

**'Fitting glasses,' the diagnosis of errors in refraction, the influence of eyestrain, etc. / by George M. Gould.**

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"FITTING GLASSES" THE  
DIAGNOSIS OF ERRORS  
OF REFRACTION, THE  
INFLUENCE OF EYE-  
STRAIN, ETC.

BY

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PHILADELPHIA

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"FITTING GLASSES," THE DIAGNOSIS OF ER-  
RORS OF REFRACTION, THE INFLUENCE  
OF EYESTRAIN, ETC.

TO THE EDITOR OF THE MEDICAL RECORD:

SIR:—Fearing that the many erroneous statements made in the article of Dr. A. Edward Davis, in your issue of June 30, 1906, may mislead the incautious, I beg for space to point out what seem to me the more important. With one exception almost every position taken is in part or wholly wrong, so that the hackneyed story of the dictionary definition again applies: The crawfish is not red, it is not a fish, and it does not walk backward. Many considerations compel too great brevity on my part:

1. The very title of the article is inaccurate. By all oculists and opticians it is common to speak of "the fitting of glasses" as a part of the optician's art, having nothing to do with the diagnosis of errors of refraction, with eyestrain, or with its systemic effects.

2. The epitome of the history of the discovery of glasses, of astigmatism, and of other refractive errors, of the *theory* of physical and physiologic optics, is made up of many sins of omission and commission; it has been frequently done, and better done, than here, and was not at all necessary to introduce the real subject.

3. The ophthalmoscope is made much of as a method of diagnosing refraction errors, but is of no use to those who value scientific precision in such work. It has had almost no influence in "placing the subject of refraction on a sound basis."

4. The ophthalmometer is credited with even a greater role in "the science and art of fitting glasses." All skilled oculists are agreed that at best it is only an aid, never solely to be relied on. I myself find it of no use whatever. The article confesses this, unwittingly, of course, in the statement that it will, "as a rule," give the astigmatism to within an error of 0.50 D. Within that error, however, lie the work and success of the careful refractionist.

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Relief of eyestrain and its systematic effects depend precisely upon eliminating this astigmatism of 0.50 D. It is perfectly plain why those who do not eliminate this small degree of astigmatic error jest at the "extremists" and "exaggerators," and the "eyestrain faddists." The "hobbyrider" who does correct the neglected 0.50 D. and less of astigmatism cures the reflexes of his patients, and, naturally enough, emphasizes the truth.

5. Retinoscopy is the most accurate and trustworthy objective method of diagnosing errors of refraction. article I criticise discourages the method, because it requires carefulness, time, and conscientiousness on the part of the oculist. But what is the oculist "here for"?

6. The epitome of the history of the discovery of reflex ocular neuroses is all wrong, even as to the dates and references. It is a sorry jumble of inaccuracies and mis-statements. It seems designed only to deny and ridicule the theory of the very existence of systemic diseases due to eyestrain. It ends with a quotation from the Prophet of the god, *Ophthalmometer*, that "the belief in any morbid constitutional condition" due to eyestrain is nonsense. Although this is surpassingly frank and brave, it is itself most amusing nonsense. Hundreds of capable oculists and general practitioners smilingly demur to the ignominious implication. The quotations from Fisher, Sachs, Dana, and others are in these times delightfully funny. One hopes they will be repeated many times in the future, because getting such "scientists" on record is a great desideratum. When the "flop" comes it will thus perforce be all the more evident and mirth-provoking.

7. Excessive space is given to the summary of Dr. Howe's charming article. Unfortunately, neither the quoter nor the "collective investigator" gives the names of those who reply to the *questionnaire*. The names of those who scorned to reply to such an absurd "investigation" are also wisely and equally omitted. Were it not that so many are put on record, the whole pother has not the value of the paper on which it was tabulated. If your contributor knew several things about it, even he would realize how much less valuable it is than that blank foolscap page.

8. Your contributor's article has another indirect merit: it exposes the "science" and "art" of many who are doing refraction work. Its chief motive appears to be to deny the advisability of the use of cycloplegia in the diagnosis of refraction errors. But all who know, know most cer-



tainly that there can be no accuracy in such work without what the author calls a score of times, *cyclopegia*. This is the crowning proof of the author's supreme abandonment of all reserve: he makes the unblushing plea that refraction as practiced nowadays, "comes nearer to being an exact science than any other branch of medicine." In fact and in truth, we all know it to be the most inexact. The author himself forgetfully admits and reemphasizes the truth that few or no oculists do agree in their diagnoses and prescriptions.

9. Patients go to opticians, it is said, chiefly because the bad oculists persist in using "cyclopegics." I should say it is because they don't use them, and because the optician can do as good work (*gratis*, too) as oculists do who do not use "drops," and who scorn 0.50 D. (and often much more) of astigmatism. Your contributor is in naïve innocence that modern ophthalmology does not disable a patient "ten days," nor "three days," not even one day. In eighty minutes after a patient enters the office he may be completely cyclopegicized, accurately refracted, and the accommodation and pupils wholly normalized.

10. One of the most inexcusable blunders made by your contributor is the exasperating mixings-up and indiscriminations in crediting men with service in bringing about progress in the science and art of refraction. Men are credited and honored for work they did not raise a hand in doing; others who labored mightily are wholly ignored. Men may be made the heroes of discoveries and reform in refraction who have always scorned and still despise refraction; who "cure by taking all glasses off;" who detest "cyclopegia"; who, until very recently at least, sent their patients to the optician to be refracted; who to-day would "not bother about a little astigmatism."

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