2.5 or about 3.5 diopters and the amount of negative or distance accommodation preferably is in the range of about 1 to about 2 diopters.

FIGS. **6** and **7** illustrates an additional IOL, shown generally at **110**, in accordance with the present invention. Except as expressly described herein, additional IOL **110** is structured and functions similarly to IOL **10**. Components of IOL **110** which correspond to components of IOL **10** are indicated by the same reference numeral increased by **100**.

The primary difference between IOL **110** and IOL **10** relates to the configuration of flexible member **114**. In particular, as best shown in FIG. **7**, flexible member **114** has a substantially flat general configuration, as opposed to the bowed (unflexed) configuration of flexible member **14**.

Flexible member **114** includes a region **60** of reduced thickness which circumscribes the optic **112**. Region **60**, which has a generally rounded sidewall in cross-section (FIG. **7**), in effect, operates to provide flexibility to flexible member **114**. Such flexibility facilitates the axial movement of the optic **112** along axis **130** in the eye.

In the eye, IOL **110** moves bidirectionally in response to the action of the ciliary muscle **46** and zonules **44** in much the same manner as does IOL **10**. The flexible member **114** does not have the ability to flex or vault as much as flexible member **14**, as shown in FIGS. **4** and **5**. Therefore, the range of accommodating movement of IOL **110** is somewhat less than the range of accommodating movement of IOL **10**.

FIG. **7**A is an illustration of an IOL **210**, similar to IOL **110**, in accordance with the present invention. Except as expressly described herein, IOL **210** is structured and functions similarly to IOL **110**. Components of IOL **210** which correspond to components of IOL **110** are indicated by the same reference number increased by **100**.

The primary difference between IOL **210** and IOL **110** relates to the configuration of the region **160** of reduced thickness which circumscribes the optic **212**. Thus, flexible member **214** includes region **160** which has straight, mutually angled (intersecting) sidewalls in cross-section (FIG. **7**A), as opposed to the rounded sidewall of region **60**.

Region **160** operates to provide flexibility to flexible member **214**. Such flexibility facilitates the axial movement of the optic **212** along axis **230** in the eye. In the eye, IOL **210** moves bidirectionally in response to the action of the ciliary muscle **46** and zonules **44** in much the same manner as does IOL **10**.

The regions **60** and **160** can be considered hinges. Of course, other configurations, for example, other hinge configurations, which provide the desired degree of flexibility to the flexible members can be used and are included within the scope of the present invention.

FIG. **8** illustrates a further IOL, shown generally at **310**, in accordance with the present invention. Except as expressly described herein, further IOL **310** is structured and functions similarly to IOL **10**. Components of IOL **310** which correspond to components of IOL **10** are indicated by the same reference number increased by **300**.

The primary difference between IOL **310** and IOL **10** relates to the construction of flexible member **314**. In particular, flexible member **314** includes a series of sections **70** of reduced thickness which extend around the periphery **315** of optic **312**. These sections **70** of reduced thickness provide desired flexibility to flexible member **314** to facilitate the posterior and anterior movement of optic **312** in the eye. In the eye, IOL **310** functions similarly to IOL **10** in providing both positive and negative focus accommodation.

The present invention provides bidirectional accommodating IOLs and methods for obtaining bidirectional accommodation using such IOLs. Bidirectional accommodation, as described herein, provides for both controlled positive accommodation and controlled negative accommodation. The overall extent of accommodation is often increased, for example, relative to previous accommodating IOLs.

While this invention has been described with respect to various specific examples and embodiments, it is to be understood that the invention is not limited thereto and that it can be variously practiced within the scope of the following claims.

What is claimed is:

1. An intraocular lens comprising:

an optic adapted to focus light toward a retina of an eye, the optic having a far vision correction power for infinity reduced by a diopter power increment; and

a movement assembly coupled to the optic and adapted to cooperate with the eye to move the optic anteriorly in the eye and posteriorly in the eye to effect positive accommodating movement of the optic and negative accommodating movement of the optic, respectively.

2. The intraocular lens of claim **1** wherein the optic has a far vision correction power for infinity reduced by a diopter power increment in a range of more than 0.5 to about 3.5 diopters.

3. The intraocular lens of claim **1** wherein the optic has a far vision correction power calculated for infinity and reduced by a diopter power increment in a range of about 1 to about 2 diopters.

4. The intraocular lens of claim **1** wherein the movement assembly, in cooperation with the eye, is adapted to provide an amount of positive accommodation in a range of about 1 to about 3.5 diopters, and an amount of negative accommodation in a range of about 1 to about 3 diopters.

5. The intraocular lens of claim **1** which is deformable for insertion through a small incision in the eye.

6. The intraocular lens of claim **1** wherein the optic has a diameter in the range of about 3.5 mm to about 7 mm and the intraocular lens has an overall diameter in the range of about 8 mm to about 12 mm.

7. The intraocular lens of claim **1** wherein the movement assembly is adapted to be affixed to a capsular bag of the eye including the intraocular lens.

8. The intraocular lens of claim **1** wherein the movement assembly circumscribes the optic, and comprises a member including a proximal end region coupled to the lens body and a distal end region extending away from the lens body and adapted to contact a capsular bag of the eye.

9. The intraocular lens of claim **8** wherein the movement assembly is sufficiently flexible to facilitate movement of the optic relative to its distal end region upon being acted upon by the eye.

10. The intraocular lens of claim **8** wherein the movement assembly includes a plurality of spaced apart portions of reduced thickness.

11. The intraocular lens of claim **8** wherein the movement assembly includes a hinge assembly positioned between the proximal end region and the distal end region.

12. The intraocular lens of claim **11** wherein the hinge assembly includes a region of reduced thickness circumscribing the optic.

13. An intraocular lens for the correction of presbyopia comprising:

an optic adapted to focus light toward a retina of an eye;

movement means adapted to act, in cooperation with the eye, to move the optic to provide an amount of positive