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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

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 on 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 [link], February number) the sight always improves.

MY HEADACHES
By R. Ruiz Arnau, M.D.

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, enucation, 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 inexorable 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.

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 opticians, 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 conflling of the upper eyelid of one or the other eye, lasting for four or five days and having no apparcldte 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.

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 visitn 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 [link]. 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 curvatine of the crystalline lens, I felt, as) 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 prevent 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 focussed, 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 obliique 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 primer, 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 middley, 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 evdin 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 jaificial 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 accumulated 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.

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