

Optical Department.

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Correspondents should note that for an intelligent answer to be given to their inquiries it is necessary in every case to give the following information relative to their patient: (1) Sex, (2) age, (3) occupation, (4) near point of distinct vision for small type with each eye alone, (5) how their eyes trouble them, *i.e.*, their asthenopic symptoms, (6) vision of each eye at twenty feet alone without glasses, (7) best vision obtainable with glasses, naming correction.

Example.—J.S., male; age, 18; book-keeper; can read small type to within five inches of each eye; complains of much headache through the day and evening; eyes feel sore and water a good deal, look red and inflamed, etc., etc.

R.E.V. $\frac{20}{60}$ with $+1.50 = \frac{20}{60}$
L.E.V. $\frac{20}{60}$ with $+1.50 = \frac{20}{60}$

The above example is taken to illustrate about how we desire inquiries to be made.

T. A. C.—What is your advice in a case suffering from asthenopia where 1.00 D. of hypermetropia is present, in addition to which there are six prism dioptres of esophoria?

ANSWER.—In hypermetropia with esophoria it is incumbent to fully correct the Hy., whereas in hypermetropia connected with exophoria it should not be fully corrected. The philosophy of this is readily understood if anyone studies and remembers the manner in which the muscles of accommodation and convergence are supplied with nerve force, *viz.*: that the stimulus to the ciliary muscle and the internal rectus is by the same nerve—hence any given task requiring a certain number of dioptres of acc. will, to maintain the harmony between the acc. and convergence also require a like number of metre angles of convergence.

In hyperopia with esophoria, when the hy. is fully corrected, less acc. is needed and hence less nerve stimulus goes to the internal rectus, which is the stronger, with the result that the external rectus (the weaker) thereby has not such an over-stimulated muscle to contend with—resulting often in the disappearance of the

esophoria entirely. On the other hand in hy. with exophoria if you fully correct the hy., the internal rectus (now the weaker) is deprived of that very nerve force which heretofore enabled it to combat somewhat successfully with the external rectus and stronger. We frequently find such cases come to us with the ametropia corrected by spherical lenses, and the heterophoria corrected by prisms. This is beautiful in theory, but impractical in practice, and seldom satisfactory to the patient. Few opticians have sufficient knowledge of the anomalies of the eye muscles to warrant them in ever thinking of ordering prisms. These cases, however, are often, by swelled-head opticians, furnished with prisms—another example of where “fools rush in where angels fear to tread.”

An example of this recently came under my observation as follows: A very intelligent and honest druggist wrote into this city to an optician who is posing as an authority with the question, “What he could do to relieve a case of heterophoria which required a thirty-degree-prism?” The self-constituted wiseacre replied, telling him to use gymnastic exercises of the weak muscles. This kind of thing was simply ridiculous for three reasons: 1st, because no amount of muscle exercise would have any apparent effect on this degree of trouble; 2nd, the advisor was assuming an amount of knowledge far beyond his possession, and, 3rd, because both being students of mine I know that the questioner is head and shoulders in optical knowledge above his answerer. In all cases of ametropia associated with heterophoria the former should be dealt with along the lines suggested above, entirely disregarding the latter, which often causes no further trouble and frequently disappears. The sensitive eye can often tolerate either ametropia or heterophoria, but seldom both, and it is found that correction of the former gives more relief than correction of the latter.

Hygiene of the Eyes.

Dr. L. W. Fox, Professor of Ophthalmology, Medico-Chirurgical College, Philadelphia, formulates the following rules for the care of the eyes:

1. Avoid sudden changes from dark to brilliant light.
2. Avoid the use of stimulants and drugs which affect the nervous system.

3. Avoid reading when lying down, or when mentally and physically exhausted.

4. When the eyes feel tired, rest them by looking at objects at a long distance.

5. Pay special attention to the hygiene of the body, for that which tends to promote the general health acts beneficially upon the eyes.

6. Up to forty years of age, bathe the eyes twice daily in cold water.

7. After fifty, bathe the eyes morning and evening with water so hot that you wonder how you stand it, follow this with cold water, that will make them glow with warmth.

8. Old persons should avoid reading much by artificial light, be guarded as to diet, and avoid sitting up late at night.

9. Do not depend on your own judgment in selecting spectacles.

10. Do not give up in despair when you are informed that a cataract is developing; remember in these days of advanced surgery it can be removed with little danger to the vision.

Notes.

The Optical Institute of Canada opened its regular monthly classes after the hot weather on August 15th, with an encouraging number of students in attendance.

Dr. Hamill, the instructor of the Optical Institute of Canada, assisted by Dr. Saluree, of the Buffalo Ophthalmometer Co., will, during September 6th, 7th, 8th and 9th, give interesting talks on optical subjects at the institute, and demonstrate the use of new instruments. Druggist opticians are cordially invited to take advantage of these lectures free. Both speakers are recognized authorities on optical subjects and instruments.

The Canadian Ophthalmic College, which has just completed a highly-successful class, are arranging for a class during the two weeks of the Fair, with a special advanced course during the second week. The latter is for graduates desiring further information on advanced subjects, such as Oblique Astigmatism, Muscular insufficiencies, and Retinoscopy. During this week also a special exhibit will be made of the various kinds of instruments for eye testing, together with practical instruction in their use. Cohen Brothers.

Cupratin.—A compound of copper and albumin, analogous to ferratin, introduced by Filehne.