

adjacent pupil 60 forming gaps 62 and 64 thereby. For the purposes of reference, optical axis 66 is illustrated.

Second portion 18 of first appendage 14 may be deemed to include a proximal part 68 and a distal part 70 extending from the optical portion 12. Proximal part 68 connects to first portion 16 and third portion 28 of first appendage 14. It may be apparent that the proximal part 68 of second portion 14 angularly connects to the first and third portions 16 and 28 of first appendage 14. Distal part 70 is also angularly disposed in relation to proximal part 68 of second portion of first appendage 14. This provision decreases the vaulting angle and the span of gaps 62 and 64 between iris 58 and optical portion 12.

With reference to FIG. 4, it may be seen that distal part 70 of second portion 18 of first appendage 14 contacts the periphery of eye 48, namely angle 54. The comparable part of second appendage 20 also initially contacts angle 54. The position of appendages 14 and 20 in relation to angle 54 are shown in phantom on FIG. 4. After contraction of the overall dimension of the eye as depicted in FIG. 4 or by merely compressing appendages 14 and 20 in which fitting the same within eye 48, once lens 10 takes the configuration shown in solid line format in FIG. 4. As depicted, arrows 72 and 74 show the relative rotation of appendages 14 and 20 in relation to optical portion 12. In actuality, it has been found that optical portion 12 appears to rotate about optical axis 66. It should be noted that distal part 70 of second portion 18 of first appendage 14 is offset from a line 76 between cavities 30 and 40 and cavities 42 and 78 of optical portion 12. Thus, third portion 28 and first portion 16 of appendage 14 rotate in the same direction upon the application of an actuating force on distal part 70 of appendage 14. The complete operation of lens 10 will be described as the specification continues.

With reference to FIG. 5, it is apparent that the lens of the present invention may take another embodiment identified by reference character 10A. Lens 10A includes appendages 80, 82, and 84 rotatably connected to optical portion 12. Again, the distal parts of appendages 80, 82, and 84 offset to produce rotation within cavities or enclosures 86, 88, 90, 92, 94, and 96. Appendages 80, 82, and 84, may be considered identical in construction to appendage 14 hereinabove described. Lens 10A obtains three point fixation in either in the anterior or posterior chamber of the eye. It should also be noted that any plurality of appendages may be affixed to optical portion 12 to obtain more than three point fixation within the limitations of size and the shape of the optical portion and/or the appendages.

FIG. 6 demonstrates a variation of appendage 14 wherein appendage 14A is shown having a first portion 98 having an enlargement 100. A cavity 102 includes an enlarged portion 104 adjacent the under surface 106 of optical portion 12. Thus, the angular connection between first portion 98 and second portion 106 of first appendage 14A is above optical portion 12. Second portion 106 is also depicted as being vaulted to remove optical portion 12 and the bulk of second portion 106 from contact with the pupillary portion of iris 58.

FIG. 7 depicts another embodiment, lens 10B, of the present invention where a first appendage 108 and a second appendage 110 rotatably connect to optical portion 12. First portion 112 and third portion 114 of appendage 108 are constructed to rotate within cavities 116 and 118. Likewise, first portion 120 and third portion 122 rotate within cavities 124 and 126. The means for permitting rotation of first and third portions 112

and 114 and 124 and 126 of appendages 108 and 110 respectively, would be similar to the construction of first and third portions 16 and 28 of appendage 14, hereinbefore described. An important difference is that force arrows 128 and 130 show second portions 132 and 138 of appendages 108 and 110 rotate the respective first and third portions 16 and 28 in opposite directions. FIG. 8 illustrates the vaulting construction used for the same purposes as the prior embodiments.

In operation, the surgeon would select lens 10, 10A, or 10B having the proper optical correction in optical portion 12. The intraocular lens would be sized slightly larger than the overall dimension of the anterior or posterior chambers 46 or 50 of eye 48. The overall dimension of the lens would be manually compressed and then permitted to expand slightly such that the lens 10 would wedge into the angle 52, 54, or the ciliary sulcus 136 (posterior chamber). The compressing, manually or by contraction of the overall dimension of the eye, would cause rotation of the appendages in relation to the optical portion 12. In general, it has been found that lens portion 12 rotates about optical axis 66 when force is applied at force arrows 24 and 26, FIG. 1. The flexibility of the appendages associated with lens 10, 10A, and/or 10B, would aid in the absorption of forces exerted on the appendages. Release of the force would permit the appendages to return or spring back to their original position.

The invention may also be deemed to include a method of fixing an appendage such as appendage 14 to an intraocular lens utilizing the steps of creating an opening 30 within optical portion 12. The opening 30 would include an enlargement 32. A first portion 16 of appendage 14 will be placed into opening 30 such that the second portion 18 remains outside of opening 30. Enlargement 34 would then be created on the first portion 16 of appendage 14 such that the enlargement fit within the enlarged portion 32 of opening 30. Thus, enlargement 34 would be unable to pass through the remaining unenlarged portion of opening 30. Finally, the second portion 18 would be angularly disposed in relation to first portion 16 of appendage 14 immediately adjacent the undersurface 36 of lens portion 12.

While in the foregoing embodiments of the present invention have been set forth in considerable detail for the purposes of making a complete disclosure of the invention, it will be apparent to those of ordinary skill in the art that numerous changes may be made in such details without departing from the spirit and principles of the invention.

What is claimed is:

1. An intraocular lens comprising:

- a. an optional portion;
- b. at least one appendage connected to said optical portion, said appendage including a first portion, a second portion connected to said first portion, and a third portion linked to said optical portion and said second portion; and
- c. means for permitting rotation in one direction of said first portion of said at least one appendage in relation to said optical portion upon the application of an actuating force upon said second portion of said at least one appendage, and rotation in the opposite direction upon removal of said actuating force.

2. The intraocular lens of claim 1 in which said means for permitting rotation of said first portion of said at least one appendage includes an enclosure connected to