



**J. B. WINTER & SON,**  
**PRACTICAL OPTICIANS,**  
 21, GREY STREET, NEWCASTLE-ON-TYNE.

The proper period for the use of Spectacles varies in different individuals. Some men require them in very early life, others enjoy perfect vision without them even to old age. Therefore, the question cannot be determined, as has been supposed, by the number of our years. Whether they are to be used earlier or later, depends upon a variety of circumstances: upon the original structure and conformation of the eye—upon the care with which it has been managed—upon its wise or unwise use in youth—and upon a great number of peculiarities and diseases ever varying in a thousand different degrees in different individuals.

But, fortunately, whatever are the precise nature and variety of these imperfections, they are signs uniformly presented in every case by which each person may determine accurately the precise time when the use of Spectacles will be consistent with wisdom and the preservation of sight. They are as follows:—

1st. The focus of vision is further removed from the eye. In other words, in order to see small objects distinctly, they must be removed farther from the eye than the student has been accustomed to view them. The usual length of this focus of vision in a sound, healthy, perfect eye, is from sixteen to twenty inches.

2ndly. More light is required than formerly for distinct vision; hence the habit of old men holding the candle between the eyes and the paper when they are reading.

3rdly. Very small objects, when they are closely examined, appear confused and run into each other: this is especially the case when they are of bright, brilliant colours.

4thly. The eyes are very easily fatigued by slight efforts and straining, which would not have affected them previously. There is a sense of weariness on viewing near objects, watering of the eyes and headache, and sometimes redness of the eyelids; so much, that a necessity exists of directing them frequently to other objects in order to obtain repose.

5thly. The sight is generally weak on awakening from sleep, and does not fully recover its accustomed power for some hours after, until, indeed, it has been in some degree aroused by the action of light and air.

6thly. There is always more difficulty in reading small print by candle-light than by the light of day. Whenever any of all these signs are present, the assistance of Spectacles is not only proper but necessary. The prevalent opinion that the longer they are deferred the longer the vision will retain the strength of youth is a mistake. It is a fallacy which has often brought the effects of extreme old age upon the eye. As soon, therefore, as the eye has become sensibly flattened, and the above-mentioned inconveniences arise, not a moment should be lost.

But this is not the only mistake that is made. The sight may be seriously injured and premature old age induced if the glasses are not properly adapted to the actual condition of the eyes. If the glass is bad—in other words, if it be not accurately conformed to the actual condition of the eye, the vision will be in greater danger of being injured with it than without it.

Let the principle then be well understood. Many err by obtaining glass of too great a magnifying power: but this is wrong. A proper glass is not one

which magnifies the object, but which presents it as nearly as possible of its natural size, shows it in a clear, distinct manner, and at the same distance at which the person was accustomed to distinguish objects when the eye was in its most perfect condition. The lens is always too convex if, in order to procure distinct vision, the object must be brought nearer to the eye than before the sight became impaired. If glasses of too great magnifying power are chosen at first, the eye will endeavour to accommodate itself to an improper focus, and become so much distended that it will be difficult, sometimes impossible, as age advances and the sight grows more imperfect, to find any Spectacles which will benefit. On the contrary, if they are selected on a right principle, if the focal distance is sufficiently long, so as only to relieve the sight and render it natural, it sometimes happens that the individual is able in future life to diminish rather than increase the power of the glasses, and at last to give up the use of them altogether.

**SHORT-SIGHTEDNESS.**

Short-sighted persons require also the assistance of Glasses, which will, by a judicious choice, on several accounts, aid the preservation of the sight. They prevent the straining of the eyes, and save much unnecessary labour. They enable a person also to avoid the unfavourable position of the body and head which the short-sighted man is obliged to assume, and which renders him more liable than others to congestion of blood about the head and eyes. The following are the signs by which he may determine whether he needs the aid of Glasses:—

1st. The inability of distinguishing small objects, as common print, at the distance of fifteen or twenty inches, and larger objects at two feet distance from the eye.

2ndly. A disposition to keep the eyelids half closed while looking at distant objects.

3rdly. The short-sighted man distinguishes near objects in twilight better than other men: he can read the finest print, for instance, with facility when the long-sighted man whose eye is sound is unable to distinguish the capital letters.

4thly. He feels a sense of weariness, straining, and distension of the eye by a long examination of distant objects.

With the existence of these signs he should not delay the use of Spectacles; but, like the long-sighted person, he should be careful to make a judicious choice, and select such as are exactly suited to the actual condition of the eye. The glass should never be so strong as to diminish the size of objects, but merely to represent them clearly, distinctly, and of their natural size. If they are not selected according to this principle they will increase the short-sightedness, strain the organs, and augment instead of diminish the weakness. The long-sighted man, as already observed, will perform an essential service to the eyes by accustoming them, as he advances in age, to the frequent examination of more distant objects. By these means each will diminish the tendency to an increase of the changes which are ever taking place in the eyes in the course of time.

<b>STEEL SPECTACLES</b>	from	<b>2s. 0d.</b>
Do. Pebble Eyes	"	<b>7s. 6d.</b>
<b>GOLD SPECTACLES AND EYE GLASSES</b>	"	<b>18s. 0d.</b>
<b>SILVER Do.</b>	"	<b>8s. 6d.</b>

**GOLD, STEEL, SHELL, AND OTHER EYE GLASSES.**  
**OCULISTS' PRESCRIPTIONS CAREFULLY EXECUTED.**

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