and right eyes, respectively, of a patient whose vision is being corrected for near and distance vision. The left lens is essentially divided into two halves along a horizontal meridian **16**. The upper half **18** is constructed so as to correct the distance vision while the lower half **20** is constructed to correct for near vision. The right lens **14** is similarly divided along a horizontal meridian **22** into two halves. However, in the right lens **22** the upper half **24** includes the near vision correction while the lower half **26** contains the distance vision correction. The horizontal meridian of each lens is designed to extend from edge to edge through substantially the optical center of the lens so as to approximately align with the optical axis of the patient.

FIG. 2 discloses a graphical representation of a viewing condition wherein a patient **28** is viewing a pair of objects, N and D. Object N is located somewhat closer to the patient **28** than is object D. Object N is positioned such that it is in the range of clear vision for the near vision correction of the lens system shown in FIG. **1** while object D is in the range of clear vision for the distance vision correction. In this representation the patient is binocularly fixating on the object N. Images N_R and N_L are formed at the fovea of the right and left eyes, respectively whereas images D_R and D_L are formed on the right and left eyes (nasal retinas), respectively.

By referring to the graph of FIG. **3**, the condition set forth above will be described as if the patient is being corrected by utilizing the principles of monovision. It will be appreciated that one eye, for instance the left eye, is clearly focusing the image N_L as represented by the distinct vertical line. However, the other eye, because of the different power correction is unable to provide proper focus of the image N_R, as represented by the fuzzy vertical line. The reduction of stereoacuity in this instance is approximately proportional to the width W of the blurred image of the least clear image. The binocular disparity is uncertain to the extent that the horizontal position of N_L and D_R may correspond to a range of positions within the fuzzy vertical lines as represented by N_R and D_L.

Accordingly, by referring to the graphical representation of FIG. **4**, it will be seen how utilization of the lens system of the present invention overcomes the problem referenced above. By utilizing the lens system with the near and distance zones placed alternately, images are presented which are partially in and out of focus as represented by the lines N_L, D_L, N_R and D_R. In this instance, the brain suppresses the blurred images produced in both eyes while precisely aligning the clear images to produce a totally sharp and clear image. That is, the blurred or fuzzy portion of the near image shown by the upper half of N_L and by the lower half of N_R are suppressed by the brain while the sharply focused portion of the image, as depicted by the lower half of N_L and the upper half of N_R are precisely aligned. A similar phenomena occurs with image represented by D_L and D_R. The fuzzy, or out of focus, components are eliminated by the brain much the same as the brain eliminates out of focus information produced by monovision correction.

In the alternate embodiments shown in FIGS. **5** and **6**, a pair of contact lenses are divided into multiple vision zones. The embodiment disclosed in FIG. **5** shows the lenses being divided into four zones, while the embodiment of FIG. **6** discloses lenses divided into eight zones. In either embodiment, the near vision zones of one corrective lens are correlated to the distance vision zones of the matching lens. Further embodiments of the present invention are shown in FIGS. **7** and **8**.

Although contact lenses have been specifically discussed, it should be understood that other corrective lenses such as intraocular lenses may be similarly constructed. Still further, it will be appreciated from the foregoing that a means of providing orientation control is desirable. Any of the well known techniques such as ballasting, either peripheral, prism or weight, is effective. By controlling orientation of the lenses on the eyes, the proper power correction orientation is provided. Additionally, the lenses set forth herein may be constructed from rigid, semi-rigid or flexible materials. As such, it will be understood that the specification and examples set forth are for illustrative purposes only and are not meant to limit the scope of the invention as set forth in the claims appended hereto.

I claim:

1. A lens system for correcting near and distant vision in humans, comprising:

a pair of contact lenses whose optical surfaces are divided into at least two substantially discrete zones, the junction of said zones extending from edge to edge of each lens through substantially the optical center of said lenses, but not along a vertical axis, the position of said discrete zones which, when said lenses are worn one upon the right eye and one upon the left eye, are such that relative to the line of sight of the wearer each zone of one lens defining a distance power correction corresponds to a similar zone defining a near power correction on the other lens.

2. The lens system as set forth in claim **1** wherein said contact lenses are divided along a substantially horizontal axis into two vision zones.

3. The lens system as set forth in claim **2**, wherein said horizontal axis does not coincide with said optical axis and divides said contact lenses into unequal segments with corresponding segments of each lens being of substantially similar size.

4. The lens system as set forth in claim **1** wherein said contact lenses are divided into an even number of discrete zones.

5. The lens system as set forth in claim **3** wherein said contact lenses are divided into an odd number of discrete zones.

6. The lens system as set forth in claim **1** wherein each of said lenses is provided with means for controlling orientation on the eyes.

7. A lens system for correcting near and distant vision in humans, comprising:

a pair of intraocular lenses whose optical surfaces are divided into at least two substantially discrete zones, the junction of said zones extending from edge to edge of each lens through substantially the optical center of said lenses, but not along a vertical axis, the position of said discrete zones which, when said lenses are worn one in the right eye and one in the left eye, are such that relative to the line of sight of the wearer each zone of one lens defining a distance power correction corresponds to a similar zone defining a near power correction on the other lens.

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