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Basinger

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(54) **ACCOMMODATING INTRAOCULAR LENS WITH A COMPRESSIBLE INNER STRUCTURE**

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USPC **623/6.37**; 623/6.4; 623/6.43; 623/6.49

(58) **Field of Classification Search**
USPC 623/6.37, 6.39, 6.4, 6.42–6.43, 6.46
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,361,913	A	12/1982	Streck
4,370,760	A	2/1983	Kelman
4,373,218	A	2/1983	Schachar
4,442,553	A	4/1984	Hessburg
4,512,040	A	4/1985	McClure
4,560,383	A	12/1985	Leiske
4,562,600	A	1/1986	Ginsberg et al.
4,615,701	A	10/1986	Woods
4,641,934	A	2/1987	Freeman
4,731,078	A	3/1988	Stoy et al.
4,769,035	A	9/1988	Kelman
4,813,955	A	3/1989	Achatz et al.
4,842,601	A	6/1989	Smith
4,888,012	A	12/1989	Horn et al.
4,892,543	A	1/1990	Turley
4,932,966	A	6/1990	Christie et al.
4,932,968	A	6/1990	Caldwell et al.
4,963,148	A	10/1990	Sulc et al.
4,994,082	A	2/1991	Richards et al.
4,994,083	A	2/1991	Sulc et al.
5,047,051	A	9/1991	Cumming
5,152,789	A	10/1992	Willis
5,275,623	A	1/1994	Sarfarazi
5,476,514	A	12/1995	Cumming

(Continued)

FOREIGN PATENT DOCUMENTS

CH	681687	A5	5/1993
EP	766540	A1	4/1997

(Continued)

OTHER PUBLICATIONS

English translation of WO93/05733A1.

(Continued)

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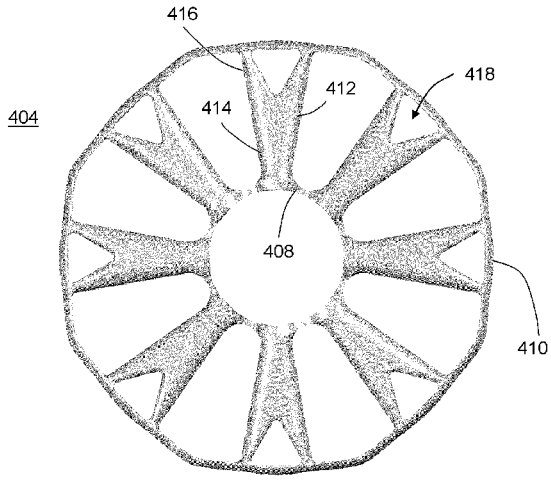
(57) **ABSTRACT**

An accommodating intraocular lens for providing a range of accommodative vision contains an optic and a haptic. The haptic includes a plurality of arms coupled to a compressible inner structure. The compressible inner structure of the haptic is configured to exert a compressive force on the optic in response to an ocular force to provide accommodation. The compressible inner structure can include a plurality of arcuate segments that join to form a ring in the fully compressed state or a sinusoidal ring having a varying radial dimension.

19 Claims, 13 Drawing Sheets