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(54) **METHOD OF INSERTING AN INTRAOCULAR LENS**

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CPC ***A61F 2/1613*** (2013.01); *A61F 2/1678* (2013.01); ***A61F 2/1648*** (2013.01)
USPC **623/6.12**

(58) **Field of Classification Search**
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See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,681,102	A *	7/1987	Bartell	606/1
4,842,601	A *	6/1989	Smith	623/6.34
5,275,623	A	1/1994	Sarfarazi	
5,474,562	A *	12/1995	Orchowski et al.	606/107
6,197,058	B1 *	3/2001	Portney	623/6.34
6,277,146	B1 *	8/2001	Peyman et al.	623/6.17
6,336,932	B1 *	1/2002	Figueroa et al.	606/107
6,423,094	B1	7/2002	Sarfarazi	
6,488,708	B2	12/2002	Sarfarazi	
6,607,537	B1 *	8/2003	Binder	606/107
6,761,737	B2	7/2004	Zadno-Azizi et al.	
6,818,158	B2 *	11/2004	Pham et al.	264/2.5
6,926,736	B2 *	8/2005	Peng et al.	623/6.34
2003/0130732	A1	7/2003	Sarfarazi	
2004/0015236	A1	1/2004	Sarfarazi	
2005/0267575	A1	12/2005	Nguyen et al.	

* cited by examiner

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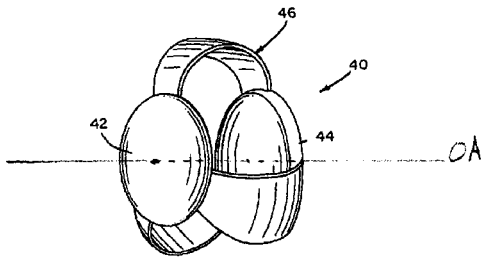
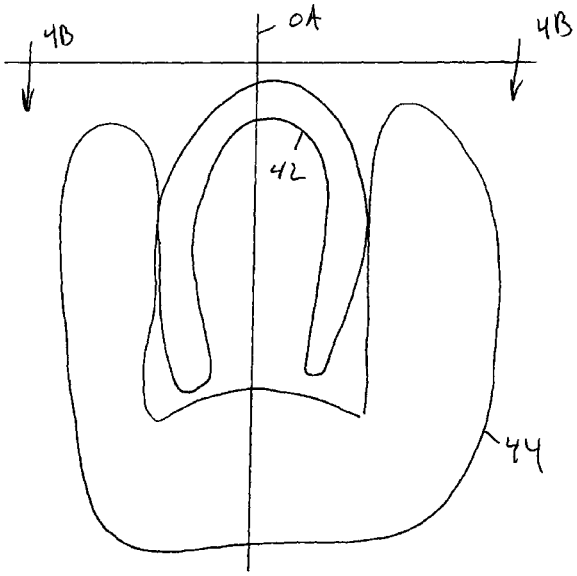
(57) **ABSTRACT**

A method of folding a multiple element IOL comprising folding the first lens element and second lens element such that the second lens element at least partially surrounds the first lens element and such that, after folding, both the first lens element and the second lens element are substantially aligned along the optical axis. A hinged apparatus such as a cartridge may be used to cause the second lens element to be folded. A method of loading a multielement IOL comprising folding the haptics such that a portion of the haptics contacts an exterior side of one of the first lens element and the second lens element.

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