haptic at the juncture of these plate portions so as to form at this juncture a flexible hinge **612**. The outer plate portion **608** is pivotally movable at this hinge anteriorly and posteriorly relative to the inner plate portion **606** and the optic **602**. The lens structure including its optic **602** and haptic plate portions **606, 608** is molded or otherwise formed as a unitary lens structure from a lens material mentioned earlier and has T-shaped inserts **614** fixed in the outer ends of the outer haptic plate portions **608**. These inserts provide the lens extended portions or haptics **604** with their T-shape and may be utilized to reinforce the outer haptic plate portions **608** if necessary.

Lens **600** is implanted in the capsular bag **20** of the eye with the ciliary muscle of the eye paralyzed in its relaxed state and maintained in this paralyzed state until the completion of fibrosis, all in the same manner as explained earlier. During this fibrosis, the lens optic **602** is urged posteriorly to its distant vision position shown in solid lines in FIG. **25** and dashed lines in FIG. **28** wherein the posterior surface of the optic presses rearwardly against the posterior capsule **24** of the capsular bag and stretches this posterior capsule rearwardly. The configuration which the lens **600** assumes or occupies in this posterior distant vision position is its posterior distant vision configuration. Ciliary muscle contraction during normal vision accommodation following completion of fibrosis increases vitreous pressure and compresses the lens radially or endwise to effect anterior accommodation movement of the lens optic **602** in the same manner as explained earlier.

As mentioned above, lens **600** is an anteriorly biased lens. In this regard, it will be observed in FIGS. **25** and **28** that when the lens occupies its posterior distant vision position, its haptic hinges **612** are located forwardly of a tip plane P_T passing through the outer tips of the lens haptics **604** normal to the axis of the lens optic **602** and the eye. Accordingly, compression of the lens by ciliary muscle contraction during normal vision accommodation is effective to produce an anterior accommodation force on the optic throughout its entire accommodation range from its posterior distant vision through its mid-range position (solid lines in FIG. **28**) to its anterior near vision position (phantom lines in FIG. **28**). Compression of the lens by ciliary muscle contraction thereby aids the anterior vitreous pressure force on the optic throughout its entire accommodation range and thereby increases the accommodate amplitude and diopters of accommodation of the lenses, as explained earlier.

An important feature of lens **600** resides in the fact that its optic **602** has increased optical or dioptic power which aids the anterior biased configuration of the lens to further increase accommodation amplitude and diopters of accommodation. To this end, the anterior face **616** of the optics is relatively flat or just slightly convex while the posterior face **618** of the optic has a relatively steep convex curvature such that the optic has a generally planoconvex shape. This optic shape locates most or all of the optical power of the optic at the posterior side of the optic. Increasing the power of the lens optic in this way decreases the distance through which the optic must move to produce any given amount of vision accommodation and, conversely, increases the amount of vision accommodation produced by any given accommodation movement of the optic and thereby increases the maximum accommodation amplitude and diopters of accommodation of the lens.

Increasing the power of an intraocular lens optic at the posterior side of the optic, as in FIGS. **25–28**, shifts the optical plane of the optic (i.e. plane from which the focal point of the optic originates) rearwardly toward the retina **16** of the eye. For example, the optical plane P_O of lens optic **602** is located at the approximate position shown in FIG. **25** which is rearwardly of the optical plane position (not shown) of a symmetrical biconvex optic of the same center thickness measured along the axis of the optic but having anterior and posterior surfaces of equal curvature). This rearward shaft of the optical plane of the optic toward the retina must be compensated for by increasing the dioptic power of the optic in order to sharply focus incoming light rays on the retina. The required increase in the power of optic **602** is accomplished by appropriately shaping the steep convex curvature of the posterior surface **618** of the optic.

At this point, refer again to FIGS. **16–20** in which it will be observed that the lens illustrated in each of these figures includes a central optic whose posterior surface has a greater convex curvature than its anterior surface. Accordingly, the lens optic illustrated in each of the FIGS. **16–20** is a "rear power" optic most of whose optical power is provided by the posterior surface of the optic. Accordingly, the lenses of FIGS. **16–20** provide increased accommodation amplitude and diopters of accommodation in essentially the same manner as explained above in connection with FIGS. **25–28**.

The inventor claims:

1. An accommodating intraocular lens for implantation into a generally circular inner surface of an eye, comprising:

(a) an optic;

(b) at least two haptics spaced apart from each other and extending generally radially away from the optic, adapted to engage the generally circular inner surface of the eye for holding the lens in the eye;

(c) each of the haptics including an outer portion with a surface adapted to engage the generally circular inner surface of the eye, at least part of said outer surface extending beyond the diameter of the generally circular inner surface of the eye, when said outer portions is in its unstressed state, said outer portion being flexible and not conforming to the generally circular inner surface of the eye until subjected to compressive forces, so that the outer surface will conform generally to the shape of the inner surface of the eye when subjected to said compression forces upon implantation; and

(d) the haptics being flexible along at least a portion of their respective lengths to move the optic anteriorly and/or posteriorly in response to forces imparted to the lens through contraction and expansion of the generally circular inner surface of the eye.

2. The lens of claim **1**, wherein the optic is circular.

3. The lens of claim **1**, wherein the haptics are connected to and extend from an outer edge of the optic.

4. The lens of claim **1**, wherein the lens is formed of a single piece of material.

5. The lens of claim **1**, wherein two haptics extend from opposite sides of the optic.

6. The lens of claim **1**, wherein three haptics are spaced apart an equal distance from each other around the optic.

7. The lens of claim **1**, wherein the haptics include opposed longitudinal edges that taper inwardly as they extend from the optic.

8. The lens of claim **1**, wherein the haptics include upper and lower surface that taper inwardly as they extend from the optic.

9. The lens of claim **1**, wherein the haptics include a lower surface extending rearwardly beyond a horizontal plane of a posterior surface of the optic.

10. The lens of claim **1**, wherein at least a portion of a haptic upper surface extends forwardly beyond a horizontal plane of a anterior surface of the optic.