

[54] **ARTIFICIAL ANTERIOR CHAMBER LENS**

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[58] Field of Search 3/1, 13; 351/160

[56] **References Cited**

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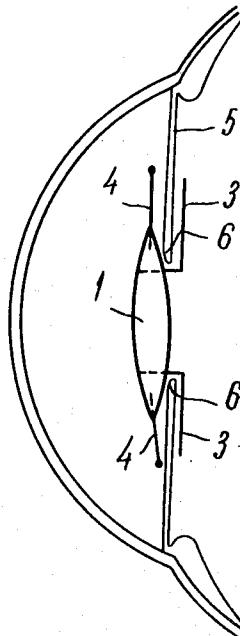
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[57] **ABSTRACT**

An artificial lens, comprising a lens with supporting loops attached to on one of its sides and arranged behind the iris, and supporting rods fixed on said lens peripherally and directed radially with respect to the latter, said rods being located in front of the iris.

3 Claims, 3 Drawing Figures



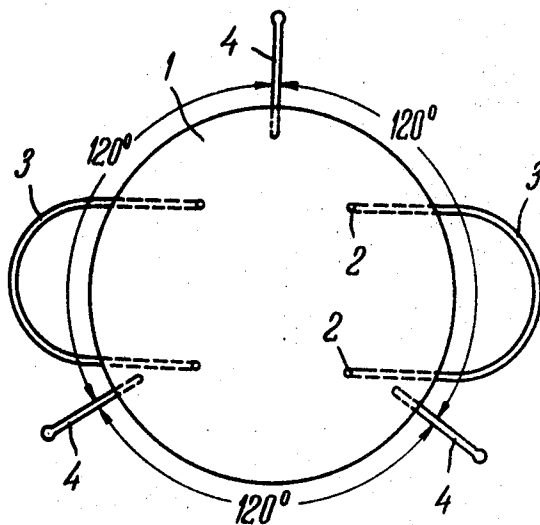


FIG. 1

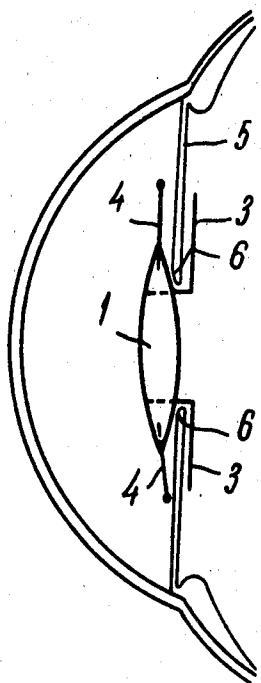


FIG. 3

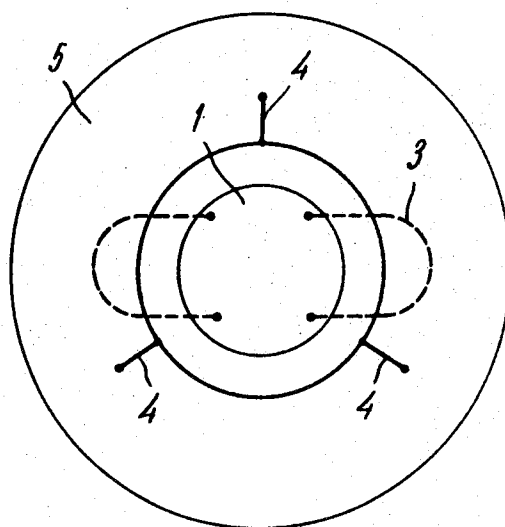


FIG. 2

ARTIFICIAL ANTERIOR CHAMBER LENS

This invention relates to the art of medicine and has particular reference to artificial lenses employed in ophthalmology for correction of aphakia and restoration of binocular vision.

Known in the present state of the art are artificial lenses fixed on the iris. Said artificial lenses comprise a lens and two anterior and two posterior supporting loops serving to fix the artificial lens on the iris.

The anterior supporting loops are so arranged in front of the posterior ones that the gap therebetween is equal to the thickness of the iris.

However, passing of the iris into the gap between the loops in the course of operation offers some difficulties.

Besides, in the postoperative period the anterior supporting loops which are accommodated in the anterior chamber of the eye (camera oculi anterior), are liable to periodically contact (due to the movement of the eyeball) the endothelium of the cornea thus inflicting injury thereon.

It is an object of the present invention to provide such an artificial lens that would be less difficult of being fixed on the iris during the operation and would minimize the danger of getting its supporting members in contact with the endothelium of the cornea.

This object is accomplished due to the fact that in an artificial lens comprising a lens provided with supporting loops held on one of its sides and located behind the iris, and with supporting members located anterior to the iris, according to the invention said supporting members are essentially supporting rods fixed peripherally on the lens and directed radially thereto.

It is expedient that the free ends of the supporting rods be fashioned into enlarged spherical portions.

It is also appropriate that the supporting rods be somewhat offset along the lens circumference with respect to the supporting loops.

The present invention is now exemplified by the description of specific embodiments thereof to be had in conjunction with the accompanying drawings, wherein:

FIG. 1 illustrates an artificial lens, according to the invention;

FIG. 2 shows the artificial lens, according to the invention, when fixed on the iris; and

FIG. 3 is a side elevation of FIG. 2.

Now referring to FIG. 1 the principal part of the artificial lens is a transparent lens 1 made of a biologically inert polymeric material.

Supporting loops 3 are secured in holes 2 of the body of the lens 1. Three radially directed supporting rods 4 are fixed along the periphery of the lens 1, said supporting rods 4 being spaced 120° apart circumferentially and offset with respect to the supporting loops 3. The free ends of the supporting rods 4 are shaped as enlarged spherical portions.

The artificial lens of the invention is fixed on iris 5 (FIGS. 2, 3). To this end, the supporting loops 3 are so bent aside that the iris 5 is free and ready to pass with its pupillary margin (FIG. 3) in the gap between the supporting loops 3 and the body of the lens 1 thereby positioning the lens in the anterior chamber between the cornea and the iris. The supporting rods 2 are located in front of the iris 5, whereas the supporting loops 3 are arranged therebehind. The spherically shaped ends of the supporting rods 4 protect the iris 5 against being injured.

The herein-disclosed artificial lens is readily fixed on the iris during an operation, minimizes the possibility of its being in contact with the endothelium of the cornea and effectively corrects aphakia.

What is claimed is:

1. An artificial optical lens having means for positioning said lens in the anterior chamber of an eye between the cornea and the iris, said means comprising at least two spaced supporting loops adapted to extend posteriorly of said iris, said loops extending in generally opposite directions and fastened to one side of said lens at points spaced a significant distance within the peripheral edge of said lens, whereby the iris is adapted to move inwardly past said peripheral edge in response to changes in pupil size; and at least three generally equally spaced radially extending rods fastened to the periphery of said lens, said rods being adapted to extend anteriorly of said iris.

2. A lens as claimed in claim 1, wherein the free ends of said radially extending rods comprise enlarged spherical portions.

3. A lens as claimed in claim 1, wherein said rods are offset relative to said supporting loops about the periphery of said lens.

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