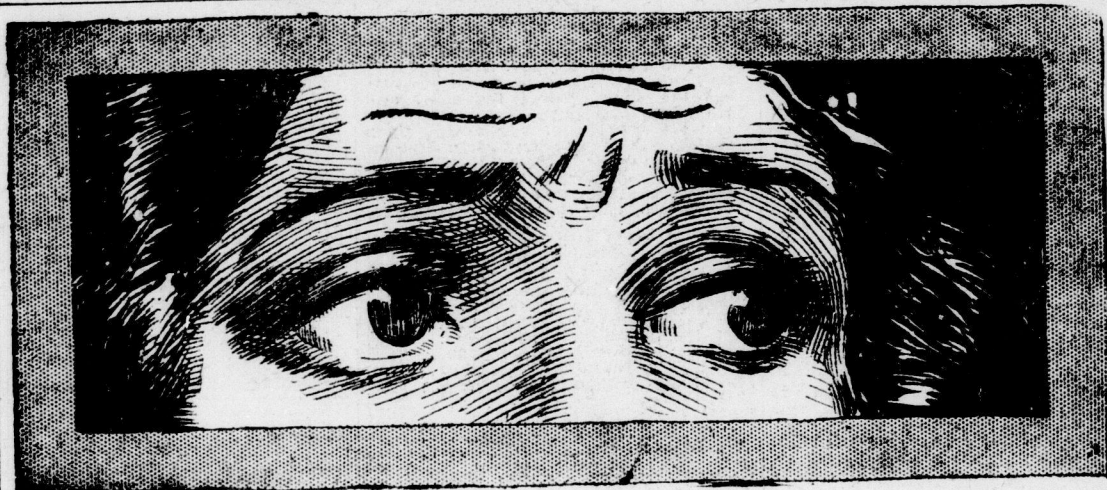


LONDON OPTOMETRISTS EXCEL IN ABILITY



Stop Straining Your Eyes

Immediately you find yourself straining your eyes, you can make up your mind there is real cause back of it.

The cause may be very simple, and again it may not.

When your eyes mean so much to you, why continually ignore this warning—leaving it until it is more serious?

Our graduate opticians, plus the aid of the latest instruments science has perfected, eliminate absolutely any element of chance and fit you with glasses exactly suited to your individual case.

**It Costs You Nothing To Find Out!
WHY DELAY?**

Brown Optical Co.

223 Dundas Street — London, Ont.



Steele Fitted Glasses Rest Your Eyes Properly

FITTING GLASSES is not only a matter of correcting your vision—but proper selection also means that the lenses we choose will be restful to your eyes. F. Steele is an expert in his calling—another guarantee of proper fitting. No matter what the cause may be—near or far-sightedness, astigmatism or any other eye ailment—you require correct lenses. He'll furnish them—come in and allow him to examine your eyes.

SATISFACTION GUARANTEED.

F. STEELE, London's Leading Optometrist
OPPOSITE LOEW'S THEATRE.

NERO USED CONCAVE EMERALD TO SEE SPORTS IN COLISEUM

First Real Use of Spectacles Introduced by Roger Bacon in 1214.

TO CORRECT OLD AGE

Written Especially for The Advertiser By C. H. CLARKE, D.O.R.O.
The ancients undoubtedly understood the laws of refraction to a certain extent and were not ignorant of the use of lenses and optical instruments. It is recorded in history that the great Roman emperor Nero found that a concave or hollowed emerald enabled him much better to see the sports of the day at the famous coliseum. However, the first use of spectacles was for the correction of presbyopia (old age), and to Roger Bacon is given the credit of having first worn and recommended their use—years 1214-1292.

For many years the use of spectacles was confined to correcting the deficiencies of the eye due to age, and not until some fifty years ago was this important subject carefully studied by eminent scientists, which has resulted in great advances being made in the treatment of the eye and disease associated with it, and for the correcting of the various optical defects by properly adjusted glasses. In no other branch of the sciences has such progress been made—so much relief to suffering humanity "been given—as in the science of optics.

Common Defects.
The most common defects of the eye are: Presbyopia, known as old sight; hyperopia, known as far sight; Myopia, known as near sight; astigmatism; cyclophoria; esophoria, muscular; hyperphoria, insufficient; and exophoria.

Presbyopia is a natural condition due to the inability of the eye to focus or adjust itself to close work, such as reading and sewing, etc. This condition manifests itself at any time from 40 to 45 years of age, although cases are on record which have developed as early as 30. The symptoms are a demand for brighter light, holding reading at a greater distance than formerly, print blurring or running together, and eyes feeling tired after prolonged reading. A contest with age is hopeless, and it is wise to yield gracefully to the first sign, especially in a case of your eyes.

Hyperopia is really mechanical defect—that is, the eye ball being flatter than is natural, with a result that images fall on the retina or back of the eye are blurred. The only way to overcome this condition is to supply a convex or positive lens that will adjust the rays of light so that they will bring the image to a sharp focus. Hyperopia is a most common and troublesome eye defect, and also the most deceiving to the one who suffers from it. The eyes look perfectly clear, and long distance may be quite sharp. In fact, the symptoms do not show directly, at the eye itself. The strain which is always present with this condition manifests itself by headaches, dizziness, nausea or nervous irritability. Properly fitted glasses, by an experienced optometrist, in a great many cases immediately remedies the trouble.

The Closed Eye.
Myopia—The word myopia is of Greek origin, meaning to close the eye—the partial closing of the eye in order to see distinctly being characteristic of all myopes. They therefore concentrate the rays of light, getting a more defined and distinct image. Myopia is known as a disease of civilization, it being seldom found in uncivilized and is generally hereditary, but oftentimes is acquired by young children when compelled to do close work. The condition of myopia is directly opposite to that of hyperopia, and the treatment of that is also the reverse of hyperopia. The eyeball in this case is too curved, and the rays of light come to focus before they reach the back of the eye, and therefore concave lenses must be used to lengthen the focus.

Astigmatism was first discovered in the year 1801, by Thomas Young, an English scientist, and was first corrected by cylindrical lenses, in 1827, by Prof. Alby, an astronomer at Cambridge, one of the most versatile scientific writers of any age.

Volumes could be devoted to the explanation of astigmatism and its complications, with presbyopia, hyperopia and myopia, but to those not familiar with the anatomy of the eye it would be impossible to convey a clear idea without an object lesson, as it were, with different lenses, charts of the eye, etc. Of all the refractive errors of the eye, astigmatism and its complications require the most skill and experience in correcting, yet only a few words can be devoted to the subject.

Malformation.

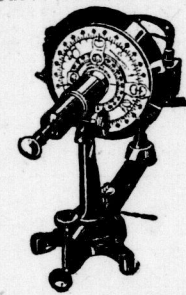
Astigmatism is also a malformation—an optical defect of the eye, in which, from want of uniformity in the curvature of the cornea, different meridians have a different focus. The perfectly formed cornea is part of a sphere or globe, and has the same degree of convexity in all directions, consequently the same focal distance for all meridians. The astigmatic cornea is not symmetrical, but has different curvatures in all directions to each other. The rays of light passing through the greatest curvature have the shortest focal distance, and those passing through the least curvature have the longest focal distance; no sharply defined image can be formed upon the retina by such a cornea. For example, draw a line around an egg, and another line through the middle and at right angles to the first. It is first evident that these lines have a very different curvature, and that if the egg was made of glass it would form a sharp focus, as a glass sphere does; it would be astigmatic. All lenses for astigmatic eyes are ground to fit each particular eye, and require very delicate tests to determine the exact amount of correction for each particular meridian.

Strengthens Muscles.
Eye Muscles—This is indeed the newest and also very important branch of optical science, the exercising and strengthening of the various

muscles of the eye. At each side and also the top and bottom of the eyeball, there are a set of muscles attached, which enable the eye to be turned in any direction. If these muscles are not balanced correctly, there is a great strain on the nervous system, as increased nerve force is needed to supply the weaker muscles. Some of the more definite symptoms of muscle imbalance is cross eyes and squint. There are, however, a great number of people who suffer from lesser defects, who are troubled with headaches, pains in the head, sometimes stomach trouble. It is not always necessary to wear glasses for the relief of these conditions, as the weak muscles of your eyes can be exercised and strengthened the same as any other muscle in the body. This must be done, of course, under the direction of a thoroughly competent and up-to-date optometrist.

Scientific instruments are used in a modern examination of the eye. The days of the old trial frame and ready-made spectacles are gone. Among the most important of the devices used today for eye examinations are the phorometer, ophthalmometer, retinoscope and ophthalmoscope.

Measures Curves.
The ophthalmometer measures the corneal curves and determines with



OPHTHALMETER.

certainly the amount of corneal astigmatism and its axis. The positive knowledge of positions of the meridians of the least and greatest refraction, and of the whole amount of corneal astigmatism, is of the greatest value, enabling the optometrist to conduct the examination logically and quickly, and to save the patient the time and annoyance of a long examination. It has positive diagnostic value of the cornea, due to the health of the cornea which is a result of granular eyelids, ulcers, wounds, etc.

Retinoscope.—This instrument is also used for the refraction of the eye, by means of a bright light put into the eye through the pupil. The shadow or reflection seen by the experienced optometrist enables him to quickly form an exact diagnosis of the trouble. This type of examination is used on very young children, illiterate, or people of foreign birth, and the examiner is in no way subject to their answers, as there is no questioning necessary in a procedure of this kind.

Ophthalmoscope.—A thorough examination of the inside of the eye, the blood vessels, retina, macula and fundus would be impossible without the ophthalmoscope. In the hands of an experienced refractometrist, the ophthalmoscope is invaluable for examining the nerve heads and general health of the eye. Excess of alcohol or tobacco is readily shown when this instrument is used.

Crookes Glass.
Sir William Crookes, the eminent English scientist, was the discoverer of this widely known and very beneficial glass. He spent years of the



SIR WILLIAM CROOKES.

most painstaking work in the study of the absorptive properties of glass made under his supervision, and finally succeeded in producing a glass which, while almost without color, absorbs the ultra-violet and infra-red light, which are the rays which cause such great discomfort to the human eye. When this glass is used the patient can readily go into strong sunlight or bright reflection without the least discomfort, and yet at the same time see everything in its natural colors. This glass is used almost exclusively in bright sunny climates, and is being sold very largely in Canada to motorists and other people whose occupation brings them in contact with bright light, either natural or artificial.

Facts About Optometry

What are the duties of the Optometrist?

He detects by the use of various instruments and other means the errors of vision of his patients.

Anything else?

Yes, he determines what lenses are required to correct the errors and supplies them.

Then the Optometrist specializes in errors of vision?

Yes, Optometry is a profession distinct in duties from all others, and not conflicting in any way with any other profession.

What indicates the value of Optometry?

The fact that it has been legally recognized in every state and province.

What is one important provision of the Optometry law?

Before a person can practice Optometry he is required to successfully pass a prescribed examination.

Who oversees this examination?

A Board of Examiners in Optometry.

Do the Optometry laws make Optometry of more value to the public?

Yes, as an incompetent person is not permitted to practice.

What does Optometry embrace?

The pathology, anatomy and physiology of the eye. Its extreme liability to abnormalities. The means by which they may be corrected. The detection of all errors of vision when not caused by a diseased condition. The correction of these errors by lenses, without the use of drugs. Also the preparation of the necessary lenses and their adjustment to the features of the patient.

It would appear that Optometry occupies an important relation to public welfare?

Yes, it is fully as important as any other profession.

Information relative to the care of your eyes will be published each Monday, Wednesday and Saturday on the Woman's Page. Read these carefully.

LONDON OPTICAL CO.

Richmond Street. Dominion Savings Building
A. M. DAMBRA, Optometrist.

The new invisible bifocal is the last word in glasses. Made in one solid piece without seam or cement, they enable the wearer to read or see properly and also to see at an indefinite distance. The principle on which these lenses are made is based entirely on the refractive indices of the different glass used, namely, crown glass and flint glass.

Frames.—Ten years ago there were only two or three styles of frames and mountings known to the optical profession. Today progressive optometrists can show you from fifty to fifty-five styles, some appropriate for work and sport, others for afternoon and formal wear, that fit long faces and fat faces, dark hair or fair hair, and let it be said here that nothing is more conspicuous, and either attracts or detracts to a person's appearance as a person's glasses.

Fitting Important.
No matter how carefully your eyes are examined, or how much care is exercised in the selection of proper lenses, the glasses will not be satisfactory unless they are properly fitted and adjusted.

It is a well-known fact that no two thumb prints are the same, and it is also true that there are no two faces exactly the same measure-

ments. It is quite common to have one eyebrow higher than the other, or one side of the nose more curved than the opposite, and it is to these details that the expert frame fitter must pay attention. The most important measurement in regards to the frame is the pupillary distance, that is, the distance between the two pupils, and also that you look through the center of the lenses from top to bottom, as well as from side to side. In bridges alone, there are commonly stocked fifty sizes, and also five or six different lengths of sides. This, along with the fact that there are dozens of different sizes and shapes of lenses. The foregoing will give some idea of the minute attention necessary to have each individual frame fitting the way that it should.

It is a well-known fact that no two thumb prints are the same, and it is also true that there are no two faces exactly the same measure-



Will Your Eyes Pass Inspection?

IF YOUR EYES were called to the test, would they pass with flying colors? Or are you among the thousands of people who daily suffer from headache and eyestrain, due to lack of corrective glasses or from wearing poorly-fitted lenses? Allowing your eyesight to go on in a poor condition only means that you will regret the incident in future years. Come in today and allow our expert optician to fit the proper glasses for your case. If you don't need them, we'll tell you so frankly. An examination is no obligation.

Carlyle
TREBILCOCK
OPTICIAN