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## WAGNER'S EYESTRAIN\*

By

### DR. WM. ASHTON ELLIS of England



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Somewhat thus did Wagner ultimately interpret to himself "friend Schopenhauer's" grand inspiration; as may be seen in *Parsifal* and the Bayreuth essays. But since it was Sch.'s Pessimism and specific antidote therefor, that first attracted him, the time has come to seek a physiologic reason for the pessimistic trend in both these geniuses.

In the third volume of Dr. Geo. M. Gould's *Bi*ographic Clinics (1905) one reads: "Without a thought of the class to which they may belong, make a list of the literary pessimists of the last century, and another list of the optimists. The pessimistic or gloomy writers and artists were almost entirely great sufferers from eyestrain and from its result, migraine. They were, for instance, Nietzsche, the two Carlyles, de Maupassant, George Eliot, Wagner, Tchaikowsky, Chopin, Symonds, Tolstoi, Heine, Leopardi, Schopenhauer, Turner, Poe, and many others." To some of these, including Wagner, Dr. Gould has devoted special studies, but not as yet to Schopenhauer; so that in the latter case I shall have to grope my way alone.

The reader will first want to know, however, precisely what is meant by "eyestrain." Excluding those less frequent cases in which coarser muscles are at fault-the muscles that roll the eyeball up or down, to right or left, whose imperfect balance is evidenced by squint, "cast," etc.-the "strain," as now generally understood, is experienced by a delicate little ring-shaped muscle situate just behind the iris (that colored portion of the eye whose opening constitutes the "pupil"). Now, this little annular device, called the "ciliary muscle," is attached to what may be termed the "setting" of the "crystalline lens," and attached in such a manner that it can adapt, or "accommodate," the lens's shape to certain requirements of vision. Here you see at once a possibility of much exertion being thrown on this tiny muscle; but you will want to know the closer nature of those "requirements."

For this you must realize that the *distance* of the lens from the retina (the special receiver of the optical image for transmission to the brain) is a fixed quantity in every individual eye—the eye having unfortunately been supplied with no mechanism, similar to that of our field-glasses, for shortening or lengthening that distance.\* Consequently an eye that is longer than the average, from front to back, will possess clear vision for near objects, but be unable to see those beyond a certain distance quite distinctly; should it be handicapped in no other way, it has no natural choice but to rest content with a limitation it has no means within itself of overcoming. On the other hand, the ciliary muscle affords the normal eye a means of evading the disadvantage of that said fixed quantity; it enables the eye to bulge its lens into a more highly convex form, at will, and thus to obtain a more accurate focus for near objects, in addition to its normal sharpness of vision for those at a distance. If too long continued, that simple operation of itself may tire the eye; for, as Gould well says, "civilization puts the eye to a function for which it was not created or habited. The success of the animal or savage depended on sharp distant vision; that of the citydweller usually on sharp near vision." But now comes the graver trouble: "It is impossible for nature, who never made anything perfect or symmetric, to make the eye an optically perfect instru-

\*At least, that is the opinion at present held by ophthalmologists. It may ultimately transpire, however, that our friend the ciliary muscle has a *limited* power of drawing the lens backward and forward, in addition to its power of compressing it—which latter power, again, may possibly be exercised rather in the direction of *allowing* it to revert to a more spheroidal shape by reducing the state of tension of its suspensory ligament. So far as concerns the intermediate causal links the rationale of the process is still *sub judice;* but the broader correlation of cause and effect is established by thousands of proofs.

ment, either organic or functional. Helmholtz said of the eye that if his optician were to send him such an instrument he would return it for alterations. The least optical imperfection may endanger the organism and prevent success, and the efforts of compensation, especially in civilization, become as painful as are all excessive and continuous efforts, and even more so, because of the delicacy of the mechanism and the infinitesimal nature of the stimulus."

The ante-chamber of the eye, to wit, is closed in with a kind of watch-glass to protect its inner works from the slightest speck of dust or other intrusive foreign matter; this watch-glass, let into the "white" of the eye, is scientifically called the "cornea." Now, if the cornea were mathematically perfect in its curvature, the operation of that tiny ciliary muscle would be simple enough; but supposing the cornea even a little "out of truth"-or "ametropic"-the ciliary muscle has to perform a highly complex act: in the subconscious endeavor to secure perfect definition of near objects, it has more or less successfully to squeeze the lens into an anomalous shape that shall exactly neutralize the error of corneal refraction. Thus the labors of our tiny ciliary muscle are infinitely increased by its conscientious efforts to meet a continual exaction of visual perfection from a physically imperfect instrument; we (i.e., the imperfectly equipped), have asked it to fulfill more than its bond and if

our demands are enforced beyond a certain duration (individually variable) it revenges itself on our general nervous system: "It is when the neutralization of the ametropia is possible and is attained with intense though perhaps unconscious exertion, when the eye does not suffer or lose clearness of vision—it is precisely then and then alone that appear the reflexes of dyspepsia, biliousness, headache, etc."\* Such is the gospel of Astigmatism, now gaining European converts every hour, but first preached by an American, Dr. S. Weir Mitchell, in the early 'seventies, and thus summed up by him in 1876:

What I desire to make clear to the profession at large is:

1. That there are many headaches which are due indirectly to disorders of the refractive or accommodative apparatus of the eye.

2. That in these instances the brain symptom is often the most prominent and sometimes the sole prominent symptom of the eye troubles, so that, while there may be no pain or sense of fatigue in the eye, the strain with which it is used may be interpreted solely by occipital or frontal headache.

3. That the long continuance of eye troubles may be the unsuspected source of insomnia, vertigo, nausea, and general failure of health.

4. That in many cases the eye trouble becomes suddenly mischievous owing to some failure of the general health, or to increased sensitiveness of brain from moral or mental causes.

Now let me apply these principles to Schopenhauer,

\*The quotations in this and the preceding paragraphs are all from Dr. Gould's *first* volume of *Biographic Clinics* (1903).

so far as that is possible with a man so extremely reticent, save indirectly, about his bodily condition.

In vol II. of Parerga our philosopher devotes a special chapter to denunciation of street-noises (whipcracking in particular), the personal application whereof is unmistakable in this sentence: "Eminent minds have always rebelled against any kind of interruption or disturbance, above all by noise." From a letter of his, to be presently cited, we happen to know that Schopenhauer had been all but stonedeaf of one ear, "as result of an illness," for nearly thirty years ere that remark was published, and about the latter period was "gradually and gently losing use of the other;" consequently it can scarcely have been over-alertness of the auditory organ itself, that inspired him with his abhorrence. On the other hand, Dr. Gould has observed an "extreme sensitiveness to noise" in many of his eyestrain patients, and remarks on its presence in Carlyle, who was by no means musically inclined.

Turn back to *Welt* I. § 18, and you find a passage which may possibly date from the other extremity of Schopenhauer's literary life, though it is more probably of composite origin: "Every stronger affection of those organs of sense [sight, hearing and touch] is painful, i.e., goes against the will, to whose objectivity they also belong.—Neurasthenia (*Nervenschwäche*) is shewn when impressions which ought to be merely strong enough to make them data for the understanding, attain a degree of strength sufficient to move the will, i.e., rouse pain or pleasuremuch oftener pain, though partly of a dull, vague nature; not only are single sounds and strong light felt painfully, in this condition, but even a general indefinite feeling of hypochondriacal malaise is occasioned." The construction of this last sentence is none of Schopenhauer's clearest, but that "im Allgemeinen krankhafte hypochondrische Stimmung, ohne deutlich erkannt zu werden" is really a notable anticipation, so far as it goes, of the latest etiology of obscure nerve-troubles. Moreover, after the "negative" character we have already seen assigned by him to pleasure, it hardly needs the testimony of his biographers,\* to convince us that he was peculiarly sensitive to pain himself, like all our sufferers from astigmatism.

Passing to the record of his habits, we learn that he took brisk walking exercise for two hours every afternoon, "no matter what the weather"—another astigmatic sign. "That these men lived to ripe old age," says Gould, "that their health improved as they grew older, that when very old most of them could outwalk all the young men [Sch. certainly did]—all this

\*The English reader unacquainted with German could not do better than consult Helen Zimmern's *Arthur Schopenhauer*, for particulars of his life, though it was published (Longmans, Green) just thirty years ago.

shows that their hearts were not organically diseased, that they were essentially physically sound, and that their ailment was truly functional. The demand and ability to carry out life-long physical exercise also points to an overplus of nerve force and an undeniable necessity of draining the surplus innervation to the large muscles of the body. But it also points more surely and clearly to the fact that only by this means could the eyes be rested and the source of reflex irritation shut off. That, or something like it, appears the plain philosophy of the 'nervousness' of eyestrain sufferers, and their absorbing need of physical activity. The greater number of literary men and intellectual workers show no such uncontrolled necessity, because they have no eyestrain. Whenever one has such patients, or reads of such men being great walkers, look out for eyestrain" (a hint to golfers, by the way). Connected with this is the limitation of Sch.'s working hours, for the best part of his life, to a mere three hours each morning; a most salutary restriction, on our hypothesis, but otherwise quite inconceivable with a brain of his calibre and power. Consider his literary output, remember that it covered close on half a century, and you will realize what the world thus lost.

The extent of his positive sufferings, the world will never know, but we have a very serious indication of them, casting a lurid light on his pessimist worldview, in two letters from his mother and sister. The one, written in 1807 to a lad of nineteen, declines to have him live with her, for reason of "your ill-humor, your complaints of things inevitable, your sullen looks . . . Your laments over the stupid world and human misery give me bad nights and unpleasant dreams"-allowance must of course be made for the mother's selfishness and superficiality, but any such moroseness in a youth of talent is incompatible with nerves at ease. In the other letter his sister cannot understand his flying from the cholera in 1831 (Berlin), "considering how unhappy you also feel, and how often you have wished to flee from life by laying violent hands upon yourself." However, speaking of his typical "astigmatic" geniuses, Gould tells us: "One heartrending result of their exhaustion was the desire or fear of death, or of worse than death, insanity . . . The peculiar nature of eyestrain, the rapidity with which it produces morbid reflexes, and is relieved, easily explains the facts of the coexistence and alternation of exhaustion and irritation. They are mere aspects of one neural and psychic fact." 陰

We read that Schopenhauer thought glasses "noxious to the eyes, and avoided wearing them as much as possible" (Zimmern). That is quite *de règle:* "All except one or two"—says Gould, of his detailed inductive cases—"inheriting the traditional and ridiculous prejudice, affected to scorn spectacles. For the rest, none except one could have obtained scientifically correct ones, and only in his old age." Our philosopher was consequently right in practice, if not in general theory, since he died about a decade and a half ere scientific spectacles began to be invented anywhere. Being so short-sighted as unintentionally to "cut" acquaintances in the street, had his defect of vision been mere myopia he would have derived practical benefit from the simple, ready-made biconcave glasses then procurable: as he found that they actually hurt him, just as a ready-made shoe hurts an abnormally-shaped foot, the obvious inference is that his myopia was complicated with astigmatism. In support of this last contention I may adduce his letter written at the age of 55 to Brockhaus, in which he begs that the second edition of Welt shall not be published in one volume, since "the print would be so small as to earn the name of eye-duster, and frighten many people off, especially the elderly." That the latter remark is "two for himself," we may judge on passing farther down, where he upholds a certain font of type as model: "these letters are easier to read than the narrow tall ones now in vogue"-precisely the astigmatic teasers-whilst he also objects to the "now customary machine-made vellum paper," undoubtedly because of its irritating gloss. Had his eyes been ordinary "short-sighted" ones, he is unlikely to

have raised so many apt objections, for they would not have found the slightest difficulty with the smallest or spikiest type.

But that was written at the very age when the normal "presbyopic" change-the last flickering efforts of the ciliary muscle to overcome the resistance of a slowly rigidizing lens-must have been causing him most trouble. Contrast it with a letter to Frauenstädt of 13 years later, when the full establishment of presbyopia had placed the punctilious little Ciliary on the retired list: "I run like a greyhound still, am in excellent health, blow my flute almost daily, swim in the Main of a summer, have no ailments, and my eyes are as good as in my student days" (here comes the bit about his hearing, cf 44 sup.). With final release from the continual drag of attempted "accommodation" his spirits have gained an elasticity unknown in earlier life, a cheerfulness reflected in his later writings; and as for his myopic eyes being "as good as in his student days," with a low degree of astigmatism-sufficient to produce the earlier symptoms-any slight loss of definition in the near visual image would scarcely be noticed, as it had come on so gradually, even if the lens may not have been left with a permanent compensative flexure. What Gould says of Herbert Spencer may be applied in every syllable to Schopenhauer; his "'rejuvenescence' in old age, and his belief that 'nervous troubles may be assuaged with advancing years,' are but the philosophy of the presbyope who has never heard of the relief that always comes to the eyestrain patient when accommodation effort has become impossible, or when presbyopia has been fully established."—

Lest the above should be accounted a mere "American notion," before passing to the now proven case of Wagner I may mention that the third volume of Gould's Biographic Clinics includes reprints of articles by two eminent English ophthalmic surgeons fully endorsing his general deductions as a result of their own independent professional experience. One of these Englishmen thus sums up his "conclusions" from hundreds of cases treated by himself: "(I) That eye-strain is the cause of a large proportion of headaches, often of a very aggravated character. (2) That various other neuroses are met with in association with headache, and among these may be mentioned the following: Mental depression, nausea, indigestion, vomiting, insomnia, giddiness. (3) That relief is afforded to these conditions by correcting the error of refraction, which can be ascertained only after careful examination . . . (5) That frequently no complaint is made of defect of vision," etc., etc.-The fifth conclusion, taken in conjunction with the second, is of the very highest importance, more particularly when dealing with purely inferential cases such as those of Schopenhauer, Spencer, etc., and originally with that of Wagner.

The second English ophthalmologist-pardon the mouthful, but the profession here rejects the simpler designation "oculist"-after premising that his article will confine itself to "those slight degrees [of refractive error] which I find are so constantly overlooked, and yet whose influence upon the nervous system may be so far-reaching and disastrous," proceeds: "Slight errors of refraction, dating as many of them do from birth, seem to have a very gradual injurious influence upon the nervous system, similar to the dropping of water upon a stone, and those who are the subjects of them are usually of the highly-strung, sensitive temperament . . . Owing to this slow action, and to the fact that in many cases there is little or no impairment of vision, their injurious influence often goes on for years, and the cause of the troubles to which they give rise is quite unsuspected." In further course of his paper-read before a medical society, remember-we arrive at the tragic suggestion:

Were I to assert that error of refraction is responsible for a large proportion of the suicides occurring daily, and that it is a potent factor as a cause of insanity, that assertion would probably be held up to ridicule and dismissed as absurd. Many things appear at first sight improbable, but on reflection much less so, and I will ask you to reflect for a few minutes on this subject. When you have seen, as I have done in a very large number of cases, the effect

of uncorrected errors of refraction on the nervous system, you will be struck by the great frequency of the occurrence of such symptoms as insomnia, great irritability, extreme depression, impaired memory, difficulty of concentration of thought, lack of self-confidence, apprehension, weariness and exhaustion, and a general want of stability of the nervous system. I have tried to illustrate error of refraction as the cause, and the correction of it the cure for these troubles. How often the patients have told me they have been on the verge of suicide, and have used the expression that they were afraid they were going out of their minds. It is quite conceivable that suicide would be more likely to occur in those who had been for a long time enduring the mental torture which results from the conditions I have enumerated, and which has rendered life a burden.

As a link between this appalling thought—the truth whereof is certainly self-evident—and the main subject of the present chapter, let me quote from an essay on "The History and Etiology of 'Migraine'" in the same volume by Dr. Gould himself:

But the profoundest evil is the dejection and disgust with life that follows persistent use of astigmatic eyes. It is noticed in all the best literature of migraine; ill-humor, petulance, morbid introspection, irritability, proceed to melancholy and pessimism in the extreme cases . . . Wagner resolved to commit suicide many times when driven to desperation by his awful suffering. The effect of this mental torture and gloom in great literary workers is the almost single cause of the "literary pessimism" in an age of rugged vigor, luxury and national expansion.

Now to point the moral in our hero's case, which at last is a very complete one.

It may be remembered that in the third volume of this Life (issued Spring, 1903) I came to the conclusion that Wagner's constantly-recurring "malady was nothing deeper-seated than Megrim, alias migraine or 'sick-headache'" (iii, 410-2). But what might be the actual etiology of "Migraine" itself, I could no more tell my readers than I could discover in medical treatises or ascertain from pumping the various "practitioners" with whom I came in contact. Then, on my repeating my unsatisfied query to the editor of our leading medical weekly, he offered to lend me a book just sent him for review, as it would probably allay my curiosity. That book, first of an eventual series of volumes, was entitled "BIOGRAPHIC CLINICS: The origin of the Ill-health of De Quincey, Carlyle, Darwin, Huxley and Browning," its author being Dr. George M. Gould, of vast ophthalmic experience in Philadelphia. After devouring this book, which threw an entirely new light on my query, I boldly wrote to Dr. Gould for his opinion on the case of Wagner, which to me seemed to shew marked similarities to the five prominent cases he inductively had diagnosed as eyestrain. From the brief particulars supplied by me, and notwithstanding my caution that Wagner was generally supposed to have remarkably "strong sight," Dr. Gould at once inferred that this case was on all fours with those five. He then proceeded to work it out in detail, at hand of the

biographies and collected letters, finally embodying his research in a long article published simultaneously in the London Lancet, August 1, 1903, and the Journal of the American Medical Association. The following year, having meanwhile garnered eight additional literary cases—George Eliot, G. H. Lewes, Parkman, Mrs. Carlyle, Herbert Spencer, Whittier, Margaret Fuller Ossoli and Nietzsche\*—Dr. Gould brought out a second volume of Biographic Clinics, in which his Wagner article was reprinted, of course, and thus made more accessible. For the full material of inductive proof, covering a dozen pages of small type, I therefore refer my readers to that book itself, confining my excerpts to more salient points in the summing up:—

It should be noted that Wagner was a "delicate boy," "a pale slim little chap" . . liking others to read to him, "preferred rambling," "roaming about the country," an excitable and fitful sleeper, shouting and talking in his sleep, etc. But the intellectual and keen mind soon realized the sense of responsibility, and the boy picks up his school work equal to the best from his ninth to his fourteenth year, but at 25 years of age his features have "the look of wanness and suffering." All this is an excellent description of children who suffer from eyestrain, and can be duplicated from the case records of ophthalmologists many times.

\*To these he since has added J. Addington Symonds and Taine, in vol. iii (1905), Balzac, Tchaikowsky, Flaubert, Lafcadio Hearn and Berlioz, in vol. iv (1906). Vol. v, just to hand (1907), deals with no celebrities, but is none the less instructive.—N. B. Publishers: Blakiston's, Philadelphia, and Rebman, London. At about 30 years of age an excess of writing work overtaxed his nerves so much that he "often sat down and wept for a quarter of an hour at a stretch," and he was a constant victim of a feeble stomach. At this time an extreme amount of work with his pen [*Tannhäuser*] brought on the idea of sudden death which in the same circumstances reappeared many times during his life and threatened to drive him to suicide. The medical man warned him against work, fearing "the determination of blood to the head," and ordered leaves of absence for three months, etc.<sup>†</sup>

With each increment of added accommodation-failure things go from bad to worse every year, until at the age of 35 years Wagner feels "too old" for undertaking his greatest art-work. Depression and suffering, "broken-downness," always follow near-work with the eyes, and especially so in winter, his "mortal enemy," when vitality was always lowered, because there was more confinement in the house and hence more reading and writing. A hundred statements grow ever clearer and clearer that writing and reading are becoming more and more impossible, produce greater and greater suffering, and that after each opera, poem, or literary work the ill-health is more tragical . . . Finally, the "nerves of his brain are so overwrought that the writing is reduced to two hours a day, instead of five or six as formerly, and the writing of a few lines of a letter sets him in violent commotion." As all ophthalmologists instruct their patients, so Wagner found by experience that he had frequently to interrupt even his two hours a day of eyework. Every job of composition or writing "takes much out of him" and he has "to rest it off." Headache, sleeplessness, the "working by spurts," "with long interruptions," a hundred such

<sup>†</sup>"As I write this a patient comes in bright and happy and healthy who two months ago was the absolute reverse of these things, and whose life had been made as miserable as that of Wagner and from the same cause. In his melancholy and suffering his greatest danger had been suicide. Great nerve specialists had drugged him to stupor or had 'rested' him nearly to death . . . ." (Dr. G.'s footnote.) expressions occur, and the fear of death, the longing for it, or the resolve to seek it, is constantly reappearing

Wagner's clearest symptom was "sickheadache;" migraine, megrim, hemicrania; nervous headache or bilous headache,\* are other names for this terrible affliction. It causes a large number of other symptoms and is itself of an infinitely varied type, according to the kind of near-work required and the kind of organism of the patient. I have had thousands of patients with this disease, and 99 out of every 100 were cured by spectacles. That sickheadaches often disappear at the age of from 50 to 60 years is due solely to the fact that [completed] presbyopia makes eyestrain impossible. That the wrecked nervous system may sometimes go on exhibiting the symptoms after the exciting and direct cause has ceased, is a truism not only of medicine but of common sense.

Concerning the prevalent belief that Wagner did not "wear glasses,"† despite his description in the old Dresden police-warrant (*Life*, ii, 419), Dr. Gould

\*Elsewhere Gould refers to "the relationship of Wagner's ocular and digestive symptoms," whilst the opening chapter of the book under notice—a chapter headed "Eyestrain and the Literary Life" remarks that "The Digestional Reflex, next to insomnia and headache, was the most pronounced and constant symptom of the fourteen patients [Carlyle, Wagner, etc.], and of nearly all it was the most crippling and dangerous." Another symptom, much heard of in Wagner's case, is accounted for by Gould in the same way: "He also suffered all [?—see cap. III. nj.] his life from an intercurrent affection, erysipelas, which is a disease dependent upon denutrition. There can be nothing in medicine more certain than that eyestrain causes denutrition, and nothing more certain than that Wagner had terrible eyestrain. See also Appendix.

<sup>†</sup>True, a Vienna caricaturist had represented him at the conductor's desk with the *Tristan* score before him, an open snuffbox in his hands, a huge muffler embracing his chin, and his nose largely bespectacled; but caricaturists are scarcely responsible people, and the skit is signed "1886," three years after Wagner's death. remarks: "It is of no consequence whatever. Any spectacles he could get would not have neutralized his eyestrain." As to the supposed impossibility, see lower; but that common belief is itself confuted by reliable evidence, since one reads in course of reminiscences of the later 'seventies contributed by Baron v. Seydlitz to Die Musik, Nov., 1901: "His famous black-velvet cap, when not in use, always formed a mat for his spectacles. He could not abide pince-nez; as I wore a pair, he tried to mock me out of it . . and advocated spectacles. 'But it is so easy to mislay one's spectacles,' said I; 'Why, I can always find mine at once: they rest on my cap.'-'Yes -but your cap?'-'Na, I can see that at any distance. No, no, Seydlitz, you have only one fault, and that is pince-nez." Besides establishing the fact of a moderate degree of short-sightedness, this simple little tale most convincingly proves that Wagner did wear spectacles in later life, indoors, and thus throws unexpected light on a brief passage in his Public and Popularity essay of 1878, "The reason why people in olden days had manifestly clearer heads, surely is that they saw more clearly with their eyes and had no need of spectacles." (P. vi, 71.) If for "saw more clearly with" one partly substituted "did not overtax"-which is the obvious intention of the context-the whole secret would be explained; but the insight itself, so plainly drawn from personal

experience, was far in advance of the physiological tenets of that generation. Let us use it as bridge to a physical fact of high significance:

All through the latter part of Wagner's life he had one symptom, one of those which physicians call "objective," one that is alluded to, so far as I know, by no written word. In speaking to a great musician who knew Wagner, I mentioned this symptom, when he broke in with, "Of course! I had often observed the fact, but thought nothing of it!" This symptom, which all of his physicians also ignored, comes out in most of the later photographs and the portraits, especially in those of Lenbach, the realistic painter. The left eye is turned out and up. (Consult the portraits herewith reproduced.\*) Some American oculists call this defect "hyperexophoria." In the effort to drag the eyelid away from, and above, the pupil of this eye, it will be noticed that the forehead is arched and wrinkled in concentric curves-an appearance noticed in many such patients. In the pictures in early life this combination of heterophoria and strabismus is not shown, because it did not exist. It had been overcome by strain, if it existed, and the strain had produced its effect<sup>†</sup> . . . This turning of the left eye upward and outward is, as oculists know, a result of ametropia and especially of astigmatism and anisometropia. It was a relief of eyestrain, an effect rather than the cause of it . . . This evidence presented by the portrait painter and the photographer of Wagner would not be needed by the expert oculist to prove the fact of the cause of his lifetime of awful misery. It adds the demon-

\*From the frontispiece and p. 208 of H. S. Chamberlain's Richard Wagner, "by the courtesy of Messrs Dent & Co."

t"Even in the later photographs the ocular defect is not always shown, chiefly, probably, because he was able by intense effort to overcome it and to secure 'binocular fixation' . . . The vertical wrinkles between the eyes are also proof of eyestrain" (Gould's footnote). stration needed to convince general physicians and intelligent laymen.

To the unprejudiced mind the case may be already upheld as complete. But there are those whom no inductive reasoning, no argument from the analogy of a thousand similar experiences, can *quite* convince; they smell a rat, and ask for positive proof of the particular instance. Quite unexpectedly, that positive proof in Wagner's case is now available:—

In April, 1904, eight months after Dr. Gould's Lancet article and just after the appearance of his second volume, I had occasion to write to Edward Dannreuther (since deceased), and in course of my letter made brief allusion to the new theory of Wagner's ill-health. Dannreuther answered me: "Wagner was astigmatic. I took him to the Critchett's when he was staying at Orme Square [with E. D., May, 1877]. After a long examination by both father and son, they produced a set of glasses for special purposes which proved satisfactory." A couple of days later: "I cannot say at what part of the day or after how much work Wagner complained. He was making a clean copy of Parsifal for the Kingother than this, I know of no work (besides the writing of a few letters to the Bayreuth people) that he did in London . . . Messrs Ross of Bond St. made the glasses .- He certainly was troubled with dyspepsia. As to retching, I have heard of such a

thing, but *never* saw a trace of anything of the sort. I never heard him complain of headache" (vid. inf.).

Thereupon I wrote to Messrs Ross and Sir Anderson Critchett, begging for further details. From Messrs Ross no information was procurable at all, as "unfortunately our old registers do not go back anywhere near the date which you mention." Sir Anderson, on the contrary, most courteously supplied me with the following particulars (April 16, 04): "You have already heard the broad facts from Mr. Dannreuther, so I think there cannot be any harm in my giving you a few details.—The great composer complained to my father that he was suffering from severe frontal headaches, insomnia, and inability to work for more than short periods without distress. At my father's request I tested and examined Herr Wagner's eyes, and found that in each he had a diopter of myopic astigmatism. He was both astonished and delighted when he saw music through the spherocylindrical glasses which corrected his error of refraction, for the notes, lines and spaces were seen with a cleanly cut definition which up to that time he had never known. After his return to Germany he sent us several kind and grateful messages, and the assurance that the unpleasant symptoms had been much relieved. In the ardor of composition the glasses not infrequently came to grief, and I was

amused to receive a request that I would order six pairs of spectacles to be sent to Bayreuth."

That absolutely settles the larger question. However, as it leaves the said "objective symptom" unaccounted for, I recently troubled Sir Anderson again, and he has kindly replied to me: "With reference to the other points you mention, I feel sure that the degree of astigmatism was the same in each eye, but the vision of the two eyes was not identical,\* though there was no very marked difference. I remember that after Herr Wagner had looked at some music for a few minutes through the glasses he remarked that they enabled him to focus his eyes with less effort. -Expert opinion will doubtless vary respecting the extent to which the error of refraction exerted a sinister influence in the life of the great composer, but none can deny that it may have been an important factor in the troubles to which you allude.--I am convinced that I have given all the data correctly, for I naturally took a special interest in so illustrious a patient, and the essential facts of the case are indelibly impressed on my memory."

Thus we know for certain now, that pronounced astigmatism existed at the age of 64 in Wagner's case, therefore must have existed for many years previously, and possibly since childhood; whilst we may pride ourselves on the fact of a great English ophthal-

\*I take the liberty of italicising this important clause.

mologist having been able to remedy its optical disadvantages, and relieve at least some of its other longstanding symptoms, by scientific "correction" even in the earliest days of that branch of the science.

Well-our nurses used to ask us how many "wells" make a river, but it's a very useful cue, so Well, again: "One shrinks from parading his own clinical experience"-says Gould-"but each day of sixteen years, and many thousands of patients, have convinced me that eyestrain is the almost sole cause of the awful disease sickheadache, that it causes a vast deal of so-called biliousness and of dyspepsias of many kinds, and that correction of eyestrain often relieves these troubles suddenly and as if by magic. I frankly confess that despite all pondering over the fact, and study of the physiologies, I am in doubt as to the mechanism. In a general way and usually the head is an inhibitory organ to the so-called vegetative or unconscious processes of the body, but eyestrain is such a peculiar disturbance of cerebral function that one doubts if it is essentially an exhaustion and depletion, or an excitant and irritation . . . But facts, accurately observed, precede philosophies, and sufficient unto the day is the evil thereof."

So we will not attempt to explain *how* this seemingly trivial deviation from symmetry of one organ of sense, albeit the most important of them all, can affect the whole body and through it the mind, but accept its malign influence as a proven fact, and by that influence explain the sombre view of things in general which frequently surprises us in so buoyant and energetic a nature as Wagner's. "Many times in Carlyle's life a similar shuddering seized him" says Gould (for the last time)—"and Wagner contemplated suicide many times. The tortured mind saw no other escape from the misery which haunted it with over-use of the eyes. Yet naturally these men were lovers of life, and even cheerful-minded. Even Carlyle was not entirely a pessimist, and his natural faith and hopefulness were constantly breaking through the gloom which use of his eyes threw over his mind."

Of Wagner that is perfectly true. When in tolerable health and comparative freedom from worry, no one more enjoyed a hearty laugh; but the works of Schopenhauer, a fellow-sufferer from eyestrain, fell into his hands at the very time when everything conspired to make him gloomy, and when he was taxing his eyes to *their* utmost, first with his own music (*Walküre*) and then with that of others (London). Small wonder if he found their darkest pessimism congenial, just as it is small wonder if he recognized at once their author's overwhelming power. Later on he will find "some points for amendment in friend Schopenhauer's system" (Venice Diary, Dec. '58), still later that Pessimism though an excellent corrective,

is not the sole alternative to Optimism. To the end of his life, however, he will reap that comfort from these mines of wisdom which can be drawn by those alone who bring to them a sympathetic heart and a brain with something in it.

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