

Optical Department

In charge of J. S. LEO, Principal of the Optical Institute of Canada

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

The above example is taken to illustrate about how we desire inquiries to be made, and also to answer a correspondent who asks, Would glasses do this customer any good—because he can see as well with the eye alone as with any glass?

Answer.—A vision of $\frac{20}{20}$ indicates emmetropia or hyperopia, and the ability to see through a convex glass at 20 feet, as well or better than with the naked eye, shows hyperopia is present, and the strongest convex glass with which a patient can see as well or better than he did with the naked eye at 20 feet is the glass which represents his manifest hyperopia, which in the above example is + 1.50.

This customer, then, was using accommodation to see objects at a distance; the emmetrope does not use any. To read or write at 13 inches the emmetrope would use 3.00 dioptres of accommodation; the hyperope will have to use as much more than the emmetrope as he has hyperopia. Accommodation is simply muscular action; hence the hyperope must use much more muscular strain to do the same work at the same distance than would the emmetrope.

This extra strain explains all the symptoms complained of above, and placing + 1.50 glasses before the eyes of this patient will relieve the strain and all trouble will disappear at once. These glasses will require changing to stronger ones later on if the headache returns. The glasses should be worn for all near work, but would not be required for street use, although no objection could be found against wearing them constantly.

Optical Items.

An optician who does not see that the mechanical part of fitting glasses is perfectly satisfactory and permanently well done misses the great point of his duty. Labor-saving devices can of course be

used, but shiftless and careless work, done with the purpose of quickly getting the job off his hands, is criminal. An optician who has studied his profession knows what is needed to make a perfect job, and although it may cause him more trouble to do the job as it should be done he should allow no makeshift or time saving methods to deter him from finishing it in a conscientious and painstaking manner. On these little things reputations are built. —*Trader.*

Headaches are often caused by the spring of the glasses being too strong. Persons whose nerves are not of the strongest often suffer from this aggravating cause. If the spring is stronger than need be, it should be weakened.

The term *dioptré* is a synonym employed in the place of the term *metre*, *i.e.*, 37.39 inches. For practical use we call a dioptré 40 inches. Thus a glass of one dioptré brings the rays to a focus 40 inches from the glass.

OPHTHALMOSCOPIC CHANGES.

In chronic Bright's disease are found: (1) Edema of the retina. (2) White spots showing degeneration. (3) Hemorrhages. (4) Inflammation of the optic nerve. (5) Atrophy of the retina.

All of the above symptoms go to make up what is called *albuminuric retinitis*.

In diabetes the patient is liable to impairment or loss of sight; the conditions producing this are: (1) Cataract. (2) Impaired condition of the blood. (3) Changes in the fundus oculi.—*Medical Brief, October, 1896.*

NEW MATERIAL FOR MATCHES.—The time-honored scheme of rolling up a piece of paper and using it for a lighter has been utilized by an inventor in the manufacture of matches. The invention promises to revolutionize European match-manufacturing, and is particularly timely, because the wood for this purpose is constantly growing scarcer and more costly. The new matches are considerably cheaper than wooden matches, and weigh much less, a fact which counts for much in the exportation. The sticks of these matches consist of paper rolled together on the bias. The paper is rather strong and porous, and when immersed in a solution of wax, stearine, and similar substances, will easily stick together and burn with a bright, smokeless, and odorless flame. Strips one-half inch in width are first drawn through the combustible mass spoken of above, and then turned by machinery into long, thin tubes, pieces of the ordinary length of wood or wax matches being cut off automatically by the machine. When the sticks are cut to size, they are dipped into the phosphorus mass, also by machine, and the dried head easily ignites by friction on any surface.—*National Druggist.*

Advertising.

Practical Hints on Advertising.

Copyright 1896, by CHARLES AUSTIN BATES, New York.

There are two ways of looking at advertising, both of them right. Advertising should be done during the dull time for the purpose of starting up trade at that time, and also for the sake of the benefit which will come from being continuously before the public eye. A man should just as quickly think of stopping his advertising in the summer or in the dull time after the holidays as he should think of closing up his store for several months in the year, and keeping it open only when trade would keep him busy.

There are probably more houses in the country that could shut up for four months in the summer and be ahead in cash at the end of that four months. But at the end of the next four the gain would not be apparent. It does not take people very long to forget things, and if the store were closed four months, or the advertising stopped four months, a great many people would have forgotten that the store was in existence.

* * * *

The other view of advertising is that it ought to be pushed during the busy time when people are ready to buy. Advertising cannot be expected to sell goods when people do not want them, and it will naturally be more effective when it gives publicity to some desirable article at just the right time.

I should think that if a merchant carried a space of four inches single column all the year round, he ought to double the space for the busy months, and occasionally during that time he can make larger spaces very profitable.

* * * *

In business, as in all the other affairs of life, everything comes at once. When a business man is so busy with trade and with buying and receiving his goods that he has no time to eat or sleep, just at that very time his advertising demands the most careful attention. Just at that time his advertising is the most important part of his business, and usually it is the most neglected part.

In every store somebody has charge of the window display. The window display is an important part of advertising a store. There are places where, I think, with a good window carefully dressed, such advertising will be all that the store will need. These places are few and far between, however.

* * * *

Now, if the work of preparing copy for newspaper advertising were turned over to some employee, and a little premium offered to him for good work in this line, the result would be a great deal better advertising than is generally done. Of course, all copy should be examined and