

smallest possible incision and greater stability once implanted, through maximized region of contact W_c along the interior of the eye.

Another embodiment of intraocular lens apparatus 170 is shown in FIG. 8. In this embodiment, both ends of haptics 171 and 172 remain attached to lens 179 at shoulders 175 and 176. The pre-insertion configuration is shown in phantom. Once implanted in the interior of the eye, longitudinal length dimension of apparatus 170 decreases from T_1 to T_2 , while transverse width dimension increases from W_1 to W_2 . The region of contact W_c of the haptics with the interior of the eye is likewise maximized with the present embodiment of the invention.

In FIG. 9, one embodiment of haptic 180 is shown having wide portions 181 through 184, and narrow portions 185 through 187. Each narrow portion, such as 185 through 187, has a constant and progressively larger transverse cross-sectional area than the preceding narrow portion preceding it, as one moves toward the free end A of haptic 180. Accordingly, haptic 180 will be less flexible near its free end A, than at its point of attachment to the lens, so as to spread less against the interior of the eye near the free end A than near the attached end of the haptic.

In FIG. 10, another embodiment of haptic 190 is shown having regions of wider cross-sectional area 191 through 195 and regions of narrowed cross-sectional area 196 through 199 which are adjacently positioned thereto. In this particular embodiment, each individual region of narrowed constant cross-sectional sectional area, such as narrowed regions 196 through 199, have a smaller transverse cross-sectional area than each respective preceding region of narrowed cross-sectional area, as one moves toward the free end A of haptic 190. This configuration allows for greater rigidity and therefore lens flexibility closer the attached end of the haptic and greater deflection and flexibility near the free end A of haptic 190.

Another embodiment of haptic 215 is shown in FIG. 11 wherein regions of enlarged transverse cross-sectional area 202 through 207 each have constant transverse cross-sectional areas that are smaller than the next preceding regions of enlarged cross-sectional area. The transverse cross-sectional areas of enlarged regions 202 through 207, each decrease as one moves to free end 214 of haptic 215 and away from attachment 201 on lens 200. In this embodiment, regions of narrowed transverse cross-sectional area 208 through 213 have substantially uniform transverse cross-sectional areas throughout the entire length of haptic 215, however, in other embodiments, these narrowed regions 208 through 213 can also decrease or increase in cross-sectional area as one moves toward free end 214 of haptic 215. This particular configuration allows for greater rigidity closest to securement point 201 of haptic 215 while allowing greater flexibility near tip 214 of haptic 215.

In FIG. 12, another embodiment of haptic 240 is shown having regions of enlarged transverse cross-sectional area 224 through 229 interposed between regions of narrow portions 218 through 223. In this embodiment, while each narrowed transverse cross-sectional area 218 through 223 has a substantially uniform transverse cross-sectional area, regions of enlarged cross section 224 through 229 each have increasingly larger transverse cross-sectional areas than the next preceding enlarged region as one moves towards free end A of

haptic 290. This particular configuration allows greater flexibility near securement point 231 of optic lens 210, while providing for greater rigidity and stability at the free end of haptic 240.

The foregoing description and drawings merely explain and illustrate the invention and the invention is not limited thereto except insofar as the appended claims are so limited as those skilled in the art who have the disclosure before them will be able to make modifications and variations therein without departing from the scope of the invention.

What is claimed is:

1. An intraocular lens apparatus for implantation in the posterior chamber of an eye, in which said apparatus is inserted into an eye along a longitudinal direction through an incision made in the eye, said apparatus having strong, yet flexible support means for positioning and maintaining of said position of said apparatus within the interior of the eye, and further enabling ease in manipulation, rotation and positioning of said apparatus after insertion into said posterior chamber of the eye, said intraocular lens apparatus comprising:

substantially circular lens means having an anterior side, an opposite posterior side and a peripheral edge;

positioning means operably attached to said lens means for enabling facilitated manipulation of said intraocular lens apparatus once the apparatus is inserted within the eye for proper positioning therein;

resilient support means operably attached to said lens means and extending outwardly therefrom, for retaining and stabilizing said intraocular lens apparatus once appropriately located within the eye by contacting said eye interior along a region of contact, and

said support means comprising at least one flexible loop member having a plurality of regions of increased cross-section, each positioned adjacent to a region of narrowed cross-section along its length, so as to comprise alternating regions of increased and decreased cross-section with at least, one of said regions of increased cross-section having a substantially continuous transverse cross-section along its length, for increasing flexibility of said at least one loop member and provide a maximized region of contact within said interior of said eye, while simultaneously enabling said intraocular lens apparatus to be inserted into the eye through a relatively small axial incision.

2. The invention according to claim 1 wherein said support means further comprises:

said loop member being operably attached at a first end to said peripheral edge of said lens means and ending at a second end;

said regions of narrowed cross-section of said loop member having successively smaller transverse cross sectional areas than the next preceding region of narrowed cross-section; and

each of said regions of said narrowed cross-sections decreasing in transverse cross-sectional area along the length of said loop member from said first end to said second end, so as to provide for greater flexibility of said loop member proximate to said second end thereof.

3. The invention according to claim 1 wherein said support means further comprises: