(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 3 July 2008 (03.07.2008)

(51) International Patent Classification: A61B 3/00 (2006.01) G02C 7/10 (2006.01)

(21) International Application Number:

PCT/IL2007/001583

(22) International Filing Date:

20 December 2007 (20.12.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/877,062 22 December 2006 (22.12.2006) US 11/740,582 26 April 2007 (26.04.2007) US 60/934,958 14 June 2007 (14.06.2007) US

- (71) Applicant and
- (72) Inventor: GROSS, Yossi [IL/IL]; 10 HaNotea Street, 73160 Moshav Mazor (IL).
- (74) Agents: SANFORD T. COLB & CO. et al.; P.O. Box 2273, 76122 Rehovot (IL).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

(10) International Publication Number WO 2008/078320 A3

AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM. ZW.

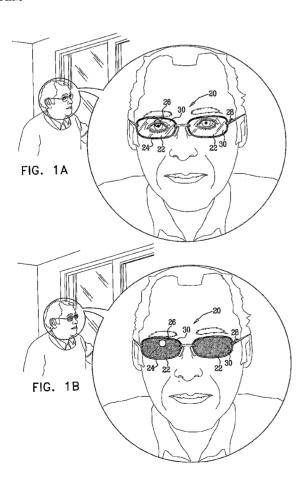
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

[Continued on next page]

(54) Title: ELECTRONIC TRANSPARENCY REGULATION ELEMENT TO ENHANCE VIEWING THROUGH LENS SYS-TEM



(57) Abstract: Apparatus (20) is provided including a frame (24) worn on a face of a subject, such that a portion of the frame is located in front of a first eye of the subject and not in front of a second eye. A first lens system coupled to the portion of the frame comprises one or more first lenses (22). A second lens system (26) is coupled to the portion of the frame, the second lens system comprising one or more second lenses (40 and 42). A transparency regulation element (30) coupled to the first lens system has variable transparency, and enhances viewing through the second lens system. A power unit (28) is coupled to the frame, and, during a first period, drives the transparency regulation element to darken the first lens system without substantially darkening at least a portion of the second lens system, and during a second period, the power unit does not drive the transparency regulation element to substantially darken the first lens system. Other embodiments are also described.



WO 2008/078320 A3 |||||||||||||||

(88) Date of publication of the international search report:

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IL07/01583

A. CLASSIFICATION OF SUBJECT MATTER IPC: G02C 7/10(2006.01);A61B 3/00(2006.01)				
11 0.	G02C 710(2000.01),1012 5700(2000.01)			
USPC: 351/44,45,200,203,222,246;349/13				
According to International Patent Classification (IPC) or to both national classification and IPC				
	OS SEARCHED			
Minimum documentation searched (classification system followed by classification symbols) U.S.: 351/44, 45, 200, 203, 222, 246; 349/13				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched				
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Please See Continuation Sheet				
C. DOCI	JMENTS CONSIDERED TO BE RELEVANT			
Category *	Citation of document, with indication, where ap	ppropriate, of the relevant passages	Relevant to claim No.	
А	US 4,106,217 A (WITT) 15 August 1978 (15.08.78),	see entire document.	1-100	
Α	US 2002/0140899 A (BLUM et al) 03 October 2002 (03.10.02), see entire document.		1-100	
		Ì		
		Í		
		ł	}	
		I		
	documents are listed in the continuation of Box C.	"T" later document published after the inter	rational filing data or priority	
	pecial categories of cited documents: defining the general state of the art which is not considered to be of	date and not in conflict with the applica principle or theory underlying the inven	tion but cited to understand the	
	relevance	"X" document of particular relevance; the cl	aimed invention cannot be	
ĺ -	plication or patent published on or after the international filing date	considered novel or cannot be considered when the document is taken alone	ed to involve an inventive step	
	: which may throw doubts on priority claim(s) or which is cited to the publication date of another citation or other special reason (as	"Y" document of particular relevance; the cl considered to involve an inventive step with one or more other such documents	when the document is combined	
"O" document	referring to an oral disclosure, use, exhibition or other means	obvious to a person skilled in the art		
"P" document published prior to the international filing date but later than the priority date claimed "&"		"&" document member of the same patent fa	ımily	
1		Date of mailing of the international searce		
	(19.05.2008)	Authorized officer	<u> </u>	
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US		Huy K. Mai		
Commissioner for Patents P.O. Box 1450		Telephone No. (571) 272-1562		
Ale	xandria, Virginia 22313-1450 c. (571) 273-3201	1 reiepnone No. (5/1) 2/2-1302		

Form PCT/ISA/210 (second sheet) (April 2007)

INTERNATIONAL SEARCH REPORT	International application No. PCT/IL07/01583	
	!	
Continuation of B. FIELDS SEARCHED Item 3: EAST: Search terms: transparent regulat\$8, lens, var\$8, period, darken\$5, liquid crystal, eyeglasses, sunglasses, eyewear, spectacles, goggles		