

18, 19 facing each other and with the outer convex edge 22, 23 of each of the support portions 18, 19 comprising at least one protruding contact point 24, 24a, 25, 25a for seating each of the respective support portions 18, 19 in the first groove portion 11 of the eye. The first and second support portions 18, 19 of the position fixation means 17 extend generally around substantially the entire periphery of the lens body 16. As represented in FIG. 4, the eye interior has an equator 26, represented in broken-line construction, at which the first and second groove portions 11, 12 meet. Both of the protruding contact points 24, 24a, 25, 25a of each of the support portions preferably are positioned for seating substantially below the equator of the eye interior. At least one of the protruding contact points of each of the support portions, namely, contact points 24, 25, is positioned near the end of the corresponding support portions 18, 19.

As represented in FIGS. 3 and 4, the first groove portion 11 of the eye interior is in the cul-de-sac formed between the anterior and posterior capsules 27, 28 in the region of the portion 27a, 27b of the anterior capsule and each support portion has at least two protruding contact points 24, 24a, 25, 25a for seating each of the respective support portions 18, 19 therein. The second groove portion 12 of the eye interior is also in the cul-de-sac formed between the anterior and posterior capsules 27, 28 but in this region of the capsule substantially all of the anterior capsule is typically cut away.

The position fixation support portions 18, 19 are resiliently deformable, in response to a force supplied thereto prior to seating of the lens in the eye, and are capable of spontaneously returning toward substantially their undeformed condition upon removal of the applied force for seating the lens in the eye. The position fixation support portions 18, 19 are represented in their deformed condition in FIG. 2. As represented in FIG. 2, the position fixation support portions 18, 19 are deformable toward each other in response to the force applied thereto prior to seating of the lens in the eye.

The lens also comprises a stabilizing portion 29 extending in a direction outwardly of the lens body toward the second groove portion 12 of the eye without being seated therein. As represented in FIG. 1, the stabilizing portion 29 extends outwardly from the position fixation means 17. The position fixation means 17 has a single stem portion 30 jointed to the lens body 16, and the remaining portions of the position fixation means 17 and the stabilizing portion 29 extend from the single stem portion 30 of the position fixation means. As represented in FIG. 3, the stabilizing portion 29 extends beyond the iris 15 of the eye toward the cul-de-sac between the anterior and posterior capsules 27, 28. The position fixation means 17 and the stabilizing portion 29 may be molded integrally with the lens body 16, machined integrally with the lens body 16, or connected by welding, fusion, or any other connection method known in the art. The position fixation means 17 and the stabilizing portion 29 are constructed of biologically inert and nonabsorbative material such as polymethylmethacrylate, platinum and the like.

To insert and seat the lens 10 in an eye, the surgeon may deform the support portions 18, 19 to the position represented in FIG. 2 where the maximum horizontal dimension across the lens is the diameter of the lens body 16. The support portions 18, 19 may be maintained in position by a suture 33' passing through holes 31, 32 in support portions 18, 19. The lens may then be inserted

through groove portion 11 between the posterior capsule 28 and the remaining portions 27a and 27b (FIG. 4) of the anterior capsule 27. The stabilizing portion 29 may then easily be positioned by the surgeon posteriorly of the iris extending toward the groove portion 12 without being seated therein. The stabilizing portion 29 preferably is sufficiently long that it would contact the iris even when the pupil is dilated to prevent the lens from falling forward in the eye and to stabilize the lens vertically. The suture 33' may then be cut so that the support portions 18, 19 of the lens may resiliently move toward their undeformed condition and may be adjusted by the surgeon to the position represented in FIG. 4. As represented in FIG. 4, the protruding contact points 24a, 25a, 24, 25 make contact with the lower groove portion 11.

Because the stabilizing portion 29 is sufficiently short that it is not seated in the upper groove portion 12, the lens 10 can be easily implanted in the posterior chamber of the eye and can be easily removed by a surgeon at a later date, if necessary, without substantial damage to the eye.

Referring now more particularly to FIG. 5 of the drawings, there is represented an alternate embodiment of the invention in which the lens body 35 is similar to the lens body 16 of the FIG. 1 embodiment, and the support portions 36, 37 are similar to the support portions 18, 19 of the FIG. 1 embodiment except that the support portions 36, 37 individually extend from the periphery of the lens body 35. A stabilizing member 33 similar to the stabilizing portion 29 of the FIG. 1 embodiment extends from the periphery of the lens body 35 between the support portions 36, 37.

The lens of the FIG. 5 embodiment may be positioned and seated in a manner similar to that described in connection with the lens of the FIG. 1 embodiment.

While there have been described what are at present considered to be the preferred embodiments of this invention, it will be obvious to those skilled in the art that changes and modifications may be made therein without departing from the invention, and it is, therefore, aimed to cover all such changes and modifications as fall within the true spirit and scope of the invention.

What is claimed is:

1. An intraocular lens with flexible support suitable for use as an artificial lens in the interior of a human eye, said eye interior having first and second groove portions extending peripherally at lower and upper portions of the eye when viewed in cross-section and having an iris disposed anteriorly of said groove portions, said lens comprising a light-focusing lens body, position fixation means extending from said lens body and comprising first and second support portions extending generally around substantially the entire periphery of said lens body, each of said first and second support portions being generally "C" shaped with the respective inner concave edges of the support portions facing each other and the outer generally convex edge of each of the support portions comprising at least one protruding contact point for seating each of the respective support portions in said first groove portion of the eye, said first and second support portions being resiliently deformable, in response to a force applied thereto prior to seating of the lens in the eye, and being capable of spontaneously returning toward substantially their undeformed condition upon removal of said applied force for seating said lens in the eye, said lens also comprising a stabilizing portion extending in a direction outwardly of