



Whichever  
Way  
You Look  
Through  
**TORIC LENSES**

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## Some Important Lens Facts

If you wear glasses, or ever expect to, you cannot afford to throw this little folder away. It tells some plain truths about lenses you really ought to know. Your eyes deserve it.

When you look through a microscope, you do not cover a wide area. You sacrifice field of view for a very high magnifying power and are perfectly satisfied.

But the chances are you very seldom look through a microscope. Certainly microscope lenses would be useless for reading or viewing the world about you. Theirs is another mission.

**Purpose of Eye Lenses** If your eyes are defective, you supplement them with eye lenses for the purpose of rendering your vision normal. Those lenses are of comparatively low power, but you want them to cover, as nearly as possible, as clear and wide a field as your normal eyes would.



Figure 1



Figure 2

Do your glasses do that? If they are ordinary flat lenses (Fig. 1), they do not. The laws of optics will not let them.



**Figure 3—Photographed through a + 8 D Flat Lens.**

When you look directly through the centers of your flat lenses, things look clear and sharp. If your eyes were stationary in your head and you always used only the lens centers, this folder would never have been written. It would serve no purpose.

But your eyes are not stationary. They rotate in their sockets and you shift them across the printed page, or whatever your field of vision may be, without moving either your head or your glasses.

In doing this have you never noticed that, when you look through the margins of your flat lenses, things appear hazy and distorted—

either magnified too much or too little in proportion with the center of the field?

**Defects of  
Flat Lenses**

These defects the optical scientists call astigmatism and distortion, and they are unavoidable in flat lenses.

Figure 3 shows them to you plainly and accurately. It was photographed through a strong flat eye lens placed in front of the camera lens. The camera lens corresponds to your eye in this instance, and it sees the image as your eye would see it under like conditions.

Note that the supposedly parallel lines of the picture diverge near the edges, that the



**Figure 4—Photographed through a + 8 D Meniscus Lens.**

field is limited and the margins hazy. This is the effect of the flat lens. The center of the image is clear and in proportion, but that is all.

For years persons with defective eyes had to contend with just such difficulties. No one knew any better.

**Discovery  
of Remedy**

Then the scientists began to discover things. They found out that by making the lenses of a deep curved form (Fig. 2) instead of flat, so that the line of vision from the eye was nearly perpendicular to the margin as well as the center, these defects could be almost entirely removed.

This discovery led to the production of deep curved lenses—the technical men call them **Meniscus**, if made with only one curve; **Toric**, if they have two curves. Both have revolutionized the possibilities of the optician.

Figure 4 shows you this plainer than words. It is the same image as that in Fig. 3, but viewed by the camera through a deep curved lens instead of the flat. The field is larger; the lines are practically parallel and in proportion to the very edges.

**Normal  
Vision**

In other words, the margins of the image are for all practical purposes as distinct and accurate as the central portion. The vision of the eye, if properly fitted, is thus rendered as nearly normal as is possible.

Previous to this our forefathers were obliged to abuse their eyes and lessen their

efficiency just so much. They were not responsible, for they could not help themselves. Flat lenses were all science had given them, and flat lenses were much better than no lenses. Even after the discovery of the scientists, the production of these deep curved lenses was very limited for a long period and their cost nearly prohibitive.

**Duty to  
Our Eyes**

If we punish our eyes in the same way to-day, however, we are responsible, for we can help ourselves. Science has come to our aid with the deep curved lens, and modern manufacturing facilities have placed it within easy reach. It need only to be used to be appreciated.

Do not be misled by the explanation sometimes given, that the superiority of the deep curved lens lies in its closer conformity to the shape of the eyeball. The eyeball could be cubical without altering the case in the least.

There are scientific reasons, as already indicated. Give us a call and let us demonstrate this to you more fully with the aid of scientifically prepared diagrams and charts. You will find them interesting and easy to understand.

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**Ask for Bausch & Lomb Lenses, the  
product of nearly Sixty Years of  
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experience.**

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