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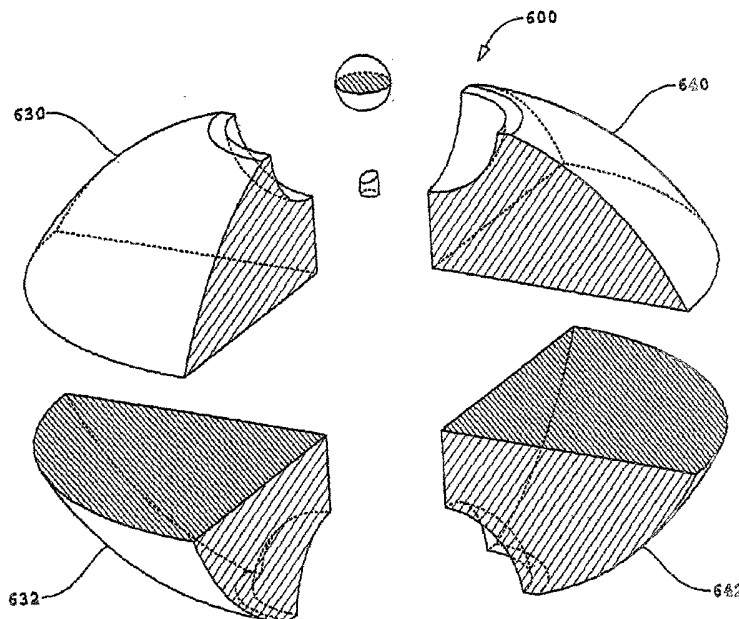
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[Continued on next page]

(54) Title: METHOD FOR CONSTRUCTING A CATADIOPTRIC LENS SYSTEM



(57) Abstract: A method of fabricating a catadioptric lens system (600), the method involving: fabricating a single catadioptric lens element having a bottom surface and an upper surface, the upper surface having a convex portion and a concave portion, both the convex and concave portions sharing a common axis of symmetry; cutting apart the catadioptric lens element to form 2n pie-shaped segments (630, 632, 640, 642), wherein n is an integer; and reassembling the 2n pie-shaped segments to form the catadioptric lens system with n of the 2n pie-shaped segments being located above a common plane and the rest of the 2n pie-shaped elements being below the common plane.

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*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

**(15) Information about Correction:**

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/09968

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC(7) : G02B 27/10, 3/02, 3/08, 17/00  
 US CL : 359/618, 629, 708, 712, 719, 741, 742, 728  
 According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**  
 Minimum documentation searched (classification system followed by classification symbols)  
 U.S. : Please See Continuation Sheet

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
 NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 Please See Continuation Sheet

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,485,317 A (PERISSINOTTO et al) 16 January 1996 (16.01.1996), column 2, line 7 to column 4, line 56.	1 - 14
A	US 5,699,201 A (LEE) 16 December 1997 (16.12.1997), column 4, line 7 to column 9, line 37.	1 - 14
A	US 5,894,195 A (MCDERMOTT) 13 April 1999 (13.04.1999), column 4, line 46 to column 11, line 27.	1 - 14
A	US 6,714,349 A (NAM) 30 March 2004 (30.03.2004), column 3, line 23 to column 4, line 52.	1 - 14

<input type="checkbox"/> Further documents are listed in the continuation of Box C.	<input type="checkbox"/> See patent family annex.
* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 08 October 2004 (08.10.2004)	Date of mailing of the international search report <b>23 DEC 2004</b>
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-7724	Authorized officer <b>DEBORAH A. THOMAS</b> LOHA BEN PARALEGAL SPECIALIST Telephone No. (571) 272-2323 <b>GROUP 4000 Dat</b>

# INTERNATIONAL SEARCH REPORT

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**Continuation of B. FIELDS SEARCHED Item 1:**

359/618, 629, 708, 712, 719, 741, 742, 728, 742, 457; 362/268, 311, 339; 313/512

**Continuation of B. FIELDS SEARCHED Item 3:**

WEST: catadioptric WITH (lens\$2 or system) SAME concave NEAR10 convex SAME (plano or planar) and catadioptric WITH (lens\$2 or system) SAME curv\$5 SAME reflect\$3 SAME transmi\$5 SAME axis