intraocular lens with minimal movement at the point where inner member **80** crosses rigid side wall **60**. Because the amount of movement at this place will be very small it will be possible to effectively seal the openings in rigid side wall **60** around the point where inner member **80** crosses rigid side wall **60** using flexible sheet **160** which needs to cover only a small area and needs only to be flexible to a minor degree. This means that changes in the intraocular pressure have only a small opportunity to be transmitted to the interior of the intraocular lens at this place. This makes it possible for the intraocular lens to be substantially insensitive to changes in intraocular pressure.

CONCLUSION, RAMIFICATION AND SCOPE

Accordingly, the reader will see that the encapsulated accommodating intraocular lens of this invention can be used to restore accommodation in a human eye. Furthermore the intraocular lens has the advantages that

- it is substantially unaffected by changes in intraocular pressure;
- it can be made so as to present a substantially gas-impermeable outer surface to the surrounding aqueous;
- it has high gain;
- it is of light weight;
- it is compatible with currently established surgical procedures for cataract extraction and intraocular lens implantation.

Although the description above contains many specificities, these should not be construed as limiting the scope of the invention but as merely providing illustrations of some of the presently preferred embodiments of this invention. The scope of the invention should be determined by the appended claims and their legal equivalents, rather than by the examples given.

I claim:

1. An intraocular lens comprising an encapsulating outer surface, at least a part of said surface being transparent, said encapsulating surface forms an internal cavity, said internal cavity contains an internal optical element, said internal optical element has the ability to vary its optical power, to said intraocular lens is attached at least one haptic, said haptic have the shape of an elongated member, said haptic is located outside of said intraocular lens, to said haptic is attached firmly an elongated inner member, said inner member extends into the interior of said intraocular lens, said inner member and said haptic together are able to rotate around the point where said inner member crosses from the outside of said intraocular lens to the interior of said intraocular lens allowing movement of said haptic to be transmitted to the parts of said inner member which are located inside said intraocular lens, said haptic is equipped with means whereby the movement of said inner member may alter the lens power of said internal optical element, thereby allowing movement of said haptic to control the lens power of said inner optical element thereby controlling the overall optical power of said intraocular lens.

2. An intraocular lens as described in claim **1** in which said intraocular lens contains a gas.

3. An intraocular lens as described in claim **1** in which some part of the elongated member is in contact with the lens capsule of the eye.

4. An intraocular lens as described in claim **1** in which the power of said intraocular lens is substantially controlled by the tension in the ciliary muscle.

5. An intraocular lens as described in claim **1** in which the power of said intraocular lens is substantially controlled by the position of said elongated member.

6. An intraocular lens as described in claim **1** in which the power of said intraocular lens is substantially altered by changes in the force exerted by the lens capsule onto said elongated member.

7. An intraocular lens comprising an encapsulating outer surface, at least part of said surface being transparent, said encapsulating surface forms an internal cavity, said internal cavity contains an internal optical element, said internal optical element has the ability to vary its optical power, said internal element is connected to at least one elongated member, one end of said elongated member being inside of said internal cavity, the other end of said elongated member being outside of said encapsulating outer surface, said elongated member is attached to said encapsulating outer surface in such a manner so that said member has some freedom to pivot around the point where said member crosses said encapsulating outer surface.

8. An intraocular lens as described in claim **7** in which said intraocular lens contains a gas.

9. An intraocular lens as described in claim **7** in which said intraocular lens contains a medium which is substantially impermeable to gases.

10. An intraocular lens as described in claim **7** in which some part of said elongated member is attached to a haptic, said haptic being in direct contact with an anatomical structure in the eye.

11. An intraocular lens as described in claim **7** in which the power of said intraocular lens is substantially controlled by the tension in the ciliary muscle.

12. An intraocular lens as described in claim **7** in which the power of said intraocular lens is substantially controlled by the position of said elongated member.

13. An intraocular lens as described in claim **7** in which the power of said intraocular lens is substantially altered by changes in the force exerted by the lens capsule onto said elongated member.

14. An intraocular lens comprising an encapsulating outer surface, at least part of said encapsulating surface being transparent, said encapsulating surface forms an internal cavity, said internal cavity being divided into an anterior space and a posterior space by a flexible transparent membrane, said anterior space and said posterior space being filled with transparent fluid media having different refractive indices, to said intraocular lens is attached at least one elongated member, one end of said elongated member is located inside of said encapsulating surface, the other end of said elongated member is located outside of said encapsulating outer surface, said elongated member is attached to said encapsulating outer surface in such a manner so that said member has some freedom to pivot around the point where said member crosses said encapsulating outer surface, and means whereby the position of said member may alter the shape of said flexible membrane so as to alter the optical power of said intraocular lens.

15. An intraocular lens as described in claim **14** in which said intraocular lens contains a gas.

16. An intraocular lens as described in claim **14** in which some part of the elongated member is in contact with the lens capsule of the eye.

17. An intraocular lens as described in claim **14** in which the power of said intraocular lens is substantially controlled by the tension in the ciliary muscle.

18. An intraocular lens as described in claim **14** in which the power of said intraocular lens is substantially altered by changes in the force exerted by the lens capsule onto said elongated member.

19. An intraocular lens as described in claim **14** in which the end of said elongated member which is located outside of said intraocular lens serves as a haptic to attach said intraocular lens to an anatomical structure inside an eye.

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