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(54) **INTRAOCULAR LENS WITH
ACCOMMODATIVE PROPERTIES**

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(57) **ABSTRACT**

(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

A new lens design and method of implantation uses the change in pupil diameter of the eye concurrent with the changes induced by a contraction of the ciliary muscle during the accommodative reflex, in order to assist in focusing of nearby objects. This new intraocular lens consists of two parts. The posterior part or haptic part is inserted behind the iris and in front of the natural lens or artificial implant. Its main purpose is to participate in the accommodative mechanism and to prevent excessive lateral movement and luxation of the lens. An anterior or optical part is made of flexible material and is placed before the iris. Its diameter is variable but should be large enough to cover the pupillary margins to some degree under various conditions of natural dilation. The anterior and posterior part of the lens are separated by a compressible circular groove in which the iris will settle. The diameter of this groove is slightly larger than the pupillary diameter measured under normal photopic daylight conditions and for distance vision. Since the pupil becomes smaller in near vision, the iris will exert a slight pressure at the level of the groove of the lens which will cause a progressive and evenly distributed flexing of the anterior part of the intraocular lens, as the diameter of the compressible circular groove slightly decreases. This flexing will induce an increase in refractive power which corresponds to a variable part of the amount necessary for focusing nearby objects.

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8 Claims, 3 Drawing Sheets

