The implant is preferably made, as is usual, of PMMA of CQ quality and in one example the material is PMMA CQ 6, which is manufactured by Imperial Chemical Industries Limited.

An example of a lens implant in accordance with the invention is illustrated in the accompanying drawings in which:

FIG. 1 is a front elevation of the implant; and

FIG. 2 is a side elevation as seen from the left-hand side of FIG. 1.

The implant comprises a lens 1 and two holding loops 2 all of which are formed integrally with each other of PMMA CQ 6 quality. Each of the loops 2 has a first portion 3 which projects substantially radially from the periphery of the lens 1 and is of substantial width so that it is relatively stiff against bending in the plane of the lens 1. The first portion 3 is connected around a sharp bend 4 to a second portion 5 which has a curvature such that it is substantially concentric with the periphery of the lens 1. A third portion 6, the curvature of which is substantially less than that of the portion 5, extends from the portion 5 up to a fourth portion 7 which has the same curvature as the portion 5 so that the loop as a whole is almost symmetrical about an axis lying in the plane of the lens and perpendicular to the centre of the portion 6. The portion 7 has its tip 8 widened and a positioning hole 9 is formed in the widened tip 8. A second positioning hole 9 is formed in the portion 3.

As can be seen most easily from FIG. 1, the portions 3 of the two loops 2 are positioned diametrically opposite each other around the periphery of the lens 1 and in consequence the loops 2, which are the same as each other, are symmetrically disposed around the lens.

The portions 5, 6 and 7 are flexible and resilient so that when the loops 2 are bent in the plane of the lens with the portions 7 being pushed towards the periphery of the lens, the tip 8 of one loop will come into contact with the portion 5 of the other loop and the two loops taken together form a ring, which is of generally circular shape, extending around, but spaced from the periphery of the lens 1. The loops are squeezed inwards into these positions to enable the lens implant as a whole to be inserted into the posterior chamber of the eye in front of the posterior capsule.

In this example, the lens 1, which is plano-convex as can be seen from FIG. 2, has a diameter of 5.5 mm. Both the loops 2 have a constant thickness of 0.14 mm perpendicular to the plane of the lens. The portion 5 of each loop has a width of 0.22 mm adjacent its junction with the portion 3 and the width tapers uniformly to 0.17 mm at the junction between the portions 5 and 6. The portions 6 and 7 have a constant width of 0.17 mm up to the widened tip 8. The positioning holes 9 have a diameter of 0.4 mm. The maximum overall dimension of the lens implant, that is the height as seen in FIG. 1, is 13.5 mm and the minimum overall dimension, that is the width as seen in FIG. 1, is 8.0 mm.

I claim:

1. A lens implant for insertion in the posterior chamber of a human eye after an extra-capsular extraction, said implant comprising a lens of polymethyl methacrylate and first and second similar holding loops formed integrally with and projecting from the periphery of said lens, each of said loops lying substantially in the plane of said lens and being open-ended with one end of said loop integral with said lens and the other end of said loop free, said ends of said loops which are integral with said lens being substantially diametrically opposite each other around the periphery of said lens, and each of said loops, starting from said end which is integral with said lens, including a first portion extending substantially radially outwards from said lens, a sharp bend extending from said first portion, a second portion extending from said bend, said second portion being of a curvature such that is follows, but is spaced radially outwards from, said periphery of said lens, a third portion which extends from, and is of less curvature than, said second portion, and a fourth portion which extends from said third portion and is of a curvature substantially similar to that of said second portion, the end of said fourth portion remote from said third portion being free and lying radially outwards of said second portion of the other of said loops, whereby said two loops together surround said lens, and said first portion of each of said loops being relatively stiff and the other portions of said loops being more flexible and resilient so that, in use, when said implant is to be inserted through an incision into a human eye, said fourth portion of each of said loops can be pressed inwards into contact with the second portion of the other of said loops, and both said loops bend in such a way that together they form a substantially circular ring surrounding said lens, and, after insertion, said loops spring open again, but the configuration of an encircling ring is maintained and said ring tends to adhere to the underlying posterior lens capsule of said eye.

2. A lens implant as claimed in claim 1, in which said loops lie in a flat plane, said plane containing the periphery of said lens.

3. A lens implant as claimed in claim 1, in which each of said loops is of rectangular cross-section and of constant thickness perpendicular to said plane, said first portion of each of said loops being of greater width in said plane than said second, third and fourth portions to provide said relative stiffness of said first portion.

4. A lens implant as claimed in claim 3, in which the width of said first portion of each of said loops tapers from said periphery of said lens towards said second portion.

5. A lens implant as claimed in claim 3 or claim 4, in which the width of the second portion of each of said loops tapers from said first portion to said third portion, and said third portion and a major part of said fourth portion are of constant width.

6. A lens implant as claimed in claim 1, in which the width of said fourth portion of each of said loops is increased at said free end thereof to form a wider free end part of said fourth portion and both said wider end part of said fourth portion and said first portion include means defining positioning holes therethrough, said holes extending perpendicular to said plane.

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