frequently to the prevention and cure of imperfect sight. I am very much opposed to the practice of most ophthalmologists who fit each patient with imperfect sight with glasses which are not indicated.

For some years I have found that a large number of cases of myopia were suffering from hypermetropia which produced disagreeable symptoms. It is really surprising that so many cases of hypermetropia have been neglected. They are more readily cured than the myopic cases, but when a man at the head of a medical department of the schools tells me that it is useless to treat hypermetropia because he failed, it means that he will do all that he possibly can to injure or to interfere with the methods practiced by other men.

When studying the works of Donders forty-five years ago I was very much impressed when he gave the histories of quite a number of patients who had been cured of hypermetropia and other errors of refraction by one or more operations and by other treatment. This was an encouragement to me to keep on studying the facts which occurred in hypermetropia. I wish to state here that I feel very grateful to Donders for the many things which he taught me. That which pleased me the most and benefited me more than anything else that I learned from other doctors was his claim that there were some cases of hypermetropia and other errors of refraction which could be cured by treatment. I am sure that he did not know how voluminous were the writings on the use of glasses or the importance of wearing glasses which were written under his name. It seemed as though there were many articles on the cure of hypermetropia which were not written by him.

Hypermetropia is curable. Being curable it can also be produced, increased, diminished, or modified. If it were not curable it would be difficult or impossible to do this.

The cure of hypermetropia is very simple. When one practices in the right way, a cure is always brought about. It takes no more time to practice in the right way than the wrong way. Hypermetropia is cured by rest, and cannot be benefited by an effort. When one regards near objects or parts of a letter at the near point, hypermetropia is always increased. (If diffusion, strain, effort, staring is applied.)

Practice with fine print is one of the best methods of relieving hypermetropia. The fine print is held first at the distance from the eyes at which the patient sees best and gradually brought closer until the patient can read it at six inches from his eyes. He should not look directly at the letters; he should look at the white spaces between the lines and imagine that there is a thin white line beneath each line of letters.

Look at the white spaces before reading the print. When the print appears clear; then look directly at the print and read it.
If it blurs again, look back to the white spaces or at another object seen easily, clear, close or in the distance to relax the eyes.
Then, when relaxed and close vision is clear again, return to the print.
Reading fine print is one of the simplest, easiest cures for unclear close vision but opticians have been hiding this fact for years.
It also improves clarity of distant vision.
Correct practice with fine print daily has cured hypermetropia.

Hypermetropia

By Emily A. Bates

A woman, aged 63, who had been wearing glasses for twenty years decided to try the Bates Method and do without them. She called to see me for treatment while I was in the West and asked me when she first came if I would examine her eyes with the ophthalmoscope. As I was working by myself I was not permitted to use any instruments to examine the eyes so I did my work just the same and cured my patients without examining the eyes. Some patients were advised to see an eye specialist who took care of cases where examinations were needed. This patient had had eye tests made several times by eye specialists and opticians so I knew pretty well what her trouble was without the retinoscope or ophthalmoscope to help me.

Many cases like hers have come to me both in clinic and in private practice and with a few exceptions I am usually right after I have tested the patient with the Snellen test card. When this patient gave me a history of her case, she told me that in the

beginning when she first put on glasses her vision for the distance was not bad, but her sight for reading and sewing was poor and her glasses only helped her for a while. Eye drops and massage treatment were given her for the relief of eyestrain and headaches, but after a year of this treatment she had her glasses changed on the advice of her doctor. Her sight was tested again and she was told that her distance vision was impaired. Then she was advised to wear bi-focals or to have two pairs of glasses with her at all times. She tried bi-focals because she thought it would be much easier wearing only one pair of glasses, but she could not become accustomed to them so she tried two separate pairs of glasses.

As I listened to her explaining all this to me in her mild, soft way of talking, I could imagine how much discomfort she endured without saying very much about it and I could well imagine how anxious she was to get rid of her glasses altogether after having tried as faithfully as she had for more than twenty years. The last glasses which were given her for close work helped her to see better at the near point, but the strain and headaches came on periodically just the same. She tried massaging the eyes, thinking that this might help. She also went to Europe and tried different climates thinking that the change of air would be of benefit to her, but the pain in the back of her neck and in back of her eyes kept on just the same and at times became worse.

She obtained Dr. Bates' book and studied it according to the advice given for her particular case. She was able to do without her glasses for the near point but as her sight for the distance still troubled her a great deal she did not know how to go on by herself.

I began treating her by the palming method after I had tested her vision for the test card. Her vision in both eyes was the same, 10/30. When I placed the test card twenty feet away all the letters were blurred and she also had double vision when she tried to read the smaller letters.

She had traveled a great deal and liked to talk, so while she was palming, I encouraged her to tell me about a recent trip she had taken, and the memory of things which she had seen as she described them to me helped to improve her vision to 15/10 or better than normal with each eye separately. Before I tried another method I wanted to find out what caused her vision to be lowered at times and also what caused her pain and discomfort. During the course of a short conversation with her she told me of a very unpleasant experience she had had with someone whom she loved and who greatly disappointed her. I encouraged this conversation, not so much to get information from her but to have her talk about this unpleasant thing, which was interesting to her but not to me because I did not know the person under discussion. The patient palmed for ten minutes and I timed her especially to find out whether her vision would be the same for the test card after she had explained her unpleasant experience while her eyes were covered. I kept the test card at the same distance as I had before and when I told her to remove her hands from her eyes and to look at the test card and read it again, she said that with the exception of the three upper lines of letters all the rest of the card was blurred.

I knew immediately that speaking of or thinking about unpleasant things was the cause of a great deal of strain. I did not tell her so right away but she was eager to explain that this was the way her vision was a great deal of the time. It was lowered at times when she suffered discomfort and pain; then at other times her vision was good without any sign of strain. She did not realize that while she was palming and explaining about her unpleasant experiences that the thought of what she was telling me caused all her trouble or a great part of it. (negative, unhappy thoughts, emotions=mental strain, eye muscle tension, blur…) When I finally explained it to her, she believed that I was right. I did not have her close her eyes again during her first treatment, but I placed her by the window where the sun was shining and I gave her the sun treatment while her eyes were closed, using the sun glass on her upper eyelids. The sun was quite hot so I had to use the sun glass rapidly and for only a few seconds at a time.

After this treatment, I told her to sway her body slightly with a short sway from side to side, glancing at the test card in my room and then as she swayed toward the window to look at a distant sign about two city squares away. At this distance she read a sign which was painted on the side of a large building. She saw all the letters clearly and read them without any hesitation whatever. This seemed a revelation to her because it was something she could not do for many years without her glasses. She kept up the sway as I directed her, but at times I had to encourage her not to stare as she looked at the test card, while she swayed toward it.

She asked me to explain to her why the test card looked more clear to her at times only, so I told her to do the wrong thing, stare at the letters, for instance, as she looked at the card about ten feet away from her eyes. I also told her to look off at the distance as she looked out of the window and to stare at the distant sign which she read so easily just a few minutes before. She did this for only a few seconds when she promptly closed her eyes and asked for more sun treatment to relieve her pain. She was directed to practice parts of the method which helped her most, but only the method of treatment which I had given her and to do it as faithfully as she could every day until she was able to return for another treatment.

After a week of silence she telephoned me and notified me that she desired another treatment. She found out that she could not get along very well by herself with the treatment, so I gave her a special treatment each day for the next two weeks. Then she was asked to telephone me from time to time. Her reports were encouraging. She could read ordinary type and also fine type at the near point and she had no more trouble with her distance vision.

The year before she had come to me for treatment, she had given up in despair the driving of her car. She feared an accident when her vision would fail her for the distance and did not expect to drive her car again without having someone near to help her in time of trouble. She now drove many miles every day, she told me, and never forgot what I had advised her to do while she was driving, which was to shift from the speedometer to the center of the road and notice how the distant road in front of her car came toward her and finally rolled, as it were, under her car. Then again to shift from the speedometer to the center of the road ahead of her and to notice the same thing again and again. I explained to her that the roadside to her left and to her right would appear to move toward her and then move away from her if she would keep up the blinking and the shifting from the near point to the distance.

She called one day while I was out of town and told my secretary that she was helping others with the treatment of their eyes. She was a person who spent a great deal of time with poor people. The children near where she lived were fond of her and it was through them that she was able to benefit those who needed help. She purchased from my secretary enough material to help the young as well as the old folks. She purchased many sun glasses and taught mothers how to use the glass on the eyes of their children. This helped greatly in improving the sight of children, both for reading book type and also reading letters on the blackboard. She purchased test cards and took them to the Old Folks Home and those who believed that she could help them did as she directed them to do. She did a great deal of good work in helping elderly people to read book type and their newspapers without the use of glasses.

When I saw my patient again I gave her advice for helping various cases of imperfect sight and I was surprised to hear that she had benefited an old lady who had had cataract for many years and whose sight was failing fast. The vision of one of her eyes was nearly gone and the other eye was becoming almost as bad when my patient came to her and helped her. This old lady in time became able to take care of the more unfortunate ones in the home and to help in arranging personal things in their tiny rooms. This is indeed charitable work and much of it goes on in many places. If all patients who are benefited as this patient was would just help one other person with imperfect sight who cannot afford the treatment or who cannot find their way clear to visit an instructor

of the Bates Method, much more work could be accomplished.

Many errors are made by those who try to copy Dr. Bates' articles and mine and try to apply the same method to people who trust their eyes to them to be helped. It is pathetic to read the letters which come to us quite frequently with complaints about such things being done. There are some people who have a slight knowledge of the Bates Method who advertise themselves as teachers in eye training and also use Dr. Bates' name for commercial purposes. Sooner or later they are found out, but in the meantime many poor souls are made worse because of this practice.

Question And Answers

Q - What causes night blindness?
A - It is caused by a form of eyestrain which is different from the eyestrain which causes imperfect sight with other symptoms.

Q - What causes styes?
A - Infection, which is always associated with eyestrain.

Q - Are cataracts curable without operation?
A - Yes.

Q - I am forty-nine years of age and have had to wear glasses for five years, due to gradual weakening of the eyes. Is this curable?
A - Old age sight is curable, and you can discard your glasses by following the methods as outlined in the book, "Perfect Sight without Glasses.''

Q - I am practicing the methods in your book to cure myopia and astigmatism. Sometimes, for short periods, I see perfectly, then things fade away. Can you explain this?
A - This is what we call getting flashes of perfect sight. With continued practice these flashes will come more frequently and eventually will become permanent.

Q - I cannot gaze into the sun without discomfort. Do I do it incorrectly?
A - Read Chapter XVII in the book. **Do not gaze into the sun but at each side of it alternately.** In this way you not only **swing it, but allow the rays to shine on the eyes**. This is a great benefit.

Q - Can squint be cured by treatment, without glasses after an operation proved unsuccessful? Does age make any difference?
A - Yes. No, age does not make any difference.

BETTER EYESIGHT

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

DECEMBER, 1928

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.

Myopia

By W. H. Bates, M.D.

Myopia or near-sightedness is usually acquired. In myopia the vision for distant objects is much less than for objects at the reading distance. Rest of the eyes and mind is the cure for myopia. Any *effort* to improve the vision always fails. How can people with myopia be conscious of a strain? This is a very important question. When methods are practiced in the wrong way or practiced unsuccessfully, a strain or effort to see better can usually be felt, demonstrated, or realized by touching the tips of the fingers lightly to the closed eyelids of one or both eyes.

Quite frequently it is difficult for people with imperfect sight to believe that perfect sight requires no effort and that any effort to improve the sight is wrong. It has been so habitual to strain, and the habit of straining to improve the sight, the memory, or the

imagination, has been practiced so long that it requires much time and patience to stop.

Recently a schoolboy, aged twelve, boasted that he could stare at one letter of a test card with his eyes wide open without blinking or closing them and for a longer time than most children could stare. He also produced a greater amount of myopia than other scholars of his school.

Mr. Priestly Smith says: "To prevent myopia we must prevent young people from using their eyes too closely and too long on near objects. This principle was established long since by the labors of Donders, Arlt, and others, and has been practically developed by Cohn and other reformers of school hygiene."

It is not true that myopia is caused by too much use of the eyes at a near point. On the contrary, near use of the eyes in a poor light lessens myopia. This fact has been demonstrated frequently with the aid of the retinoscope, while the eyes were being used too closely for long periods of time on near objects. It is difficult to understand how or why so many eminent ophthalmologists like Priestly, Smith, Donders, Arlt, Cohn, and others should have neglected the aid of simultaneous retinoscopy in solving this problem.

It was a great disappointment to find in schools that although the desks and seats were mathematically correct, myopia was not prevented any more than before. In some schools iron braces adjusted to the head and face prevented the scholars from leaning forward when doing their schoolwork. Myopia was not prevented. One eye doctor who was convinced that the braces were useless continued to use them because he said that he did not know what else to do.

In order to measure the brightness of the light of the schoolroom the light was regulated by a photometer, invented by Professor L. W. Weber. He also invented an instrument called the stereogoniometer to measure quickly the amount of light from parts of the visible sky. Professor H. Cohn recommended that much money be devoted to the building of better school houses and also recommended that the school rooms be properly lighted. It was a great disappointment. No more myopia was acquired in a poorly lighted school room than in a well lighted one. A great deal more might be written describing the failures of these scientific men, who finally had to admit that they had not discovered how to prevent myopia from being acquired by school children.

The treatment of myopia which I have found best is as follows: The vision of each eye is tested and the patient is then directed to sit with the eyes closed and covered with the palms of each hand in such a way as to avoid pressure on the eyeball. At the end of half an hour or longer, the patient is directed to stand with the feet about one foot apart and sway from side to side as he reads the Snellen test card at five or ten feet. When the myopia is more than 5D. the patient may make better progress by practicing at a lesser distance than ten feet - five feet or nearer.

Some cases obtain a decided improvement in their vision in the course of about fifteen minutes. Other cases require additional methods. One of the best methods is to have the patient look directly, for five seconds, while blinking frequently, at one letter of the Snellen test card which has been committed to memory. When the eyes are closed, the memory of a known letter is usually better than when the eyes are open. By alternately regarding a letter, closing the eyes and remembering it better than with the eyes open, the vision of this letter will improve in most cases.

Those persons with a high degree of near-sightedness may not improve until the memory or the imagination of one known letter has improved to a considerable degree. It is interesting to demonstrate that the more perfectly a letter is remembered or imagined, the better becomes the sight. When a letter is remembered or imagined as well with the eyes open as with the eyes closed, a maximum amount of improvement in the vision is obtained. Some cases are benefited after other methods have failed by teaching the patients how to make their sight worse by staring, straining, or making an effort to see. When the cause of the imperfect sight of myopia becomes known, the vision oftentimes improves to a considerable degree. When myopic patients learn by actual demonstration the cause of their trouble, it makes it possible for them to improve their sight.

Myopic persons who desire a cure should discard the use of glasses permanently. Just putting glasses on for an emergency for a few minutes may bring on a relapse whereby what has been gained before is lost.

Some children with myopia may be unable to stand bright light. Many doctors prescribe dark glasses for the benefit of such cases. In my experience, the wearing of dark glasses or the use of other methods to reduce the glare of strong daylight or artificial light is an injury rather than a benefit. One of the best methods to relieve or prevent the intolerance of all kinds of light is to encourage the individual to become accustomed to strong light.

Sunglass

A convex glass of about 18 D. is very useful in these cases. One way to use the glass is to have the patient look far downwards while the instructor lifts the upper lid of the eyeball with the help of the thumb. This procedure exposes a considerable amount of the sclera. The strong light of the sun is now focused on the white sclera for only short periods of time to prevent the heat produced by the strong glass from causing discomfort.

This ends the routine treatment. For low degrees of myopia the results are usually very good. Imperfect sight without glasses has been temporarily or more permanently cured in a few visits.

One of the best treatments for a high degree of myopia is suggested by a few truths. All cases of myopia are temporarily cured by looking at a blank wall without trying to see. The retinoscope used at the same time has always demonstrated in flashes or for short periods of time that myopia was never continuous. When the best vision of fine print is obtained exactly at ten inches, the retinoscope always demonstrates under favorable conditions that the eye is not at this time myopic. But if an effort is made to see better by a strain the retinoscope demonstrates flashes of myopia. It should be emphasized that the strain which produces myopia is different from the strain which tends to produce other causes of imperfect sight.

When the **memory or imagination is perfect, the retinoscope used at the same time demonstrates that myopia is absent.** When a letter or other object is remembered or imagined imperfectly the sight is always imperfect and the retinoscope demonstrates that myopia has been produced.

Shifting the gaze from one point to another point may be done in such a way as to rest the eyes by lessening or preventing strain. **Staring or shifting with an effort always produces myopia. Moving the head and eyes from side to side produces an apparent movement of stationary letters or other objects** (oppositional movement)**.** A complete rest of the eyes with improved vision may be obtained in this way or it may be done wrong with consequent bad results.

The Thumb Movement

Move the end of the thumb lightly against the end of the tip of the pointer finger in a circular motion, the circles diameter being less than 1/4 of an inch.

Count a odd number when the thumb moves down and a even number when the thumb moves up.

One of the best methods of obtaining complete relaxation of the eyes and mind is to **move the ball of the thumb lightly against the ball of the forefinger in a circular direction in which the circle has a diameter of less than one-quarter of an inch. Just moving the thumb in this direction does not always succeed unless one can count one, three, five, or more odd numbers, when the motion is downwards, and an even number when the thumb moves upwards.** A great amount of relaxation is always obtained by practicing the movement of the thumb against the ball of the forefinger. It is not necessary for the patient to watch the movement of the thumb in order to keep up the practice.

The movement of the thumb on the finger also activates eye movement (shifting) and the sensation of oppositional movement, activates and integrates the left and right brain hemispheres (especially when alternately done with left and right hands; left hand for a while, then right… and moving the thumb in a small counter-clockwise and clockwise circle on the finger), takes the mind away from worries, negative thoughts, brings the mind to a relaxed positive state. Relaxes mind, body, eyes, improves clarity of vision.

Thumb can also be moved a small movement on the finger left and right, up and down.

Many patients complain that when walking about the house, walking up and down stairs or when they are lying down, the movement of the thumb is not kept up continuously. Relaxation may be obtained by practicing the memory of the movement of the thumb and forefinger. Dizziness which is caused by strain of the eyes and mind has been relieved most successfully, continuously, or perfectly when an incentive is used. For example, many patients with symptoms of eyestrain, pain, or fatigue were encouraged to practice the movement of the thumb when it was found that at those times when the thumb was stationary, the symptoms of eyestrain became permanent or disagreeable. One patient found that when he walked up a steep flight of stairs that the movement of the thumb was forgotten. When he again practiced the movement of the thumb, all the symptoms of discomfort caused by eyestrain disappeared.

A patient told me that at one time a prominent physician of New York made a diagnosis of walking pneumonia and said that if he did not retire or go to bed and obtain complete relaxation or rest, he would most surely die. Too have pneumonia at that time and to have to go to bed would have been a great inconvenience because he had many things to look after, and so he practiced the thumb and finger movement. After practicing it awhile, to his delight and the astonishment of his friends, all the symptoms of pneumonia disappeared and did not return. Having a case of walking pneumonia was a great incentive to him to practice this movement of the thumb and obtain just as much rest at his work as he would have obtained if he had gone to bed.

Another patient with a case of walking pneumonia was also suffering from a high degree of progressive myopia. The movement of the thumb, besides acting as a cure for the pneumonia, was also a great benefit to the progressive myopia from which this patient was suffering. On many occasions, while walking along the street, he would notice that the movement of the thumb had stopped - he had forgotten about it. After a while he became able to remember it almost continuously with great benefit to his progressive myopia as well as the pneumonia.

Another patient was suffering from heart disease, *angina pectoris*. His eyes bothered him very much and he was very much pleased to note that when the movement of the thumb had improved his heart trouble, the myopia from which he was suffering also improved. It was a problem for him to find out how to keep up this relaxation of the nerves continuously. By practicing the movement of the thumb continuously he acquired the conscious habit. Later the conscious habit became an unconscious one with benefit to his eyes and heart.

Myopia has many complications. In some cases **detachment of the retina may occur suddenly without warning. Cataract, Glaucoma, and other serious diseases of the eyes** are often found as a complication in myopia. In **glaucoma** the eyeball becomes increased in hardness. The practice of relaxation methods usually relieves tension and brings about relief.

Conical cornea is a form of myopia which causes much pain and loss of vision. The cause of conical cornea is a strain or an effort to see. It can be cured by practicing the long swing or other methods of resting the eyes.

Inflammation of the iris, retina, or choroid is always benefited by the same treatment which improves or cures myopia.

The cause of myopia in school children has been discovered. Its cure is now known, and I believe that in time no child will be found wearing glasses.

Christmas – 1927

By Emily A. Bates

(Military Story)

Our office surely was a busy place last December and a large number of poor people were made happy at Christmas. There were not very many patients in our clinic at that time, but each patient was invited to come to the Tree and bring his or her whole family along. One blind patient, a young man, who before the World War had good sight, was so grateful for the help he had received that he wanted to give and give. He had the spirit all right and even though his pockets were empty and he could not give in that way, he gave in the best way he could.

His way was to bring other blind patients from the Blind Men's Home to Dr. Bates. It never dawned on him that there was a limit to the poor souls the Doctor could treat, while he was taking care of his regular practice. No one in the office had courage enough to stop him and so they came. His enthusiasm was so great that he himself worked more earnestly than ever in his own case. Later on he wrote an interesting article in this magazine about himself and the help that he received from Dr. Bates.

After many months of steady treatment, which was given him without any charge, he became able to see again. **Sightless eyes, made so by the ravages of war, again saw light after several years of darkness and no hope.** Other physicians who had examined him said his sight was destroyed. This was not true, for if it were, even Dr. Bates with all his knowledge of the human eye, could not have given him his sight again.

He had been gassed during the war and many operations had to be performed. All of one lung was removed. It is true that his case seemed hopeless. Operations and treatment of all kinds failed to help. The constant strain he was under, which was brought about by shell-shock and much suffering, caused depression, which could only be relieved by morphine and other drugs. After he

was treated for a short time by Dr. Bates, he stopped this bad habit, but it had to be done gradually. It was pathetic to watch him struggling to do the right thing. In trying to stop using drugs he acquired the habit of smoking many cigarettes every day. In some way he was well supplied with them all the time and preferred to smoke rather than eat. One day I talked with him for a long time and he finally promised me to smoke a smaller number of cigarettes each day. The poor fellow tried hard and won out.

His vision at the present time is 10/10. He can read diamond type at less than six inches; if the occasion warranted it, he is able to read diamond type at two inches.

The light and heat of the sun was a great factor in bringing about a better condition of his eyes, and the added sun glass treatment, focusing the sun's rays upon the eye as the lids were raised, and also using the sunglass on the closed eyelids, was given every time he came. **When there was no sun a strong light called a Thermo-lite was used for hours at a time and then the test card practice was begun.** Little by little each day the **blood circulation of the eyes became better** and the **nystagmus condition from which he was suffering also improved.** For the first time the eyes looked healthy to the observer and the **pupil of each eye, instead of being very small, became almost natural size.** This was not accomplished in a day but in a few years time.

Many times we are asked why some patients are cured and others not. The only answer is that if the patient will practice as earnestly and as often as the Doctor advises and does not become discouraged, a better condition of the eyes and vision occurs in time. The question "How long does it take?" is asked many times. This young man of whom I write had no such question to ask. He came with the hope of getting some relief but he was not quite sure before the treatments were started. He was willing to wait, although it was hard on him and meant patience and labor on the Doctor's part. This patient had to be led when he first came to us and now he leads others who are afflicted!

One of the elevator operators in our building had been taking daily treatment from us, slipping into the office whenever it was possible for him to do so during the day. The condition of the eye being treated was getting worse and Dr. Bates feared that in time his good eye would become affected. He had been receiving treatment for a long time before we ever knew that he was married. I guessed that his age was about 23 or 25, so I was shocked to learn later that he was indeed a married man, having been married for quite a few years, and that he was much older than I had thought. He said he had four little ones whose ages ranged from four months to four years.

How the poor fellow and his family managed to even exist on the small wages that he received is something I cannot understand. He told me that they lived in a basement where the sun seldom shone and that their greatest difficulty was to keep warm during the cold winter months. If my clinic fund had been large enough I should like to have had a ton of coal under the Christmas tree for his family, but he is only one of the many patients who receive our help, and things must be shared evenly if possible.

At no time during the year do I wish I were rich as much as I do at Christmas time. There are so many who are too proud to go to charitable institutions for help and who suffer silently and go on without the outside world really knowing their plight. When I invited our elevator operator to bring his family to the Christmas tree he was delighted and they were there bright and early. Every one of the children were spick and span and as I relieved the little mother of her precious baby and held him close to me I could tell how much pains the mother had taken day by day to keep things in a sanitary condition, for the baby had an odor about it that was as sweet as the best cared for baby ever had. The eldest child was a girl and she was quite small for her age. Next to her was a boy just one year younger than herself. In disposition he was exactly opposite to the little girl for he smiled but once as I can remember it now, and that was when he was given a toy automobile which he managed to operate all by himself by moving the wheel and seeing it run from him. The little girl hugged her doll so tightly that there was a disaster, but this was quickly corrected when she was given another doll.

Both the boy and the girl looked very much undernourished, and seemed very much in need of good pasteurized milk and lots of it. The next youngest was a sturdy little boy who did nothing but smile all the time. The Christmas tree seemed to be the most beautiful thing he had ever seen; the colored lights just dazzled his eyes and his mother had a hard time taking him away when it was time leave.

The children also received their share of candies and oranges and their arms were laden with bundles. The baby had received the usual rattle, and the mother, instead of receiving the ton of coal that I had wished she might have had, received a new warm coat instead. The only one she owned was almost in rags. She had pieced it together as much as she could and it seemed to have been a coat that belonged to someone else at another time.

Even though we are very busy in our office we make time to fulfill the duties that must be performed at that season. I was ill myself at that time and appreciated very much the co-operation I received from those at our office.
Harold, our shipping clerk, who also does other things which help in running our office, obtained the tree and also helped in the trimming of it. Miss Baron, our bookkeeper, arranged her work so that she could assist in getting things ready, and Miss Hayes, who has been a faithful assistant in the treatment of clinic patients, took the time to purchase the coat for the little mother.

Since this young married man started treatment, the condition of his eyes has improved considerably, but his improvement would be much more rapid if he could devote more time to practice.

Two sisters who had been coming for more than a year were also present at our clinic party. One was near-sighted and the other was presbyopic. The one who was near-sighted seemed to make better progress than the other. The sister with presbyopia obtained relief and better vision each time she came but we soon found out why she did not hold the better vision; she wore her glasses from time to time. This interfered with the practice and for that reason it took her longer to be benefited permanently than her sister who left off her glasses entirely. These two women, as did other women who attended, received warm stockings, besides oranges and candies. The men received ties as well as candy.

Not only eye patients, but others who had never heard of the Bates method or our clinic, were made happy at this time. While I was still under the doctor's care, my surgeon selected from his list of charity patients the two cases which he thought needed Christmas cheer most.
He gave me two names and addresses of families who received their share of the things we had to give and Dr. Bates and I went to their homes and delivered the Christmas packages ourselves.

In one of these Christmas packages was a doll slightly larger and a wee bit better in quality than those which we placed under the tree. I was told that the little girl who was to receive the doll would perhaps be a cripple for life. For her, there was little hope that she would ever walk again without braces and her condition was most pitiful. While she shared in the joy there was to give, the money used was not taken from the clinic fund but was given to me by Dr. Bates himself. The doll looked like a fairy I used to dream about when I was a little girl and I arranged her just as beautifully as I could, and the extra box which I had was filled with a large portion of nuts, fruit, and candy.

The mother of the little crippled girl was janitress of the large tenement house where they lived and we had to climb a long flight

of stairs to reach her. There was an answer to our knock at the door and there stood before us a very sad looking mother who was busy arranging her household for the Christmas holiday. We soon found out what her sadness was all about. The little girl was not there at the time but the mother explained afterwards how just a few days before, the brace which helped the child to walk was broken and could not be mended at that time because there was no money. .

It just seems as though this world is full of such sad cases and that it is necessary for those who have full and plenty to look around just a little bit and at least help one poor soul at Christmas time.

We had introduced ourselves, saying that the doctor who was helping her little girl was the great surgeon who was responsible for my life. I explained how he had performed a skillful operation and that I was on the road to recovery and that I was grateful to him. I explained that even though we had each had a group of poor people to help that there was always enough left for just one more.

When we asked for the little girl, the mother said she would bring her to us. She seemed to be in a daze, not knowing what it was all about or what we had to give the little one. The mother left the room to go to her next door neighbor where the child was staying. She soon appeared in the arms of her mother. She was a girl nine years of age, old enough to walk but not able to because of the tubercular condition she had in one of her limbs.

The little girl looked at Dr. Bates and then at me, wondering whether we had good or bad news to tell her, when her eyes spied the packages. The mother placed the little girl on the stationary tubs in the kitchen and as there seemed to be no chairs, we stood all the time.

We placed the boxes beside her and told her that Santa Claus had whispered in her doctor's ear that we should come to her. She really believed In Santa Claus and thought that Santa had not the time to come and so we came to her instead. First she opened the largest package, imagining what it might be, (and I think she imagined it was a doll). It happened to be the box containing candies, nuts, and fruits which she opened first. She was so excited about what she saw that she offered everyone in the room part of her gift. I asked her to lay it aside and then open the other package because we wanted to see whether she would like it or not. When the package was opened there was the beautiful doll with her arms outstretched to the little girl. It is impossible for me to explain the joy that came to the child, but the mother wept with joy at the thought of her child being made so happy.

From there we went to another part of the city to see a little boy. The child had been troubled with rickets since birth. He was a puny little boy who did not seem more than three years old. I was told that he was almost five but that he had not been growing very fast because of his trouble. For this little fellow we had the regular size package containing fruit and candy, and in the other box was a toy automobile. It was built like a racer and was about eighteen inches in length. He screamed with delight and was soon creeping all over the floor following the automobile as fast as it would go.

I never saw a more tidy household than this one which was in a cellar. We had to go down a steep flight of stairs to get to this little place called home and when we reached it we found the mother standing at the ironing board ironing a big wash for someone else in order to earn a few pennies. The only light and air which was received from the outside world was through one single window which was partly concealed by the staircase. She had curtains on her windows made of cheap material, but they were laundered and arranged in the neatest possible way. There was a cloth on the center table which undoubtedly was converted into a dining table at meal time. There was linoleoum on the floor which was much worn but was clean and the little mother was cleanliness itself.

She was expecting another little one most anytime and she looked as though she needed rest and good food. As I watched her face while the child was enjoying what we had brought for him, I saw tears in her eyes. I asked her about her health and she said she was never better in her life. Yet I knew that she was in the first stages of tuberculosis.

I think I would know what to do with a million dollars if I had it. I would hire competent people to make a house to house canvass in the different districts of the poor of my city and I would reach the needy ones in that way. Anyway, there were a few made happy with what was contributed by Dr. Bates and those who have given to the Christmas fund. And I must not forget to extend my thanks to those who have again made it possible for us to make the poor of our clinic and others happy this Christmas time.

BETTER EYESIGHT

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

JANUARY, 1929

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 (and central fixation, normal eye movement is prevented).

Astigmatism
(and Conical Cornea)
By W. H. Bates, M.D.

Astigmatism occurs in nearly all cases of imperfect sight for which glasses are employed to improve the vision. It is so often observed in many eyes soon after birth that many writers have stated that it is congenital and not acquired. The majority of statistics, however, show that astigmatism is usually acquired. As a general rule we may say that it always is a complication of myopia and less often of hypermetropia. In nine tenths of the cases, the astigmatism is due to a malformation of the cornea. Some writers have published accounts of cases of astigmatism produced by organic changes in the eyeball without necessarily producing corneal astigmatism.

Astigmatism frequently is recognized to be always changing. Without interference or treatment the astigmatism may increase to a considerable degree or it may become less and even disappear altogether.

The vision in most cases of astigmatism can be improved by the use of proper glasses. However, there are some forms of astigmatism in which no glasses can be found to correct the error. In regular astigmatism, two meridians of the cornea are at right angles to each other. Astigmatism often follows inflammation of the cornea. After the inflammations and ulcerations of the cornea have healed, they may leave behind scar tissue, which by its irregular contraction produces irregular astigmatism. In such cases, glasses seldom or never improve the vision, but it has been helped by relaxation methods.

When astigmatism is present, eyestrain is usually manifest. It should be more widely published that regular astigmatism, although not benefited by proper glasses, has been **improved or cured by the practice of central fixation**. A **perfect memory for letters and other objects is a cure for astigmatism.**

Conical cornea is usually acquired. In the beginning, the astigmatism which is produced or acquired is slight. After some years, however, the conical cornea will increase to a considerable degree. The astigmatism is so irregular that no operations on the cornea to correct this malformation have succeeded. The pain caused by conical cornea may become so severe that some physicians have recommended that the eye be removed. The treatment of conical cornea with the aid of central fixation has relieved pain in many of these cases. It is not right to ignore central fixation as a cure for conical cornea. Many eye doctors have condemned the treatment without a proper investigation.

Patients who suffered from conical cornea have consulted numerous physicians to obtain relief. These physicians too often informed the patients that there was no relief known to medical science to lessen pain in severe cases and improve the vision in conical cornea. Some of these unfortunates, after obtaining the opinion of prominent physicians, have been cured by central fixation and then returned to the specialists who had previously given them a bad prognosis. In some cases I have heard that these physicians were so annoyed by the report of the cured patient that the interview was not always a pleasant experience.

The results obtained in the treatment of astigmatism of all kinds, without glasses, and by the methods I have recommended, have been very gratifying.

Some cases of irregular astigmatism suffer an unusual amount of pain in ordinary daylight. After the eyes become accustomed to the sunlight or other forms of light, the astigmatism becomes less when measured with the help of the ophthalmoscope, retinoscope, or the ophthalmometer. No matter how sensitive the eyes may be to different forms of light, gradual exposure of the eyes to the same degrees of light has benefited the patient.

In the beginning of treatment, the strength of the light used should be less than will be used later on after the eyes have become more accustomed to the strong light. It is an interesting fact that eyes which have normal vision without astigmatism seem able to stand a strong light reflected into the eyes much better than can patients whose eyes are imperfect or who have a considerable amount of astigmatism.

Sunning

When practicing looking at the sun one should not at first look directly at it unless the eyes are normal. When becoming accustomed to strong sunlight a patient should move the head from side to side while the eyes are closed. Many people have observed that when looking at distant electric lights, the lights observed were imagined to be moving. When the lights did not appear to be moving, movement of the head and eyes from side to side would produce an apparent movement of the distant light. Patients who were able to look directly at the sun without any discomfort whatever volunteered the information that looking at the sun was not disagreeable, providing one imagined that it was moving from side to side. Shift the eyes left and right, side to side of the sun and move the head/face with the eyes. Shift top and bottom, circle the edge of the sun counter-clockwise and clockwise.

The treatment of astigmatism is a matter of importance because for many years no methods of treatment were at all successful. One of the most successful methods of treating astigmatism is to encourage the patient to **remember, imagine, or see letters of the test card perfectly.** The patients are encouraged to commit the card to memory. When letters or other objects are memorized perfectly, the astigmatism always becomes less until it disappears altogether. This is a truth to which there are no exceptions and suggests a method of treatment which should always prevent or cure imperfect sight produced by astigmatism.

With the consent of the principal of a large school in New York City, I placed a Snellen test card in all the rooms of the school. The principal asked me how I could prevent the pupils from memorizing the card. She was told that it was planned to encourage the pupils to memorize the card, because letters on the Snellen test card could be remembered, imagined, or seen best after they were memorized. She was also told that the teachers could help materially in the prevention or cure of astigmatism.
Looking at familiar, clear objects relaxes the mind, eyes, keeps the vision clear at all distances.

The principal shrugged her shoulders and said that she would not be a party to any such foolish plan and that she would not allow any of her pupils to use the Snellen test card for any purpose whatever. She told some of her friends, however, that she was going to put the card up and encourage the children to memorize it and then prove that she knew more than the Doctor, namely that the Snellen test card memorized was of no benefit whatever in curing astigmatism. She also admitted that she did not know the first thing about astigmatism and did not want to know anything about it.

At the end of three months I called on the principal again. A friendly teacher told me that my enemy was gloating over the prospect of finding out how little most doctors knew about the eye. She seemed very glad to see me and shook hands and smiled and said that they were all ready to test the sight with the Snellen test card and find out how much good had been done by its use.

First she examined the sight of all the children and compared it with a record that she had made previously. She was not satisfied with the result and asked another teacher to test the sight of the children and report. Quite a number of teachers were present at this second examination as well as at the first and the number of visitors increased until there were more teachers than there were pupils. Everyone was anxious to know the result of the trial.

It was a shock to all the teachers who tested the sight of the children to find that the vision of every pupil had improved and many

children wearing quite strong glasses for the improvement of astigmatism had read the card perfectly without glasses. My enemy was not satisfied; she thought there must have been something queer in my cards so she obtained some strange cards from other teachers and it did not add anything to her peace of mind to find that the vision of the children tested with the strange card was much better than when my card was used.

Some patients with astigmatism complain that when they first awaken in the morning their eyes are under a much greater strain than in the afternoon. When such cases are examined with the aid of the retinoscope during sleep, they are found to be suffering from a great strain. The strain is not always apparent; the patient does not always know when it is present. Children are sometimes great sufferers from eyestrain during sleep. Many others have been advised to watch their children during sleep and if they believe the child is straining his eyes, the child should be awakened and taken out of bed. (The mother can tell that the child is suffering from eyestrain if the eyelids twitch and if different parts of the body twitch). The mother should then have the child practice the long swing for a few minutes or longer.

One man came to me suffering great pain almost constantly, which was not relieved by the use of glasses for the improvement of his astigmatism. He was told about how eyestrain during sleep can produce astigmatism, and of the symptoms of astigmatism which were pain, fatigue, and dizziness, and also how much benefit is obtained by practicing relaxation methods more or less frequently during the night. He had no one to call him during the night, so he gave orders to a clerk in a nearby hotel that he should be called by telephone every two hours during the night. When he was awakened he would practice relaxation methods. The relief was considerable and there were mornings when he testified that he was rested and had no symptoms of eyestrain at all. It was a great comfort to him to get rid of his headaches and the agony of pain which he described as being in his eyes and had been there many years.

One patient, a boy about twelve years of age, memorized the Snellen test card so that he could read the whole card of fifty-three letters in less than ten seconds. It was discovered that with the improvement in his memory, his vision for a strange card was also improved and his astigmatism became less and finally disappeared entirely.

Staring

Many people are unable to stare for any length of time because staring is painful, disagreeable, and produces fatigue. However, a boy ten years of age had practiced this staring and had acquired much skill; he was able to outstare any boy or girl in his classroom. He then went to other classes and challenged each boy and girl in those classes to a contest to find out which one could outstare the other. In order to excite their antagonism he called them names, so they stood around him and attempted to outstare him, but he, being in good practice, came out the winner.

The boy's teacher noticed that after some of these staring contests, his eyes became quite inflamed, and his vision was unusually poor. His parents took him to a competent eye doctor who discovered that when he stared he produced a considerable amount of astigmatism. The doctor wanted to put glasses on him but the boy objected; he did not want glasses on because that wouldn't be fair to the others. The doctor said that if he did not get well he would have to wear glasses, so the boy made up his mind to stop staring.

Anyone who can stare and strain to an unusual degree is able to relax the strain. It is interesting to demonstrate with the aid of the retinoscope that staring may produce a very high degree of astigmatism, but always after the staring is stopped the vision improves very much and the astigmatism becomes less. In short, it is more difficult to produce astigmatism than it is to cure it.

A man, aged sixty, suffering from astigmatism, had great difficulty in practicing central fixation, shifting, swinging, and the long swing. After four visits to my office he said that he had obtained no relief from his depression, his headaches, or other symptoms of astigmatism. He was advised to sit in the waiting room and try to do nothing whatever. At the end of this time his vision was tested and found to be normal. He was unable to practice relaxation methods because he made too great an effort, but when he did nothing and made no effort, his vision improved.

Chronic Iritis Relieved By Treatment

By Emily A. Bates

In Santa Monica, California, there lives a grateful patient who was cured of iritis and near-sightedness by the Bates Method during my stay in the West. He held a responsible position in one of the large banks there and he needed his sight most of all at his work. Two years previous to the time I saw him, he suffered an attack of iritis which caused much pain and discomfort most of the time. The usual drugs were used to relieve the pain but at times even these gave little relief. At the advice of some eye specialists he put on dark glasses and these enabled him to go out in the bright sunlight, something which he could not otherwise have done. Most patients who suffer from iritis cannot open their eyes at all while they are in a bright light. Dark glasses relieved the pain somewhat but they did not cure his trouble. He obtained Dr. Bates' book, "Perfect Sight Without Glasses" and tried to apply the method by himself and then later came to me.

I wanted to be sure about the diagnosis which had to be made before I started treating him, so I sent him to an eye specialist who was taking care of my diagnostic cases. After my patient had called on this specialist for an examination of his eyes, he returned to me with the statement from the physician. It was purely a case of chronic iritis and the doctor was interested to see how the patient would get along under my care.

In March, 1927, the patient paid his first visit for treatment and he came alone. His vision for the test card with the right eye was 15/40 and with the left 15/50. The letters were blurred and indistinct and he lowered his head considerably while trying to read. When he was directed by me to hold his head straight while reading the card his eyes closed tightly and he did not have the ability to keep them open long enough to read even one letter at a time.

I handed him the Fundamental card and he said that at no distance, as he held the card farthest away from him and as near to his eyes as he could get it, could he read any of the type. After closing his eyes again for a short period of time **he read Number 3 as he moved his body from side to side** while sitting comfortably in a chair. By shifting from the white spaces on the card of the microscopic type that I gave him to the white spaces of the diamond type and then to the white spaces of the Fundamental card he read as far as Number 5 of the Fundamental card. (Looks directly at the print when reading it – central fixation.)

I had a case similar to his about four years ago, a case in which it ordinarily takes from four to six weeks to cure the pain alone. This patient was entirety relieved of pain, and her sight, which formerly was not normal, became so at the same time the iritis was

cured, which was inside of two weeks. She had an acute attack of iritis before I saw her, which lasted for several months. A physician friend of Dr. Bates and myself saw this case while she was under treatment and while she was still suffering intense pain. When he examined her, at my suggestion, his opinion was that she could not possibly be cured within six or eight weeks at least. After she was cured, the case was reported to this doctor, who was amazed at what had been done for her. This case came to my mind instantly when the patient mentioned above visited me.

I noticed that he did not sit quietly while he was palming and thought that he was not getting any benefit in that way, but when I suggested it to him, he said that he liked to keep his eyes closed, but that covering his eyes with the palms of his hands seemed to bother him. He was encouraged then to keep his eyes closed for a period of half an hour while I was planning a regular routine of treatment for him.

Before he opened his eyes to read the card again, I asked him to describe parts of his daily work at the bank. It was interesting to hear him describe the difference between the notes that passed through his hands. He explained to me how a counterfeit bill is discovered by examining it carefully. Because of the pain he had been suffering for a long time I refrained from joking in any way, which I sometimes do if the patient is agreeable. There usually comes to my mind some funny incident which occurred while treating someone and I like, if possible, to change the subject from pain to something else, especially while the patient is palming.

This patient, however, did not make me feel that way in the beginning because of his reserved manner and also because of his pain. It was quite unexpected then to have him answer me in a funny way and tell me of something which he could remember most of all and which was constantly before him while he was at work. He said it was a nice, shiny thing with a black hole at one end and he made me laugh when he said it was a revolver, which was only introduced on rare occasions when there were suspicious people a little too close to him. This was something new to me and I had not expected it. His hearty laugh was most relaxing not only to him but to me also.

Man runs with his dog, sees the dogs tail wagging above the tall grass in the distance. Seeing the tail wag helps his eyes shift, use central fixation and helps him to see objects swing, move opposite to the movement of his head, eyes.

I told him that my sight was apparently normal but I feared that if I came in close contact with his revolver as I came near his window, I was sure that I would become myopic or acquire a cataract or something else. As quick as a flash I asked if he had any pain and as quickly he answered me saying "No, I haven't any discomfort whatever just now."

Immediately he was told to open his eyes and to read the card, which he did without squeezing his eyelids together as he did before. (Squinting) His vision improved to 15/10 and he said that the letters were clear. I am anxious for those who read this not to misunderstand me. He was not cured by any means nor was his vision permanently relieved right at this time. His vision improved and his discomfort and pain were relieved because his mind was relaxed. I thought this was a good beginning for the first treatment and told him so. He agreed with me and promised to practice as I directed him to do until I could see him again.

Financial difficulties prevented him from coming to me every day, which he should have done and which would have made the cure of his eyes permanent in a much shorter time. I surprised him the next day by telephoning him and offering to help him over the telephone. I happened to call him at a busy time, so the discussion was short and took less than ten minutes of his time and mine. He wrote me a letter in a week's time telling me how much good I did him in those few moments.

As he talked to me at that time he stood before his telephone which was fastened to the wall. Just before I called him he had had an attack of pain and explained that all the window shades in the room where he was had to be drawn because the light caused so much pain. My advice was to **place himself before a bright electric light as close as he could stand the heat and, with his eyes closed, move his head slowly from side to side in order that all parts of the eyes would receive the benefit from the light and heat.**

I held the receiver while he did this and he soon came back to the telephone to tell me that the pain had gone and that he had raised the shades and was able to **look out into the bright sunlight from one of the windows without feeling any pain**. I advised him to write down immediately the things that helped him most and to practice these things, no matter how short a time he had each day. I told him to **sway his body from side to side** as he held the receiver and was talking to me and to **blink his eyes** with the movement of his body. This gave him some relief also. From time to time I advised him by letter and also by telephone.

In May of the same year my patient came again and this time he brought his wife, asking for permission to have her watch the treatment so that she could help him at home. I was glad that he brought her because I knew when I saw her that she would be a great help to us both. The instructions I gave her at this second visit were carried out by her and by the patient during the summer months while they were vacationing in the mountains. Toward the end of the summer, they both came to visit me and the condition of my patient's eyes as well as the expression on his face indicated no more trouble. I tested his sight for fine print and he read the Fundamental card, by W. H. Bates, M. D., through to the end, holding the card slightly farther than six inches from his eyes. His vision for the distance was also normal, 15/15 with each eye separately.

His wife had told me that at times he suffered agonies of pain during the night after he had slept for a few hours. As long as she could remember, she said, he had never slept quietly all through the night. He was troubled with nightmares and he also had insomnia for many years, and at such times he would sit up for hours and smoke his pipe in order to while away the time until daybreak. For quite a few years, Dr. Bates has been benefiting patients by having them do the **long swing 100 times early in the morning and 100 times just before retiring.** I remembered this and advised my patient to try it and let me know in a week's time whether he had any success with the swing or not.

Three days later I received a message over the telephone saying that since his last visit to me he had faithfully practiced the long swing 100 times in the morning and 100 times at night as I have advised. The results were good. He slept all through the night without waking up and without tossing about as he had been doing for so long a time. His wife remained awake purposely to watch the results and at other times, being a light sleeper, she would wake up to find her husband in the same position as he had placed himself before going to sleep.

My patient purchased a **sun-glass** from me and I directed his wife how to **use it on his closed eyelids as he sat in the warm sunshine on his patio.** In the beginning, when I first used the glass upon his closed eyelids he resented the treatment very much and the strain he was under while the sun glass was being used caused a considerable amount of tearing of the eyes. The patient feared the outcome of such treatment, but while the condition was made worse temporarily for a short period of time, it proved to be the best treatment in permanently curing his trouble.

Every day he became more accustomed to the **sun-glass treatment** and all during the summer while he was on his vacation, the sun treatment was given more frequently each day. A tent was used so that his body as well as his eyes could receive the sunshine. This proved to be a **benefit to his general health as well.** When he returned at the end of the summer, I was much surprised to

see a change in the expression of his face. **The sclera or the white part of each eye was as clear as mine and his eyes were wide open in a natural way.**

He told me of the different things he tried each day for relaxation of the eyes and mind. **His wife would read to him while his eyes were closed and he would construct mental pictures of what she was reading.** At other times he would **run and race with his pet dog**, **who could run much faster than he could and the dog would get quite a distance away from him. However, the wagging tail that he could see above the tall grass would always help him to find his pet and to run again with him.** He said the **wagging tail of the dog helped him to see things move opposite to the sway of his head and eyes**. He said he had not realized how much of a strain he had caused his wife, who was at one time a carefree girl with a jolly disposition, but through his suffering had become a very serious person.

The gratitude of both my patient and his loyal wife was most profound and they have since then proved loyal friends to "Better Eyesight." Many patients have come through them for treatment.

Suggestions

***By* EMILY A. BATES**

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 refraction, 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.

When the eyes move, shift, stationary close objects appear to move in the opposite direction. Distant objects appear to move with the eyes in the same direction. Practice seeing this with the eyes open and in the imagination with the eyes closed.

Moving the head and body with the eyes when shifting is the normal function of the visual system and improves/perfects shifting, central fixation, appearance of oppositional movement, keeps the neck, head, eyes relaxed, mobile and vision clear. When shifts are very small, tiny, the head movement may be very small or not occur but the head, neck, eyes remain relaxed, loose.

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.

Questions and Answers

Q—(1) Should a house be brightly lighted by a direct electric light or a reflected white light?
(2) In many homes colored shades are used on the lights. Does that impair the sight? C. I. I.
A—(1) The more brightly the house is lighted the better for the sight.
(2)Yes. Avoid all forms of fluorescent lights.

Q—(1) Is it advisable to use specimens of diamond type other than the "Seven Truths of Normal sight?" Would it be well to get a New Testament in diamond type?
(2) I have thus far found the flashing method the most helpful. However, after closing the eyes, I have difficulty in opening them. The lids seem to stick together, as it were. What is the cause of such stickiness and the remedy?
(3) I was trying to read the "Seven Truths" lately by the flashing method, and for about twenty minutes obtained very little results.

Then, all of a sudden, upon closing my eyes, I saw the blackest object I have ever seen with closed eyes. I was startled, it seemed so real, and on opening my eyes I was surprised to find that I could read practically all of the "Seven Truths" clearly, at thirteen inches, without closing my eyes. I think the black object was probably the black rubber key of the electric socket in the fixture which I had unconsciously looked at from time to time during the exercise. I have not been able to do just this since. What is the probable reason for my failure?
(4) I find I see any reading matter more clearly in a bright light—sunlight or electric light—than in a dim or less bright light. Why is this?
(5) Today in trying to read the "Seven Truths" I found that I could do it at six or seven inches with few alternate closings of the eyes; but I found in accomplishing this I was partially closing my eyelids, (squinting) so that I must have looked much like the Patagonians in Fig. I in Dr. Bates' book, said to be probably myopic when the picture was taken. I found that I could not keep my eyes thus partly closed without some strain, but I could not see the print clearly when they were wide open. Often the print would look quite blurred when I first looked at it, but it cleared perceptibly and became quite black as I continued to look. I also found myself reading today twenty pages of fairly small print at about eight or nine inches in much the same way. W. C. C.

A—(1) Yes, if you wish to. The "Testament" would be a good thing to have.
(2) Difficulty in closing or opening the eyes is a common symptom of strain, and may be relieved by any method that relieves strain.
(3) Such intervals of relaxation are a very common phenomenon. They will come more frequently and last longer if you continue to practice.
(4) In a bright light the contrast between black letters and their white background is more marked than in a dim light. Persons differ greatly, however, in the amount of light they require for maximum vision. Some people see better in a dim light, because they think that condition a favorable one.
(5) It is a bad one.

Announcements

Space does not permit us to print the entire list of Dr. Bates' authorized representatives in the United States, Canada and Europe, which we should like to do for the benefit of our subscribers. The following, however, is a list of those who have taken courses of instruction in the Bates Method within the past few months. Those subscribers who wish to know if there is an authorized representative in their city may obtain this information by writing direct to Dr. Bates at 210 Madison Avenue, New York City.

Miss Clara M. Brewster
Studio 6, Aquila Court,
Omaha, Nebraska.

Miss Mary E. Wilson,
2538 Charming Way,
Berkeley, Calif.

Dr. Paul J. Dodge,
911 New Industrial Trust
Bldg., Providence, R. I.

Mrs. D. L. Corbett,
1712½ Fifth Ave.,
Los Angeles, Calif.

Miss Jane Button,
249 Harvey St.,
Germantown, Pa.

Mr. Fred Baechtold,
572 12th St.,
West New York, N. J.
Tel.—Palisade 6-7735

Mr. Harold E. Ensley,
112 West 104th St.,
New York City.

Dr. Med. E. Schluter,
Hamburg, Mundsburger-
damm 11, Germany.

Mrs. R. Norman Jolliffe,
171 West 71st St.,
New York City.

It has come to our attention that certain parties not connected with Dr. Bates in any way are desirous of publishing a periodical called "Better Eyesight". We wish to say that any such use of this title is not with the permission of Dr. Bates or the Central Fixation Publishing Company and that any magazine issued under this title, other than the present one, is not published in the interest of the Bates Method. The title, "Better Eyesight", is protected against illegal usage.

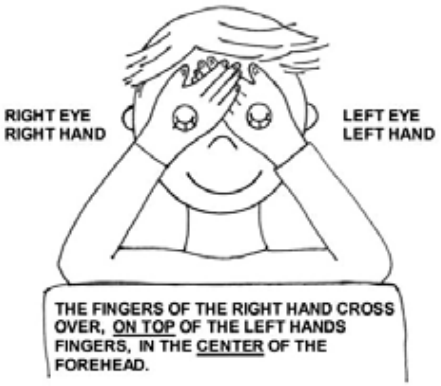
As we have already notified our subscribers, "Better Eyesight" is being discontinued with this issue. This will enable Dr. Bates and Mrs. Bates to devote more time to the writing of new books on treatment alone for which there has been a very great demand. We request that all those who desire to be notified upon the publication of new books kindly send us their names and addresses which will be kept on file.

Bound volumes of "Better Eyesight" containing the issues from July, 1929 to June, 1930, inclusive, will be ready about July 15th. Those subscribers wishing to have their own magazines bound may send them to us before July 10th and they will be bound at the same time our issues are being bound. The price for binding will be $1.00.

PALMING

PALMING

TO COVER THE CLOSED EYES WITH THE PALMS OF THE HANDS WHILE RELAXING AND THINKING SOMETHING PLEASANT.



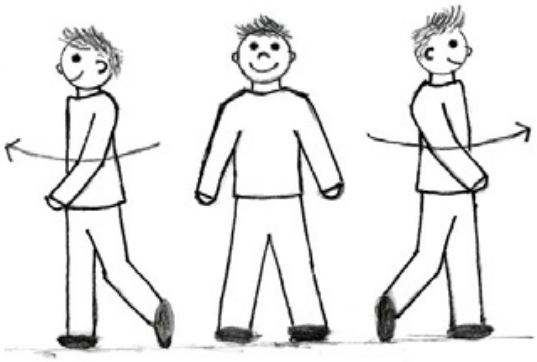
THE FINGERS OF THE RIGHT HAND CROSS OVER, ON TOP OF THE LEFT HANDS FINGERS, IN THE CENTER OF THE FOREHEAD.

THIS PICTURE SHOWS THE LEFT AND RIGHT HANDS/EYES OF A PERSON FACING THE READER.
TO SEE HOW THE READERS HANDS ARE PLACED; VIEW THIS PICTURE IN A MIRROR OR PLACE THE PICTURE OUTWARD ON THE CHEST AND LOOK DOWN AT THE PICTURE FOR A SECOND.

PALMING RELAXES THE MIND, BODY, NECK, EYE MUSCLES, EYES, AND WHEN COMBINED WITH SUNNING IMPROVES THE EYES/RETINA, BRAIN AND BODY'S ACTIVATION/REACTION TO SUNLIGHT AND ABSORPTION, USE OF SUNLIGHT. THIS IMPROVES FUNCTION, HEALTH OF EYES, BRAIN, BODY.

THE LONG SWING

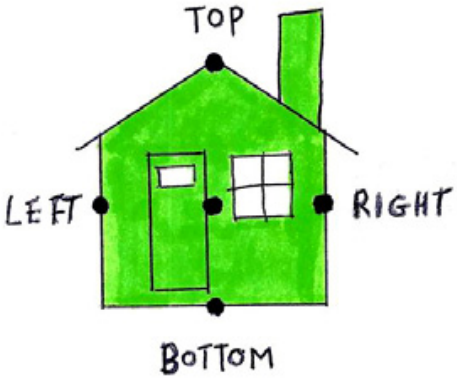
THE LONG SWING



TURN AND SWING RIGHT | CENTER | TURN AND SWING LEFT.

SHIFTING – EYE MOVEMENT – THE EYES/VISUAL ATTENTION/CENTER OF THE VISUAL FIELD SHIFT/MOVE FROM POINT TO POINT, PART TO PART ON A OBJECT AND FROM OBJECT TO OBJECT.

SHIFT ON THE HOUSE, DOT TO DOT.



SHIFT IN ANY DIRECTION/PATTERN.

THE DIAGRAM ABOVE SHOWS A EXAMPLE OF THE NATURAL SHIFTING PATTERN OF THE EYES.. NOTICE THE EYES MOVE FREELY ON THE HOUSE IN A VARIETY OF PATTERNS, DIRECTIONS.

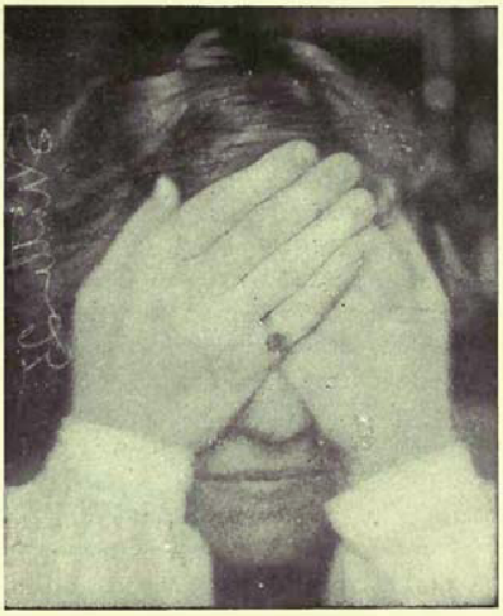


Fig. 42. Palming

This is one of the most effective methods of obtaining relaxation of all the sensory nerves.

Palm and remember, shift on a favorite object: flower, colorful stone, jewelry, tree, land, old house... Improving the memory, imagination of clear mental pictures relaxes the mind, body, eyes and improves the vision.

Palm and imagine drifting down a river. See objects in color, clear, motion. Movement of the boat, water, wind, birds flying, sun shining, sparkling on the river, animals walking on the shore, colorful dragonflies... Imagine all the senses; touch, warmth of sun, feel the breeze, hear the water, birds, wind, taste your favorite drink...

CENTRAL FIXATION

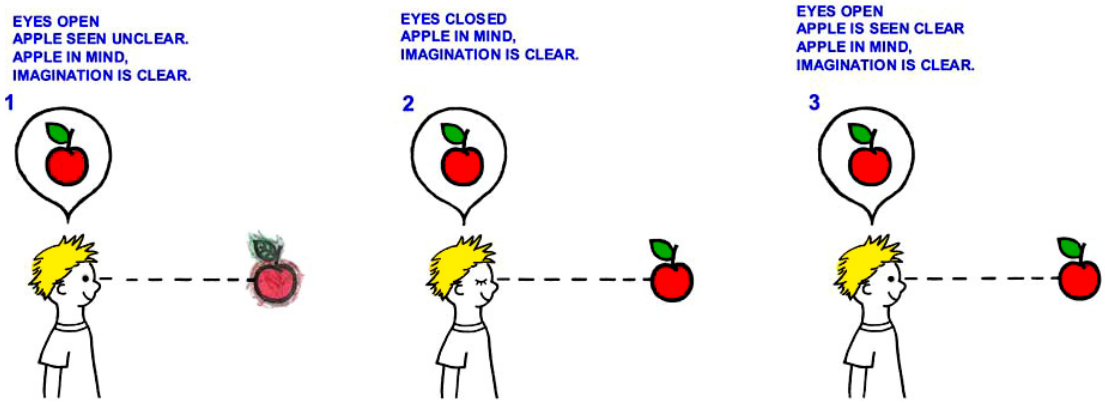
BIRD IS SEEN CLEAR BY
PLACING IT IN THE CENTER
OF THE VISUAL FIELD

SUNNING

When looking at the bird;
Place it in the center of the visual field.
Shift part to part on the bird, moving the exact center of the visual field part to part.
Do this for any object the eyes look at; shift part to part on the object. Blink, relax.
Move the head/face, body with the eyes, in the same direction.
The center of the visual field moves with the eyes from object to object, part to part.
Use perfect, exact central fixation; shift small point to small point on objects and small parts of objects.

MEMORY AND IMAGINATION – CLEAR MENTAL PICTURES

REMEMBERING, IMAGINING OBJECTS CLEAR IMPROVES FUNCTION OF THE BRAIN WITH THE EYES AND CLARITY OF VISION.

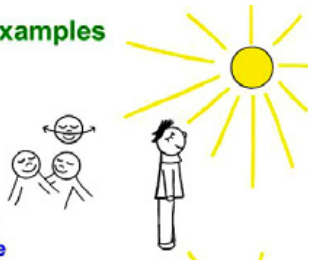


USE THE IMAGINARY NOSEFEATHER WITH STEPS # 1,2,3. (SEE NOSEFEATHER, CHAPTER ---)
REMEMBER, IMAGINE, SEE THE APPLE CLEAR WITH THE EYES OPEN, CLOSED, OPEN WHILE SHIFTING FROM PART TO PART ON THE APPLE WITH THE NOSEFEATHER. TRACE AROUND THE EDGES OF THE APPLE, STEM, LEAF WITH THE END OF THE FEATHER. TRACE SMALL PARTS OF THE APPLE.
PRACTICE STEPS # 1,2,3 WITH BOTH EYES TOGETHER, THEN ONE EYE AT A TIME, THEN BOTH TOGETHER AGAIN.
PRACTICE ON ANY SIZE OBJECT; LARGE, MEDIUM, SMALL, TINY AT CLOSE, MIDDLE, FAR DISTANCES.

Remembering, imagining any pleasant object, scene, happy memory, fantasy relaxes the mind, body, eye muscles, eyes resulting in clear vision.
Remembering, imagining the objects, scene clear while relaxed, easy, without effort improves the clarity of vision.
If the boy remembers, imagines a different object, any happy memory, image, scene (playing baseball, a favorite adventure...) with the eyes open looking at the apple, shifting on it and when the eyes are closed shifting on the imaginary image: when the eyes are opened - the apple will be seen clear. He can remember, imagine the apple or any pleasant object clear, shift on it in his mind and the apple will be seen clear.
Palming with the eyes closed combined with the memory imagination activity brings clear vision.

Sunning Examples

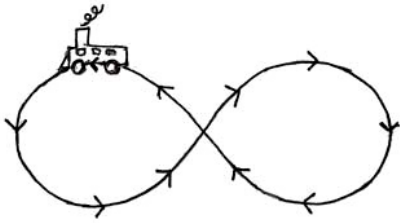
Face the sun with the eyes closed and move the head/ face slowly, relaxed side to side; left, right, left, right... Feel and see the sun move across the face/closed eyes. Then, move the head/face up and down, then circular; trace around the sun counter clockwise, clockwise. The eyes, head/face (and body) move together, at the same time, in the same direction.



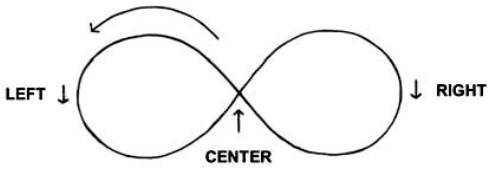
Do the rock while sunning; Face the sun with the eyes closed and rock the entire body side to side, left and right.
Do the long swing.

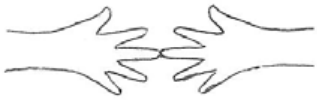
Sit facing the sun, relax, eyes closed and daydream pleasant thoughts. Occasionally move the head/ face side to side.

FIGURE EIGHT



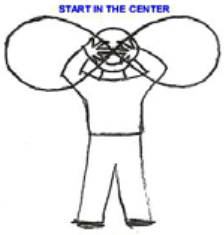
THE FIGURE EIGHT





THE FINGERTIPS OF THE 3RD FINGER OF THE LEFT AND RIGHT HANDS TOUCH WITH THE PALMS FACING IN TOWARD THE FACE.
THIS IS THE START POSITION AT THE CENTER OF THE FIGURE EIGHT.

THE FIGURE EIGHT – INFINITY SWING

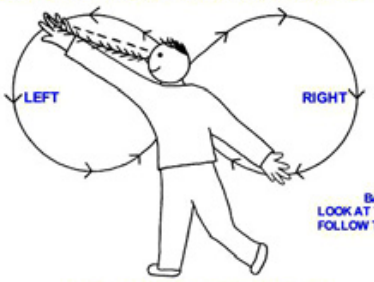


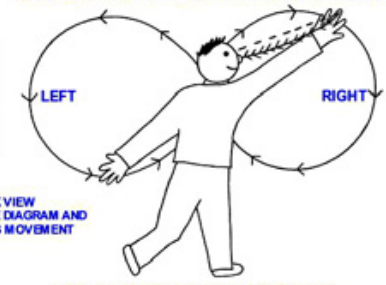
FRONT VIEW

DRAW THE FIGURE EIGHT WITH THE EYES, HAND AND END OF THE NOSEFEATHER WHILE DOING THE LONG SWING.
FOLLOW THE ARROWS - START IN THE CENTER AND DRAW UP THE CENTER AND TO THE LEFT FIRST. DRAW THE LEFT SIDE AND BACK UP THE CENTER. THEN DRAW THE RIGHT SIDE; DRAW LEFT, RIGHT, LEFT, RIGHT...

DRAW THE LEFT SIDE FIRST WITH THE LEFT HAND.
SWING, TURN LEFT AND LIFT THE HEEL OF THE RIGHT FOOT.
EYES LOOKING AT/SHIFTING ON AND MOVING WITH THE CENTER FINGERTIP OF THE LEFT HAND AS THE HAND DRAWS THE EIGHT.
THE END OF THE NOSEFEATHER AND EYES (VISUAL ATTENTION) ARE ON AND MOVING WITH THE LEFT HANDS CENTER FINGERTIP.
PALM OF HAND IS FACING IN TOWARD THE FACE WHEN IN THE CENTER, THEN MOVES OUT STRAIGHT WITH THE ARM AS THE HAND DRAWS THE LEFT SIDE..

DRAW THE RIGHT SIDE WITH THE RIGHT HAND.
SWING, TURN RIGHT AND LIFT THE HEEL OF THE LEFT FOOT.
EYES LOOKING AT/SHIFTING ON AND MOVING WITH THE CENTER FINGERTIP OF THE RIGHT HAND AS THE HAND DRAWS THE EIGHT.
THE END OF THE NOSEFEATHER AND EYES (VISUAL ATTENTION) ARE ON AND MOVING WITH THE RIGHT HANDS CENTER FINGERTIP.
PALM OF HAND IS FACING IN TOWARD THE FACE WHEN IN THE CENTER, THEN MOVES OUT STRAIGHT WITH THE ARM AS THE HAND DRAWS THE RIGHT SIDE.





BACK VIEW
LOOK AT THE DIAGRAM AND FOLLOW THIS MOVEMENT

LOOKING, MOVING LEFT WHEN DRAWING THE LEFT SIDE ACTIVATES THE RIGHT BRAIN HEMISPHERE AND CLEAR DISTANT VISION.

LOOKING, MOVING RIGHT WHEN DRAWING THE RIGHT SIDE ACTIVATES THE LEFT BRAIN HEMISPHERE AND CLEAR CLOSE VISION.

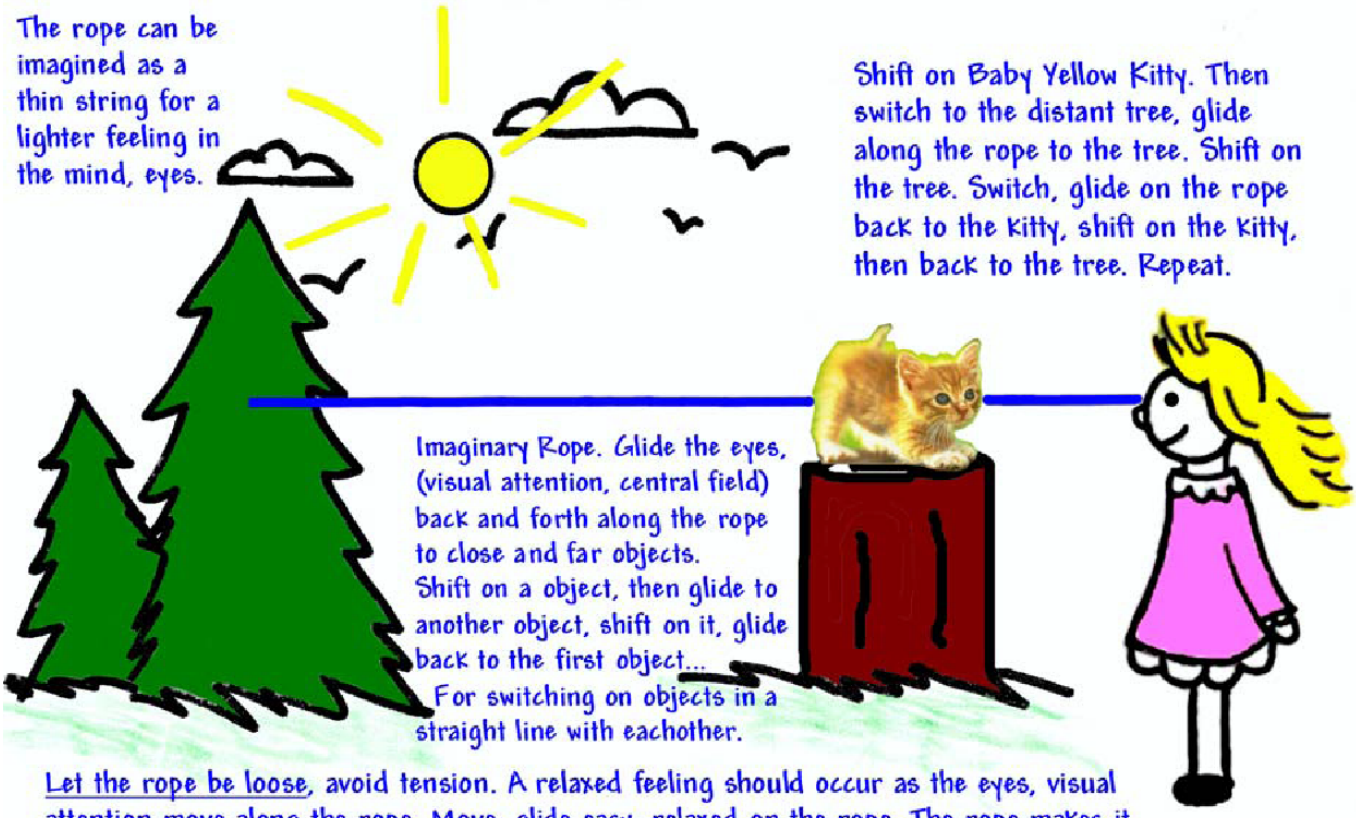
MOVING BACK AND FORTH; LEFT, RIGHT, LEFT, RIGHT AND PASSING ACROSS THE CENTER OF THE EIGHT (MIDLINE/CENTER OF THE BRAIN AND BODY) ACTIVATES AND INTEGRATES THE LEFT AND RIGHT BRAIN HEMISPHERES, CLEAR CLOSE AND DISTANT VISION AND EQUALLY CLEAR PERFECT VISION IN THE LEFT AND RIGHT EYES.

DRAWING THE FIGURE EIGHT RELAXES AND BRINGS MOVEMENT TO THE EYES, HEAD/FACE, NECK, BACK AND BODY AND ACTIVATES CORRECT VISION HABITS.
THIS ALSO IMPROVES THE CLARITY OF EYESIGHT.

The Figure Eight - Infinity Swing

The rope can be imagined as a thin string for a lighter feeling in the mind, eyes.

Shift on Baby Yellow Kitty. Then switch to the distant tree, glide along the rope to the tree. Shift on the tree. Switch, glide on the rope back to the kitty, shift on the kitty, then back to the tree. Repeat.



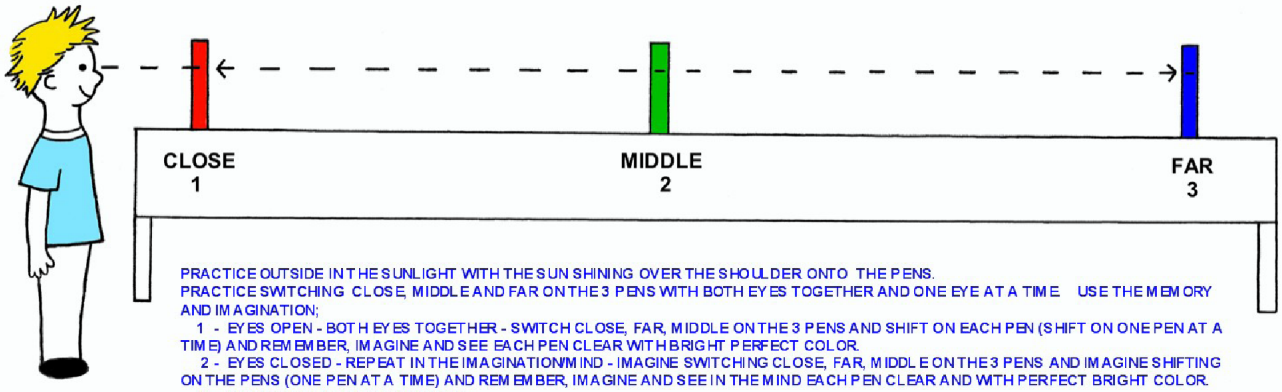
Imaginary Rope. Glide the eyes, (visual attention, central field) back and forth along the rope to close and far objects.
Shift on a object, then glide to another object, shift on it, glide back to the first object...
For switching on objects in a straight line with eachother.

Let the rope be loose, avoid tension. A relaxed feeling should occur as the eyes, visual attention move along the rope. Move, glide easy, relaxed on the rope. The rope makes it relaxing, easy for the eyes to converge, accommodate for close objects and diverge, un-accommodate for distant objects. This is especially relaxing for eyes that have tight muscles, crossed, wandering eyes. Stiff, rigid eye and neck muscles can cause a feeling of tension, pulling, a little dizziness as switching close and far is practiced and the eyes try to function, move normally, together and quickly. The rope helps to prevent this feeling of tension. It activates relaxation and quick, easy improvement of eye movement, visual clarity.

Blink, relax,, breathe, switch, shift, central fixation. Use the Nosefeather on the rope.

SWITCH BACK AND FORTH; CLOSE, MIDDLE, FAR ON THREE PENS FOR CLEAR VISION AT ALL DISTANCES

DIRECTIONS; PLACE THREE COLORED PENS (OR POPSICLE STICKS) UPRIGHT INTO A CARDBOARD BOX, IN A STRAIGHT LINE AT CLOSE, MIDDLE AND FAR DISTANCES.
THE 3 PENS ARE IN THE CENTER OF THE VISUAL FIELD, BETWEEN THE EYES, AT EYE LEVEL.
RED, GREEN AND BLUE ARE THE MAIN COLORS OF THE SUNS LIGHT SPECTRUM. COMBINATIONS OF RED, GREEN, BLUE CREATES OTHER COLORS.
THE CONES IN THE EYES RETINA DETECT RED, GREEN, BLUE AND ALL OTHER COLORS.
RED ACTIVATES THE LEFT BRAIN HEMISPHERE AND CLEAR CLOSE VISION.
BLUE ACTIVATES THE RIGHT BRAIN HEMISPHERE AND CLEAR DISTANT (FAR) VISION.
GREEN ACTIVATES AND INTEGRATES BOTH LEFT AND RIGHT BRAIN HEMISPHERES AND CLEAR CLOSE AND DISTANT VISION.
ALL 3 COLORS ACTIVATE CLEAR MIDDLE DISTANCE VISION.
ACTIVATING AND INTEGRATING THE LEFT AND RIGHT BRAIN HEMISPHERES PRODUCES EQUALLY CLEAR PERFECT VISION IN THE LEFT AND RIGHT EYES AT ALL DISTANCES CLOSE, MIDDLE, FAR.
SWITCHING ON ANY OBJECTS; CLOSE, FAR, CLOSE, FAR, AND TO THE MIDDLE DISTANCE ACTIVATES AND INTEGRATES THE LEFT AND RIGHT BRAIN HEMISPHERES AND CLEAR VISION AT ALL DISTANCES. SWITCHING ON THE RED, BLUE AND GREEN PENS INCREASES ACTIVATION AND INTEGRATION THE LEFT AND RIGHT BRAIN HEMISPHERES AND CLARITY OF VISION.



PRACTICE OUTSIDE IN THE SUNLIGHT WITH THE SUN SHINING OVER THE SHOULDER ONTO THE PENS.
PRACTICE SWITCHING CLOSE, MIDDLE AND FAR ON THE 3 PENS WITH BOTH EYES TOGETHER AND ONE EYE AT A TIME. USE THE MEMORY AND IMAGINATION;

1 - EYES OPEN - BOTH EYES TOGETHER - SWITCH CLOSE, FAR, MIDDLE ON THE 3 PENS AND SHIFT ON EACH PEN (SHIFT ON ONE PEN AT A TIME) AND REMEMBER, IMAGINE AND SEE EACH PEN CLEAR WITH BRIGHT PERFECT COLOR.

2 - EYES CLOSED - REPEAT IN THE IMAGINATION/MIND - IMAGINE SWITCHING CLOSE, FAR, MIDDLE ON THE 3 PENS AND IMAGINE SHIFTING ON THE PENS (ONE PEN AT A TIME) AND REMEMBER, IMAGINE AND SEE IN THE MIND EACH PEN CLEAR AND WITH PERFECT BRIGHT COLOR.

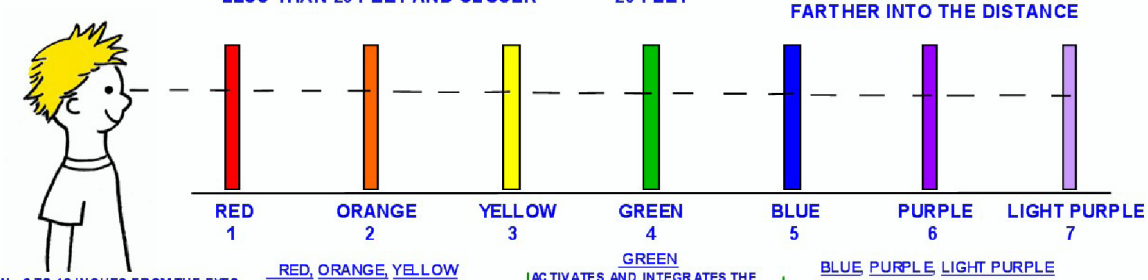
3 - EYES OPEN - REPEAT NUMBER 1.

4 - ONE EYE AT A TIME - REPEAT NUMBER 1, 2, 3 WITH ONE EYE AT A TIME; LEFT EYE (RIGHT EYE COVERED WITH PATCH AND OPEN UNDER THE PATCH) - SWITCH, SHIFT ON THE 3 PENS AND REMEMBER, IMAGINE AND SEE THE PENS CLEAR AND WITH PERFECT BRIGHT COLOR WITH THE EYE OPEN, CLOSED, OPEN.
REPEAT WITH THE RIGHT EYE (LEFT EYE COVERED WITH PATCH AND OPEN UNDER THE PATCH).
REPEAT WITH LEFT EYE AGAIN, THEN RIGHT, LEFT, RIGHT.
IF VISION IS LESS CLEAR IN ONE EYE - PRACTICE WITH THAT EYE A LITTLE LONGER.
WHEN USING ONE EYE; KEEP THE PEN BETWEEN THE EYES, AT EYE LEVEL, CENTER OF THE VISUAL FIELD.

5 - END BY PRACTICING WITH BOTH EYES TOGETHER AGAIN - STEPS 1,2,3.

PRACTICE WITH THE PENS PLACED AT A VARITY OF DISTANCES FOR CLEAR VISION AT ALL DISTANCES.

SWITCH ON THE SEVEN COLORED PENS PLACED AT CLOSE, MIDDLE AND FAR DISTANCES



RED PEN - 6 TO 12 INCHES FROM THE EYES OR START AT ANY DISTANCE THAT IS COMFORTABLE.
PLACE THE 7 PENS IN THE CENTER OF THE VISUAL FIELD, BETWEEN THE EYES, AT EYE LEVEL. PENS ARE IN A STRAIGHT LINE.

RED, ORANGE, YELLOW
ACTIVATES THE LEFT BRAIN HEMISPHERE AND CLEAR CLOSE VISION

GREEN
ACTIVATES AND INTEGRATES THE LEFT AND RIGHT BRAIN HEMISPHERES AND CLEAR CLOSE, MIDDLE AND FAR VISION.
GREEN, THE MIDDLE DISTANCE, IS THE BALANCING COLOR AND REPRESENTS THE CENTER/MIDLINE OF THE BRAIN WHERE THE LEFT AND RIGHT HEMISPHERES MEET, COMMUNICATE, SWITCH BACK AND FORTH.

BLUE, PURPLE, LIGHT PURPLE
ACTIVATES THE RIGHT BRAIN HEMISPHERE AND CLEAR DISTANT (FAR) VISION

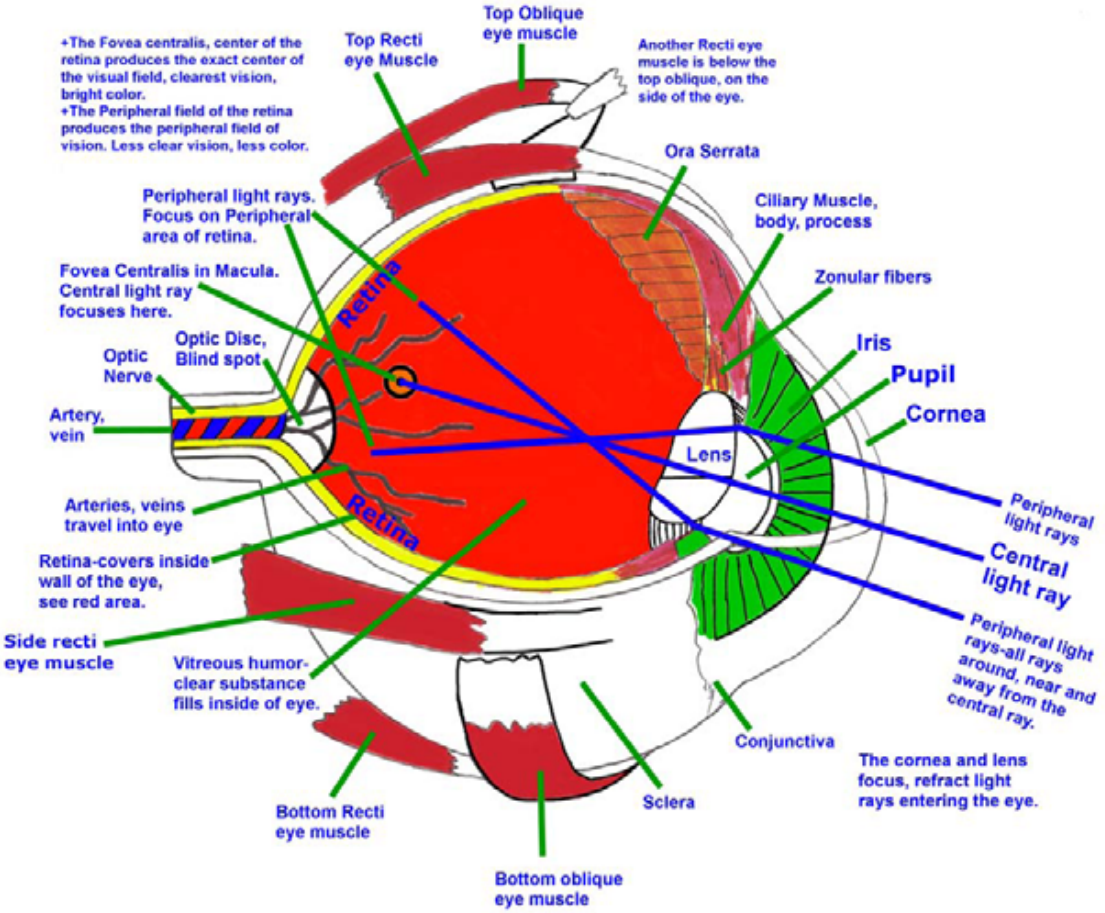
DIRECTIONS

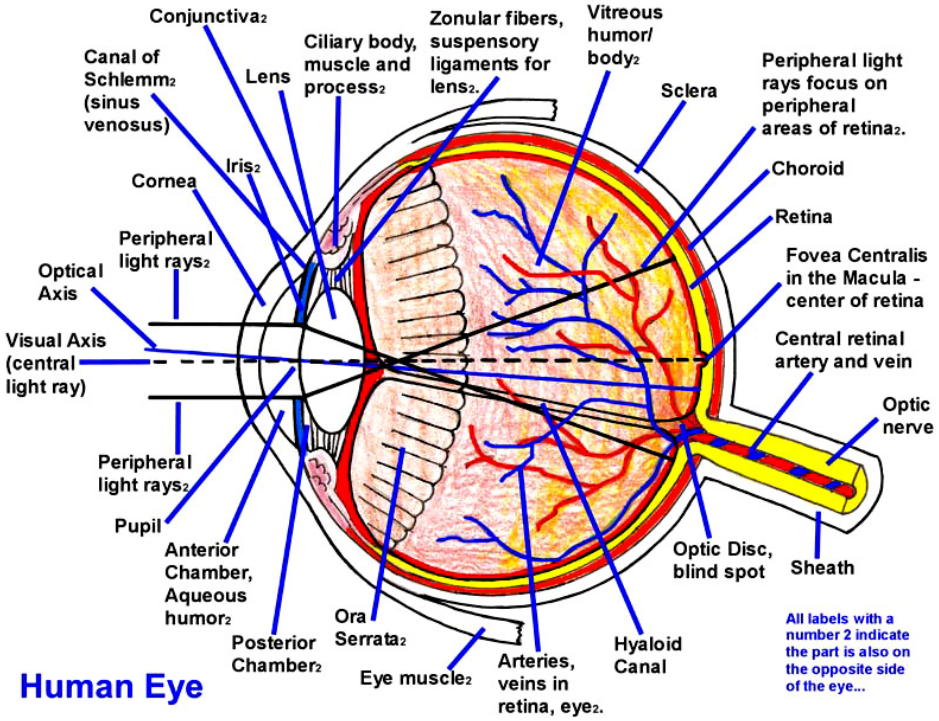
+SWITCHING BACK AND FORTH; CLOSE TO FAR, FAR TO CLOSE AND TO/ FROM THE MIDDLE DISTANCE TO/FROM CLOSE AND FAR ACTIVATES AND INTEGRATES THE LEFT AND RIGHT BRAIN HEMISPHERES AND CLEAR CLOSE, MIDDLE, DISTANT/FAR VISION.
COLOR IMPROVES BRAIN FUNCTION AND CLARITY OF VISION.
+ SWITCHING ON THE COLORED PENS; RED, ORANGE, YELLOW (CLOSE DISTANCES) TO BLUE, PURPLE, LIGHT PURPLE (FAR DISTANCES) AND TO GREEN (MIDDLE DISTANCE) INCREASES ACTIVATION AND INTEGRATION OF THE LEFT AND RIGHT BRAIN HEMISPHERES AND CLARITY OF VISION.
EXAMPLE; RED, CLOSE (LEFT BRAIN HEMISPHERE) TO BLUE, FAR (RIGHT BRAIN HEMISPHERE)
BLUE, FAR (RIGHT HEMISPHERE) TO RED, CLOSE (LEFT HEMISPHERE) ACTIVATES AND INTEGRATES THE LEFT AND RIGHT HEMISPHERES AND CLEAR CLOSE AND FAR VISION.
MIDDLE DISTANCE VISION IS AUTOMATICALLY IMPROVED. SWITCHING TO AND FROM THE MIDDLE DISTANCE GREEN TO/FROM THE CLOSE AND FAR DISTANCES WILL INCREASE ACTIVATION AND INTEGRATION OF THE BRAIN HEMISPHERES, CLARITY OF CLOSE, MIDDLE AND FAR VISION.
SWITCH CLOSE, MIDDLE, FAR IN ANY ORDER ON THE 7 PENS;
RED TO BLUE - BLUE TO RED. RED TO LIGHT PURPLE -LIGHT PURPLE TO RED. RED TO GREEN - GREEN TO RED
RED TO BLUE, TO GREEN, TO BLUE, TO YELLOW ORANGE TO GREEN - GREEN TO ORANGE, PURPLE TO BLUE, PURPLE, RED..
SHIFT ON EACH PEN THE EYES LOOK AT. LOOK AT A PEN AND SHIFT ON IT TO PREVENT STARING. AVOID STARING, EYE IMMOBILITY, SQUINTING, TRYING TO SEE CLEAR.
SHIFT ON THE PEN FROM PART TO PART; TOP AND BOTTOM, LEFT AND RIGHT, DIAGONALLY, TO MIDDLE AND TO ANY DIRECTION, PART.
MOVE THE HEAD/FACE WITH THE EYES, SAME TIME, SAME DIRECTION.
THE EYES, HEAD, FACE, NECK AND BODY ARE RELAXED AND MOBILE.
BLINK, BREATHE, RELAX. PRACTICE OUTSIDE IN THE SUNLIGHT. PRACTICE WITH BOTH EYES AND ONE EYE AT A TIME. USE THE MEMORY AND IMAGINATION.
SEE COMPLETE DIRECTIONS ON TOP PICTURE. TRACE AROUND THE EDGES OF THE PENS WITH THE NOSEFEATHER.
SWITCHING, SHIFTING ON THE PENS AND USE OF CENTRAL FIXATION KEEPS THE EYES RELAXED, IMPROVES CONVERGENCE, ACCOMMODATION AT CLOSE DISTANCES, UNCONVERGENCE, UNACCOMMODATION AT FAR DISTANCES.
CENTRAL FIXATION; PLACE THE PART OF THE PEN THE EYES ARE LOOKING AT IN THE CENTER OF THE VISUAL FIELD, BETWEEN THE EYES AT EYE LEVEL.
THE CLEAR CENTER OF THE VISUAL FIELD MOVES WITH THE EYES AS THE EYES SHIFT FROM PART TO PART ON THE PENS.

SPACE THE PENS FARTHER APART OR CLOSER TOGETHER TO PRACTICE SWITCHING AT A VARIETY OF DISTANCES CLOSE AND FAR.
AT VERY CLOSE DISTANCES THE PENS SIZE MAY BLOCK THE VIEW OF OTHER PENS.
COLORED TOOTHPICKS CAN BE USED IN PLACE OF THE PENS WHEN SWITCHING AT VERY CLOSE DISTANCES; ALL TOOTHPICKS WITHIN 8 INCHES FROM EYES...
SEE DIAGRAM BELOW.
BE CAREFUL WHEN LOOKING AT THE TOOTHPICKS CLOSE TO THE EYES; KEEP ENDS AWAY FROM EYES.

COLORED TOOTHPICKS

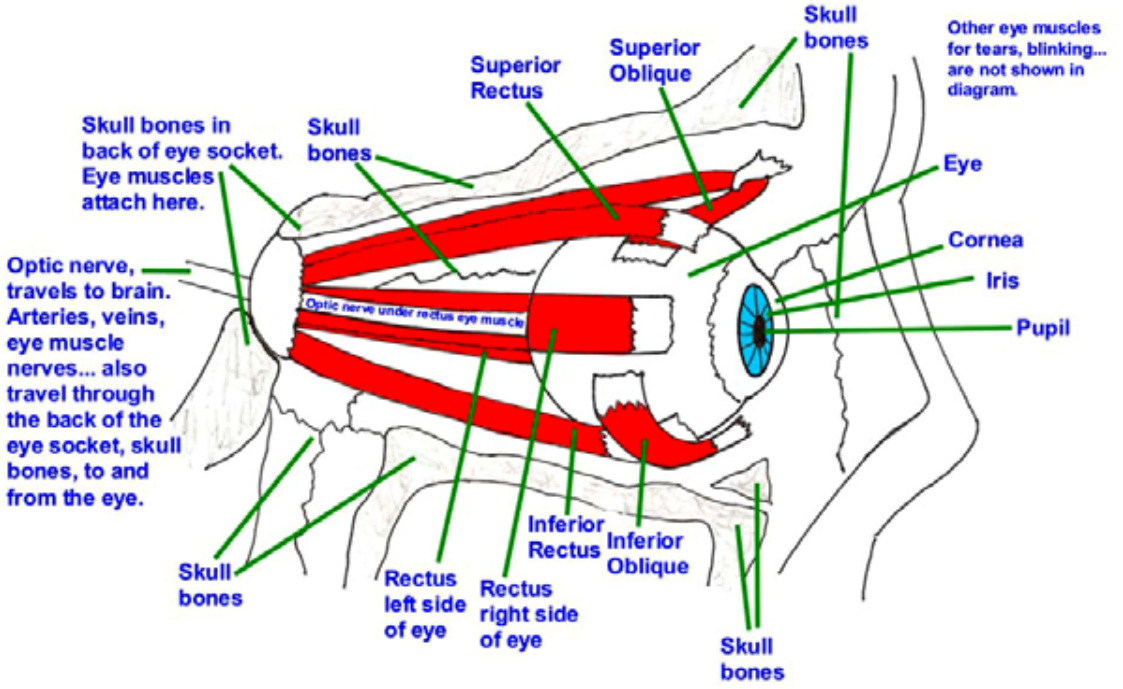
The retina contains cones and rods, light receptors. Cones=very clear vision, bright color. Activated in light. Stops functioning in almost complete darkness. Rods=Less clear vision, grey, white color. Also senses movement in the visual field and continues to function in very dim light, almost complete darkness. The macula contains many cones, and a few rods. The fovea contains a high concentration of cones and no rods. The peripheral field of the retina contains many rods and some cones with less and no cones into the far outer peripheral. This is why the center of the visual field is clearest. See clear by using the Macula, Fovea Centralis, center of the visual field. See much clearer, fine details, brightest color by using the fovea, exact center of the retina, visual field. The center of the visual field moves with the eyes from object to object, part to part on objects keeping the vision clear.



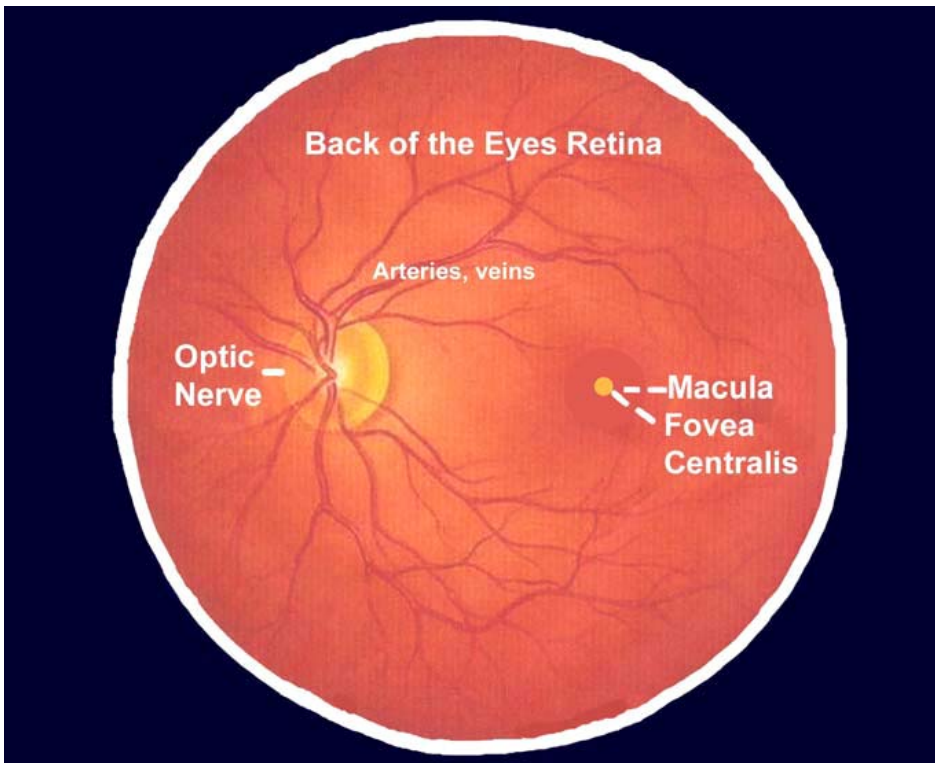


Human Eye

Eye socket, bones, eye, eye muscles, optic nerve.



Notice that the eye socket is composed of bone segments, aligned, grown together. These are part of the skull bones. Eye muscles attach to the skull bones in the back of the eye socket. Misalignment of the eye socket or skull bones due to accidents, birth trauma, forcep, suction delivery... can mis-align the bones, place pressure, tension on/in the eye, optic nerve, eye muscles resulting in crossed, wandering eyes, imperfect convergence, divergence, accommodation, un-accommodation, unclear vision, astigmatism and other abnormal eye conditions. Special chiropractors (Cranial, Cranio Sacral Therapy, Osteopathy) can re-align the bones of the skull if needed. Often, use of the Bates method alone can correct eye function and clarity of the vision.



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