

same to be resiliently deformable and easily radially deflected. So as to improve said deflection the loop may also extend in a manner as illustrated by the dash-dotted line 12a. Loop 11 extends rectangularly as a U-shaped configuration and comprises a slightly curved central part 11b between its legs 11a, the radius of curvature of said part 11b approximately corresponding with line 17, which illustrates the periphery of the lens capsule or of the posterior eye chamber. The supporting loop 11 is subsequently rather rigid toward a radial direction and hence, relatively radially inwardly non-deformable, thus causing the lens to be implanted, to be handled easily by means of a tweezer 21 or a fork (vide FIG. 7). An important connection of the loops can be obtained if the loops are formed as indicated by the dash-dotted line 12b. In this case part 11c of loop 11 has a lesser curvature because of loop 12a having a wider configuration. The extreme ends of the loops 11 and 12 are inserted into the periphery of the element 9, so that not only the front side of said element 9 is smooth but the back side as well. Said back side has a convex shape, which results in the element 9 forming a bi-convex lens, as can be clearly seen in FIG. 6. Said bi-convex shape presents the additional advantage that the back side of the element 9 intimately adjoins the lens capsule 4. Should a capsule dissection of the latter portion be essential, the respective aperture applied herein will stay sealed off, in view of which aqueous humor of which the vitreous body consists, cannot possibly penetrate into the posterior and anterior eye chamber. The bi-convex shape of the lens to be implanted also allows an increased lens power to be used.

Notwithstanding the above-described, a plano-convex lens may also be used, the smooth portion of which is then positioned at the front side. Said smooth portion is illustrated in FIG. 6 by a partially dotted line. The implantation of a lens in the posterior eye chamber requires a lens power exceeding that of a lens implanted in the anterior eye chamber. A power being increased as yet, may be obtained by giving the front side a concave shape. Together with the aqueous humor in the anterior eye chamber a composite lens is then obtained. On implanting the lens in the posterior eye chamber, as is shown in FIG. 7, the loop 12 may be slightly pressed into the tissue 5, thus causing same to press the outer edge of the loop 11, the iris, and the lobe 19, so that said loop 12 can be positioned in a capsular pocket 20, formed by lobe 19. It will be obvious that during said operation the pupil is temporarily enlarged. It is furthermore essential to have the implanted lens accurately positioned, so causing the loops 11 and 12 to come to lie in the capsular pockets 20 in a correct and precise manner. The periphery 10 of the element 9 to that end comprises apertures 22 as shown in FIG. 5, so allowing the lens to be slightly turned by means of a tweezer or fork. Said FIG. 5 shows two peripheral apertures 22, being positioned diametrically with respect to the element 9 so that each peripheral aperture is positioned between two loops. Use can be made of two apertures 22a into which a fork (not shown) can be inserted for handling the lens. In such a case the apertures 22 can be omitted.

A method for implantation of a lens into the capsule of a human eye is performed as follows:

A front portion of the lens capsule 4 is removed according to lines 18 and 19 in the drawings, after having perforated said portion. Two diametric capsular pockets 20 are maintained along the border edges of the capsule, due to the presence of lobed dissections 19 which form bi-concave parts whereby the lens element comprising the supporting loops 11 and 12 is implanted

in the remaining portion of the lens capsule and is positioned in the capsular pockets 20, so obtained. The peripheral apertures 22 moreover provide a good access toward the space behind the implanted lens in the posterior eye chamber, for example when irrigations have to be performed by means of suitable tubes or when capsular dissections have to be made.

What is claimed is:

1. An intraocular lens implantable into the posterior chamber of a human eye without fixating sutures, comprising an optical lens body and at least a pair of loop shaped members fixed to the periphery of said lens body and extending outwardly from generally opposed sides thereof, one member being of U-shaped configuration and the other member being ovaloid, said ovaloid member being relatively radially inwardly resiliently deformable and said U-shaped member being relatively radially inwardly non-deformable.

2. An intraocular lens according to claim 1, wherein said lens body has hole pairs formed therein for housing the ends of legs of said loop shaped members, one of said hole pairs being parallel for housing the legs of said U-shaped loop, the holes of the other pair converging inwardly for housing the ends of the legs of said ovaloid member.

3. An intraocular lens according to claim 1, wherein the said lens body has hole pairs formed therein for housing the ends of legs of said members, the distance, at the periphery of said lens body, between two holes forming the members of one pair for housing the leg ends of said U-shaped loop being relatively close together, at the periphery of said lens body, and the distance, at the periphery of said lens body between two holes forming the other pair for housing the leg ends of the ovaloid member being relatively far apart.

4. A method for the implantation without fixating sutures of an intraocular lens as set forth in claim 1 in the natural lens capsule of a human eye comprising the steps of perforating the anterior membrane of said natural lens capsule to provide a plurality of perforations defining a predetermined pattern, removing the affected natural lens leaving two lobes with a portion of the anterior membrane surrounded by the perforations, implanting the intraocular lens in the remaining part of said lens capsule and disposing the loops of said lens behind said lobes.

5. A method for implantation without fixating sutures of an intraocular lens in the lens capsule of a human eye, comprising the steps of

- (a) perforating the anterior membrane of the natural lens capsule to provide a plurality of perforations defining a predetermined pattern;
- (b) removing both the affected natural lens portions and a portion of the natural lens capsule surrounding the perforations leaving a remnant portion having two lobes;
- (c) providing an intraocular lens having an optical body and at least a pair of loop shaped members fixed to the periphery of said body and extending outwardly from opposed sides, one loop member being of U-shaped configuration and the other member being ovaloid with said ovaloid member being relatively inwardly resiliently deformable and said U-shaped member being relatively radially inwardly non-deformable;
- (d) implanting the intraocular lens in the remnant portion of the natural lens capsule; and
- (e) inserting the loop members behind said lobes of the remnant portion of the natural lens capsule.

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